

Lexikon der Kohlenstoff-...



LEXIKON
DER
KOHLENSTOFF-VERBINDUNGEN

I.

(Richter)

Der grosse Umfang des Werkes macht seine Benutzung in einem Bande unmöglich; lediglich aus diesem äusseren Grunde ist das Werk in zwei Theile zerlegt worden. —

Theil I umfasst Titel, Vorwort, Einleitung und die Seiten 1—1264.

Theil II umfasst die Seiten 1265—2482.

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VON
M. M. RICHTER.

HAMBURG UND LEIPZIG
VERLAG VON LEOPOLD VOSS
1900

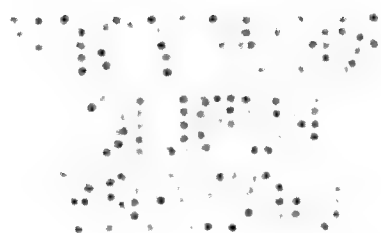
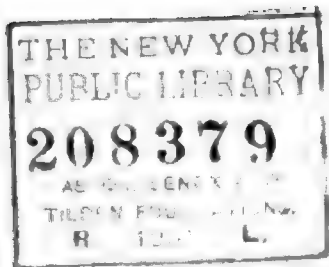
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M. M. RICHTER.

I. ABTHEILUNG:
EINLEITUNG — VERBINDUNGEN C_1 — C_{12} .

HAMBURG UND LEIPZIG
VERLAG VON LEOPOLD VOSS
1900



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Vorwort.

Einer Anregung des leider zu früh heimgegangenen Geheimraths VICTOR MEYER folgend, habe ich im Jahre 1889 es unternommen, meine im Jahre 1883 erschienenen „Tabellen der Kohlenstoffverbindungen“ einer Neubearbeitung zu unterziehen.

Die anfangs gehegte Hoffnung, diese Arbeit in einigen wenigen Jahren bewältigen zu können, erwies sich indessen als trügerisch. Schon allein die umfangreichen Vorarbeiten, welche überdies im Jahre 1892 infolge des Beschlusses der Genfer Nomenklatur-Commission hinsichtlich der Benennung der aliphatischen Kohlenwasserstoffe eine recht zeitraubende Umarbeitung nöthig machten, ferner die in der neueren Literatur aller Kulturvölker aufgespeicherte gewaltige Fülle neuer Thatsachen, als Resultate der ernsten Arbeit unserer Fachgenossen, sowie endlich auch meine Thätigkeit im Dienste der Industrie, die den grösseren Theil meiner Zeit in Anspruch nahm — diese drei Umstände gestatteten mir nicht, früher mit der fertigen Arbeit an die Oeffentlichkeit zu treten.

Preface.

On the suggestion of Prof. VICTOR MEYER whose premature death we all lament, I undertook in 1889 to prepare a new edition of my "Tables of Carbon Compounds" which appeared in 1883.

The hope I at first entertained of being able to accomplish this task in a few years, could however not be realised. The following circumstances prevented me from laying the complete work before the public at an earlier date, namely first of all the extensive preliminary work which on account of the Geneva commission concerning the nomenclature, of the aliphatic hydrocarbons, in 1892 necessitated extensive alterations, secondly the enormous number of new facts which have been brought to light through the arduous labors of our fellow-workers and which have swelled the present literature of all civilised nations, and lastly my duties in the service of chemical industry which occupied the greater part of my time.

Avant-Propos.

A l'instigation de VICTOR MEYER, malheureusement trop tôt décédé, j'ai entrepris en 1889 de soumettre à un remaniement complet mes «Tables des combinaisons du Carbone» paru en 1883.

J'avais tout d'abord compté effectuer cette tâche en peu d'années, mais cette espérance ne put se réaliser. Un travail considérable est résulté d'une part: des résolutions que le congrès de nomenclature réuni à Genève en 1892, a pris au point de vue des hydrocarbures aliphatiques, d'autre part du nombre énorme de nouveaux résultats obtenus par nos collègues de tous les pays civilisés. En fin, l'activité qu'il me fallut mettre au service de l'industrie m'a pris, à cette époque, la majeure partie de mon temps. C'est pour ces trois raisons qu'il me fut impossible de livrer plus tôt à la publicité l'ouvrage que j'avais entrepris et c'est au bout de dix ans d'un travail assidu, que l'oeuvre fut enfin achevée.

Prefazione.

Questa nuova edizione delle mie „Tabelle dei composti del Carbonio“ pubblicate nel 1883 fu da me intrapresa nel 1889 seguendo il consiglio del rimpianto VITTORIO MEYER.

La speranza, che io aveva dapprima concepito, di poter condurre a termine questo lavoro in pochi anni rimase delusa. Diverse circostanze mi impedirono di compiere e di pubblicare prima d'ora quest' opera. Anzitutto molto tempo richiesero i vastissimi lavori preliminari; inoltre nel 1892 le conclusioni della Commissione di Ginevra sulla nomenclatura degli idrocarburi alifatici, mi costrinsero, con gran perdita di tempo, al rimaneggiamento del lavoro già fatto. A ciò si aggiunga la prodigiosa copia di fatti nuovi che l'intensa attività dei chimici accumulò nella recente letteratura scientifica di tutte le nazioni civili. In fine le mie occupazioni industriali mi assorbivano la maggior parte del tempo.

Die Vollendung derselben erforderte bei emsiger Thätigkeit einen Zeitraum von beinahe zehn Jahren.

Wie das seit 1883 bis 1889 aufgehäuften und zu bewältigende Material mir unter den Händen gewachsen ist, wie dann noch Tag für Tag der Literaturstrom nachdrängte, das ist aus der Thatsache zu ersehen, dass die Gesamtzahl der registrierten Verbindungen sich heute auf etwa vierundsiebzig Tausend beziffert — gegen nur zwanzig Tausend im Jahre 1883.

Die Umänderung des Titels „Tabellen der Kohlenstoffverbindungen“ in:

„Lexikon der Kohlenstoffverbindungen“

habe ich vorgenommen, weil die Bezeichnung „Tabellen“ naturgemäss zu irrigen Meinungen über den Inhalt und den Umfang des Werkes führen müsste.

Die Anordnung des Stoffes und die Art der Registrirung ist mit einer ganz unwesentlichen Abweichung — siehe die „Einleitung“ — die gleiche geblieben.

Dem Wunsche des Herrn Geheimrath Professor BEILSTEIN nach Ergänzung des Werkes durch Aufnahme der procentualen Zusammensetzung gewisser Formeltypen ist Rechnung getragen durch die Ausdehnung der Procenttabellen auf die Formen CHO — CHN und CHON, insgesamt auf etwa 20 000 Formeln. Wie diese Erweiterung sich als nützlich erweisen soll, so hoffe ich auch, durch die Beifügung der „Beilstein-Notiz“ die Zustimmung der Fachgenossen zu finden.

In spite of assiduous labor, the completion of this work has taken nearly ten years.

How the material I had to master and which had accumulated between 1883—1889, has grown under my hands, and how, besides, the stream of literature has pressed on day by day, will be seen from the fact that the total number of the registered compounds amounts to day to about 74 thousand, as compared with 20 thousand which were known in the year 1883.

I have altered the title “Tables of carbon compounds” to:

„*Lexicon of carbon compounds*“

because the word “tables” would naturally lead to an erroneous view as to the contents and the extent of the work.

The arrangement of the material and the manner of registering it remained the same with the exception of quite an unessential point (see the “Introduction”).

I have carried out Prof. BEILSTEIN's desire to supply the work with the percentage composition of certain types, and therefore I have extended the tables of percentages to the forms CHO, CHN and CHON, altogether to about 20 000 formulae. As this expansion is intended to be useful I hope to receive the consent of fellow-workers to the introduction of the addition of references to BEILSTEIN's handbook.

Comme de 1883 à 1889 un matériel énorme s'est accumulé sous mes mains, comme chaque jour depuis lors, la bibliographie a augmenté, il n'est pas surprenant que l'ensemble des combinaisons enregistrées, qui comprenait 20 mille corps en 1883, se soit élevé aujourd'hui à 74 mille environ.

Au titre primitif «Tables des combinaisons organiques» j'ai substitué celui de:

«Dictionnaire des combinaisons du Carbone»

ayant jugé que la dénomination de «Tables» pouvait conduire à une fausse interprétation du contenu et de l'étendue du travail.

A peu de chose près, l'arrangement de la matière et le mode d'inscription des combinaisons sont restés les mêmes (voir l'introduction).

Pour accéder au désir de Monsieur le Professeur BEILSTEIN, j'ai ajouté la composition centésimale pour certains types de formules et étendu les tables des pour cents aux formes CHO, CHN et CHON soit sur un ensemble de 20000 formules environ, pensant que cela rendrait service. J'espère aussi que l'adjonction de la „Beilstein-Notiz“ (Annotation qui renvoie au traité de BEILSTEIN), obtiendra l'assentiment de mes collègues.

Il compimento dell' opera richiese così circa dieci anni di indefesso lavoro.

Dell' enorme accrescimento subito dal materiale fra il 1883 ed il 1889, e dello sviluppo preso frattanto dalla letteratura chimica, si avrà un concetto ove si consideri che mentre la prima edizione conteneva 20 mila composti, il numero di quelli registrati nella presente ammonta a circa 74 mila.

Io ho cambiato il titolo „Tabelle dei composti del Carbonio“ in quello:

„Dizionario dei composti del carbonio“

perchè il nome di „Tabelle“ poteva naturalmente dare un concetto erroneo sull' indole e sulla mole dell' opera.

L'ordine della materia e la sua distribuzione, salvo insignificanti modificazioni, — vedi Introduzione — è rimasto quello di prima.

Ho voluto tener conto di un desiderio dell' illustre Prof. BEILSTEIN aggiungendo, a completamento dell' opera, le tavole della composizione percentuale di determinati tipi di formole, coll' estendere le tabelle della percentuali alle forme CHO, CHN, e CHON; in complesso a circa 20000 formole. Come dovrà mostrarsi utile questo ampliamento, così spero di incontrare l'approvazione dei chimici per l'aggiunta fatta del „richiamo al BEILSTEIN“.

Pendant la rédaction de ce dictionnaire, la „Beilstein-Notiz“ m'a servi de guide et m'a rendu de si grands services que les doutes que j'avais conçus au début sur l'utilité de ce surcroît de travail, ont été complètement dissipés.

Questo „richiamo al BEILSTEIN“ mi fu, nella compilazione di questo Dizionario, di tale giovamento, come guida per le tortuose ed intricate vie della nostra scienza, che mi sono ricreduto della mia prima opinione d'aver fatto inutilmente un maggior lavoro.

Karlsruhe (Baden), Janvier 1900.

M. M. Richter.

Berichtigungen.

- Seite 6 Zeile 12 v. u. lies: 17 000 Verbindungen statt: 8000.
- .. 33 CH_4 lies: M. G. 16 statt: M. G. 18.
- .. 34 CH_2Br_2 1) lies: Sd. 98,5° statt: Sd. 58,5°.
- .. 36 CH_2ON_2 1) Methylazaurolsäure schalte ein die BEILSTEIN-Notiz: — I, 203.
- .. 43 $\text{C}_2\text{H}_4\text{O}_2$ 1) lies: Sd. 118,1° statt: 181,1.
- .. 77 $\text{C}_2\text{H}_5\text{NCl}_2$ 3) polym. Nitril etc. ist zu streichen, siehe $\text{C}_2\text{H}_5\text{N}_2\text{Cl}_6$.
- .. 78 $\text{C}_2\text{H}_5\text{O}_4\text{N}$ lies: 1) Aldehyd statt: 2) Aldehyd.
- .. 102 $\text{C}_4\text{H}_8\text{O}$ 4) lies: Aldehyd d. Propen— statt: Aldehyd d. Propan—.
- .. 143 $\text{C}_4\text{H}_{11}\text{O}_2\text{N}_2$ 1) Glykolmethylguanidin etc. ist zu streichen.
- .. 152 $\text{C}_4\text{H}_5\text{O}_2\text{N}_2\text{S}_2$ 1) Amid d. etc. schalte ein die BEILSTEIN-Notiz: — I, 892.
- .. 179 $\text{C}_5\text{H}_4\text{O}_6\text{N}_4$ 2) schalte ein: Verbindung (aus 1-Methyl-1,4-Dihydro-1,2,3,4-Benzotetrazin). Sm. 127° (*J. pr.* [2] 41, 178). — IV, 1257.
- .. 201 $\text{C}_5\text{H}_{11}\text{ON}$ 11) lies: Aldehyd d. δ -Amido statt: Aldehyd d. Amido
- .. 244 $\text{C}_6\text{H}_{12}\text{O}_4$ 1) Digitoxose, schalte ein: Sm. 102°.
- .. 280 $\text{C}_6\text{H}_7\text{N}_2\text{Cl}$ 4) 2-Chlorphenylhydrazin lies: Sm. 47° statt: Fl. und schalte ein: B. 24, 1660.
- .. 303 $\text{C}_6\text{H}_{12}\text{N}_2\text{S}$ 2) Valerylthioharnstoff etc. ist zu streichen.
- .. 325 $\text{C}_6\text{H}_5\text{ON}_2\text{Br}$ 1) schalte unter dieser Formel ein: β -Dibrom-4-Oxy-1-Diazobenzolbromid + H_2O . 2 + PtCl_4 (*J. pr.* [2] 24, 459). — IV, 1546.
- .. 335 $\text{C}_6\text{H}_{10}\text{ON}_2\text{S}$ 2) lies: 2-Aethylimido-4-Keto-3-Methyl statt: 2-Aethylimido-4-Keto-5-Methyl
- .. 336 $\text{C}_7\text{H}_{12}\text{ON}_2\text{S}$ 2) schalte ein: Valerylthioharnstoff. Sm. 158—159° (*Soc.* 67, 1045).
- .. 365 $\text{C}_7\text{H}_{12}\text{O}_2$ 15) die Säure ist zu streichen und sind die hier gemachten Angaben bei der Säure $\text{C}_7\text{H}_{12}\text{O}_2$ sub 19) einzuschalten.
- .. 373 $\text{C}_7\text{H}_{14}\text{O}_2$ 6) schalte ein die BEILSTEIN-Notiz: — I, 610.
- .. 419 $\text{C}_7\text{H}_8\text{NCl}$ 14) schalte ein: B. 2, 308, 599; 19, 2443.
- .. 419 $\text{C}_7\text{H}_8\text{NCl}$ 16) die an dieser Stelle gemachten Angaben sind durch folgende zu ersetzen: Sm. 26°; Sd. 245°₁₀₀ (B. 17, 535; 25, 86; A. 235, 253; C. 1896 [2] 529).
- .. 425 schalte ein die Verbindung: $\text{C}_7\text{H}_9\text{O}_5\text{Br}$ 1) Arabinobromal. Sm. 210° (C. 1896 [2] 83).
- .. 486 $\text{C}_8\text{H}_8\text{Br}_2$ 1) lies: $\alpha\beta$ -Dibrom- α -Phenyläthen statt: $\alpha\beta$ -Dibrom- α -Phenyläthan.
- .. 506 $\text{C}_8\text{H}_{12}\text{O}_4$ schalte zwischen 8) und 9) die Säure ein: β -Hexen- $\gamma\zeta$ -Dicarbonsäure. Sm. 130° (B. 30, 2050).
- .. 534 $\text{C}_8\text{H}_5\text{O}_2\text{N}$ 6) schalte hinter Anthranilcarbonsäure ein: (Isatosäure).
- .. 679 $\text{C}_9\text{H}_{16}\text{O}_2$ schalte zwischen 34) und 35) die Verbindungen ein: d-Amylenester d. d- α -Oxybuttersäurs. Sd. 225° (*Bl.* [3] 15, 497).
- .. 683 $\text{C}_9\text{H}_{12}\text{O}_2$ 1) schalte ein die BEILSTEIN-Notiz: — I, 610.
- .. 689 $\text{C}_9\text{H}_5\text{OBr}$ 1) 3-Brom-1-Ketoiden etc. ist zu streichen.
- .. 689 $\text{C}_9\text{H}_5\text{O}_2\text{Br}$ 4) 3-Brom-1-Oxy-2-Ketoiden etc. ist zu streichen.
- .. 692 $\text{C}_9\text{H}_8\text{O}_2\text{N}_2$ schalte zwischen 1) und 2) die Verbindung ein: 4-Oximido-5-Keto-3-Phenyl-4,5-Dihydroisoxazol. Sm. 143° u. Zers. (B. 24, 142; 25, 2161). — IV, 306.
- .. 693 $\text{C}_9\text{H}_6\text{O}_2\text{N}_2$ 1) diese Verbindung: 2-Nitroso-5-Keto besitzt die Formel $\text{C}_9\text{H}_6\text{O}_2\text{N}_2$ und ist hier zu streichen.
- .. 707 $\text{C}_9\text{H}_8\text{O}_2\text{N}_2$ 2) schalte ein: (B. 20, 1032).
- .. 719 $\text{C}_9\text{H}_9\text{O}_2\text{N}_2$ lies: C 52,2 statt: C 52,5.
- .. 757 $\text{C}_9\text{H}_{13}\text{O}_4\text{N}_2$ schalte ein: C 42,4 — H 5,1 — O 25,1 — N 27,4 — M. G. 255.
- .. 823 $\text{C}_{10}\text{H}_{12}\text{O}$ 15) lies: Aethyläther d. α -Oxy . . . statt: Aethyläther d. β -Oxy . . .

- Seite 886 $C_{10}H_8O_5S$ schalte unter dieser Formel ein: 1,2-Dioxynaphtalin-*p*-Sulfonsäure. NH_4 (B. 24, 3156). — II, 982.
- „ 919 $C_{10}H_{11}O_4N$ 32) schalte ein: (J. pr. [2] 36, 374).
- „ 955 $C_{10}H_{10}O_3N_2$ 3) lies: β -[3,5-Dioximido-4-Methyl . . . statt: β -[3,5-Dioximido-4-Phenyl . . .
- „ 999 $C_{10}H_{10}O_3ClS$ 2) lies: 6-Chlor . . . statt: 2-Chlor . . .
- „ 1027 $C_{11}H_{13}O_7$ 6) schalte ein die BEILSTEIN-Notiz: — I, 699.
- „ 1027 $C_{11}H_{13}O_7$ 7) schalte ein die BEILSTEIN-Notiz: — I, 1027.
- „ 1039 $C_{11}H_{16}O_8$ 8) schalte ein: J. pr. [2] 50, 142.
- „ 1045 $C_{11}H_{20}O_4$ 7) schalte ein die BEILSTEIN-Notiz: — I, 609, 610.
- „ 1082 $C_{11}H_{13}ON$ 31) lies: Nitril d. 4-Oxy-1-Pseudobutylbenzol . . . statt: Nitril d. 4-Oxy-1-Pseudobutyl . . .
- „ 1093 $C_{11}H_{14}O_2N_2$ 13) lies: Aethylester d. 4-Acetylamidophenyl . . . statt: Aethylester d. 4-Acetylamido . . .
- „ 1093 $C_{11}H_{14}O_2N_2$ 14) lies: Aethylester d. Benzoylamidomethyl . . . statt: Aethylester d. Benzoylamidoacetyl . . .
- „ 1121 $C_{11}H_{12}ON_2S$ 1) lies: 2-Phenylimido-4-Keto-3-Aethyl . . . statt: 2-Aethylimido-4-Keto-3-Phenyl . . .
- „ 1153 $C_{12}H_{16}O$ 16) diese Verbindung ist zu streichen.
- „ 1154 $C_{12}H_{16}O$ 19) schalte ein: Sd. 249–250° (J. pr. [2] 42, 508; B. 19, 233). — III, 155.
- „ 1157 $C_{12}H_{16}O_4$ 15) lies: Isobutylester . . . statt: Butylester . . .
- „ 1176 $C_{12}H_7O_5N_2$ 1) lies: 3,5-Dinitro . . . statt: 2,4-Dinitro . . .
- „ 1208 $C_{12}H_{14}O_4N_2$ 14) Verbindung etc. lies: (J. pr. [2] 47, 384) statt: (J. pr. [2] 47, 381).
- „ 1208 $C_{12}H_{13}O_3N$ 7) schalte ein die BEILSTEIN-Notiz: — II, 502.
- „ 1241 $C_{12}H_{23}O_5N_2$ schalte ein: C 56,0 — H 8,9 — O 18,7 — N 16,3 — M. G. 257.
- „ 1260 $C_{12}H_{14}ON_2S$ 6) lies: 2-Phenylimido-4-Keto-5-Methyl-3-Aethyl . . . statt: 2-Aethylimido-4-Keto-5-Methyl-3-Phenyl . . .
- „ 1314 $C_{13}H_{11}O_2N$ 27) diese Verbindung ist zu streichen.
- „ 1319 $C_{13}H_{13}ON_2$ 10) lies: $+ \frac{1}{2} H_2O$. . . statt: H_2O . . .
- „ 1442 $C_{14}H_{18}ON$ die Verbindungen 8) und 9) sind identisch.
- „ 1534 $C_{15}H_{30}N_2$ schalte ein: C 75,6 — H 12,6 — N 11,8 — M. G. 237.
- „ 1547 $C_{15}H_{18}O_5N_4$ schalte ein: C 54,9 — H 3,6 — O 24,4 — N 17,1 — M. G. 328.
- „ 1603 $C_{16}H_{19}O_3$ 1) lies: (A. 226, 35) statt (A. 226, 32).
- „ 1606 $C_{16}H_{19}N_2$ 14) Nitril d. $\alpha\beta$ -Diphenyläthan- $\alpha\alpha$ - . . . lies: Nitril d. $\alpha\beta$ -Diphenyläthan- $\alpha\beta$ - . . .
- „ 1677 $C_{16}H_{15}ON_2$ lies: C 75,6 — statt: C 85,6 —.
- „ 1758 $C_{17}H_{20}ON_2$ 2) lies: uns-Di[. . . statt: Di[. . .
- „ 1823 $C_{18}H_{17}O_2N$ 1) die Verbindung: β -Oximido- α -Oxy- $\alpha\alpha\beta$ -Triphenyläthan etc. ist hier zu streichen, siehe $C_{10}H_{17}O_2N$ sub 2).
- „ 1854 Die in der C_{15} -Gruppe mit sechs Elementen aufgeführten Verbindungen gehören mit Ausnahme der ersten Verbindung in die C_{16} -Gruppe mit fünf Elementen und sind dort an den entsprechenden Stellen einzureihen.
- „ 1872 $C_{19}H_{18}O_7N_3$ 2) Fluorenpikrat schalte ein: A. 193, 136.
- „ 2095 $C_{34}H_{43}O_8$ die Prozentzahlen sind falsch und durch folgende Zahlen zu ersetzen: C 64,9 — H 9,2 — O 27,9 — M. G. 458.
- „ 2214 $C_{31}H_{37}O_4N_3$ 1) lies: 4'-Nitro-5²,5²-Di[Acetylamido]-2²,2²-Diisobutyl . . . statt: 4'-Nitro-5²,5²-Di[Acetylamido]-2²,2²-Dimethyl . . .

STATISTIK.

	1. Sept. 1883	1. April 1899			1. Sept. 1883	1. April 1899		
C ₁ -Gruppe	148	250	Verbindungen		Transport	19361	71174	Verbindungen
C ₂ "	449	804	"		C ₂₅ -Gruppe	217	613	"
C ₃ "	634	1144	"		C ₂₆ "	22	190	"
C ₄ "	846	1943	"		C ₂₇ "	88	388	"
C ₅ "	712	2094	"		C ₂₈ "	24	104	"
C ₆ "	1986	4546	"		C ₂₉ "	67	278	"
C ₇ "	1575	4426	"		C ₃₀ "	18	93	"
C ₈ "	1684	5390	"		C ₃₁ "	65	197	"
C ₉ "	1350	5232	"		C ₃₂ "	25	83	"
C ₁₀ "	1884	7437	"		C ₃₃ "	60	153	"
C ₁₁ "	666	3920	"		C ₃₄ "	7	44	"
C ₁₂ "	1139	4750	"		C ₃₅ "	26	68	"
C ₁₃ "	594	3341	"		C ₃₆ "	12	42	"
C ₁₄ "	1146	4385	"		C ₃₇ "	59	125	"
C ₁₅ "	810	3180	"		C ₃₈ "	13	33	"
C ₁₆ "	738	3553	"		C ₃₉ "	36	74	"
C ₁₇ "	342	2247	"		C ₄₀ "	5	15	"
C ₁₈ "	538	2578	"		C ₄₁ "	24	53	"
C ₁₉ "	253	1457	"		C ₄₂ "	7	18	"
C ₂₀ "	562	2322	"		C ₄₃ "	9	27	"
C ₂₁ "	317	1396	"		C ₄₄ "	7	10	"
C ₂₂ "	254	1394	"		C ₄₅ "	20	50	"
C ₂₃ "	144	785	"		C ₄₆ "	—	6	"
C ₂₄ "	221	1090	"		C ₄₇ "	122	336	"
C ₂₅ "	109	454	"		C ₄₈ "			
C ₂₆ "	162	622	"		C ₄₉ "			
C ₂₇ "	98	434	"		C ₅₀ — 862 "			
					Summa	20294*	74174	Verbindungen

* Die in der ersten Auflage gegebene Summe „15933“ ist irrthümlich.

Einleitung, System und Nomenklatur.

Einleitung.

Das der ersten Auflage dieses Werkes* zu Grunde gelegte System ist — mit einer ganz unwesentlichen Aenderung, die den praktischen Gebrauch kaum berührt — auch für diese Auflage in Anwendung gekommen und möge noch einmal kurz erläutert werden.

Das Alphabet des Systems oder die Reihenfolge der mit dem Kohlenstoff verbundenen Elemente, geordnet nach ihrer Häufigkeit, ist folgende:

- 1) **H, O, N; Cl, Br, J, F; S, P**
- 2) Alle übrigen Elemente, alphabetisch geordnet **A—Z**.

Die Anordnung richtet sich nach der Atomzahl des Kohlenstoffs, und in zweiter Linie nach der Anzahl der neben Kohlenstoff vorhandenen Elemente.

Die Folge der einzelnen Elemente geschieht in horizontaler und vertikaler Richtung mit steigender Atomzahl.

Introduction.

The system which was used in the first edition of this work* has also been adopted in this edition, with the exception of quite an unessential alteration which scarcely touches its practical application. I will give again a brief exposition of this system.

The alphabet of the system of the succession of the elements combined with carbon, as determined by the frequency of their occurrence, is as follows:

- 1) **H, O, N; Cl, Br, J, F; S, P**
- 2) All the other elements are placed in alphabetical order: **A—Z**.

The arrangement depends first on the number of carbon atoms, and secondly on the number of elements which in addition to carbon are contained in the compounds.

The elements follow each other in horizontal and vertical rows according to the number of atoms.

C H O N Cl Br J F S P Al As Zr.

**O
N
Cl
Br
J
F
S
P
Al
As
:
:
:
:
Zr.**

* Unter dem Titel: „Tabellen der Kohlenstoffverbindungen“ von M. M. Richter. — Berlin 1884. R. Oppenheim.

* Under the title: “Tables of carbon compounds“ by M. M. Richter. — Berlin 1884. R. Oppenheim.

Introduction.

Le système exposé dans la première édition de cet ouvrage* et qui se trouve reproduit ici avec des modifications insignifiantes, nécessite quelques éclaircissements indispensables.

L'ordre du système, ou si l'on veut la succession par ordre d'importance des éléments combinés au Carbone, est la suivante:

- 1) **H, O, N; Cl, Br, J, F; S, P**
- 2) Tous les autres corps simples d'après l'ordre alphabétique **A—Z**.

Cet arrangement se base, 1^o: sur le nombre d'atomes de carbone; 2^o sur le nombre des autres éléments.

La succession des éléments a lieu horizontalement et verticalement dans l'ordre croissant du nombre d'atomes.

Introduzione.

Il sistema che ha servito di base alla prima edizione di quest' opera* sarà seguito anche in questa — con modificazioni affatto insignificanti che non riguardano quasi punto l'uso pratico — come verrò qui esponendo brevemente.

L'alfabeto del sistema, vale a dire l'ordine con cui si susseguono gli elementi uniti al carbonio, tenuto conto della loro relativa frequenza, è il seguente:

- 1) **H, O, N; Cl, Br, J, F; S, P.**
- 2) tutti gli altri elementi in ordine alfabetico dall' **A** alla **Z**.

L'ordinamento dipende dal numero degli atomi di Carbonio, e secondariamente dal numero degli elementi con esso combinati.

I singoli elementi si susseguono in direzione orizzontale e verticale col crescere del numero dei loro atomi.

C H O N Cl Br J F S P Al As Zr.

**O
N
Cl
Br
J
F
S
P
Al
As
:
:
:
:
:
Zr.**

* Sous le titre: „Tabellen der Kohlenstoffverbindungen von M. M. Richter. — Berlin 1884. R. Oppenheim.

* Sotto il titolo „Tabelle dei composti del carbonio“ di M. M. Richter. — Berlin 1884. R. Oppenheim.

Eine Verbindung $C_{13}H_{17}O_2N$ beispielsweise ist in der „ C_{13} -Gruppe mit drei Elementen“ zu suchen.

Die Anordnung ist — weil automatisch — so einfach, dass sie sich beim Ueberschauen der einzelnen Gruppen, z. B. der C_8 -Gruppen, als fast selbstverständlich ergibt:

For example a compound $C_{13}H_{17}O_2N$ is to be looked for in the C_{13} -group with three elements.

The arrangement being automatic is so simple that in glancing over the several groups, e. g. the C_8 -groups, it is almost selfevident:

8 I	8 II	8 III	8 IV
C_8H_7	$C_8H_4O_2$	$C_8HO_2Cl_2$	$C_8HO_2NCl_2$
C_8H_8	$C_8H_4O_4$	$C_8HO_2Br_2$	$C_8H_2O_2NCl_2$
C_8H_9	$C_8H_4O_6$	$C_8H_2OCl_4$	$C_8H_2O_2N_2Br_2$
C_8H_{10}	$C_8H_4O_8$	$C_8H_2O_2Cl_2$	$C_8H_2O_2Cl_2Br_2$
C_8H_{11}	$C_8H_4N_2$	$C_8H_2O_2Br_2$	$C_8H_2O_2NCl_2$
C_8H_{12}	$C_8H_4Cl_2$	$C_8H_2O_2Cl_4$	$C_8H_2O_2ClBr$
C_8H_{13}	$C_8H_4Cl_4$	$C_8H_2O_2Cl_2$	$C_8H_2O_2NCl_2$
C_8H_{14}	$C_8H_4Cl_6$	$C_8H_2O_2Br_4$	$C_8H_2ONCl_2$
C_8H_{15}	$C_8H_4J_2$	$C_8H_2O_2J_2$	$C_8H_2ONCl_2$
	$C_8H_4J_4$	$C_8H_2O_2J_4$	$C_8H_2ON_2Cl_2$
	C_8H_6O	$C_8H_2O_2N_2$	$C_8H_2O_2NCl_2$
	$C_8H_6O_2$	$C_8H_2Cl_2S_2$	$C_8H_2O_2NCl_2$
	$C_8H_6O_4$	$C_8H_2Br_2S_2$	$C_8H_2O_2NBr_2$
	$C_8H_6O_6$	$C_8H_2O_2Cl_2$	$C_8H_2O_2N_2Br_2$
	$C_8H_6O_8$	$C_8H_2O_2Cl_4$	$C_8H_2O_2N_2S_2$
	$C_8H_6O_{10}$	$C_8H_2O_2N_4$	$C_8H_2O_2Cl_2Br$
	$C_8H_6O_{12}$	$C_8H_2O_2Cl$	$C_8H_2O_2NCl_2$
	$C_8H_6O_{14}$	$C_8H_2O_2Br$	$C_8H_2O_2NBr_2$
	$C_8H_6N_2$	$C_8H_2O_2J$	$C_8H_2O_2N_2Br$
	$C_8H_6N_4$	$C_8H_2O_2Cl_2$	$C_8H_2O_2Cl_2S$
	$C_8H_6Cl_2$	$C_8H_2O_2Br_2$	$C_8H_2O_2NCl_2$
	$C_8H_6Cl_4$	$C_8H_2O_2Br_4$	$C_8H_2O_2NBr_2$
	$C_8H_6Br_2$	$C_8H_2O_2N$	$C_8H_2O_2N_2Br$
	$C_8H_6Br_4$	$C_8H_2Cl_2S_2$	C_8H_2ONCl
	$C_8H_6J_2$	$C_8H_2Br_2S$	C_8H_2ONBr

Als besonders instruktives Beispiel kann die gesammte C_1 -Gruppe angesehen werden; wegen der wenigen Isomeriefälle in dieser Gruppe ist die Folge der sich ablösenden Elemente eine stetige und übersichtliche.

The whole C_1 -group may be regarded as an especially instructive example; on account of the few cases of isomerism which this group embraces, one can see clearly the sequence of the elements which are comprised in that group.

La combinaison $C_{13}H_{17}O_2N$ par exemple, se trouvera dans le groupe „ C_{13} “ avec trois éléments, c'est à dire „13 III“.

L'arrangement est simple et pour ainsi dire automatique, comme le démontre l'exemple suivant du groupe „ C_8 “:

Un composé $C_{13}H_{17}O_2N$ deve, ad esempio, cercarsi nel gruppo C_{13} con tre elementi.

L'ordine è così semplice — perchè automatico — che appare evidente scorrendo collo sguardo i singoli gruppi, ad esempio il gruppo C_8 :

S I	S II	S III	S IV
C_8H_8	$C_8H_8O_2$	$C_8HO_2Cl_2$	$C_8HO_2NCl_2$
C_8H_8	$C_8H_8O_2$	$C_8HO_2Br_2$	$C_8H_8O_2NCl_2$
C_8H_8	$C_8H_8O_2$	$C_8H_8OCl_2$	$C_8H_8O_2N_2Br_2$
C_8H_8	$C_8H_8O_2$	$C_8H_8O_2Cl_2$	$C_8H_8O_2Cl_2Br_2$
C_8H_{10}	$C_8H_8N_2$	$C_8H_8O_2Cl_2$	$C_8H_8O_2NCl_2$
C_8H_{12}	$C_8H_8Cl_2$	$C_8H_8O_2Br_2$	$C_8H_8O_2ClBr$
C_8H_{14}	$C_8H_8Cl_2$	$C_8H_8O_2Cl_2$	$C_8H_8O_2NCl_2$
C_8H_{16}	$C_8H_8Cl_2$	$C_8H_8O_2Br_2$	$C_8H_8ONCl_2$
C_8H_{18}	C_8H_8J	$C_8H_8O_2J_2$	$C_8H_8ONCl_2$
	$C_8H_8J_2$	$C_8H_8O_2J_2$	$C_8H_8ON_2Cl_2$
	C_8H_8O	$C_8H_8O_2N_2$	$C_8H_8O_2NCl_2$
	$C_8H_8O_2$	$C_8H_8Cl_2S_2$	$C_8H_8O_2NCl_2$
	$C_8H_8O_2$	$C_8H_8Br_2S_2$	$C_8H_8O_2NBr_2$
	$C_8H_8O_2$	$C_8H_8O_2Cl_2$	$C_8H_8O_2N_2Br_2$
	$C_8H_8O_2$	$C_8H_8O_2Cl_2$	$C_8H_8O_2N_2S_2$
	$C_8H_8O_2$	$C_8H_8O_2N_2$	$C_8H_8O_2Cl_2Br_2$
	$C_8H_8O_2$	$C_8H_8O_2Cl_2$	$C_8H_8O_2NCl_2$
	$C_8H_8O_2$	$C_8H_8O_2Br_2$	$C_8H_8O_2NBr_2$
	$C_8H_8N_2$	$C_8H_8O_2J_2$	$C_8H_8O_2N_2Br_2$
	$C_8H_8N_2$	$C_8H_8O_2Cl_2$	$C_8H_8O_2Cl_2S_2$
	$C_8H_8Cl_2$	$C_8H_8O_2Br_2$	$C_8H_8O_2NCl_2$
	$C_8H_8Cl_2$	$C_8H_8O_2Br_2$	$C_8H_8O_2NBr_2$
	$C_8H_8Br_2$	$C_8H_8O_2N$	$C_8H_8O_2N_2Br_2$
	$C_8H_8Br_2$	$C_8H_8Cl_2S_2$	$C_8H_8ONCl_2$
	$C_8H_8J_2$	$C_8H_8Br_2S_2$	$C_8H_8ONBr_2$

On peut regarder comme exemple particulièrement instructif le groupe „ C_1 “. Par suite du petit nombre d'isoméries que présente ce groupe, l'ordre des différents éléments est continu et facile à saisir.

Come esempio particolarmente istruttivo può essere considerato l'intero gruppo C_1 in cui, per i pochi casi di isomeria, l'ordine nel quale si susseguono i singoli elementi non è interrotto, ed è chiaramente visibile.

Bemerkungen.

1) Ableitung der Bruttoformel. Das den Tabellen sich anschliessende Namenregister (mit Formelangabe) dient zur Ableitung der Formel in allen Fällen, wenn, in Ermangelung einer Strukturformel, die Bruttoformel der Stammsubstanz dem Gedächtniss nicht gegenwärtig ist.

Um beispielsweise zu den Bruttoformeln der Tarkoninderivate zu gelangen, schlägt man zunächst im Namenregister Tarkonin = $C_{11}H_9O_3N$ auf, und ist nun im Stande, in den eigentlichen Tabellen sich über $C_{11}H_8O_3NBr$ Bromtarkonin bzw. andere Tarkoninderivate zu orientieren.

2) Erklärung und Bedeutung der Beilsteinnotiz. Bei jeder Verbindung findet sich am Schluss, ausserhalb der Literaturklammer, eine aus römischen und arabischen Ziffern combinirte Zahlennotiz, vom Verfasser „Beilsteinnotiz“ genannt, z. B. bei:

$C_9H_{10}O_3$ Melilotsäure die Notiz II, 1562. Dieselbe bezieht sich stets auf die dritte Auflage des Handbuches der organischen Chemie von Beilstein und soll anzeigen, dass die Melilotsäure in Band II, Seite 1562 dieses Handbuches zu finden ist.

Das Lexikon bildet gleichzeitig somit für das Handbuch von Beilstein ein Generalregister par excellence, denn sämtliche im „Beilstein“ aufgeführten Verbindungen, etwa 57,000 Stück, sind berücksichtigt worden.

Das Fehlen dieser Beilsteinnotiz bei etwa 8000 Verbindungen weist stets darauf hin, dass dieselben aussergewöhnlichen Literaturquellen entnommen sind oder der neueren Literatur angehören, welche erst in den demnächst kommenden Supplementbänden zum Beilstein'schen Handbuch behandelt werden kann.

3) Jede Verbindung nimmt in den Tabellen nur einen und zwar ihren systemgemäss feststehenden Platz ein, mit Ausnahme der Salze, welche bei

Remarks.

1) *Deduction of the empirical formula.* The index of names (with their formulae) which accompanies the tables will enable the reader to deduce the formula even if he is at a loss to record the empirical formula of the mother-substance.

To ascertain for instance, the empirical formula of the derivatives of tarconine one refers in the index of names to tarconine = $C_{11}H_9O_3N$, and thus one is able to obtain in the tables information about $C_{11}H_8O_3NBr$, bromtarconine or other derivatives of tarconine.

2) *Explanation and importance of the reference to "Beilstein".* To every compound are affixed two figures, one in roman, the other in arabic numerals; e. g.:

$C_9H_{10}O_3$, Meliloticacid carries the figures II, 1562. These refer always to the third edition of Beilstein's handbook of organic chemistry, and are meant to indicate that melilotic acid is described there in Vol. II, p. 1562.

The lexicon is therefore at the same time a collective index par excellence to "Beilstein", for all the compounds which are registered there — about 57,000 — have been dealt with.

The references to "Beilstein" are not to be found after about 8000 compounds, and this fact indicates that they either have been described in obscure papers or that they occur in the recent literature which has to be treated in the supplementary volumes to "Beilstein".

3) Every compound has in the table only one place which is fixed by the system, with the exception of the salts which are placed with the compounds

Observations.

1) *Détermination de la formule brute.* Le registre des noms accompagnés des formules, qui suit les tables, sert à s'orienter en cas d'oubli de la formule brute, la formule de structure étant inconnue.

Pour établir par exemple la formule brute des dérivés de la Tarconine, on cherche le mot Tarconine = $C_{11}H_9O_3N$, on trouvera alors facilement dans les tables $C_{11}H_9O_3NBr$, bromotarconine ou d'autres dérivés de la même substance.

2) *Explication et signification de la „Beilstein-Notiz“.* On trouve pour chaque corps, à la suite de la parenthèse bibliographique, une annotation en chiffres romains et arabes que j'appelle „Beilstein-Notiz“ (Annotation qui renvoie au traité de Beilstein). Par exemple: à l'article $C_9H_{10}O_3$ Melilotsäure, la note II, 1562. Elle se rapporte, comme toutes les autres à la troisième édition de la Chimie organique de Beilstein et signifie que dans ce traité, on trouvera l'acide mélilotique à la page 1562 du II^{me} volume.

Le dictionnaire représente en même temps la table des matières par excellence du traité de Beilstein, car il contient l'ensemble de combinaisons qui sont décrites dans celui-ci et qui s'élèvent au chiffre de 57,000 approximativement.

La „Beilstein-Notiz“ fait défaut pour 8000 corps environ provenant de sources bibliographiques spéciales ou de publications récentes qui ne seront contenues que dans les fascicules supplémentaires du traité de Beilstein.

3) Chaque combinaison se trouve dans les tables à une place unique conformément à l'arrangement choisi, sauf les sels qui sont joints aux substances

Avvertenze.

1) *Deduzione della formola bruta* L'indice dei nomi annesso alle tabelle (coll' indicazione delle formole) serve per quei casi nei quali, mancando una formola di struttura, non si abbia presente alla memoria la formola bruta della sostanza madre.

Per avere, ad esempio, la formola bruta di derivati della tarconina si trova prima nell' indice dei nomi: tarconina = $C_{11}H_9O_3N$, e si può allora dirigersi nelle relativa tabella alla ricerca del corpo $C_{11}H_9O_3NBr$, o bromotarconina, e così di seguito per gli altri derivati.

2) *Spiegazioni intorno al „richiamo al Beilstein“ e sua importanza.* Per ogni composto dopo la bibliografia che lo concerne, la quale è posta fra parentesi, vi è una citazione espressa in numeri arabi e romani che l'autore chiama „richiamo al Beilstein“; così ad es. per: $C_9H_{10}O_3$ Acido melilotico la citazione II, 1562. Questa si riferisce sempre alla terza edizione del manuale di chimica organica del Beilstein, e sta ad indicare che l'acido melilotico si trova in questo manuale a pagina 1562 del secondo volume.

E così che il Dizionario costituisce nello stesso tempo l'indice generale per eccellenza del manuale del Beilstein, perchè contiene tutte le 57,000 sostanze in quello descritte.

La mancanza del richiamo al Beilstein per circa 8000 composti proviene da ciò, che essi sono tolti da fonti bibliografiche non comuni, o appartengono a pubblicazioni recenti, che potranno esser prese in considerazione soltanto nei prossimi supplementi del manuale del Beilstein.

3) Ogni composto ha nelle tabelle un solo posto o cioè quello che gli compete in ragione del sistema, fatta eccezione pei sali, che sono messi presso la loro

den betreffenden Stammverbindungen aufgeführt sind. Die Chloride, Bromide, Jodide und Cyanide quaternärer Ammoniumbasen dagegen sind als selbständige Individuen registriert.

4) Polymere Verbindungen, deren Molekulargewichte sicher festgestellt sind, sind unter der Gesamtformel zu suchen, z. B.:

$(\text{CHON})_3$ Cyanursäure unter $\text{C}_3\text{H}_3\text{O}_3\text{N}_3$.

5) Von den Literaturquellen sind sowohl diejenigen angegeben, welche auf Darstellung und Eigenschaften der betreffenden Verbindung Bezug haben, wie auch solche, welche näherliegende Zersetzungen und Umsetzungen behandeln. Abhandlungen rein theoretischen, analytischen, physikalischen, mathematischen, kristallographischen und medizinisch-physiologischen Inhalts sind nicht berücksichtigt worden.

6) Die Namen der Autoren sind fortgelassen, um die nothwendige Kürze zu erzielen.

7) Die Literatur ist vollständig bearbeitet bis Schluss 1898 und von 1899 die des ersten Quartals.

8) Seitens der Verlagsfirma ist beabsichtigt, jährliche Ergänzungshefte zu dieser zweiten Auflage herauszugeben.

9) Als eine unliebsame Arbeitserschwerung habe ich bei zahlreichen Abhandlungen das Fehlen der Bruttoformeln empfunden, und bitte ich daher die Fachgenossen, den Analysenzahlen in Zukunft stets die Bruttoformel beizufügen und diese beim Niederschreiben wie auch beim Correcturlesen auf ihre Richtigkeit zu prüfen.

Die Fachgenossen würden sodann auch im Interesse der Einheitlichkeit handeln, wenn sie die in diesem Lexikon angewandte Anordnung der empirischen Formeln acceptiren wollten, wie dies seitens des Vorstandes der Deutschen chemischen Gesellschaft bekanntlich schon für den Jahrgang 1898 der „*Berichte*“ beschlossen worden ist, so z. B.:

they are derived from. The chlorides, bromides, iodides and cyanides of quaternary ammonium bases, however, are registered as group-substances.

4) Polymeric compounds with fixed molecular weights are registered under their own formulae; e. g.

$(\text{CHON})_3$, cyanuric acid is found under $\text{C}_3\text{H}_3\text{O}_3\text{N}_3$.

5) The work contains the references to the papers which describe the method of preparation and their properties, as well as those which deal with the immediate changes they undergo. No reference is made to purely theoretical papers, nor to those with analytical, physical, mathematical, crystallographic and medico-physiological contents.

6) Authors' names I have omitted for the sake of brevity.

7) The literature is fully treated up to the end of the year 1898, and that of 1899 the first quarter has been dealt with.

8) The publishing firm intends to bring out yearly supplements to this second edition.

9) My work has been made rather heavy on account of the circumstance that empirical formulae had been omitted in numerous papers; I therefore, beg fellow-workers in future to add the empirical formulae to the analytical data and to check them in writing the manuscript as well as in reading the proof

For the sake of uniformity it would recommend itself if workers would adopt the arrangement of the empirical formulae as used in this lexicon, which has been resolved upon by the Council of the German Chemical Society to come into practice in the year 1898 of the „*Berichte*“ the first quarter has been dealt with. Thus one should write:

dont ils dérivent. Les chlorures, bromures, iodures et cyanures des bases d'ammonium quaternaires sont inscrits comme types individuels.

4) Les corps polymères, dont les poids moléculaires sont bien déterminés, doivent être recherchés d'après la formule moléculaire. Par exemple l'acide cyanurique $(\text{CHON})_3$ sera inscrit sous la formule $\text{C}_3\text{H}_3\text{O}_3\text{N}_3$.

5) Les sources bibliographiques indiquées, comprennent aussi bien celles qui traitent de la préparation et des propriétés des combinaisons, que celles où il est question de leurs transformations ou de leurs décompositions. Les publications concernant seulement des sujets de théorie, d'analyse, de physique, de mathématiques, de cristallographie ou de physiologie médicale, ne sont pas mentionnés.

6) Pour la brièveté indispensable de l'ouvrage, les noms d'auteurs ont été supprimés.

7) La bibliographie est complète jusqu'à fin 1898 et pour le premier trimestre de l'année 1899.

8) L'éditeur se propose de publier annuellement des suppléments à cette deuxième édition.

9) De nombreuses publications où les formules brutes faisaient défaut, m'ont causé un supplément de travail désagréable. Je prie donc mes collègues en chimie, d'ajouter régulièrement la formule brute aux résultats d'analyses; d'en vérifier soigneusement, l'exactitude sur le manuscrit et sur l'épreuve d'imprimerie.

Dans un but d'unification, il serait bon que tous les chimistes adoptent pour les formules brutes, l'arrangement employé dans ce dictionnaire comme cela a été fait pour le registre de l'année 1898 des „Berichte“. Il faudrait écrire par exemple:

sostanza madre. I cloruri, bromuri, joduri e cianuri delle basi quaternarie ammoniche, vengono al contrario registrati come corpi a se.

4) I polimeri la formola dei quali è ben accertata vanno ricercati sotto la loro formola complessiva; così ad es: $(\text{CHON})_3$ acido cianurico sotto $\text{C}_3\text{H}_3\text{O}_3\text{N}_3$.

5) Delle citazioni bibliografiche si danno sia quelle che concernono la preparazione e le proprietà dei singoli corpi, come anche quelle che trattano delle più importanti loro decomposizioni e trasformazioni. I lavori di argomento puramente teorico, o analitico; oppure che trattano questioni fisico-matematiche, cristallografiche, o che interessano la medicina e la fisiologia, non vengono presi in considerazione.

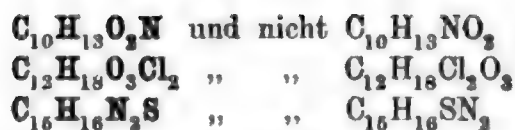
6) I nomi degli autori sono ommessi per la necessaria brevità.

7) La letteratura è stata completamente consultata fino alla fine del 1898; del 1899 venne presa in considerazione quella del primo trimestre.

8) La casa editrice ha l'intenzione di pubblicare dei supplementi annuali di questa seconda edizione.

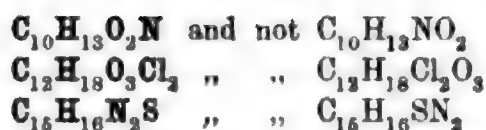
9) Uno spiacevole ostacolo fu da me incontrato in questa compilazione per la mancanza delle formole brute in molti lavori; io prego quindi i cultori della chimica di volere in avvenire aggiungere sempre ai dati analitici la formola bruta, o di controllarne l'esattezza sia nell'estensione della memoria, sia ancora nella correzione delle bozze di stampa.

Sarebbe poi desiderabile che gli autori per uniformità accettassero per le formole empiriche l'ordine adottato in questo dizionario come è stato già fatto, notoriamente, della Società chimica di Berlino per l'annata 1898 dei suoi „Berichte“, e così ad esempio:



10) Der Verfasser richtet an die Fachgenossen ergebenst die dringende Bitte, ihn von Fehlern, Versehen und Versäumnissen zu benachrichtigen. Mittheilungen erreichen den Verfasser unter der Adresse:

„Dr. M. M. Richter,
Director der Actiengesellschaft, Färberei vorm. Ed. Printz,
Karlsruhe (Baden).“



10) The author begs workers to inform him of mistakes and omissions. Communications may be sent to the following address:

Nomenklatur.

Von den mannigfachen Schwierigkeiten, welche sich im Laufe der Bearbeitung dieses Werkes einstellten, war die Frage:

„welche Nomenklatur im Interesse der Einheitlichkeit und Uebersichtlichkeit dem Werke zu Grunde zu legen sei“, zweifellos die schwerwiegendste. Wie heute in weitaus verstärktem Maasse, so lagen auch damals, also vor neun Jahren, als diese Frage zur endgültigen Entscheidung gebracht werden musste, die bekannten Misstände auf diesem Gebiete schon klar zu Tage. Es ist und bleibt bedauerlich, dass auch die in Genf gefassten Beschlüsse keine Aussicht haben, sich allgemeiner Anwendung zu erfreuen.*

Die zahlreichen Regeln, welche das Gebiet der aliphatischen Verbindungen und zwar unvollständig umfassen, der geringe Fortschritt auf den übrigen Gebieten der organischen Chemie, wie vor Allem die den Fachgenossen aufgedrängten Gedankenoperationen bei dieser Nomenklatur lassen keinen Zweifel an der Richtigkeit oben geäußelter Ansicht übrig.

Die Frage nach einer befriedigenden Nomenklatur für dieses Lexikon führte, namentlich in Anbetracht des Fehlens

* Mit Ausnahme der durchaus zweckentsprechenden Nomenklatur der aliphatischen Kohlenwasserstoffe.

Nomenclature.

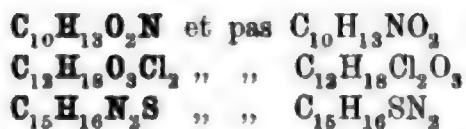
Of the many difficulties which in writing this work presented themselves the greatest was undoubtedly the question:

“Which nomenclature is to be adopted for the sake of uniformity and clearness.” The unfortunate state of things in this respect had already shown itself nine years ago when this question had to be dealt with, and it is now aggravated. It is and remains deplorable that the resolutions arrived at Geneva have no prospect of being generally adopted.*

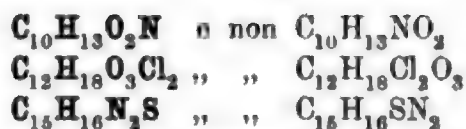
The numerous rules which embrace, though incompletely, the group of aliphatic compounds, again the small progress concerning the other parts of organic chemistry, and above all the mental operations which this nomenclature necessitates, do not leave any doubt that the view expressed above is correct.

Taking into consideration that structural formulae had to be omitted in order to save space, the question as to a

* With the exception of the specially appropriate nomenclature of the aliphatic hydrocarbons.



10) L'auteur, prie enfin ses collègues, de bien vouloir lui signaler toutes les fautes ou omissions à l'adresse:



10) L'autore rivolge ai colleghi una viva preghiera perchè gli indichino gli errori, le omissioni, mandandogli le corrispondenze al suo indirizzo:

*„Dr. M. M. Richter,
Director der Actiengesellschaft, Färberei vorm. Ed. Printz,
Karlsruhe (Baden).“*

Nomenclature.

Parmi les nombreuses difficultés qui se présentèrent au moment de l'élaboration de ce travail, la plus importante était sans doute la suivante: quelle nomenclature faut-il adopter dans l'intérêt de l'unité et de la clarté de l'ouvrage?

Lorsque, il y a neuf ans, cette question se présenta, le même inconvénient existait déjà. Il est malheureusement peu probable, que les décisions prises par le congrès de Genève, soient adoptées d'une manière générale.*

Les règles nombreuses qui embrassent imparfaitement le domaine des combinaisons aliphatiques, le peu de progrès réalisé dans les autres parties de la chimie organique, et avant tout, les efforts intellectuels qu'exige l'assimilation de la nouvelle nomenclature, ne laissent pas de doute à cet égard.

Le désir de mettre au service du présent ouvrage une nomenclature rationnelle tout en bannissant, faute de place

Nomenclatura.

Tra le molteplici difficoltà che si incontrarono nel corso della compilazione di questo lavoro la più difficile a risolversi consisteva indubbiamente nella scelta e nell'adozione di una nomenclatura che rispondesse per unità e chiarezza allo scopo dell'opera.

Le sfavorevoli circostanze in questo argomento, le quali sono oggi grandemente cresciute, si presentavano però in modo assai chiaro già nove anni fa, allorchè tale questione doveva ricevere una definitiva risoluzione. Resta poi a deplorarsi che anche le conclusioni del Congresso di Ginevra non abbiano alcuna probabilità di essere generalmente adottate.*

Le numerose regole che riguardano esclusivamente la nomenclatura dei composti alifatici — ed anche questi in modo incompleto —; la piccolissima estensione data finora alla parte riguardante gli altri campi della chimica organica; soprattutto poi il fatto che questa nomenclatura non è di immediata comprensione, stanno a provare la giustezza dell'asserto suesposto.

La questione della scelta di un sistema di nomenclatura soddisfacente pel presente dizionario fu risolta coll'adozione esclusiva

* A l'exception de la nomenclature rationnelle des hydrocarbures aliphatiques.

* Fatta eccezione della nomenclatura degli idrocarburi grassi che realmente risponde allo scopo.

jeglicher Strukturformel, welche der Raumersparniss wegen nicht gegeben werden konnten, schliesslich immer und immer wieder auf das „Princip der Substitution“, welches in folgenden Sätzen kurz zusammengefasst werden soll.

1) Jede Verbindung, deren Constitution sicher festgestellt ist, wird auf die ihr zu Grunde liegende Stammsubstanz, nämlich den Kohlenwasserstoff oder das betreffende wasserstoffärmste Ringsystem wie Benzol, Naphtalin, Pyrrol, Furan, Chinolin u. s. f. zurückgeführt.

2) Diese Stammsubstanz wird bei der Namenbildung der Derivate intakt erhalten und muss stets als solche in den Namen der Derivate figuriren, darf also in keinem Falle eine Umbildung erfahren, wie z. B. Pyrazol in Pyrazolin, Inden in Indanon etc.

3) Hydrirte Stammsubstanzen werden als Di-, Tetra-, Hexa-, Okto-, Dekahydroderivate bezeichnet; also Dihydropyrazol für Pyrazolin, oder Tetrahydropyrazol für Pyrazolidin.

4) Als Namen für die Stammsubstanzen werden benutzt:

- a) für die Kohlenwasserstoffe der aliphatischen Reihe die Namen, wie solche sich aus den Beschlüssen der Genfer Nomenklaturcommission ergeben;
- b) für die aromatischen Kohlenwasserstoffe die bisher gebräuchlichen Namen, wie Benzol, Inden, Naphtalin, Anthracen;

- c) für die O, S, Se, N, P enthaltenden Ringsysteme, die sich diesem Text anschliessenden Formen S. 16, wie solche sich sinngemäss aus der Erweiterung der WIDMANN'schen Vorschläge ergeben.

5) Wie die Bildung der Derivate obiger Stammsubstanzen durch Ersetzung von Wasserstoff durch andere Atome oder Atomgruppen gedacht werden kann, so erfolgt auch die Namenbildung dieser Derivate:

satisfactory nomenclature for this lexicon, compelled me to adopt the „*principle of substitution*“. This may be summarised as follows.

1) Every compound with fixed constitution is referred to the group-substance from which it is derived, namely to the hydrocarbon or to the corresponding cyclic system which contains the smallest number of hydrogen atoms, as benzene, naphthalene, pyrrol, furan, quinoline etc.

2) This group-substance remains intact in naming the derivatives and must always figure as such in the names of the derivatives, an alteration may never take place, as for instance that of pyrazole into pyrazoline or indene into indanone etc.

3) Hydrogenised group-substances are named di-, tetra-, hexa-, octo-, decahydroderivatives. Thus dihydropyrazole stands for pyrazoline, tetrahydropyrazole for pyrazolidine.

4) The following names are used for the group-substances:

- a) for the hydrocarbons of the aliphatic series those which are in concordance with the resolutions of the Geneva nomenclature commission;
- b) for the aromatic hydrocarbons the terms used up to the present, such as benzene, indene, naphthalene, anthracene;

- c) for the ring-systems containing O, S, Se, N, P the forms which are affixed to this text (page 16) and which naturally follow from the expansion of WIDMANN's proposals.

5) As the formation of the derivatives of group-substances may be regarded as taking place by the substitution of hydrogen by other atoms or groups, so are the names derived from those of the group-substances.

les formules de structure, m'a conduit à adopter le *principe de la substitution* que résumant, en quelques lignes, les considérations suivantes:

1) Toute combinaison dont la constitution est connue d'une manière certaine, est ramenée à la substance mère dont elle dérive, c'est-à-dire: à l'hydrocarbure ou au noyau le plus simple, tel que le benzène, la naphthaline, le pyrrol, le furane, la quinoléine etc.

2) Le nom de la substance mère doit figurer régulièrement et sans altération aucune dans l'appellation de chacun de ses dérivés. Il ne sera donc pas possible de transformer la dénomination de pyrazol en celle de pyrazoline, la dénomination d'indène en celle d'indanone etc.

3) Les noms des substances mères hydrogénées sont précédés des préfixes di, tétra, hexa, octo deca, etc. On dira par exemple: Dihydropyrazol au lieu de Pyrazoline, Tétrahydropyrazol au lieu de Pyrazolidine.

4) Les dénominations des substances mères sont choisies de la manière suivante:

a) Pour les hydrocarbures aliphatiques, celles qui ont été arrêtées par le congrès de Genève;

b) Pour les hydrocarbures aromatiques, celles qui ont eu cours jusqu'ici; c'est-à-dire parmi les plus connues, les dénominations de: benzène, indène, naphthaline, anthracène etc.

c) Pour les noyaux renfermant: **O**, **S**, **Se**, **N**, **P**, celles qui correspondent aux types figurant à la fin de ce texte et provenant de l'extension des propositions WIDMANN.

5) La nomenclature des dérivés de ces substances fondamentales, se base sur la substitution de l'hydrogène par des atomes ou des radicaux (résidus):

del „*principio della sostituzione*“, tanto più che si dovettero escludere interamente le formole di costituzione per economia di spazio. Diamo qui riassunte in breve le regole derivanti da questo principio:

1) Ogni composto di costituzione sicuramente stabilita viene riferito alla sostanza fondamentale da cui deriva, idrocarburo o sistema ciclico meno ricco in idrogeno, come benzolo, naftalina, pirrolo, furano, chinolina etc.

2) Il nome di queste sostanze fondamentali viene mantenuto intatto nella formazione dei nomi dei derivati, e deve figurare come tale in essi; non può quindi subire giammai modificazioni del genere p. es. di quella di pirazolo in pirazolina, di indene in indanone etc.

3) Le sostanze fondamentali idrogenate si indicano cogli epiteti: Di-, Tetra-, Esa-, Octo-, Deca-idroderivati; si dira così diidropirazolo invece di pirazolina, e tetraidropirazolo invece di pirazolidina.

4) Come nomi delle sostanze fondamentali si adoperano:

a) per gli idrocarburi della serie alifatica i nomi che si derivano dalle conclusioni del congresso di Ginevra;

b) per gli idrocarburi aromatici, i termini finora in uso, come: benzolo, indene, naftalina, antracene;

c) per sistemi ciclici contenenti **O**, **S**, **Se**, **N**, **P**, le forme che si trovano raccolte a pag. 16, come esse risultano in modo naturale dall'estensione delle proposte di WIDMANN.

5) La formazione dei nomi dei derivati si fa nello stesso modo con cui può ritenersi che avvenga la sostituzione dell'idrogeno del corpo fondamentale con altri atomi o gruppi di atomi; p. esempio:

	Common name	Names to be substituted
	Trivialname	Substitutionsname
$C_6H_5.CH_3$	Toluol	Methylbenzol,
$C_6H_4.(CH_3)_2$	Xylol	Dimethylbenzol,
$C_6H_5.OH$	Phenol	Oxybenzol,
$C_6H_4.(OH)_2$	Brenzkatechin	1,2-Dioxybenzol,
„	Resorcin	1,3- „
„	Hydrochinon	1,4- „
$C_6H_3.(OH)_3$	Pyrogallol	1,2,3-Trioxymethylbenzol,
„	Phloroglucin	1,3,5- „
$C_6H_5.SH$	Thiophenol	Merkaptobenzol,
$C_6H_5.NH_2$	Anilin	Amidobenzol,
$C_6H_4.(NH_2)_2$	Phenylendiamin	Diamidobenzol,
$C_6H_5.COOH$	Benzoesäure	Benzolcarbonsäure,
$C_6H_4.(COOH)_2$	Phtalsäure	Benzol-1,2-Dicarbonsäure,
$C_6H_3.(COOH)_3$	Trimesinsäure	Benzol-1,3,5-Tricarbonsäure,
$C_6(COOH)_6$	Mellithsäure	Benzolhexacarbonsäure,
$C_6H_4.OH.COOH$	Salicylsäure	2-Oxybenzol-1-Carbonsäure.

Der chemische Ort ist bei offenen Ketten durch griechische Buchstaben und bei Ringsystemen stets durch Ziffern gekennzeichnet.*

Die hierbei innegehaltene Reihenfolge ist aus den auf den folgenden Seiten gegebenen Beispielen zu ersehen.

Zum Aufsuchen der betreffenden Stammsubstanz dient ein den Beispielen direkt sich anschliessendes und etwa 250 Stammformen umfassendes kleines Register.

* Den Beschluss der Genfer Nomenklaturcommission, in jedem Falle Zahlen anzuwenden, halte ich für einen schweren Fehler.

With open-chain compounds the position of the substituent is indicated by the Greek alphabet, and with ring-compounds by numbers.*

The way they succeed each other can be seen from the examples which are given on the following pages.

A small index comprising about 250 group-forms follows the examples and enables one to look for the group-substance.

* I regard it as a great mistake to follow the resolution of the Geneva nomenclature commission in using numbers in every case.

<i>Dénomination commune</i> Nomi usuali		<i>Dénomination par substitution</i> Nomi secondo il principio della sostituzione
	Trivialname	Substitutionsname
$C_6H_5.CH_3$	Toluol	Methylbenzol,
$C_6H_4.(CH_3)_2$	Xylol	Dimethylbenzol,
$C_6H_5.OH$	Phenol	Oxybenzol,
$C_6H_4.(OH)_2$	Brenzkatechin	1,2-Dioxybenzol,
"	Resorcin	1,3- "
"	Hydrochinon	1,4- "
$C_6H_3.(OH)_3$	Pyrogallol	1,2,3-Trioxybenzol,
"	Phloroglucin	1,3,5- "
$C_6H_5.SH$	Thiophenol	Merkaptobenzol,
$C_6H_5.NH_2$	Anilin	Amidobenzol,
$C_6H_4.(NH_2)_2$	Phenylendiamin	Diamidobenzol,
$C_6H_5.COOH$	Benzoëssäure	Benzolcarbonsäure,
$C_6H_4.(COOH)_2$	Phtalsäure	Benzol-1,2-Dicarbonsäure,
$C_6H_3.(COOH)_3$	Trimesinsäure	Benzol-1,3,5-Tricarbonsäure,
$C_6(COOH)_6$	Mellithsäure	Benzolhexacarbonsäure,
$C_6H_4.OH.COOH$	Salicylsäure	2-Oxybenzol-1-Carbonsäure.

Les positions occupées par les substituants sont désignées par des lettres grecques dans les chaînes ouvertes, par des chiffres dans les noyaux.*

Les exemples qui figurent dans les pages suivantes expliqueront le système employé.

En outre un petit index contenant environ 250 substances fondamentales permet de les rechercher.

* Je considère comme irrationnelle la décision prise par le congrès de Genève, d'employer les chiffres dans tous les cas.

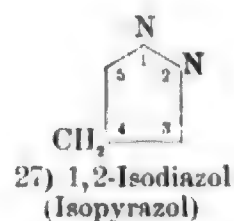
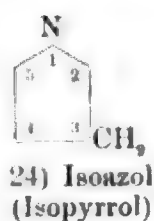
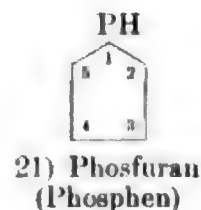
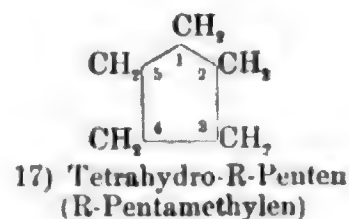
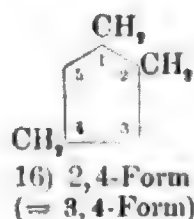
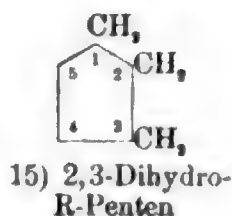
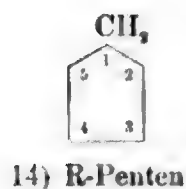
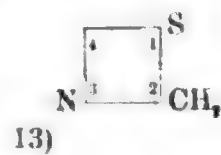
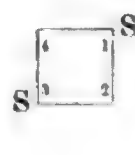
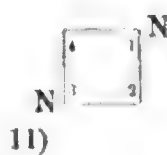
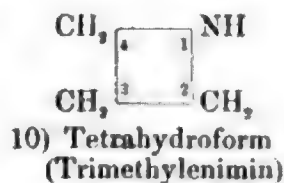
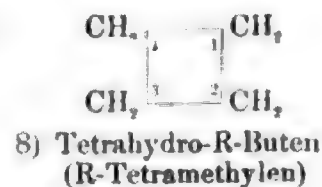
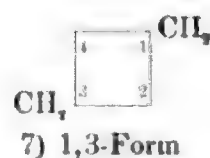
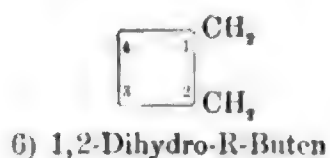
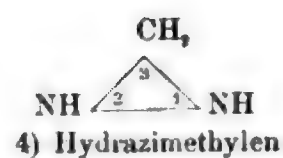
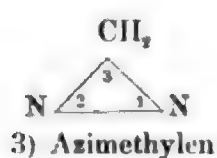
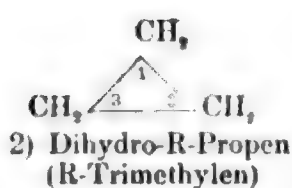
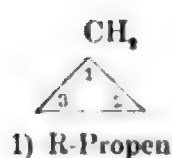
Il luogo chimico dei sostituenti è sempre indicato nelle catene aperte con lettere greche, e nei sistemi ciclici con cifre.*

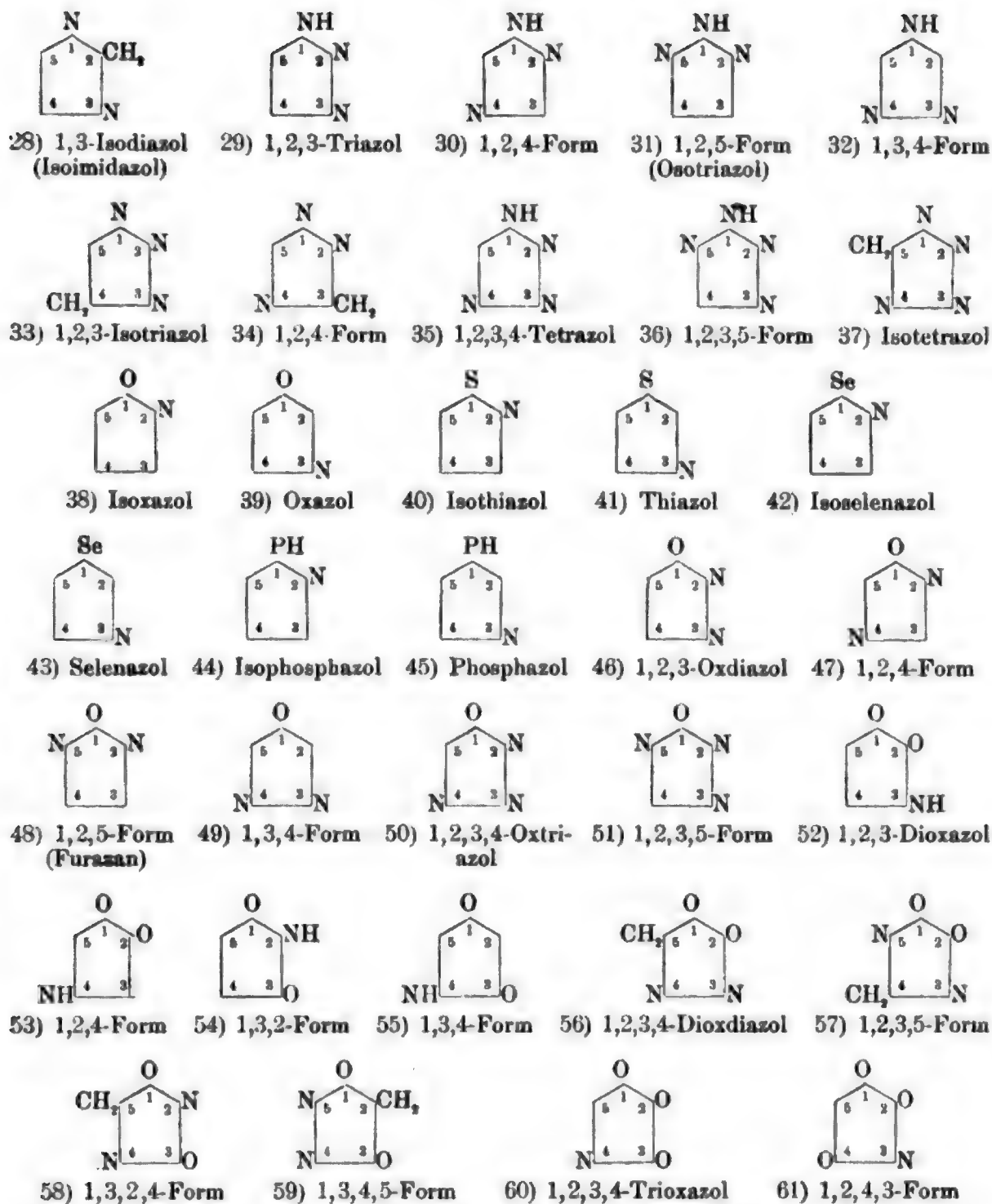
L'ordine da seguirsi in questa indicazione risulta dagli esempi contenuti nelle pagine seguenti.

Per la ricerca delle sostanze fondamentali serve un piccolo registro contenente circa 250 forme semplici, che segue immediatamente gli esempi.

* Io giudico come un grande errore la decisione del Congresso di Ginevra di adoperare numeri in tutti i casi.

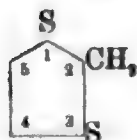
Ringsysteme.





Die Thiazole entsprechen den Oxazolen:

62) Thiodiazol	siehe Figur	46—49
63) Thiotriazol	" "	50—51
64) Dithioazol	" "	52—55
65) Dithiodiazol	" "	56—59
66) Trithioazol	" "	60—61



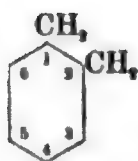
67) (A. 262, 76)



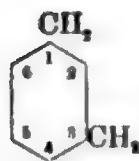
68) 1,2,4-R-Dimethylentrisulfid



69) Benzol
(Phen)



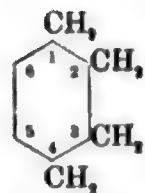
70) 1,2-Dihydro-
benzol



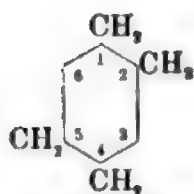
71) 1,3-Form



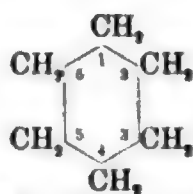
72) 1,4-Form



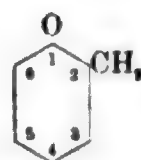
73) 1,2,3,4-Tetra-
hydrobenzol



74) 1,2,4,5-Form



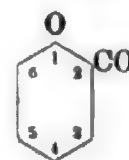
75) Hexahydrobenzol
(R-Hexamethylen)
(Cyklohexan)



76) 1,2-Pent-
furan



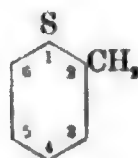
77) 1,4-Pent-
furan



78) 1,2-Pyron
(Cumalin)



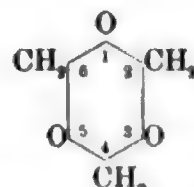
79) 1,4-Pyron



80) 1,2-Pentio-
furan



81) Phenthiophen
(Penthiophen)



82) 1,3,5-Trioxin



83) Azin
(Pyridin)



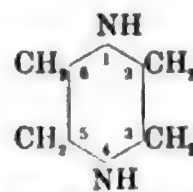
84) 1,2-Diazin
(Pyridazin)



85) 1,3-Diazin
(Pyrimidin)
(Miazin)



86) 1,4-Diazin
(Pyrazin)
(Piazin)



87) Hexahydro-
1,4-Diazin
(Piperazin)



88) 1,2,3-Triazin



89) 1,2,4-Tri-
azin



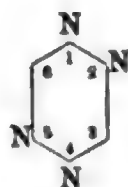
90) 1,3,5-Triazin
(Kyanidin)



91) 1,2,3,4-Tetra-
zin



92) 1,2,3,5-Tetra-
zin



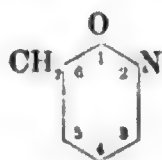
93) 1,2,4,5-Tetra-
zin



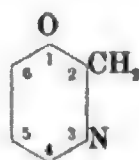
94) Pentazin



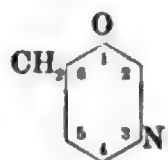
95) 1,2-Oxazin(4)



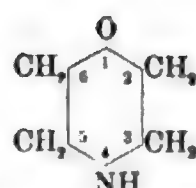
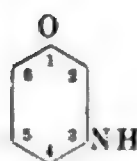
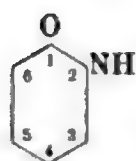
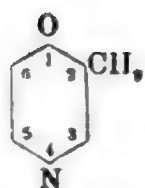
96) 1,2-Form(6)



97) 1,3-Form(2)



98) 1,3-Form(6)
(Pentoxazol)



99) 1,4-Form(2) 100) 1,2-Isoxazin 101) 1,3-Form 102) 1,4-Form 103) 2,3,5,6-Tetrahydro-1,4-Oxazin (Morpholin)

In gleicher Weise leiten sich ab die Formen:

104) Oxidiazin

107) Dioxazin

110) Trioxazin

112) Tetroxazin

105) Oxtriazin

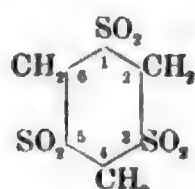
108) Dioxdiazin

111) Trioxdiazin

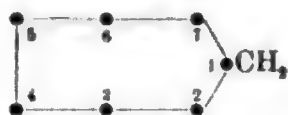
106) Oxtetrazin

109) Dioxtriazin

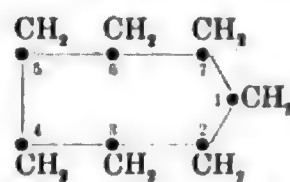
und durch Ersetzung des O durch S oder Se die entsprechenden Thio- und Selenderivate.



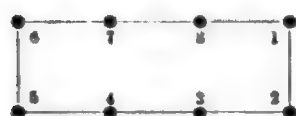
113) Cyklotrimethylen-trisulfon



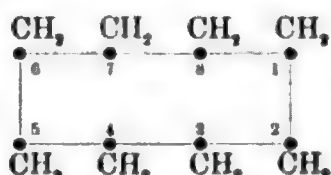
114) R-Hepten



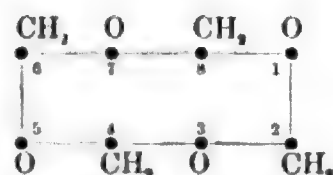
115) R-Heptamethylen



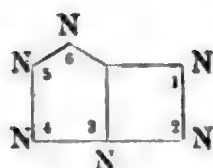
116) R-Okten



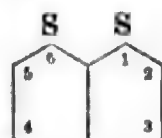
117) R-Oktomethylen



118) 1,3,5,7-Tetroxan



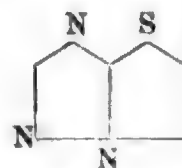
119) Diazotetrazol



120) Bithiophen (Thiophthen)



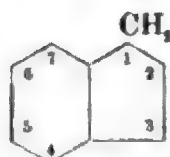
121) Osotriazol-azimid



122) Thiazol-triazol



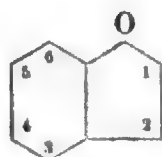
123) Cyklophenylenmethylenoxyd



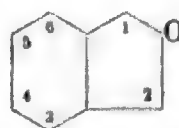
124) Inden



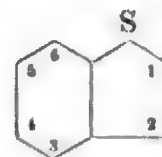
125) Isoinden



126) Benzfuran (Cumaron)



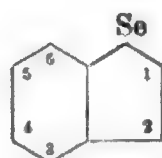
127) Isobenzfuran



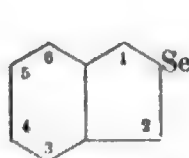
128) Benzthiofuran (Thionaphten)



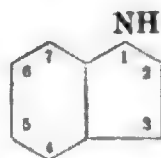
129) Isobenzthiofuran



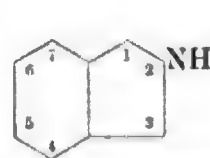
130) Benz-selenofuran



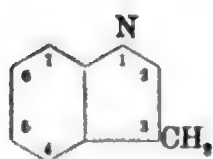
131) Isobenz-selenofuran



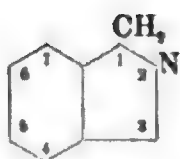
132) 1-Benzazol (Indol)



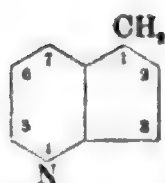
133) 2-Benzazol (Isoindol)



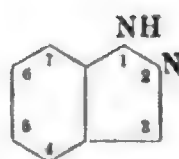
134) 1-Isobenz-
azol
(Pseudoindol)



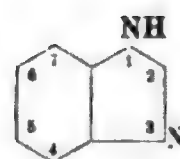
135) 2-Isobenz-
azol
(Pseudoisindol)



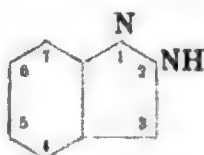
136) 4 Isobenz-
azol
(4-Pyriden)
(4-Indenazin)



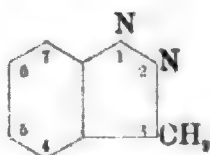
137) 1,2-Benzdiazol
(Isoindazol)
(Benzpyrazol)



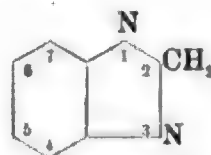
138) 1,3-Benzdiazol
(Benzimidazol)



139) 2,1-Benzdiazol
(Indazol)



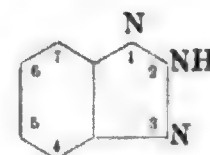
140) 1,2-Benz-
isodiazol



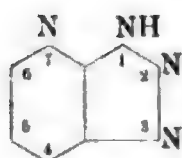
141) 1,3-Form



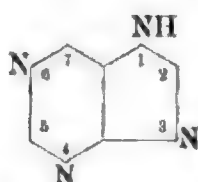
142) 1,2,3-Benz-
triazol
(Benzisotriazol)
(Azimidobenzol)



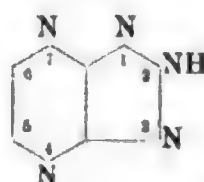
143) 2,1,3-Benz-
triazol
(Pseudoazimido-
benzol)



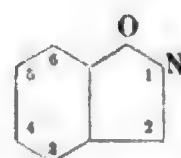
144) 1,2,3,7-Benz-
tetrazol



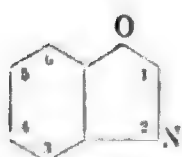
145) 1,3,4,6-Derivat
(Purin)



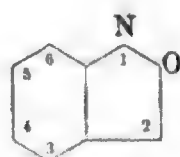
146) 1,2,3,4,7-Benz-
pentazol



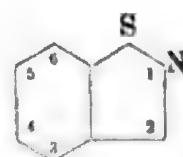
147) Benzisoxazol
(Indoxazen)



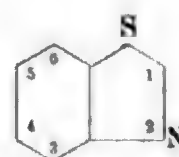
148) Benzoxazol



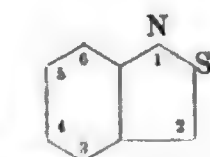
149) Benz-
pseudoxazol



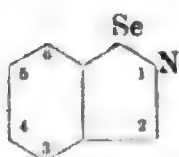
150) Benziso-
thiazol



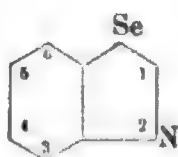
151) Benz-
thiazol



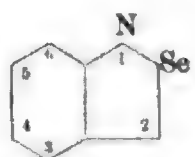
152) Benzpseudo-
thiazol



153) Benziso-
selenazol



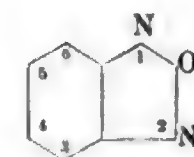
154) Benz-
selenazol



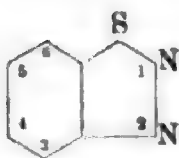
155) Benzpseudo-
selenazol



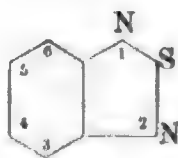
156) Benzox-
diazol



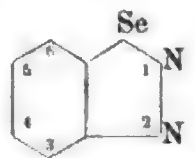
157) Benzisox-
diazol



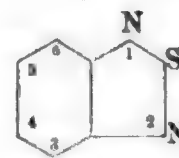
158) Benzthio-
diazol
(Isopiazthiol)
(Diazosulfid)



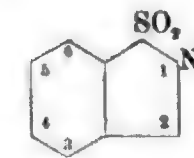
159) Benziso-
thiodiazol
(Piazthiol)



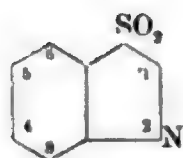
160) Benzseleno-
diazol
(Isopiaselenol)



161) Benziso-
selenodiazol
(Piaselenol)



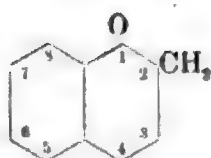
162) 1-Benz磺on-
azol



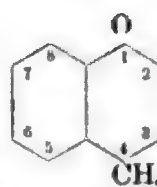
163) 2-Benz-sulfonazol
(Benzisosulfonazol)



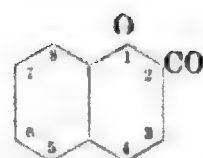
164) Naphtalin
(Naphten)



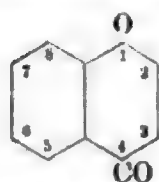
165) 1,2-Cumaran



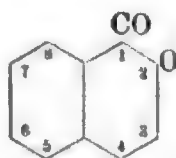
166) 1,4-Cumaran



167) 1,2-Benz-pyron
(Cumarin)



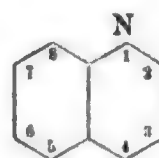
168) 1,4-Form



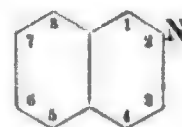
169) 2,1-Form
(Isocumarin)



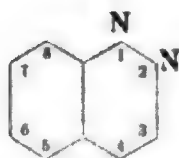
170) 2,3-Form



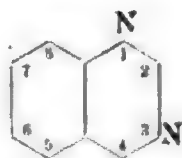
171) 1-Benzazin
(Chinolin)



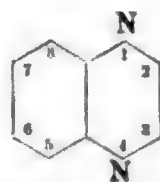
172) 2-Benzazin
(Isochinolin)
(Leukolin)



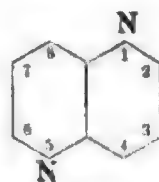
173) 1,2-Benzdiazin
(Cinnolin)
(α-Phenoiazin)



174) 1,3-Form
(Chinazolin)
(Phenmiazin)



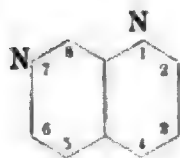
175) 1,4-Form
(Chinoxalin)
(Phenpiazin)



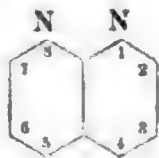
176) 1,5-Form



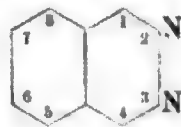
177) 1,6-Form



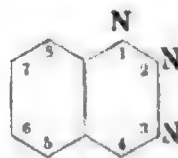
178) 1,7-Form



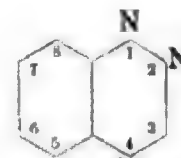
179) 1,8-Form
(Naphtyridin)



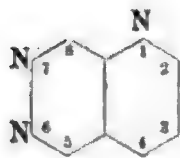
180) 2,3-Form
(Phtalazin)
(β-Phenoiazin)



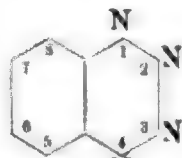
181) 1,2,3-Benz-triazin
(Phentriazin)



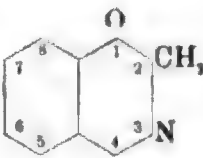
182) 1,2,4-Benz-triazin
(Pyrrodiazol)



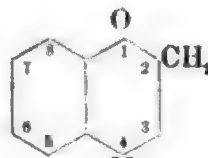
183) 1,6,7-Benz-triazin



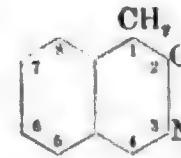
184) 1,2,3,4-Benz-tetrazin



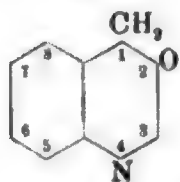
185) 1,3-Benz-oxazin



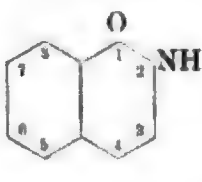
186) 1,4-Form



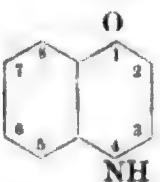
187) 2,3-Form



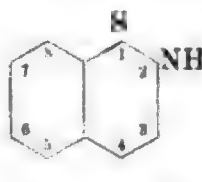
188) 2,4-Form



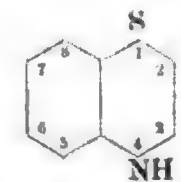
189) 1,2-Benz-isoxazin



190) 1,4-Form



191) 1,2-Benz-isothiazin



192) 1,4-Form

In gleicher Weise leiten sich ab die Formen:

193) Benzoxdiazin

196) Benzdioxazin

199) Benztrioxazin

194) Benzoxtriazin

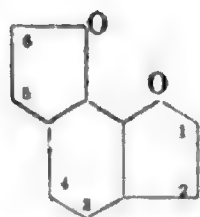
197) Benzdioxdiazin

u. s. w.

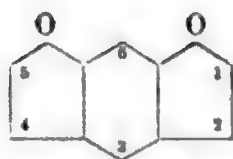
195) Benzoxtetrazin

198) Benzdioxtriazin

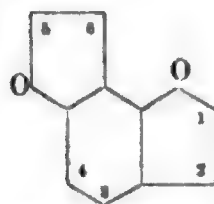
u. s. w.



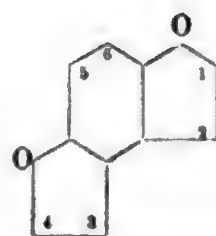
200) o-Benzdifuran



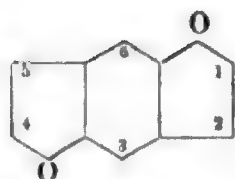
201) m- α -Form



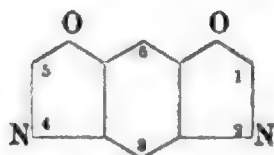
202) m- β -Form



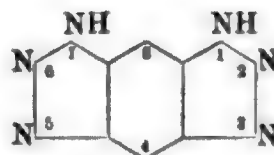
203) p- α -Form



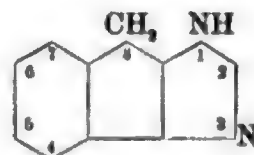
204) p- β -Form



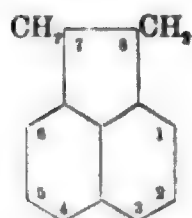
205) Benzbioxazol



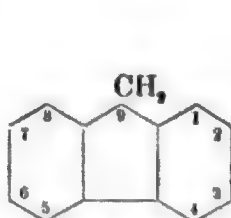
206) Benzbitriazol
(Diazimidobenzol)



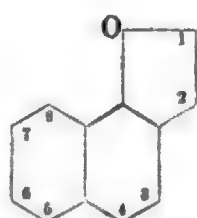
207) Indenimidazol



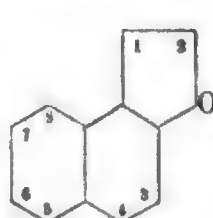
208) Acenaphten



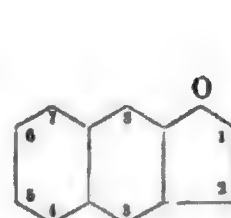
209) Fluoren



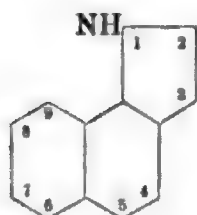
210) α -Naphtofuran



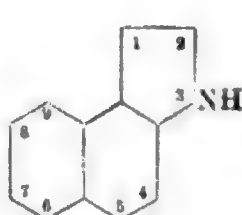
211) β -Form



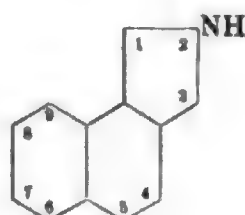
212) $\beta\beta$ -Form



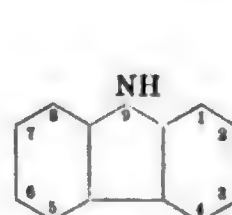
213) 1-Naphtazol
(α -Naphtindol)



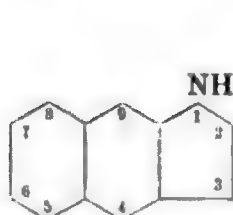
214) 3-Form
(β -Naphtindol)



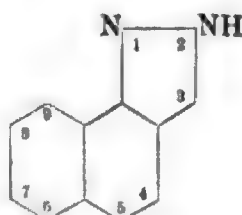
215) 2-Form
(Naphtisoindol)



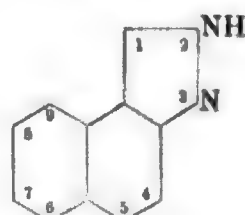
216) Carbazol



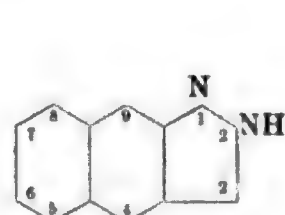
217) $\beta\beta$ -Naphtindol



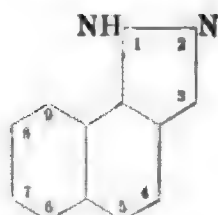
218) α -Naphtindazol



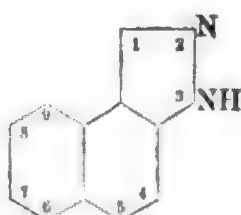
219) β -Form



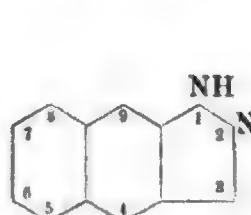
220) $\beta\beta$ -Form



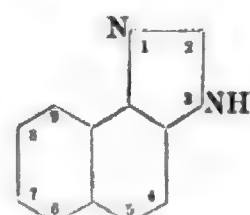
221) α -Naphtisoindazol



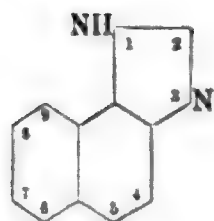
222) β -Form



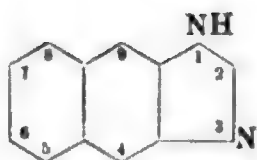
223) $\beta\beta$ -Form



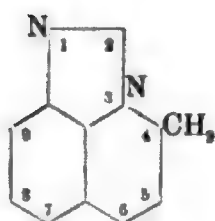
224) α -Naphtimidazol



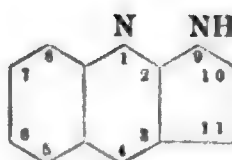
225) β -Form



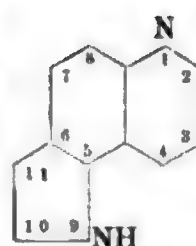
226) $\beta\beta$ -Form



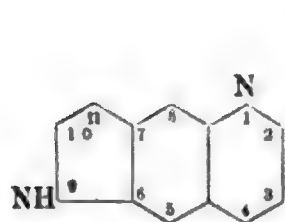
227) peri-Chinolin-azol



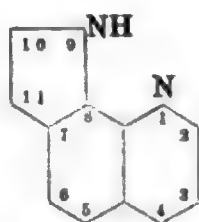
228) 2-Chinindol



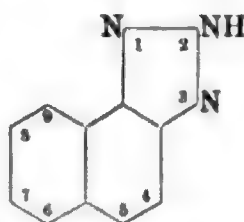
229) 5-Form



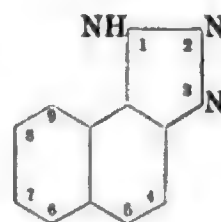
230) 6-Form



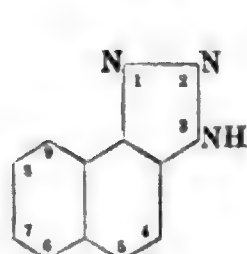
231) 8-Form



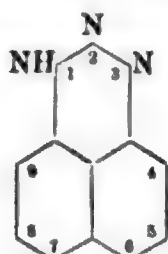
232) Naphttriazol



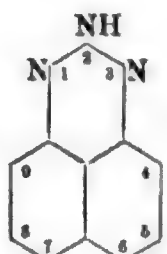
233) α -Naphtisotriazol



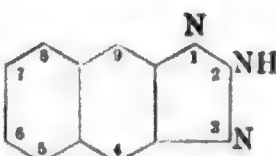
234) β -Form



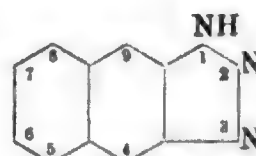
235) α -Peri-naphttriazol



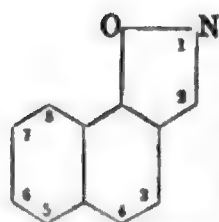
236) β -Form



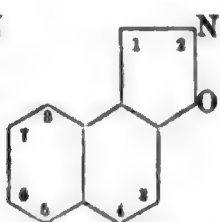
237) $\beta\beta$ -Napht-triazol



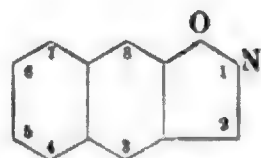
238) $\beta\beta$ -Naphtiso-triazol



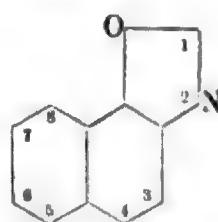
239) α -Napht-isoxazol



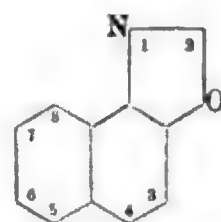
240) β -Form



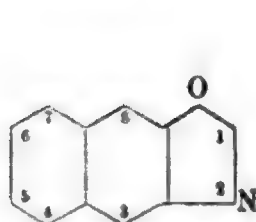
241) $\beta\beta$ -Form



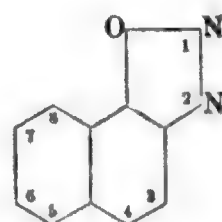
242) α -Napht-oxazol



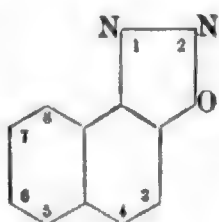
243) β -Form



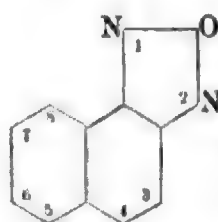
244) $\beta\beta$ -Form



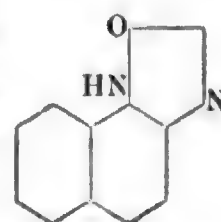
245) α -Napht-oxdiazol



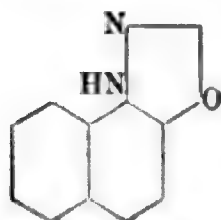
246) β -Form



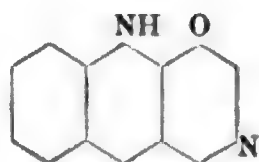
247) Naphtiso-oxdiazol



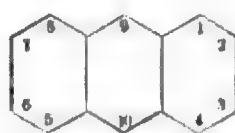
248) α -Chinolin-oxazol



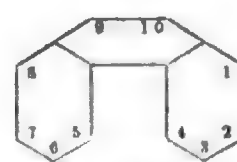
249) β -Form



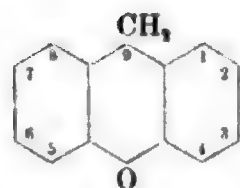
250) $\beta\beta$ -Form



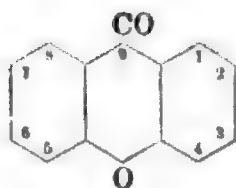
251) Anthracen



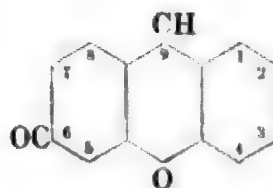
252) Phenanthren



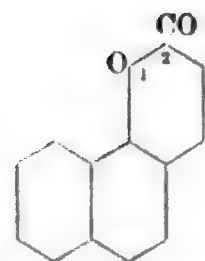
253) Xanthen



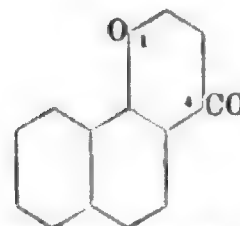
254) Xanthon



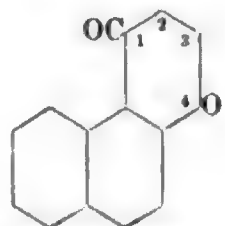
255) Fluoron



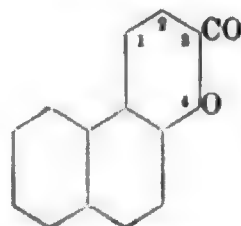
256) 1,2-α-Naphtopyron



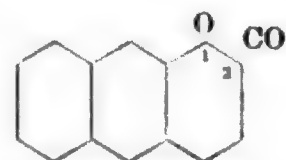
257) 1,4-α-Form



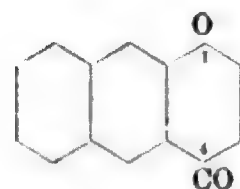
258) 1,4-β-Form



259) 3,4-β-Form



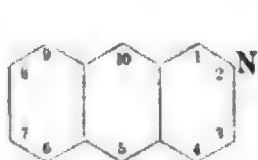
260) 1,2-ββ-Form



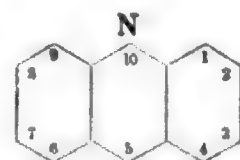
261) 1,4-ββ-Form



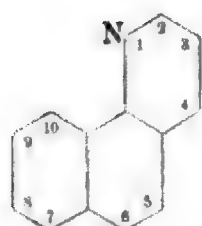
262) α-Anthrpyridin
(Naphthazin)



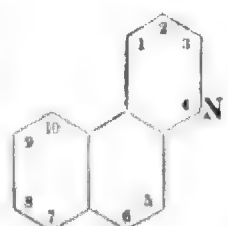
263) β-Form



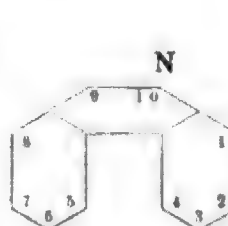
264) Akridin



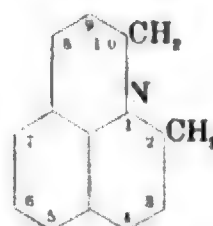
265) α-Naphto-
chinolin



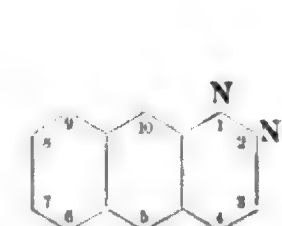
266) β-Form



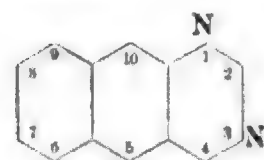
267) Phenanthridin



268) Julol



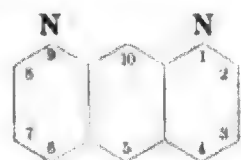
269) 1,2-Naphtdiazin



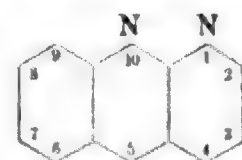
270) 1,3-Form



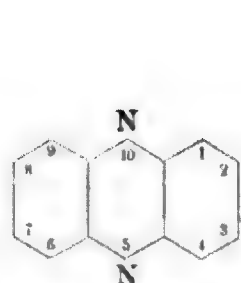
271) 1,4-Form



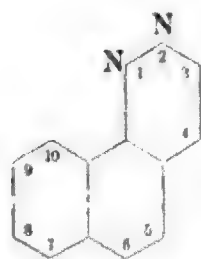
272) 1,9-Form



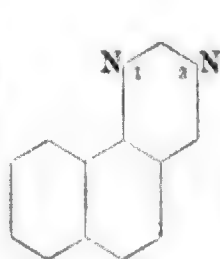
273) 1,10-Form
(α-Chinochinolin)



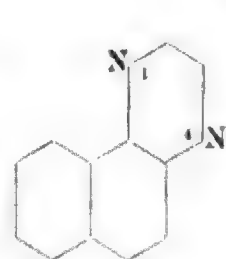
274) 5,10-Form
(Phenazin)



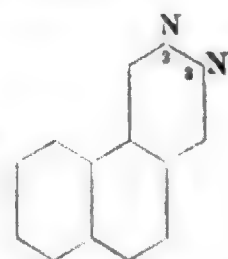
275) 1,2-Napht-
isodiazin



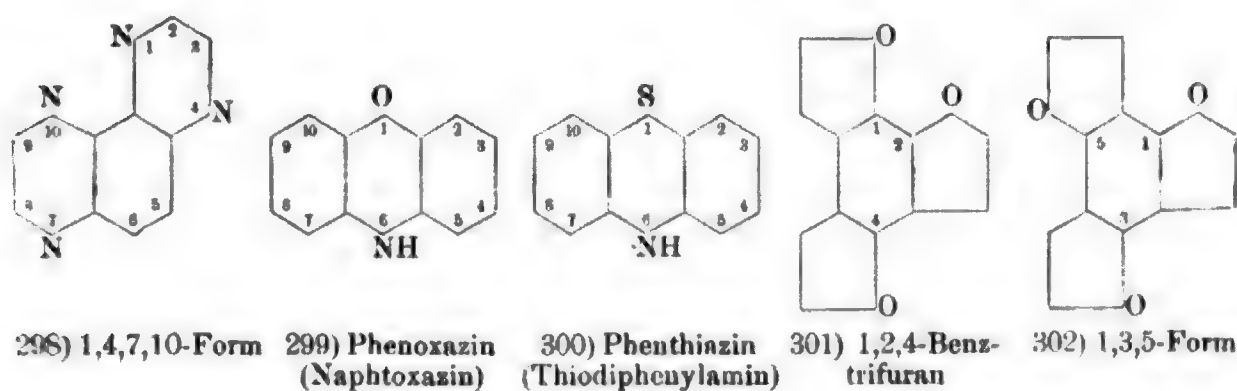
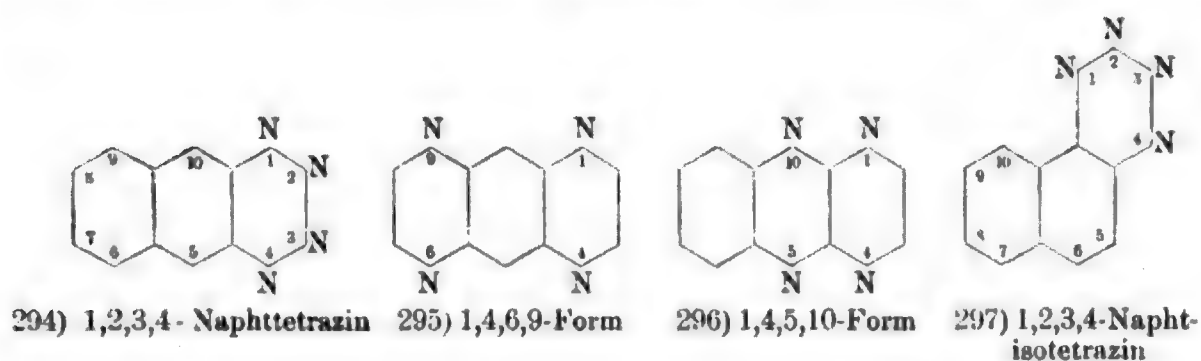
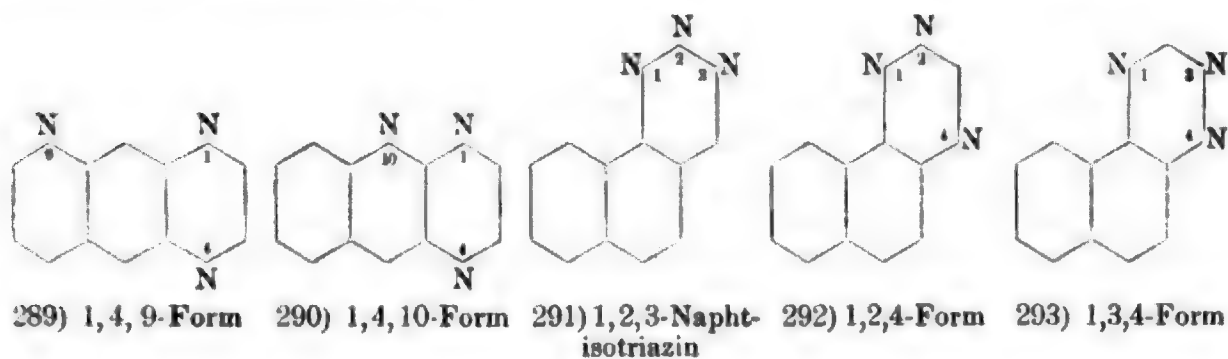
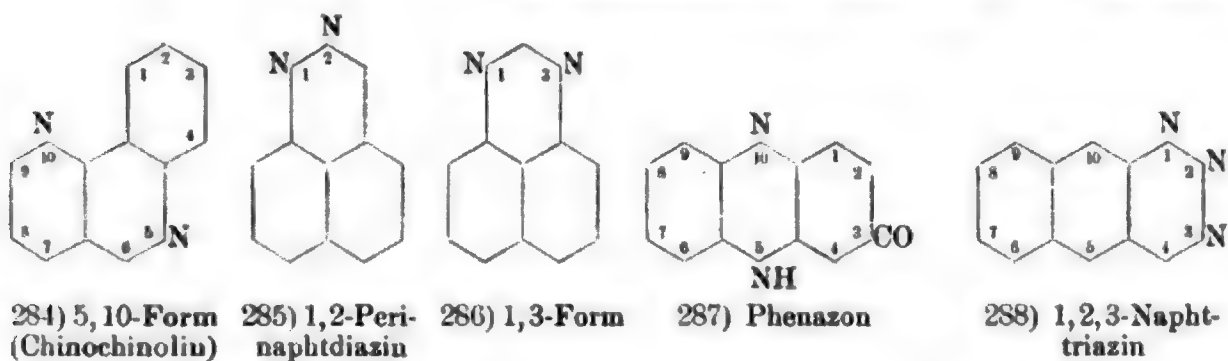
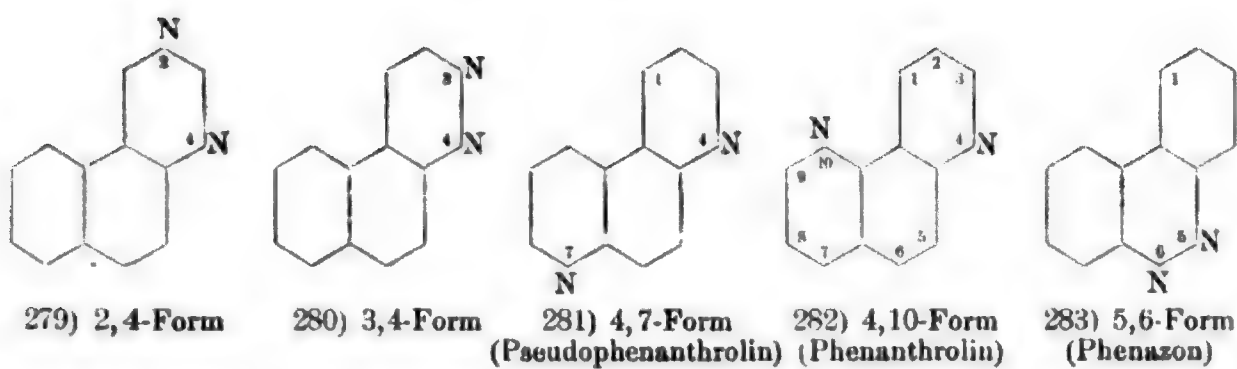
276) 1,3-Form

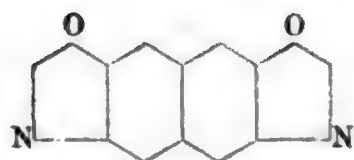


277) 1,4-Form
(Naphtochinoxalin)

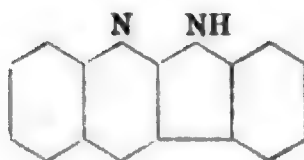


278) 2,3-Form

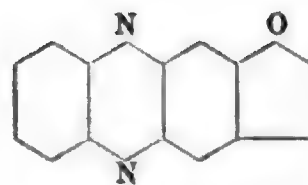




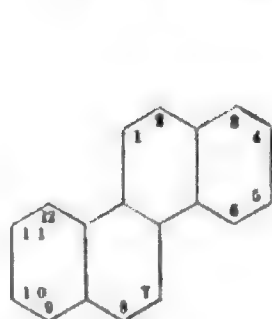
303) Naphtbioxazol



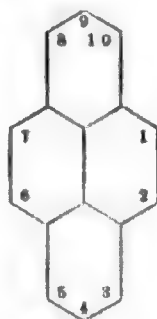
304) Chinindolin



305) Phenazinfuran



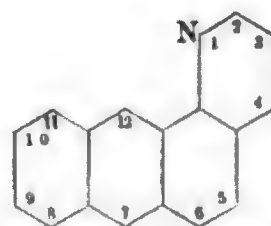
306) Chrysen



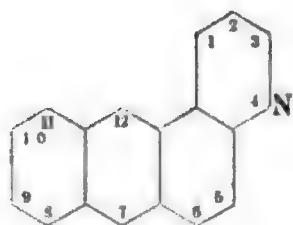
307) Pyren



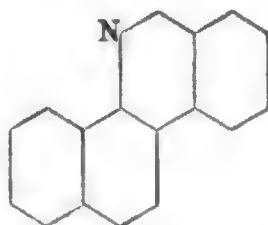
308) Naphtacen



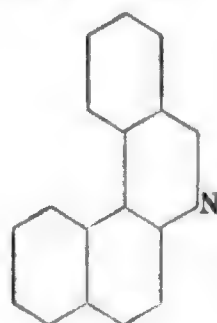
309) α-Anthrachinolin



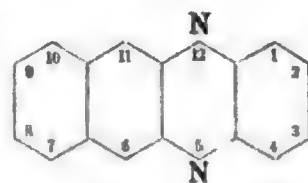
310) β-Form



311) α-Chrysidin



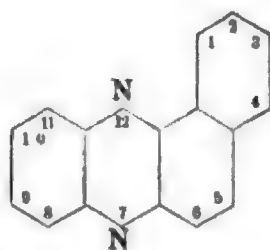
312) β-Chrysidin



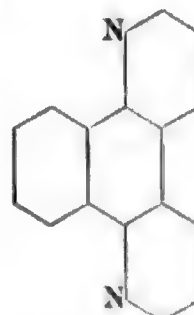
313) ββ-Naphtophenazin



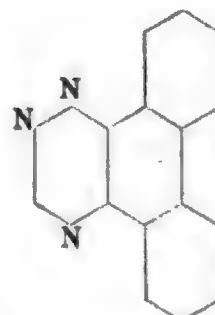
314) Naphtinolin



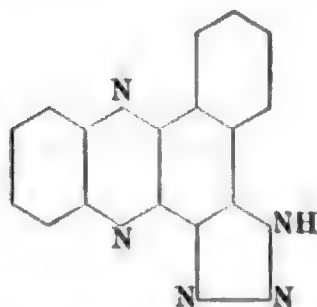
315) αβ-Naphtophenazin



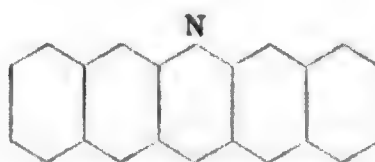
316) Benzo-p-Phenanthrolin



317) Phenanthriazin



318) Azimidonaphtophenazin



319) β-Naphtakridin.

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Abkürzungen. — Abbreviations. — Abréviations. — Abbreviazioni.

<i>A.</i>	LIEBIG's Annalen der Chemie und Pharmacie.
<i>A. Spl.</i>	Supplementband von LIEBIG's Annalen.
<i>A. ch.</i>	Annales de chimie et de physique.
<i>Am.</i>	American Chemical Journal.
<i>Am. Soc.</i>	Journal of the American Chemical Society.
<i>B.</i>	Berichte der deutschen chemischen Gesellschaft.
<i>Beilst.</i>	BEILSTEIN, Handbuch der organischen Chemie. 3. Aufl.
<i>Berz. J.</i>	BERZELIUS' Jahresbericht.
<i>Bl.</i>	Bulletin de la société chimique de Paris.
<i>C.</i>	Chemisches Centralblatt.
<i>Chem. N.</i>	Chemical News.
<i>C. r.</i>	Comptes rendus des séances de l'académie des sciences. — Paris.
<i>D.</i>	DINOLER's Polytechnisches Journal.
<i>Fr.</i>	Zeitschrift für analytische Chemie. — FRESENIUS.
<i>G.</i>	Gazzetta chimica italiana.
<i>Gm.</i>	GMELIN, Handbuch der Chemie.
<i>H.</i>	HOPPE-SEYLER's Zeitschrift für physiologische Chemie.
<i>J.</i>	Jahresbericht über die Fortschritte der Chemie.
<i>J. pr.</i>	Journal für praktische Chemie.
<i>J. r.</i>	Journal der russischen chemischen Gesellschaft.
<i>J. Th.</i>	Jahresbericht über die Fortschritte der Thierchemie.
<i>M.</i>	Monatshefte für Chemie. — Wien.
<i>P.</i>	POGGENDORF's Annalen der Physik und Chemie.
<i>Ph. Ch.</i>	Zeitschrift für physikalische Chemie.
<i>R.</i>	Recueil des travaux chimiques des Pays-Bas.
<i>Soc.</i>	Journal of the chemical Society. — London.
<i>Z.</i>	Zeitschrift für Chemie von BEILSTEIN, FITTIG und HÜBNER.

Abkürzungen. — Abbreviations. — Abréviations. — Abbreviazioni.

Ann.	Anmerkung	note	annotation	avvertenza
cor.	corrigirt	corrected	corrigé	corretto
d-	rechtsdrehend	dextrorotatory	destrogyre	destrogiro
f.	fest	solid	solide	solido
Fl.	flüssig	liquid	liquide	liquido
fum.	fumaroid	fumaroid	fumaroïde	fumaroide
h.	hochschmelzend	high melting	fond à haute tempéra-	che fonde alto
i.	inactiv	inactive	inactif [ture	inattivo
(i. D.)	im Dampf	in the vapour	dans la vapeur	nel vapore
isom.	isomer	isomeric	isomère	isomero
(i. V.)	im Vakuum	in a vacuum	dans le vide	nel vuoto
l.	linksdrehend	laevorotatory	lévogyre	levogiro
lab.	labil	unstable	instable	labile
m.	meta	meta	méta	meta
mal.	maleïnoïd	malenoid	malénoïde	maleinoide
norm.	normal	normal	normal	normal
o.	ortho	ortho	ortho	orto
p.	para	para	para	para
R.	Ring (cyklo)	ring (cyclic)	noyau (cyclo)	anello (ciclo)
s.	symmetrisch	symmetrical	symétrique	simmetrico
Sd.	Siedepunkt	boiling point	point d'ébullition	punto di ebullizione
Sm.	Schmelzpunkt	melting point	point de fusion	punto di fusione
stab.	stabil	stable	stable	stabile
u. Zers.	unter Zersetzung	with decomposition	en se décomposant	con decomposizione
unc.	uncorrigirt	uncorrected	non corrigé	non corretto
uns.	unsymmetrisch	unsymmetrical	asymétrique	asimmetrico
Verb.	Verbindung	compound	combinaison	combinazione (com- [posto])

Häufiger vorkommende deutsche Ausdrücke.	Frequently occurring German Expressions.	Mots allemands souvent employés.	Vocaboli tedeschi pui frequentemente usati.
Base	base	base	base
Kohlenwasserstoff	hydrocarbon	hydrocarbure	idrocarburo
Lit. (Literatur) be- deutend	literature abundant	bibliographie consi- dérable	Letteratura ricca, copiosa
Säure	acid	acide	acido
Salze meist bek. (be- kannt)	most salts known	beaucoup de sels connus	i sali sono in gran parte noti
Verbindung aus	compound of	dérivé de	composto ottenuto da
aus	from	de	da
bei	at	à	a
oder	or	ou	o (oppure)
siehe auch	see also	à comparer	vedi anche
wasserfrei	anhydrous	anhydre	anidro

Verzeichniss der Verbindungen.

C₁-Gruppe mit einem Element.

CH ₄	C 85,7 — H 14,3 — M. G. 14. 1) Leken = (CH ₄) _n Sm. 79° (B. 16, 1548). — I, 108. 2) Kohlenwasserstoff (aus Bernstein) = (CH ₂) _x . Sm. 85–86°; Sd. über 300° (J. 1847/48, 736). — III, 565. 3) Kohlenwasserstoff = (CH ₂) _n . Sm. 32,5°; Sd. 272–275° (Z. 1870, 126). 4) Kohlenwasserstoff = (CH ₂) _n . Sm. 35°; Sd. 280–300° (A. 7, 155–156).
CH ₂	C 75,0 — H 25,0 — M. G. 18. 1) Methan (Formen, Methylwasserstoff, Sumpfgas). Gas. Sd. —155 bis —160°. Lit. bedeutend. — I, 100. 2) Kohlenwasserstoff (aus Chrysanthemum cinerariaefolium). Sm. 64° (G. 19, 210).
CO	1) Kohlenoxyd . Gas. Sd. —190° bei 760 mm. Lit. bedeutend.
CO ₂	1) Kohlensäure . Hydrat (Bl. 37, 398; C. 1897 [2] 241; B. 31, 2997). Lit. bedeutend. — I, 541.
CN ₄	1) 1,5-Diazo-1,2,3,4-Tetrazol . + Na ₂ O (A. 273, 147). — I, 1496.
CCl ₄	1) Tetrachlormethan (Tetrachlorkohlenstoff). Sd. 76,7°. Hydrat (C. 1897 [2] 243). 2H ₂ S + 23H ₂ O (A. ch. [5] 28, 19). Lit. bedeutend. — I, 145.
CBr ₄	1) Tetrabrommethan . Sm. 92,5°; Sd. 189,5° (A. 156, 60; 167, 174; 172, 176; 240, 238; Z. 1870, 441; 1871, 432; B. 4, 370; 11, 2239; 15, 766; 27 [2] 396; J. r. 13, 286; Bl. [3] 19, 263; Soc. 65, 262). — I, 166.
CJ ₄	1) Tetraiodmethan (A. 172, 173; 231, 264; B. 24 [2] 733; 27 [2] 396; J. r. 6, 109). — I, 190.
CF ₄	1) Tetrafluormethan (B. 23 [2] 272, 426; Bl. [3] 7, 23). — I, 141.
CS	1) Kohlenstoffmonosulfid (B. 8, 982; Z. 1868, 622, 623; J. pr. [2] 51, 346; B. 30, 138). — I, 881.
CS ₂	1) Dithiomethan (Schwefelkohlenstoff). Sd. 46–47°. Hydrat (C. 1897 [2] 242). Lit. bedeutend. Hydrat = 2CS ₂ + H ₂ O (J. 1856, 293; Z. 1867, 476; B. 3, 80; Am. 5, 19). — I, 878.
CB ₂	1) Borkohlenstoff (Bl. [3] 11, 998).
CCr ₂	1) Kohlenstoffchrom (Bl. [3] 11, 1016).
CFe ₂	1) Kohlenstoffeisen (B. 28 [2] 49; 29, 2991; Soc. 65, 788; C. 1896 [2] 862; Am. 18, 836; Bl. [3] 17, 540).
CMn ₂	1) Kohlenstoffmangan (Bl. [3] 15, 1266).
CMo ₂	1) Kohlenstoffmolybdän (Bl. [3] 19, 872).
CSe ₂	1) Diselenomethan (Selenkohlenstoff) (A. 152, 199). — I, 905.
CSi	1) Siliciumkohlenstoff (B. 25 [2] 498; Bl. [3] 11, 995; C. 1896 [2] 1081).
CTi	1) Kohlenstofftitan (C. 1895 [1] 595; B. 28 [2] 595; Bl. [3] 19, 873).
CVa	1) Kohlenstoffvanadium (Bl. [3] 15, 1280).
CW	1) Kohlenstoffwolfram (Bl. [3] 19, 937).
CW ₂	1) Kohlenstoffwolfram (C. 1896 [2] 416; Bl. [3] 19, 873).
CZr	1) Kohlenstoffzirkonium (Bl. [3] 15, 1278).

C₁-Gruppe mit zwei Elementen.

CHN	C 44,4 — H 3,7 — N 51,9 — M. G. 27. 1) Cyanwasserstoff (Nitril d. Ameisensäure; Blausäure). Sm. —14°; Sd. 26,1°. 2 + Al ₂ Cl ₆ , 4 + Al ₂ Cl ₆ , + Cu ₂ Cl ₂ + 2H ₂ O. Lit. bedeutend. — I, 1409.
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- CHN, C 10,8 — H 9,0 — N 88,2 — M. G. 111
 1) 5-Diazo-1,2,3,4-Tetrazolimid (Tetrazylazoimid). Ag, + NH₃ (A. 287, 238). — IV, 1333.
- CHCl₃ 1) Trichlormethan (Chloroform). Sm. —70°; Sd. 61,2°. Lit. bedeutend. + Aceton (B. 14, 2451); Hydrat = +18H₂O. Sm. 1,6° (Fr. 25, 118); + 21H₂S + 23H₂O (A. ch. [5] 28, 12; J. 1852, 560). — I, 144.
- CHBr₃ 1) Tribrommethan (Bromoform). Sm. 7,6°; Sd. 151,2° (A. 3, 295; 16, 165; 64, 352; 95, 211; 194, 23; B. 10, 193; C. r. 94, 42; J. 1887, 741; Soc. 37, 201; 45, 533; J. r. 23, 255). — I, 166.
- CHI₃ 1) Trijodmethan (Jodoform). Sm. 119°. Lit. bedeutend. — I, 182.
- CHF₃ 1) Trifluormethan (Fluoroform). Gas, bei 20° u. 40 Atm. flüssig (B. 23 [2] 377; Bl. [3] 7, 24). — I, 141.
- CH₂O C 40,0 — H 6,7 — O 53,3 — M. G. 30
 1) Aldehyd d. Ameisensäure (Formaldehyd). Sd. —21°. + NaHSO₃, + KHSO₃. Lit. bedeutend. — I, 910.
- CH₂O₂ C 26,1 — H 4,3 — O 69,6 — M. G. 46
 1) Ameisensäure. Sm. 8,6°; Sd. 100,8°. Salze u. Ester meist bekannt. Lit. bedeutend. — I, 392.
- CH₂O₃ C 19,4 — H 3,2 — O 77,4 — M. G. 62
 1) Hydrat d. Kohlensäure (Bl. 37, 398). — I, 541.
- CH₃N, C 28,5 — H 4,8 — N 66,7 — M. G. 42
 1) Cyanamid. Sm. 40°. Ag. Lit. bedeutend. — I, 1435.
 2) Diazomethan. Gas (B. 27, 1888; 28, 855, 1624, 1682).
- CH₃N₂ C 17,1 — H 2,9 — N 80,0 — M. G. 70
 1) 1,2,3,5-Tetrazol. Sm. 156°. Subl. Na + H₂O, Ba + 3H₂O, Ag (B. 25, 1412; 28, 1693; 31, 950; A. 287, 243, 247). — IV, 1231.
- CH₂Cl₂ 1) Dichlormethan (Methylenchlorid). Sd. 41,6°. Hydrat (C. 1897 [2] 242). + 21H₂S + 23H₂O (A. ch. [5] 28, 17). (A. 33, 328; 111, 251; 240, 204, 231; Z. 1868, 714; 1869, 276; Soc. 37, 195; J. 1879, 490; 1886, 627; Bl. 36, 68). — I, 144.
- CH₂Br₂ 1) Dibrommethan. Sd. 58,5° bei 756 mm (A. 111, 251; 240, 229; B. 6, 558; 7, 507; Soc. 45, 520; A. ch. [5] 30, 268; J. r. 23, 255). — I, 165.
- CH₂J₂ 1) Jodmethan. Sm. 4°; Sd. 180° u. Zers. (A. 115, 267; 120, 356; Z. 1868, 713; J. r. 19, 454; A. ch. [3] 53, 313; B. 4, 479; 5, 1095; 27, 1890; J. pr. [2] 31, 505). — I, 182.
- CH₂F₂ 1) Difluormethan (Bl. [3] 7, 24; B. 23 [2] 461). — I, 141.
- CH₂S 1) polym. Aldehyd d. Thioameisensäure = (CH₂S)_n. Sm. 175—176° (B. 19, 2345). — I, 913.
- CH₃S₂ 1) Merkaptodithioameisensäure (Trithiokohlensäure). Fl. Na, K, Ca (A. 123, 67; J. 1871, 262; A. ch. [5] 22, 544). — I, 887.
- CH₃N₃ C 14,1 — H 3,5 — N 82,3 — M. G. 85
 1) 5-Amido-1,2,3,4-Tetrazol + H₂O (Amidotetrazotsäure). Sm. 203°. Na + 3H₂O, Ba + 5H₂O, Ag, HCl + H₂O, Cyanurat (A. 270, 54; 273, 144; 287, 233, 249 Anm.; B. 31, 950; Ph. Ch. 23, 411, 414). — I, 1496; IV, 1312.
- CH₃Cl 1) Chlormethan (Methylchlorid). Sd. —23,7° (—21°); Hydrat (C. 1897 [2] 242). (J. 1878, 1135; 1881, 376; A. 15, 17; 174, 378; A. ch. [3] 52, 97; [6] 15, 517; Bl. 31, 11; 51, 39). — I, 144.
- CH₃Br 1) Brommethan. Sd. —4,5° bei 757,6 mm. Hydrat + 20H₂O (A. 46, 44; 56, 146; J. pr. [2] 18, 293). — I, 165.
- CH₃J 1) Jodmethan. Sd. 42,8°. Hydrat + 2H₂O. Sm. —4° (J. 1880, 472; C. 1897 [2] 242). + 2H₂S + 23H₂O (A. ch. [5] 28, 21). (A. 15, 30; 56, 147; 177, 272; 196, 350; 243, 23; J. pr. [2] 31, 500; M. 2, 644; A. ch. [5] 16, 596). — I, 182.
- CH₃F 1) Fluormethan (Methylfluorid). (A. 15, 59; J. 1888, 931; Soc. 55, 110). — III, 141.
- CH₃Na 1) Natriummethyl (A. 111, 234). — I, 1521.
- CH₃O C 37,5 — H 12,5 — O 50,0 — M. G. 32
 1) Oxymethan (Methylalkohol). Sd. 66,8°. Lit. bedeutend. — I, 212.
- CH₃O₂ C 25,0 — H 8,3 — O 66,7 — M. G. 48
 1) Dioxymethan (Methylenglykol). (J. pr. [2] 46, 542).
- CH₃N₂ C 27,3 — H 9,1 — N 63,6 — M. G. 44
 1) Amidoimidomethan (Formamidin; Methenylamidin). (HCl. Sm. 81°),

- (2HCl, PtCl₄), Pikrat (Z 1867, 659, 660; A. ch. [4] 17, 133; A. 145, 18; B. 16, 310, 357, 1647; 25, 5461. — I, 1158.
- CH₃N₂ 2) Methenyldiamin? (2HCl, PtCl₄) (B. 3, 31. — I, 1159.
- CH₃N₃ C 12,0 — H 4,0 — N 84,0 — M. G. 100.
- 1) 5-Hydrazido-1,2,3,4-Tetrazol. Sm. 199° u. Zers. 2HCl (A. 273, 157; 303, 62, 69). — IV, 1328.
- CH₃S 1) Merkaptomethan (Methylmercaptan). Sd. 5,8° bei 752 mm. Pb, Bi, Hg, HgCl, Hg-Acetat (A. 15, 239; M. 10, 530; B. 20, 2918, 3409; 25, 63). — I, 348.
- CH₃N C 38,7 — H 16,1 — N 45,2 — M. G. 31.
- 1) Amidomethan (Methylamin). Gas. Sd. —6°. Salze meist bek. Lit. bedeutend. — I, 1116.
- CH₃N₂ C 20,3 — H 8,5 — N 71,2 — M. G. 59.
- 1) Diamidoimidomethan (Guanidin; Carbamidin). Salze meist bek. Lit. bedeutend. — I, 1161.
- CH₃P 1) Methylphosphin. Sd. —14° bei 758,5 mm. HCl, HJ (B. 4, 605, 608; 6, 302. — I, 1498.
- CH₃N₃ C 26,1 — H 13,0 — N 60,9 — M. G. 46.
- 1) Methylhydrazin. Sd. 87° bei 745°. H₂SO₄, Oxalat, Pikrat (A. 253, 7; B. 27, 700; 28, 859; 29, 962; 31, 61). — I, 1148.
- CH₃N₄ C 16,2 — H 8,1 — N 75,7 — M. G. 74.
- 1) Amidoguanidin. HCl, (2HCl, PtCl₄), H₂SO₄ + 2H₂O, HNO₃, Pikrat, Cu + 2HNO₃, Cu + H₂SO₄, Bicarbonat (A. 270, 22; 302, 332; G. 24 [1] 453). — I, 1166.
- CON₂ 1) Carbazid (Stickstoffkohlenoxyd) (B. 27, 2684; J. pr. [2] 52, 472).
- COCl₂ 1) Carbonylchlorid (Chlorkohlenoxyd; Phosgen). Sd. 8,2°. Lit. bedeutend. — I, 546.
- COBr₂ 1) Bromkohlenoxyd. Sd. 63—66° (B. 13, 873; Bl. [3] 13, 444). — I, 546.
- COS 1) Ketothiomethan (Kohlenoxydsulfid). Gas, flüssig bei 0° u. 12,5 Atm. Lit. bedeutend. — I, 877.
- COK 1) Hexaoxybenzolkalium, siehe Hexaoxybenzol C₆H₆O₆. — II, 1040.
- COSi 1) Siliciumcarboxyd (B. 14, 2060; 25 [2] 499).
- CO₂Si 1) Kohlenstoffsiliciumverbindung (B. 15, 1442).
- CO₂N₄ 1) Tetranitromethan (Tetranitrokohlenstoff). Sm. 13°; Sd. 126° (A. 119, 247). — I, 203.
- CNCl 1) Chloreyan. Sd. 15,5°. + BCl₃, + SbCl₅, + TiCl₄. Lit. bedeutend. — I, 1433.
- CNBr 1) Bromcyan. Sm. 52°; Sd. 61,3° bei 750 mm (Berz. J. 8, 94; 19, 195; A. Spl. 1, 384; J. 1871, 80; R. 4, 151; 5, 65; B. 29, 1822, 2078). — I, 1434.
- CNJ 1) Jodecyan. Sm. 164,5°. Lit. bedeutend. — I, 1434.
- CN₂S₂ 1) Thiotritiazylrhodanid (B. 30, 631).
- CClBr₃ 1) Chlortribrommethan. Sm. 55°; Sd. bei 160° (B. 25 [2] 188).
- CCl₂Br₂ 1) Dichlordibrommethan. Sm. 22°; Sd. 135° (150,2°) (A. 240, 208; B. 25 [2] 188). — I, 166.
- CCl₂J₂ 1) Dichlordijodmethan. Sm. 85° u. Zers. (A. 240, 233). — I, 190.
- CCl₂S 1) Dichlorthiomethan (Chlorschwefelkohlenstoff; Thiophosgen). Sd. 73,5° (A. 45, 45; 167, 204—205; J. 1887, 2545; Z. 1871, 418; B. 20, 2380; 21, 102, 339, 2541; Soc. 51, 270). — I, 882.
- CCl₂S₂ 1) Chlorthiocarbonyl + Schwefelchlorid. Flüssig (B. 20, 2381). — I, 882.
- CCl₂Br 1) Trichlorbrommethan. Sm. —21°; Sd. 104,3° (Z. 1869, 624; J. 1871, 259; Bl. 17, 538; B. 10, 678; 25 [2] 188; Soc. 37, 203). 2H₂S + 23H₂O (A. ch. [5] 28, 22). — I, 166.
- CCl₂J 1) Trichlorjodmethan. Sd. 142° (B. 26 [2] 6).
- CCl₂F 1) Trichlorfluormethan. Sd. 24,9° (B. 26 [2] 292, 782).
- CCl₂S 1) Tetrachlormerkaptomethan. Sd. 146,5—148° (149°) (A. 167, 200; B. 20, 2377; Soc. 51, 272). — I, 348.
- CBr₄S₂ 1) Verbindung (aus Perbrommethyltrisulfid) (B. 15, 278, 992; 16, 1146 bis 1147).
- CS₂Pt₂ 1) Verbindung (aus Platin u. Schwefelkohlenstoff) (Bl. [3] 5, 672). — I, 881.
- CSi₂Fe₂ 1) Kohlenstoffsiliciumeisenverbindung (B. 15, 1442).

C₁-Gruppe mit drei Elementen.

CHON	C 27,9 — H 2,3 — O 37,2 — N 32,6 — M. G. 43. 1) norm. Cyansäure (unbekannt) (<i>B.</i> 3, 271; 15, 69; <i>C. r.</i> 44, 482). — <i>I</i> , 1266. 2) Isocyansäure (Carbimid). Lit. bedeutend. — <i>I</i> , 1263. 3) Isocyanilsäure (<i>J. pr.</i> [2] 32, 476). — <i>I</i> , 1461. 4) Cyamelid = (CHON) ₂ (<i>Bers. J.</i> 11, 86; <i>A.</i> 132, 222). — <i>I</i> , 1267.
CHO,Cl	1) Chlorameisensäure (nur die Ester existenzfähig) (<i>A.</i> 10, 277; 60, 260; <i>J. pr.</i> [2] 26, 448; <i>B.</i> 18, 1177).
CHO,N₂	C 7,9 — H 0,7 — O 63,6 — N 27,8 — M. G. 151. 1) Trinitromethan (Nitroform). Sm. 15°. NH ₄ , K, Ag + H ₂ O (<i>A.</i> 103, 364; 180, 172; <i>B.</i> 32, 628). — <i>I</i> , 203.
CHNS	1) Rhodanwasserstoff. Fl. Lit. bedeutend. — <i>I</i> , 1272.
CHNSe	1) Selencyanwasserstoff. Salze meist bekannt (<i>A.</i> 78, 177; 109, 125; 115, 207; <i>B.</i> 11, 1325; <i>J.</i> 1881, 295; <i>Bl.</i> 46, 193). — <i>I</i> , 1288.
CHClBr₂	1) Chlordibrommethan. Sd. 123—125° (118—120° bei 730 mm) (<i>B.</i> 15, 601; 16, 785; 25 [2] 15; <i>A.</i> 249, 74). — <i>I</i> , 166.
CHCl₂Br	1) Dichlorbrommethan. Sd. 91—92° (<i>B.</i> 15, 601; 25, 2227; <i>A.</i> 240, 207). — <i>I</i> , 166.
CHCl₂J	1) Dichlorjodmethan. Sd. 131° (<i>J.</i> 1856, 576; <i>A.</i> 126, 239; 240, 234). — <i>I</i> , 190.
CHCl₂F	1) Dichlorfluormethan. Sd. 14,5° (<i>B.</i> 26 [2] 781).
CHBr₂J	1) Dibromjodmethan. Sm. 6° (<i>A.</i> 22, 233). — <i>I</i> , 190.
CHJ₂Hg₂	1) Quecksilberjodoform (<i>Soc.</i> 39, 488). — <i>I</i> , 1525.
CH₂ON₂	C 20,7 — H 3,4 — O 27,6 — N 48,3 — M. G. 58. 1) Methylazaurilsäure. Zers. oberhalb 100° (<i>A.</i> 214, 336; <i>B.</i> 26, 3010).
CH₂ON₂	C 14,0 — H 2,3 — O 18,6 — N 65,1 — M. G. 86. 1) Asid d. Amidoameisensäure. Sm. 92—93° (97°). Ag ₂ (<i>A.</i> 283, 37, 40; <i>J. pr.</i> [2] 52, 467).
CH₂ON₂	C 10,5 — H 1,8 — O 14,0 — N 73,7 — M. G. 114. 1) 5-Diazo-1,2,3,4-Tetrazol. Na ₂ , Na ₂ + 5H ₂ O, Ba + 4H ₂ O (<i>A.</i> 273, 147).
CH₂OS	1) Thiolameisensäure? Sm. 120° (<i>A.</i> 91, 125; 97, 361; 126, 68). — <i>I</i> , 874.
CH₂OS	1) Dithiokohlensäure? Nur Ester bekannt.
CH₂O,N₂	C 13,3 — H 2,2 — O 53,3 — N 31,1 — M. G. 90. 1) Nitrosnitromethan (Methylnitrolsäure). Sm. 64° (<i>A.</i> 180, 168; 214, 334). — <i>I</i> , 203. 2) Nitrosamidoameisensäure. K ₂ (<i>A.</i> 288, 310).
CH₂O,N₂	C 11,3 — H 1,9 — O 60,4 — N 26,4 — M. G. 106. 1) Dinitromethan. Fl. NH ₄ , K, Ba + 2H ₂ O, Cu, Ag (<i>J.</i> 1878, 634; <i>B.</i> 26, 3003; 32, 624; <i>Bl.</i> 41, 282; 43, 322). — <i>I</i> , 203. 2) Nitramidoameisensäure. K ₂ (<i>B.</i> 27, 1909; <i>A.</i> 288, 295).
CH₂NCl	1) Cyanwasserstoffsäure + Salzsäure (<i>A.</i> 145, 118; <i>A. ch.</i> [4] 17, 129). — <i>I</i> , 1411.
CH₂NJ	1) Cyanwasserstoffsäure + Jodwasserstoffsäure, verflüchtigt sich bei 350° bis 400° (<i>A.</i> 138, 36; <i>A. ch.</i> [4] 17, 142). — <i>I</i> , 1411.
CH₂N₂S	1) Thiocyanamid. HCl, (2HCl, PtCl ₄), HBr (<i>B.</i> 29, 2504).
CH₂N₂S	1) 5-Amido-1,2,3,4-Thiotriazol. Zers. bei 128—130°. HCl (<i>B.</i> 29, 2502, 2504). — <i>IV</i> , 1232.
CH₂ClBr	1) Chlorbrommethan. Sd. 68—69° (<i>B.</i> 25 [2] 15; <i>J. pr.</i> [2] 32, 431). — <i>I</i> , 166.
CH₂ClJ	1) Chlorjodmethan. Sd. 109° (<i>Soc.</i> 41, 362; 47, 198). — <i>I</i> , 190.
CH₂BrJ	1) Bromjodmethan. Sd. 138—140° (<i>J. pr.</i> [2] 32, 431). — <i>I</i> , 190.
CH₂J₂Hg	1) Quecksilberjodmethyljodid. Sm. 108—109° (<i>Soc.</i> 37, 658; 39, 488). — <i>I</i> , 1525.
CH₂J₂Hg₂	1) Quecksilbermethylenjodid. Sm. 230° u. Zers. (<i>Soc.</i> 39, 486; <i>B.</i> 13, 2088). — <i>I</i> , 1525.
CH₂ON	C 26,7 — H 6,7 — O 35,5 — N 31,1 — M. G. 45. 1) Oximidomethan (Formaldoxim). Sd. 84—85° (<i>B.</i> 24, 576; 29 [2] 658; <i>Soc.</i> 73, 353). — <i>I</i> , 968. 2) Amid d. Ameisensäure (Formamid). Sd. 192—195° u. Zers. (85—95° bei 0,5 mm). Na, Hg, Ag (<i>J.</i> 1863, 319—320; <i>A.</i> 128, 335; <i>B.</i> 4, 409;

- CH₃ON,** 15, 210, 752, 980; 27 [2] 881; Bl. [3] 9, 691; J. pr. [2] 52, 60; Soc. 71, 466; Am. 20, 223). — I, 1235.
C 16,4 — H 4,1 — O 21,9 — N 57,5 — M. G. 73.
- CH₃OCi** 1) Verbindung (Bl. 34, 497).
1) Methylester d. Unterchlorigensäure. Sd. 12° bei 726 mm (B. 19, 859). I, 321.
- CH₃OBBr** 1) α-Brom-α-Oxymethan (Brommethylalkohol). Fl. (B. 27 [2] 336).
CH₃OAs 1) Arsenmethyloxyd. Sm. 95° (A. 107, 281). — I, 1510.
CH₃OBi 1) Methylwismuthoxyd (B. 20, 1522). — I, 1516.
CH₃O,N C 19,7 — H 4,9 — O 52,4 — N 23,0 — M. G. 61.
- 1) Nitromethan. Sd. 101–101,5° bei 764,7 mm. Na, Na + C₂H₅O, Hg (A. 171, 32; 180, 164; 280, 272, 275; J. pr. [2] 8, 316; [2] 34, 35; B. 19, 567; 27, 1601, 3406; 32, 614; Soc. 55, 687; Bl. [3] 11, 868). — I, 202.
- 2) Isonitromethan (B. 32, 614).
3) Nitrit d. Oxymethan (Salpetrigsäuremethylester). Gas. Sd. — 12° (A. 91, 82; J. 1854, 521; G. 12, 438). — I, 321.
4) Formhydroxamsäure (Oximidooxymethan). Sm. 81–82° (72–74°). Cu (Am. 20, 28; B. 25, 701; 31, 2191, 2720).
5) Amidoameisensäure (Carbaminsäure). Salze u. Ester meist bekannt. Lit. bedeutend. — I, 1251.
C 13,5 — H 3,4 — O 35,9 — N 47,2 — M. G. 89.
- CH₃O,N,** 1) Nitrosoharnstoff (A. 288, 303).
CH₃O,B 1) Monomethylborat (A. Spl. 5, 186; A. 57, 327). — I, 344.
CH₃O,N C 15,6 — H 3,9 — O 62,3 — N 18,2 — M. G. 77.
- 1) Nitrat d. Oxymethan (Salpetersäuremethylester). Sd. 66° (J. 1862, 387; A. 15, 28; 113, 80; Bl. [3] 13, 1044; Soc. 55, 682). — I, 324.
C 11,4 — H 2,8 — O 45,7 — N 40,0 — M. G. 105.
- CH₃O,N,** 1) Nitroharnstoff. K, Hg, Ag (B. 27, 1520; A. 288, 281).
CH₃O,N, C 8,1 — H 2,0 — O 42,9 — N 47,0 — M. G. 149.
- 1) Nitrat d. Diazosemicarbazid. Sm. 75–76° (B. 27, 561).
CH₃NCl, 1) Methylchloramin. Sd. 59–60° (B. 12, 771; 28, 1683). — I, 1117.
CH₃NBr, 1) Methylbromamin (B. 15, 767; 16, 558). — I, 1118.
CH₃NJ, 1) Methyljodamin (A. 76, 320; 230, 222). — I, 1118.
CH₃NS, 1) Amidodithioameisensäure. NH₄, Zn, Pb, Cu (Berz. J. 4, 96; A. 73, 26; 168, 232). — I, 1261.
- CH₃ClHg** 1) Quecksilbermethylchlorid. Sm. 170° (A. 108, 103; J. pr. [2] 29, 135). — I, 1525.
- CH₃Cl,As** 1) Arsenmonomethylchlorid. Sd. 133° (A. 107, 272). — I, 1510.
CH₃Cl,Bi 1) Wismuthmethylchlorid. Sm. 242° (B. 20, 1520). — I, 1516.
CH₃Cl,As 1) Arsenmonomethyltetrachlorid (A. 107, 274). — I, 1510.
CH₃Br,Bi 1) Wismuthmethylbromid. Sm. 214° (B. 20, 1521). — I, 1516.
CH₃JHg 1) Quecksilbermethyljodid. Sm. 25° (A. 107, 285; 249, 152). — I, 1524.
CH₃J,As 1) Arsenmethyljodid. Sm. 25° (A. 107, 285; 249, 152). — I, 1510.
CH₃J,Bi 1) Wismuthmethyljodid. Sm. 225° u. Zers. (B. 20, 1521). — I, 1516.
CH₃SAs 1) Arsenmethylsulfid. Sm. 110° (A. 107, 279). — I, 1510.
CH₃S,As 1) Arsenmethyldisulfid (B. 16, 1440; A. 249, 153). — I, 1510.
CH₃ON, C 20,0 — H 6,7 — O 26,7 — N 46,6 — M. G. 60.
- 1) Harnstoff (Carbamid; Amid d. Kohlensäure). Sm. 132°; subl. 106° bei 0 mm. Lit. bedeutend. — I, 1290.
2) Amidooximidomethan (Isuretin; Methenylamidoxim). Sm. 114–115° (104–105°). HCl, H₂SO₄, Oxalat, Pikrat, Hg + HgCl₂ (A. 166, 295; 280, 320). — I, 1483.
3) Hydrazid d. Ameisensäure (Formylhydrazin). Sm. 54° (J. pr. [2] 51, 180; G. 24 [2] 225).
C 13,6 — H 4,5 — O 18,2 — N 63,6 — M. G. 88.
- CH₃ON,** 1) Nitrosoguanidin. Zers. bei 160–165°. HCl, Cu, Ni, Ag (A. 273, 1331). I, 1163.
CH₃O,N, C 15,8 — H 5,2 — O 42,1 — N 36,8 — M. G. 76.
- 1) Oxyharnstoff. Sm. 128–130°. K, Pb, Cu (A. 150, 242; 182, 214). — I, 1296.
2) Methylnitroamin. Sm. 38°. K, Ba + H₂O, Cd, Zn, Co, Cu, Hg, Ag (R. 7, 354; 8, 295; 13, 308; 15, 198; 17, 288; A. 288, 292; B. 29, 474, 961; 30, 647; 31, 1395). — I, 1118.

- $\text{CH}_3\text{O}_2\text{N}$, 3) isom. Methylnitroamin? (Imidomethylnitrat). Fl. (A. 288, 293).
 4) Dinitromethylsäure. $\text{Na} + \text{H}_2\text{O}$, $\text{Zn} + \text{H}_2\text{O}$ (A. 99, 369). — I, 1522.
 $\text{CH}_3\text{O}_2\text{N}$, C 11.5 — H 3.8 — O 30.8 — N 53.8 — M. G. 104.
 1) Nitroguanidin. Sm. 230° u. Zers. (222°). HCl , HNO_3 , Ag (J. 1877, 352; Bl. 34, 496; B. 11, 871; 25 [2] 684, 839; G. 21 [2] 406; A. 270, 15; 273, 139) — I, 1163.
 $\text{CH}_3\text{O}_2\text{S}$ 1) Methansulfinsäure (Methylsulfinsäure). $\text{Mg} + \text{H}_2\text{O}$, Ca, Ba, Zn (A. 106, 288) — I, 368.
 $\text{CH}_3\text{O}_2\text{Mg}$ 1) Magnesiumhydroxymethylat (B. 30, 308).
 $\text{CH}_3\text{O}_2\text{Se}$ 1) Methanselinsäure. Sm. 122° . HCl , Ag (A. 97, 6). — I, 384.
 $\text{CH}_3\text{O}_2\text{Si}$ 1) Silicoessigsäure (A. 173, 147). — I, 1520.
 $\text{CH}_3\text{O}_2\text{Sn}$ 1) Zinnmethylsäure (B. 16, 1442). — I, 1527.
 $\text{CH}_3\text{O}_2\text{S}$ 1) Methansulfonsäure. NH_3 , Li, Na + NaJ, K, Ca, Mg + $10\text{H}_2\text{O}$, Ba + H_2O , Sr + H_2O , Pb + H_2O , Cu + $5\text{H}_2\text{O}$, Ag (A. 54, 174; 65, 259; 148, 101; 218, 284; J. pr. [2] 30, 281; J. 1850, 453; 1869, 336; B. 25, 61). — I, 369.
 2) Monomethylester d. Schwefligensäure. Na, Mg (B. 30, 1838; 31, 409).
 $\text{CH}_3\text{O}_2\text{S}$, 1) Methylunterschwefligensäure. Na + $\frac{1}{2}\text{H}_2\text{O}$ (B. 15, 946). — I, 329.
 $\text{CH}_3\text{O}_2\text{N}$, C 8.8 — H 2.9 — O 47, 1 — N 41.2 — M. G. 136.
 1) Diisonitramidoäthan. K, Na, + H_2O , Ba + $3\text{H}_2\text{O}$, Pb, Cu (B. 27, 1509, 3291; Soc. 65, 944; A. 300, 110).
 $\text{CH}_3\text{O}_2\text{S}$ 1) Oxymethansulfonsäure. K (B. 6, 1031) siehe auch (Z. 1871, 235, 236). — I, 377.
 2) Monomethylester d. Schwefelsäure (Methylschwefelsäure). NH_3 , Na, K + $\frac{1}{2}\text{H}_2\text{O}$, Mg + $4\text{H}_2\text{O}$, Be + $12\text{H}_2\text{O}$, Ca, Ba + $2\text{H}_2\text{O}$, Sr + $2\text{H}_2\text{O}$, Cd + $2\text{H}_2\text{O}$, Zn + $4\text{H}_2\text{O}$, Yt + $18\text{H}_2\text{O}$, Di + $18\text{H}_2\text{O}$, Er + $18\text{H}_2\text{O}$, UO_2 + H_2O , Pb + H_2O , Mn + $4\text{H}_2\text{O}$, Co + $6\text{H}_2\text{O}$, Ni + $6\text{H}_2\text{O}$, Fe + $4\text{H}_2\text{O}$, Cu + $4\text{H}_2\text{O}$, Ag (A. 15, 40; 20, 190; 56, 231; J. pr. [2] 19, 240; [2] 31, 350; B. 11, 1506; 25, 474; Ph. Ch. 1, 76; J. 1854, 552; 1855, 598; 1883, 1237). — I, 330.
 $\text{CH}_3\text{O}_2\text{S}$ 1) Methandisulfonsäure (Methionsäure). (NH_3), Na, + $3\text{H}_2\text{O}$, K, Ba + $2\text{H}_2\text{O}$, Cu + $5\text{H}_2\text{O}$, Pb + $2\text{H}_2\text{O}$, Ag, (A. 13, 35; 66, 122; 100, 137, 199; 118, 290; 126, 293; 140, 82; 148, 92; 161, 152; 223, 208; 303, 117; B. 14, 2733; 18, 1349; 28, 2379; 31, 1880; Ph. Ch. 1, 107). — I, 374.
 $\text{CH}_3\text{O}_2\text{S}$ 1) Merkaptomethandisulfonsäure (Methylmerkaptandisulfonsäure). K, + $\frac{1}{2}\text{H}_2\text{O}$, Pb, + $8\text{H}_2\text{O}$ (A. 161, 134). — I, 378.
 $\text{CH}_3\text{O}_2\text{Se}$ 1) Methandiselensäure (Diselenometholsäure). Ba, Pb, Ag (B. 7, 1281). — I, 384.
 $\text{CH}_3\text{O}_2\text{S}$ 1) Oxymethandisulfonsäure. K, Ba (B. 6, 1033). — I, 378.
 $\text{CH}_3\text{O}_2\text{S}$ 1) Methantrisulfonsäure (Methintrisulfonsäure). K, + H_2O , Ca, + $12\text{H}_2\text{O}$, Ba, + $9\text{H}_2\text{O}$ (A. 147, 134; 167, 219). — III, 377.
 $\text{CH}_3\text{O}_2\text{S}$ 1) Merkaptomethantrisulfonsäure (Methylmerkaptantrisulfonsäure). K, + $2\text{H}_2\text{O}$ (A. 161, 129, 147). — I, 378.
 $\text{CH}_3\text{O}_2\text{S}$ 1) Oxymethantrisulfonsäure. (NH_3), K, + H_2O , Ba, + $4(8)\text{H}_2\text{O}$, Hg, + $15\text{H}_2\text{O}$, Pb, Ag, + H_2O (A. 161, 139; B. 28, 2382). — I, 378.
 CH_3NCl 1) Methylchloramin. Fl. (B. 26 [2] 405).
 CH_3NJ 1) Methyljodamin (B. 26 [2] 405).
 $\text{CH}_3\text{N}_2\text{S}$ 1) Thioharnstoff. Sm. 172° (167° ; 149°); subl. $98-99^\circ$ bei 0 mm. Lit. bedeutend. — I, 1316.
 $\text{CH}_3\text{N}_2\text{S}$ 1) Hydrazidodithioameisensäure (Dithiocarbaminsäure). NH_3 , Ag (B. 27, 58; J. pr. [2] 52, 455).
 $\text{CH}_3\text{N}_2\text{Se}$ 1) Selenharnstoff. Sm. 200° u. Zers. 2 + AgCl, 2 + HgCl, 4 + HgCl, (A. ch. [6] 9, 294). — I, 1331.
 $\text{CH}_3\text{N}_2\text{Cl}$ 1) Chlorguanidin (B. 11, 1602). — I, 1163.
 $\text{CH}_3\text{N}_2\text{Br}$ 1) Bromguanidin (B. 11, 1600). — I, 1163.
 CH_3ON C 25.5 — H 10.6 — O 34.0 — N 29.8 — M. G. 47.
 1) α -Methylhydroxylamin. (HCl Sm. $148-149^\circ$), (2HCl , PtCl_2) (A. 182, 225; B. 16, 827). — I, 1139.
 2) β -Methylhydroxylamin (Oxyamidomethan). Sm. 42° (36°); Sd. 62.5° bei 15 mm. HCl , Pikrat (B. 23, 3598; 24, 3531; 25, 1715; 26, 2382, 2514; 27, 1350; 30, 1894). — I, 1139.
 CH_3ON C 16.0 — H 6.6 — O 21.3 — N 66.0 — M. G. 75.
 1) Oxyguanidin. HCl , (2HCl , PtCl_2) (J. pr. [2] 21, 132). — I, 1164.

- micarbazid). Sm. 96°. HCl, HNO₃, Pikrat (B. 27, pr. [2] 52, 465).
 Pikrat (A. 270, 46). — I, 1495.
 105°. Ba, Pb, Ag₂ (B. 5, 106; 6, 306;
 H₂O, Ba (A. 103, 164). — I, 336.
 Ba + 5H₂O, Ag₂ (A. 107, 289;
 K, Ca + 2H₂O, Ba + 2H₂O, Sr +
 Bl. [3] 19, 827, 884). — I, 339.
 carbazid). Sm. 181–183°. HCl (B. 28,
 11).
 109° (J. pr. [2] 52, 488).
 — N 62.3 — M. G. 90.
 hydrazid). Sm. 152–153°. 2HCl, HJ, H₂SO₄,
 A. 469; [2] 58, 217).
 säure. Ca + 5H₂O (A. 232, 13). — I, 332.
 Syd. Sd. 35–37° (Bl. [3] 13, 444).
 an (Chlorpikrin). Sd. 111.9°. 2H₂S + 23H₂O (A.
 A. 66, 241; 101, 102; 106, 144 Aum.; 109, 282; 139,
 1872, 298; Soc. 37, 198). — I, 203.
 methan (Brompikrin). Sm. 10.2°; Sd. 127° bei 118 mm
155, 253; 180, 122; 249, 85; 294, 201; B. 31, 642, 654).
 1).
 d. Trichlormethansulfonsäure. Sm. 135°; Sd. 170° (A. 54,
 11, 105; Z. 1869, 82; J. pr. [2] 30, 287; Bl. 37, 393; [3] 11, 182;
 parts Ann. 48, 161). — I, 370.
 chlordinitromethan. Sd. oberh. 100° (A. 38, 16–18; B. 17, 849;
18, 3328). — I, 203.
 Dibromdinitromethan. Sm. 4–5°; Sd. 78–80° bei 19 mm (Bl. 37,
 452; B. 15, 473; 16, 51, 2731; 26, 2218; 31, 651, 654). — I, 204.
 1) Bromtrinitromethan (A. 119, 247, 248). — I, 205.
 1) Cyanchlorid + Borchlorid (A. 109, 79).

C₁-Gruppe mit vier Elementen.

- CHO₂NBr 1) Dibromnitromethan. Sd. 58.5–60° bei 13 mm (A. 180, 130; B. 29,
 1824). — I, 204.
 CHO₂Cl₂S 1) Trichlormethansulfonsäure. K (A. 161, 149; Z. 1869, 82, 624). —
 I, 368.
 2) Chlorid d. Dichlormethansulfonsäure. Sd. 170–180° (A. 54, 154;
 J. pr. [2] 30, 399). — I, 370.
 CHO₂Cl₃S 1) Trichlormethansulfonsäure + H₂O. Sm. 130°. K + H₂O, Fe + 5H₂O,
 Pb + 2H₂O, Cu + 5H₂O, Ag + H₂O (Z. 1869, 82; A. 54, 157; 111, 105;
113, 36; 161, 151; J. pr. [2] 30, 284). — I, 370.
 CHO₂N₂Cl 1) Chlordinitromethan. K (B. 17, 849; Bl. 43, 323). — I, 203.
 CHO₂N₂Br 1) Bromdinitromethan. K, Ag (B. 15, 473; 16, 51, 1312; 23, 1829; 26,
 2219; 31, 651, 654; 32, 626; Bl. 37, 452; 41, 282; M. 4, 558; A. 294,
 198). — I, 204.
 CHO₂N₂J 1) Joddinitromethan (Bl. 43, 323). — I, 205.
 CHNF₂B 1) Cyanwasserstoff + Borfluorid (B. 24 [2] 734). — I, 1411.
 CHClBrF 1) Chlorbromfluormethan. Sd. 38° (B. 26 [2] 782).
 CH₂ONCl 1) Oximidochlormethan (Formylchloridoxim). Ag (A. 280, 303; B. 27,
 2816).
 2) Chlorid d. Amidoameisensäure. Sm. 50°; Sd. 61–62° (A. 45, 357;
244, 30). — I, 1254.
 CH₂ONBr 1) Bromamid d. Ameisensäure? (B. 15, 752). — I, 1235.
 CH₂O₂NCl 1) Chlornitromethan. Sd. 122–123° (B. 8, 608). — I, 203.
 CH₂O₂NBr 1) Bromnitromethan. Sd. 146° bei 715 mm (A. 180, 129; B. 29, 1823,
 2416; 30, 2588; 32, 616). — I, 204.
 CH₂O₂NJ 1) Jodnitromethan. Na (B. 24, 4244; 25, 2635).
 CH₂O₂Cl₂S 1) Dichlormethansulfonsäure. K, Zn, Ag (A. 54, 164; 148, 94). — I, 370.

- $\text{CH}_3\text{O}_2\text{Cl}_2\text{S}$ 2) Dichloroxymethansulfonsäure. K (Z. 1868, 519; J. pr. [2] 30, 288). — I, 378.
- $\text{CH}_3\text{O}_2\text{Br}_2\text{S}$ 1) Dibrommethansulfonsäure. Ba (M. 7, 168). — I, 371.
- $\text{CH}_3\text{O}_2\text{N}_2\text{S}$ 1) Diazomethandisulfonsäure. K, + H_2O (B. 28, 2377; 29, 2161).
- $\text{CH}_3\text{O}_2\text{J}_2\text{S}$ 1) Dijodmethandisulfonsäure. K, (B. 28, 2379).
- CH_3ClJHg 1) Quecksilbermethylenchlorojodid. Sm. 129° (Soc. 41, 360). — I, 1525.
- CH_3ONS 1) Amidthiolameisensäure (Carbaminthiolsäure). NH_3 , H_2 (J. 1868, 160–161; A. 168, 240; B. 9, 991; 10, 192; J. pr. [2] 7, 474; G. 22 [1] 352. — I, 1258.
- 2) Thionylmethylamin. Sd. 58–59° (A. 274, 187).
- $\text{CH}_3\text{OCl}_2\text{P}$ 1) Chlorid d. Methylphosphinsäure. Sm. 32°; Sd. 163° (B. 6, 306). — I, 1498.
- 2) Dichlorid d. Methylphosphorigensäure. Sd. 95–96° bei 758 mm (C. 1897 [2] 333).
- $\text{CH}_3\text{OCl}_2\text{Si}$ 1) Trichlorid d. Methylkieselsäure. Sd. 82–86° (A. ch. [4] 9, 41). — I, 346.
- $\text{CH}_3\text{OF}_2\text{B}$ 1) Bordifluormethylin. Sm. 41,5° (B. 28 [2] 779).
- $\text{CH}_3\text{O}_2\text{ClS}$ 1) Chlorid d. Methansulfonsäure. Sd. 160° (150–153°) (A. 114, 142; J. pr. [2] 30, 281). — I, 369.
- $\text{CH}_3\text{O}_2\text{ClS}$ 1) Chlormethansulfonsäure. K, Pb + H_2O (A. 54, 168). — I, 370.
- 2) Chlorid d. Methylschwefelsäure. Sd. 132–133° bei 722 mm (J. pr. [2] 15, 32; B. 19, 861). — I, 331.
- $\text{CH}_3\text{O}_2\text{ClS}$ 1) Chlormethandisulfonsäure. Ba + 4 H_2O , Ag, (M. 7, 171). — I, 375.
- $\text{CH}_3\text{O}_2\text{BrS}$ 1) Brommethandisulfonsäure. K, (A. 161, 161). — I, 375.
- $\text{CH}_3\text{O}_2\text{JS}$ 1) Jodmethandisulfonsäure. K, + 2 H_2O (B. 28, 2378).
- $\text{CH}_3\text{O}_2\text{NS}$ 1) Nitromethandisulfonsäure. K (A. 161, 153; 167, 219). — I, 375.
- $\text{CH}_3\text{O}_2\text{N}_2\text{S}$ 1) Sulfohydrazimethylendisulfonsäure. K, + 1 $\frac{1}{2}$ H_2O , K, + H_2O (B. 28, 2380).
- $\text{CH}_3\text{O}_2\text{NS}$ 1) Amid d. Methansulfonsäure (J. pr. [2] 30, 281). — I, 370.
- $\text{CH}_3\text{O}_2\text{NS}$ 1) Methylsulfaminsäure. Ba (B. 16, 1267).
- 2) Verbindung (aus Schwefelsäuremethylester) (A. 15, 45).
- $\text{CH}_3\text{O}_2\text{NS}$ 1) Amidomethandisulfonsäure. K, K, + H_2O (B. 28, 2366).
- $\text{CH}_3\text{O}_2\text{NS}$ 1) Verbindung (aus Aethylenrhodanid). Na, (A. 153, 322). — I, 1280.
- CO_2NClBr 1) Chlordibromnitromethan (B. 8, 610). — I, 205.
- $\text{CO}_2\text{Cl}_2\text{BrS}$ 1) Bromid d. Trichlormethansulfonsäure (Z. 1869, 83, 624). — III, 371.
- $\text{CO}_2\text{NCl}_2\text{S}$ 1) Nitrit d. Trichlormethansulfonsäure (Z. 1869, 83). — I, 371.
- $\text{CO}_2\text{N}_2\text{ClBr}$ 1) Chlorbromdinitromethan (B. 17, 848). — I, 204.

C₁-Gruppe mit fünf Elementen.

- $\text{CH}_3\text{O}_2\text{ClBrS}$ 1) Chlorbrommethansulfonsäure. Ba (M. 7, 170). — I, 371.
- $\text{CH}_3\text{O}_2\text{NCl}_2\text{S}$ 1) Amid d. Dichlormethansulfonsäure (J. pr. [2] 30, 301). — I, 370.

C₂-Gruppe mit einem Element.

- C_2H_2 C 92,3 — H 7,7 — M. G. 26.
- 1) Aethin (Acetylen). Sm. — 81°; fl. bei 1° u. 48 Atm. + 6 H_2O (C. 1897 [2] 241). K, Na, + Ag₂, + Cu₂O, + CuCl, + CuCl₂, + (HgJ, HgO), + Ag₂O, + SbCl₅, Hg + $\frac{1}{2}$ H_2O , Hg + HgNO₃ + H_2O . Lit. bedeutend. — I, 127.
- 2) Polyacetylen. Fest (J. 1874, 319). — I, 128.
- 3) Polyacetylen = (C₂H₂)_n. Fl. (J. 1874, 319). — I, 128.
- C_2H_4 C 85,7 — H 14,3 — M. G. 28.
- 1) Aethen (Aethylen). Hydrat (C. 1897 [2] 242). Lit. bedeutend. — I, 111.
- 2) Kohlenwasserstoff (aus Aethylen) = (C₂H₄)_n. Sd. oberhalb 200° (B. 30, 138).
- C_2H_6 C 80,0 — H 20,0 — M. G. 30.
- 1) Aethan (Dimethyl). Gas fl. bei 4° u. 46 Atm. Sd. — 89,5° bei 735 mm. Lit. bedeutend. — I, 101.
- C_2N_2 1) Cyan (Nitril d. Oxalsäure). Gas. Lit. bedeutend. — I, 1476.
- 2) Paracyan; siehe C₆N₄. — I, 1478.

- C₄Cl₄** 1) Tetrachloräthen. *Sd.* 121° (*A.* 33, 324; 107, 212; 220, 97; 258, 333; *B.* 14, 929; 15, 3000; 27, 3160; *A. ch.* [2] 18, 48; [6] 12, 269; *Bl.* 23, 344; [3] 11, 917; [3] 19, 182, 260; *M.* 2, 256; *J.* 1864, 316; 1873, 314). — *I.* 158.
- C₆Cl₆** 1) Hexachloräthan. *Sm.* n. *Sd.* 187°. *Lit.* bedeutend. — *I.* 148.
- C₄Br₄** 1) Tetrabromäthen. *Sm.* 56° (53°); *Sd.* 109° bei 25 mm (*P.* 18, 397; *A.* 122, 126; 135, 262; 298, 332; *J. r.* 1881, 286; *B.* 7, 1669; 11, 2238). — *I.* 182.
- C₆Br₆** 1) Hexabromäthan. *Sm.* 210—215° u. *Zers.* (*A.* 124, 271; *B.* 11, 2239; 30, 1209; *J. r.* 13, 287; *Bl.* [3] 19, 177; *J. pr.* [2] 58, 249). — *I.* 169.
- C₂J₂** 1) Dijodäthin (Dijodacetylen). *Sm.* 78° (82°) (*A.* 135, 258; 298, 341; *B.* 18, 2275; 29, 1411; 30, 1200; *Am.* 19, 877). — *I.* 192.
- C₄J₄** 1) Tetrajodäthen. *Sm.* 187° (192°); *subl.* (*B.* 18, 2283; 25 [2] 727; 29, 1411; 30, 1204; *Bl.* [3] 7, 777; *Soc.* 65, 268). — *I.* 197.
- C₂S₂** 1) Kohlensesquisulfid (*Z.* 1866, 173; *C.* 1895 [1] 1001). — *I.* 881.
- C₂Ag₂** 1) Kohlenstoffsilber + $\frac{1}{2}$ H₂O + AgNO₃ (*B.* 26 [2] 608; 32, 740; *C.* 1897 [2] 256).
- C₂B₂** 1) Borkohlenstoff (*B.* 26 [2] 1005).
- C₂Ba₂** 1) Kohlenstoffbarium (*B.* 25 [2] 771, 850; *Bl.* [3] 11, 1007).
- C₂Ca₂** 1) Kohlenstoffcalcium (*Bl.* [3] 11, 1002).
- C₂Ce₂** 1) Kohlenstoffcerium (*C.* 1896 [1] 686; *Bl.* [3] 17, 261).
- C₂Cr₂** 1) Kohlenstoffchrom (*Bl.* [3] 11, 1015; [3] 19, 872).
- C₂Cu₂** 1) Kohlenstoffkupfer (*B.* 30, 814).
- C₂Hg₂** 1) Kohlenstoffquecksilber (*Am.* 15, 537).
- C₂La₂** 1) Kohlenstofflanthan (oder C₂La₂) (*B.* 28, 2422; *Bl.* [3] 15, 1293).
- C₂Li₂** 1) Kohlenstofflithium (*Bl.* [3] 15, 756; [3] 17, 260; [3] 19, 869).
- C₂Na₂** 1) Kohlenstoffnatrium (*Bl.* [3] 17, 540; [3] 19, 112, 115, 867).
- C₂Si₂** 1) Siliciumkohlenstoff (*B.* 15, 1442).
- C₂Sr₂** 1) Kohlenstoffstrontium (*Bl.* [3] 11, 1008).
- C₂Th₂** 1) Kohlenstoffthorium (*B.* 26 [2] 483; *Bl.* [3] 15, 1274).
- C₂Y₂** 1) Kohlenstoffyttrium (oder C₂Y₂) (*B.* 28, 2421; *Bl.* [3] 15, 1272).
- C₂Zr₂** 1) Kohlenstoffzirkonium (*B.* 26 [2] 483).

C₂-Gruppe mit zwei Elementen.

- C₂HN₂** C 35,8 — H 1,5 — N 62,7 — M. G. 67.
- 1) Dicyanamid. K, Ag (*B.* 4, 254; 11, 249; 13, 2201). — *I.* 1440.
- C₂HCl** 2) Nitril d. Diazoessigsäure. *Sd.* 46,5 bei 14–15 mm (*B.* 27, 61; 31, 2491).
- C₂HCl₂** 1) Chloräthin (Chloracetylen) (*A.* 203, 90; 216, 268). — *I.* 163.
- 1) Trichloräthen (Trichloräthylen). *Sd.* 87–88° (*J.* 1864, 481; *B.* 7, 81; *A. Spl.* 7, 255; *A.* 267, 221). — *I.* 158.
- C₂HCl₃** 1) Pentachloräthan. *Sd.* 159,1° (cor.) 161,7° (*A.* 33, 321; 80, 130; 151, 118; *Soc.* 37, 192; *B.* 15, 2563; 26 [2] 88; *Bl.* [3] 19, 1801). — *I.* 148.
- C₂HBr** 1) Bromäthin (Bromacetylen). *Fl.* bei 3 Atm. (*A.* 119, 183; 124, 268; 125, 82; 216, 268; 298, 355; *J. r.* 17, 175). — *I.* 187.
- C₂HBr₂** 1) Verbindung (aus Hexabrom-R-Tetramethylen) = (C₂HBr₂)_x. *Sm.* 55–56° (*J. r.* 21, 1). — *I.* 185.
- C₂HBr₃** 1) Tribromäthen. *Sd.* 162–163° (*A.* 122, 125; 135, 262; 178, 123; 216, 279; *M.* 2, 109; *Bl.* 29, 207; *Ph. Ch.* 2, 236; *J. pr.* [2] 58, 247). — *I.* 182.
- 2) polym. Tribromäthen. *Sm.* 175° (*A.* 178, 114). — *I.* 182.
- C₂HBr₄** 1) Pentabromäthan. *Sm.* 56–57° (54° u. 48–50°) (*A.* 122, 125; 124, 268; 216, 281–282; *B.* 8, 437; 12, 2208; *J. r.* 9, 280; *Bl.* 23, 173; 34, 204; *J. pr.* [2] 58, 249). — *I.* 162.
- C₂HJ** 1) Jodäthin (Jodacetylen). *Sd.* 29–32° (*B.* 18, 2274; *G.* 19, 587). — *I.* 192.
- 2) polym. Jodäthin (*B.* 18, 2274). — *I.* 192.
- C₂HJ₂** 1) Trijodäthen? (*A.* 135, 262).
- C₂H₂O₂** C 41,4 — H 3,4 — O 55,2 — M. G. 58.
- 1) Aldehyd d. Oxalsäure (Glyoxal). + 2NH₄HSO₅ + H₂O + 2NaHSO₅ + H₂O + 2KHSO₅ + BaHSO₅ + 2 $\frac{1}{2}$ H₂O (*A.* 102, 20; 110, 323; 222, 66; *J. r.* 7, 249; 13, 329, 496; *B.* 10, 1366; 17, 1997; 24, 3263; 28 [2] 986; *J. pr.* [2] 39, 51; *Bl.* 41, 242, 441; 42, 174; 43, 371; *A. ch.* [6] 11, 438). — *I.* 965.

- $C_6H_8O_4$ 2) Hexaglyoxalhydrat = $6C_2H_2O_2 + H_2O$, siehe $C_{12}H_{14}O_{11}$. — I, 966.
3) Polyglykolid = $(C_2H_2O_2)_n$ (polym. Bianhydrid d. Oxyessigsäure). Sm. 220° (223°) (A. 89, 342; 105, 288; 279, 45; J. 1859, 362; 1861, 444; A. ch. [6] 3, 221; Bl. 30, 102; B. 14, 577; 25, 3511; 26, 262, 560). — I, 548.
C 32,4 — H 2,7 — O 64,9 — M. G. 74.
- $C_6H_8O_5$ 1) Anhydrid d. Ameisensäure. Existirt nicht, siehe (A. 87, 157).
2) Anhydrid d. Dioxyessigsäure (Polyglyoxylsäure) (Z. 1868, 426). — I, 631.
3) Verbindung (aus Weinsäure) = $(C_2H_2O_3)_n$ (B. 27 [2] 595).
C 26,7 — H 2,2 — O 71,1 — M. G. 90.
- $C_6H_8O_6$ 1) Oxalsäure + $2H_2O$. Sm. 98° (wasserfrei 186–187°). Salze meist bekannt. Lit. bedeutend. — I, 638.
C 19,7 — H 1,6 — O 78,7 — M. G. 122.
- $C_6H_8O_7$ 1) Ueberkohlenensäure. K, (C. 1896 [2] 881; 1897 [2] 828).
C 44,4 — H 3,7 — N 51,9 — M. G. 54.
- $C_6H_8N_2$ 1) Nitril d. Imidoessigsäure. Sm. 87°; Sd. 120–125°. Ag + H_2O (A. 287, 337, 340).
C 14,5 — H 1,2 — N 84,3 — M. G. 166.
- $C_6H_8N_{10}$ 1) 5,5'-Azo-1,2,3,4-Tetrazol. $(NH_4)_4$, K + $5H_2O$, Na, + $5H_2O$, Ca + $8H_2O$, Ba + $5H_2O$, Hydroxylaminsalz + $2H_2O$, Hydrazinsalz + $2H_2O$, Amidoguanidinsalz + H_2O (A. 303, 57). — IV, 1493.
- $C_6H_8Cl_2$ 1) $\alpha\alpha$ -Dichloräthen (uns-Dichloräthylen). Sd. 37° (B. 3, 261; Bl. 42, 262; C. 1899 [1] 778). — I, 158.
2) $\alpha\beta$ -Dichloräthen (s-Dichloräthylen). Sd. 55°. + $SbCl_5$ (A. Spl. 7, 253), siehe auch (A. 216, 261–262). — I, 158.
- $C_6H_8Cl_4$ 1) $\alpha\alpha\alpha\beta$ -Tetrachloräthan. Sl. 129,5–130° (135°; 138°). + $2H_2S$ + $23H_2O$ (A. ch. [5] 28, 26) (A. 22, 292; 80, 130; 195, 188; 258, 59; J. 1870, 435; 1873, 317; B. 15, 446, 2563; A. ch. [2] 69, 162; Bl. [3] 19, 447, 500). — I, 148.
2) $\alpha\alpha\beta\beta$ -Tetrachloräthan. Sd. 147° (A. Spl. 7, 254; J. 1871, 508; 1886, 628; A. 195, 188; 216, 262; B. 30, 1207; Bl. [3] 19, 448, 449, 452, 454). — I, 148.
- $C_6H_8Br_2$ 1) $\alpha\alpha$ -Dibromäthen. Sd. 91–92° bei 754 mm (A. 119, 183; 124, 270; 156, 260; 176, 22; 216, 255; 221, 142; B. 11, 316, 1307; M. 2, 103; Bl. 29, 205; 34, 204; 42, 262; J. 1860, 431; Soc. 71, 1024). — I, 181.
2) polym. $\alpha\alpha$ -Dibromäthen. Fest (J. 1860, 431; M. 2, 107). — I, 181.
3) polym. $\alpha\alpha$ -Dibromäthen. Sd. 220–230° (Bl. 34, 204).
4) $\alpha\beta$ -Dibromäthen. Sd. 110–111° (A. 178, 116; 216, 253; 267, 274; 221, 72, 141; B. 12, 2075; 14, 1822; J. r. 8, 288; 17, 173; Soc. 1882, 391; 71, 1024; Ph. Ch. 2, 236; J. pr. [2] 58, 246). — I, 182.
- $C_6H_8Br_4$ 1) $\alpha\alpha\alpha\beta$ -Tetrabromäthan. Sd. 200° u. Zers. (208–211°) (A. 122, 124; 124, 270; 176, 24; 216, 255; 221, 140; Ph. Ch. 2, 232; Bl. 34, 28; B. 7, 496; 12, 2207; A. ch. [5] 12, 427; C. 1899 [1] 589). — I, 168.
2) $\alpha\alpha\beta\beta$ -Tetrabromäthan. Sd. 136–137° bei 36 mm (A. 124, 269; 178, 113; 221, 138; 235, 169; Bl. 5, 97; 23, 4; [3] 19, 177, 498; B. 12, 2074; 30, 1208; Soc. 1882, 391; Ph. Ch. 2, 236; J. pr. [2] 58, 245). — I, 168.
- $C_6H_8J_2$ 1) $\alpha\alpha$ -Dijodäthen? (Soc. 41, 392).
2) $\alpha\beta$ -Dijodäthen. Sm. 71° (73°); Sd. 192°. + $4AgNO_3$ (A. 132, 122; 135, 259; 178, 118; 216, 275, 392; Soc. 41, 392; G. 19, 589; 20, 670; B. 30, 1207). — I, 196.
- $C_6H_8S_2$ 1) Methylenester d. Trithiokohlenensäure (A. 126, 292). — I, 888.
2) Ein Sulfid des Kohlenstoffs. Ba u. andere Salze (Z. 1865, 723; 1866, 174). — I, 881.
- C_6H_8N C 58,5 — H 7,3 — N 34,2 — M. G. 41.
1) Nitril d. Essigsäure (Acetonitril, Methylecyanid). Sd. 81,6°. 2 + Al_2Cl_6 , 4 + Al_2Cl_6 , 2 + Cu_2Cl_2 . Lit. bedeutend. — I, 1454.
2) Methylisocyanid (Isocetonitril; Methylcarbylamin). Sm. –45°; Sd. 59,6°. 2 + $3HCl$, + $AgCN$ (J. 1856, 523; A. 152, 222; A. ch. [4] 17, 203; J. r. 17, 194; J. pr. [2] 30, 319). — I, 1482.
3) Dicyanamid. Nur Salze bekannt. K, Ag (B. 4, 254; 13, 2201).
C 34,8 — H 4,3 — N 60,8 — M. G. 69.
- $C_6H_8N_3$ 1) 1,2,3-Triazol. Sd. 208–209° bei 742 mm. $HgCl$ (B. 26, 2737). — IV, 1098.

- $C_4H_4N_2$ 2) 1,2,4-Triazol (Pyrroldiazol). Sm. 120—121°; Sd. 260°. Cu (B. 25, 229, 745; 29, 2485; G. 24 [1] 508; 24 [2] 226; A. 303, 56). — IV, 1092.
- 3) 1,2,5-Triazol (Osotriazol). Sm. 22,5°; Sd. 203—204° bei 714 mm. Ag, HCl, HgCl (A. 262, 320; Ph. Ch. 16, 214). — IV, 1098.
- C_2H_2Cl 1) Chloräthen (Chloräthylen). Sd. — 18 bis — 15°. Hydrat (C. 1897 [2] 242; A. 14, 28; 108, 224; THOMSEN, Thermochem. Unters. 4, 97). — I, 153.
- 2) polym. Chloräthen. Sm. über 130° u. Zers. (A. 163, 318). — I, 158.
- $C_2H_2Cl_2$ 1) aaa-Trichloräthan. Sd. 74,5°. + 2H₂S + 23H₂O (A. ch. [5] 28, 25; A. 33, 317; 80, 127; 108, 224; J. 1870, 435—436; B. 15, 516, 2563). — I, 147.
- 2) aaβ-Trichloräthan. Sd. 114° (115°) (A. 33, 310; 80, 127; 220, 97; 258, 58; B. 3, 261; 10, 1496; 11, 61; 15, 2563; Bl. 47, 959; A. ch. [2] 69, 151; J. 1870, 436; 1886, 628; J. pr. [2] 46, 174). — I, 147.
- C_2H_2Br 1) Bromäthen (Vinylbromid). Sd. 16° bei 750 mm. + 2H₂S + 23H₂O (A. ch. [5] 28, 31; A. 15, 63; 115, 329; 118, 330; 119, 185; 163, 311; 191, 370; 221, 141; A. Spl. 7, 109; B. 9, 49; 11, 1259; 14, 1534; 26 [2] 598; J. r. 6, 204; Z. 1870, 675; J. 1861, 609; 1864, 480; 1872, 304). — I, 181.
- 2) polym. Bromäthen (B. 11, 1258). — I, 181.
- $C_2H_2Br_2$ 1) aaa-Tribromäthan? Sd. 180° (Bl. 34, 28).
- 2) aaβ-Tribromäthan (Vinyltribromid). Sm. — 26°; Sd. 186,5° (A. 104, 243; 120, 323; 176, 21; 195, 202; 221, 138; A. Spl. 7, 111; Am. 5, 192; B. 9, 49; 18, 1343; J. 1857, 461; 1860, 364; 1885, 1165; J. r. 9, 282; Ph. Ch. 2, 236; J. pr. [2] 46, 170). — I, 168.
- C_2H_2J 1) Jodäthen (Vinyljodid). Sd. 56° (53°) (A. 132, 122; B. 7, 731; Z. 1865, 725; J. r. 6, 164). — I, 196.
- $C_2H_2J_2$ 1) aaa-Trijodäthan. Sm. 95° u. Zers. (Bl. 49, 16). — I, 191.
- C_2H_2O C 54,5 — H 9,1 — O 36,4 — M. G. 44.
- 1) Oxyäthen (Vinylalkohol). Fl. Na, (HgO, Hg₂Cl₂), (Hg, HgO) (B. 22, 2863; A. 293, 333; 298, 315). — I, 249.
- 2) Aethanoxyd (Äthylenoxyd). Sd. 13,5° bei 746,5 mm (A. 110, 125; 120, 328; 173, 125; B. 9, 47; 10, 1104; J. 1877, 522; Z. 1868, 379; A. ch. [3] 69, 317, 355; Bl. 44, 459; Soc. 63, 488; M. 15, 665). — I, 305.
- 3) polym. Aethanoxyd. Sm. 56° (B. 10, 90, 91; Bl. 29, 530; M. 15, 679). — I, 306.
- 4) Aldehyd d. Essigsäure (Acetaldehyd). Sd. 20,8°. Lit. bedeutend. — I, 214.
- 5) Metaldehyd = (C₂H₂O)_n, siehe C₆H₁₀O₈. — I, 217.
- 6) Paraldehyd = (C₂H₂O)_n, siehe C₆H₁₂O₈. — I, 216.
- 7) Polyaldehyd = (C₂H₂O)_n. Sd. 280—285° (J. 1878, 612). C 40,0 — H 6,7 — O 53,3 — M. G. 60.
- $C_2H_4O_2$ 1) Methancarbonsäure (Essigsäure). Sd. 181,1°. Salze meist bek. Lit. bedeutend. — I, 328.
- 2) Aldehyd d. Oxyessigsäure (A. d. Glykolsäure) (A. 164, 215; B. 25, 2552, 2984; J. pr. [2] 49, 404; Soc. 67, 774). — I, 263.
- 3) Diformaldehyd (B. 21, 3506). — I, 211.
- 4) Methylester d. Ameisensäure. Sd. 32,3° bei 760 mm (P. [2] 12, 4; A. ch. [5] 16, 161; [5] 23, 204; A. 176, 133; 218, 312; B. 6, 142; 9, 1928; Am. 5, 250; J. pr. [2] 36, 213). — I, 325.
- C 31,6 — H 5,2 — O 63,2 — M. G. 76.
- $C_2H_4O_3$ 1) Oxyessigsäure (Glykolsäure). Sm. 80° (78—79°). Lit. bedeutend. — I, 546.
- 2) Monomethylester d. Kohlensäure. Sm. — 57 bis — 60°. K, Mg (M. 7, 549; B. 30, 1836; 31, 3001). — I, 544.
- C 26,1 — H 4,3 — O 69,6 — M. G. 92.
- $C_2H_4O_4$ 1) Dioxyessigsäure (Glyoxylsäure). Fl. Salze fast sämtlich bek. Lit. bedeutend. — I, 622.
- 2) Diepinsäure? (B. 12, 372; 15, 2244; 26, 3060). C 22,2 — H 3,7 — O 74,1 — M. G. 108.
- $C_2H_4O_5$ 1) Trioxyessigsäure (nur Ester bekannt), siehe (A. 254, 31). C 42,8 — H 7,1 — N 50,0 — M. G. 56.
- $C_2H_4N_2$ 1) Methylcyanamid (B. 6, 1372; A. 90, 95). — I, 1437.

- $C_2H_4N_2$ 2) Dimethylenhydrazin = $(C_2H_4N_2)_x$ (Formalazin). $(6 + 2HCl, PtCl_4)$ (B. 26, 2360; A. 288, 239).
- $C_2H_4N_2$ 3) Nitril d. Amidoessigsäure. Fl. HCl (B. 27, 61; 31, 2490).
C 28,6 — H 4,8 — O 66,8 — M. G. 84.
- $C_2H_4N_2$ 1) Cyanguanidin (Dicyandiamid). Sm. 205°. Na, Ag, + $AgNO_3$ (A. 108, 99; 123, 241; 122, 22; B. 6, 1374; 16, 1074, 1461; 18, 3107; 23, 1856; 24, 902; 26, 1583; 29, 2503; J. pr. [2] 13, 330; G. 28 [2] 434; C. 1899, [1] 785). — I, 1440.
- $C_2H_4N_2$ 2) 5-Amido-1,2,4-Triazol. Sm. 159°. HNO_3 , Pikrat (A. 303, 45, 54).
C 21,4 — H 3,6 — N 75,0 — M. G. 112.
- $C_2H_4N_2$ 1) Nitril d. Amidoimidomethyltriazencarbonsäure. Sm. oberh. 200° u. Zers. HNO_3 (A. 305, 69).
C 14,3 — H 2,4 — N 83,3 — M. G. 168.
- $C_2H_4N_{10}$ 1) s-Di[1,2,3,4-Tetrazolyl-5]-hydrazin (Hydrazo-1,2,3,4-Tetrazol) (A. 303, 66). — IV, 1509.
- $C_2H_4Cl_2$ 1) $\alpha\alpha$ -Dichloräthan (Aethylidenchlorid). Sd. 59,9° (cor.). Hydrat (C. 1897 [2] 242). + $2H_2S + 23H_2O$. Lit. bedeutend. — I, 146.
- $C_2H_4Cl_2$ 2) $\alpha\beta$ -Dichloräthan (Aethylchlorid). Sd. 83,5°. Hydrat (C. 1897 [2] 242). + $2H_2S + 23H_2O$. Lit. bedeutend. — I, 147.
- $C_2H_4Br_2$ 1) $\alpha\alpha$ -Dibromäthan. Sd. 108—110°. + $2H_2S + 23H_2O$ (A. 120, 322; 195, 202; 235, 302; Z. 1870, 200; Soc. 45, 523; B. 5, 289; Bl. 42, 262; Ph. Ch. 2, 236; A. ch. [6] 28, 30). — I, 167.
- $C_2H_4Br_2$ 2) $\alpha\beta$ -Dibromäthan. Sm. 7,6—7,8°; Sd. 131,6°. Lit. bedeutend. — I, 167.
- $C_2H_4J_2$ 1) $\alpha\alpha$ -Dijodäthan. Sd. 177—179° (A. 132, 122; 231, 266; B. 7, 823; Z. 1865, 725; J. r. 6, 164). — I, 191.
- $C_2H_4J_2$ 2) $\alpha\beta$ -Dijodäthan. Sm. 81—82° (Gm. 4, 682; A. 15, 67; 231, 265; B. 13, 489; 16, 392; J. 1864, 483; 1869, 345). — I, 190.
- $C_2H_4F_2$ 1) $\alpha\beta$ -Difluoräthan (Bl. [3] 7, 25; B. 24 [2] 40). — I, 141.
- C_2H_4S 1) Thioäthan (Aethylensulfid) (P. 46, 81; 49, 128; A. 124, 110; 126, 281; 128, 223; B. 19, 697, 3262; 20, 3263; Soc. 49 238). — I, 363.
- C_2H_4Se 1) Aethylendiselenid (oder C_2H_4Se). Sm. 130,5° (B. 23, 1092). — I, 383.
- C_2H_4N C 55,8 — H 11,6 — N 32,6 — M. G. 43.
- C_2H_4N 1) Amidoäthen (Vinylamin). Sd. 55—56° bei 756 mm. ($2HCl, PtCl_4$), HNO_3 , ($3HJ + 2BiJ_3$), Pikrat, Oxalat (B. 21, 1049, 2665; 28, 2929; 30, 2497). — I, 140.
- C_2H_4N 2) Imidoäthan (Aethylidenimid). $2 + AgNO_3 + \frac{1}{2}H_2O$, $3 + Ag_2SO_4 + 3H_2O$, $3 + Ag_2SO_4 + NH_3 + 3H_2O$, $4 + Ag_2SO_4 + 6H_2O$ (B. 10, 2179; II, 1198; 16, 994; 17, 41; J. 1877, 432; 1879, 402). — I, 918.
- C_2H_4N 3) Methylimidomethan. Sd. 166° (B. 28 [2] 851, 924).
- C_2H_4N 4) Spermin. HCl, (HCl, $AuCl_3$), $H_3PO_4 + 3H_2O$ (A. 194, 68; B. 24, 359). — III, 234.
- $C_2H_4N_2$ C 24,2 — H 5,0 — N 70,7 — M. G. 99.
- $C_2H_4N_2$ 1) 5-Methylamido-1,2,3,4-Tetrazol. Sm. 218—220° (A. 287, 252). — IV, 1312.
- $C_2H_4N_2$ 2) 3,5-Diimidotetrahydro-1,2,4-Triazol (Guanazol). Sm. 206°. HCl, $2HCl$, (HCl, $HgCl_2$), ($2HCl, HgCl_2$), ($2 + 2HgCl, HgCl_2$), HNO_3 , $H_2SO_4 + 2H_2O$, Pikrat, + $CuSO_4 + 5H_2O$, + $AgNO_3$ (G. 24 [1] 491). — IV, 1312.
- C_2H_4Cl 1) Chloräthan (Aethylchlorid). Sd. 12,5°. $2H_2S + 23H_2O$ (A. ch. [5] 28, 24; Z. 1863, 67; 1868, 669; 1871, 147; B. 6, 502; A. 139, 282; 150, 221; 174, 372; 206, 70; J. pr. [2] 14, 195; [2] 31, 491). — I, 146.
- C_2H_4Br 1) Bromäthan. Sd. 38,4°. Hydrat (C. 1897 [2] 242). + $2H_2S + 23H_2O$. Lit. bedeutend. — I, 166.
- C_2H_4J 1) Jodäthan. Sd. 72,3°. Hydrat (C. 1897 [2] 242). + $2H_2S + 23H_2O$. Lit. bedeutend. — I, 190.
- C_2H_4F 1) Fluoräthan. Gas bei — 32° flüssig (A. 92, 247; A. ch. [6] 19, 272). — I, 141.
- C_2H_4Na 1) Natriumäthyl. + $Zn(C_2H_5)_2$. Sm. 27° (A. 108, 67; 112, 222). — I, 1521.
- C_2H_4O C 52,2 — H 13,0 — O 34,8 — M. G. 46.
- C_2H_4O 1) Oxyäthan (Aethylalkohol). Bei — 130° fest; Sd. 78,4° bei 760 mm. Lit. bedeutend. — I, 221.
- C_2H_4O 2) Dimethyläther. Gas. Sd. — 23,5°. HCl, + BF_3 . Lit. bedeutend. — I, 292.
- C_2H_4O C 38,7 — H 9,7 — O 51,6 — M. G. 62.
- C_2H_4O 1) $\alpha\beta$ -Dioxyäthan (Aethylenglykol). Sm. 11,5°; Sd. 197—197,5 bei 764,5°. + HBr . Lit. bedeutend.

- C_2H_5N , C 41,4 — H 10,3 — N 48,3 — M. G. 58.
 1) α -Amido- α -Imidoäthan (Aethenylamin; Acetamin). HCl, (2HCl, PtCl₄), HNO₃, Pikrat (A. 103, 329; 265, 166; B. 17, 178; 25, 547). — I, 1159.
- C_2H_5N , C 27,9 — H 7,0 — N 65,1 — M. G. 86.
 1) $\alpha\beta$ -Diamido- $\alpha\beta$ -Diimidoäthan (Oxamin). HCl + H₂O (B. 18, 1656). — I, 1167.
- C_2H_5N , C 21,1 — H 5,2 — N 73,7 — M. G. 114.
 1) Amidin d. Azodicarbonsäure (Azodicarbonamin). 2HNO₃, Pikrat (A. 270, 39; 303, 37). — I, 1495.
- C_2H_5S , 1) Merkaptoäthan (Aethylmercaptan). Sd. 36,2°. Salze meist bekannt. Lit. bedeutend. — I, 348.
 2) Methyläther d. Merkaptomethan (Dimethylsulfid). Sd. 37,1—37,5° bei 754,7 mm. + ZnBr₂, 2 + SnCl₄, 2 + SnBr₄, + HgCl₂, + HgJ₂, (A. 34, 26; 87, 371; 107, 234; 135, 355; J. pr. [2] 17, 453; [2] 38, 358; A. ch. [3] 43, 283; B. 50, 202; [3] 3, 168; B. 27, 1240; C. 1898 [2] 282). — I, 354.
- C_2H_5S , 1) $\alpha\beta$ -Dimerkaptoäthan (Dithioäthylenglykol). Sd. 146°. Cu, Pb (J. 1862, 424; A. 36, 322; B. 19, 3264; 20, 461). — I, 352.
 2) Dimethyldisulfid. Sd. 116—118° (A. 61, 92; 80, 128; 92, 356). — I, 356.
- C_2H_5S , 1) Dimethyltrisulfid. Sd. 170° u. Zers. (A. 61, 92; B. 20, 3414). — I, 356.
- C_2H_5P , 1) Dimethylphosphor = (C₂H₅P)₃. Sd. 250° (A. 104, 4; J. 1847/48, 645; Berz. J. 26, 598). — I, 1499.
- C_2H_5Cd , 1) Cadmiumdimethyl. Sd. 104—105° (A. 261, 50). — I, 1524.
- C_2H_5Hg , 1) Quecksilberdimethyl. Sd. 93—96° (A. 85, 361; 92, 79; 108, 103; 130, 108; B. 12, 563; Z. 1870, 25; J. pr. [2] 29, 135). — I, 1524.
- C_2H_5Mg , 1) Magnesiumdimethyl (A. 261, 72; 276, 134).
- C_2H_5Se , 1) Selenoäthan (Selenmercaptan). Fl. (A. 61, 360). — I, 382.
 2) Dimethylselenid. Sd. 58,2°. HNO₃, PtCl₄ (A. 179, 1). — I, 382.
- C_2H_5Se , 1) Dimethyldiselenid (A. 97, 5; 152, 211). — I, 382.
- C_2H_5Te , 1) Dimethyltellurid. Sd. 82°, H₂CO₃, H₂SO₄ (A. 93, 233; J. 1861, 566; B. 40, 100). — I, 383.
- C_2H_5Zn , 1) Zinkdimethyl. Sd. 46° (A. 85, 347; 111, 62; 130, 119; 144, 2; 173, 147—148; J. 1864, 467; Soc. 35, 569; B. 4, 80; 28, 1053). — I, 1522.
- C_2H_7N , C 53,3 — H 15,6 — N 31,1 — M. G. 45.
 1) Amidoäthan (Aethylamin). Sd. 18,7°. Salze meist bekannt. Lit. bedeutend. — I, 1122.
 2) Methylamidomethan (Dimethylamin). Sd. 7,2—7,3°. Salze meist bekannt. Lit. bedeutend. — I, 1118.
- C_2H_7N , C 32,9 — H 9,6 — N 57,5 — M. G. 73.
 1) Methylguanidin (Methyluramin). HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Oxalat + 2H₂O, Pikrat (A. 92, 409; 97, 339; 119, 48; J. 1878, 351; 1879, 333; B. 3, 896; 5, 477; 30, 2414). — I, 1163.
- C_2H_7N , C 23,8 — H 6,9 — N 69,3 — M. G. 101.
 1) Di[Amidoimidomethyl]amin (Diguanid). HCl, (2HCl, PtCl₄ + 2H₂O), H₂SO₄ + H₂O, (Cu₂, H₂SO₄ + 3H₂O), Pikrat, Cu + 2H₂O (B. 11, 967; 12, 777; 25, 545; M. 1, 88; 4, 412; 9, 228; 10, 87; 12, 11). — IV, 1309.
- C_2H_7N , C 18,6 — H 5,4 — N 76,0 — M. G. 129.
 1) Di[Amidoimidomethyl]triazin. H₂CO₃ + 1½ H₂O (A. 305, 79).
- C_2H_7P , 1) Aethylphosphin. Sd. 25°. HJ (B. 4, 432; 6, 302). — I, 1499.
 2) Dimethylphosphin. Sd. 25° (B. 4, 610). — I, 1498.
- C_2H_7As , 1) Dimethylarsin. Sd. 36—37° (B. 27, 1378).
- C_2H_7N , C 40,0 — H 13,3 — N 46,7 — M. G. 60.
 1) $\alpha\beta$ -Diamidoäthan (Aethylendiamin). Sm. 10°; Sd. 116,5°. Salze meist bekannt. Lit. bedeutend. — I, 1152.
 2) Aethylhydrazin. Sd. 99,5° bei 709 mm. HCl, 2HCl, H₂SO₄ (A. 199, 287; B. 29, 963). — I, 1149.
 3) s-Dimethylhydrazin. Fl. 2HCl, 2H₂SO₄, Oxalat (B. 28, 504; 31, 64).
 4) uns-Dimethylhydrazin. Sd. 62,2—63,9° bei 752,5 mm. HCl, 2HCl, (2HCl, PtCl₄), H₂SO₄, Oxalat (B. 8, 1589; 13, 2171; 30, 160; 31, 58). — I, 1148.

C₂H₂N₂

C 20,7 — H 6,9 — N 72,4 — M. G. 116.

- 1) s-Di[Amidoimidomethyl]hydrazin (Amidin d. Hydrazodicarbonsäure). $2\text{HNO}_3 + \text{H}_2\text{O}$ (A. 270, 42; 273, 141) — I, 1495.
- 2) Carbohydrazimin (s-Dihydrazidodimidoäthan). Zers. bei 125° (J. pr. [2] 50, 253; [2] 52, 272; G. 23 [2] 103). — IV, 1330.

C₂OCl₂

- 1) Tetrachloräthanoxyd? Sd. 110° bei 20 mm (Bl. [3] 11, 919).
- 2) Chlorid d. Trichloressigsäure. Sd. 118° (cor.) (A. ch. [3] 16, 57; J. 1873, 536; Z. 1870, 380; A. 60, 259; 209, 363; B. 11, 1971; 26, 1143; Bl. 20, 11; Soc. 37, 189; Bl. [3] 11, 918; C. 1899 [1] 588). — I, 471.

C₂OCl₄

- 1) Hexachlordimethyläther. Sd. 98° (100°) u. Zers. (A. 34, 33; B. 27 [2] 338). — I, 292.

C₂OBr₂

- 1) Bromid d. Tribromessigsäure. Sd. 220–225° (A. 129, 56). — I, 472.

C₂O₂Cl₂

- 1) Chlorid d. Oxalsäure. Sd. 70° (B. 25 [2] 110). — I, 646.

C₂O₂Cl₄

- 1) Trichlormethylester d. Chlorameisensäure. Sd. 127,5–128° (A. 64, 315; J. pr. [2] 36, 100, 214, 305). — I, 465.

C₂O₂Ni₂

- 1) Verbindung (aus Kohlenoxydnickel) + 10H₂O (Bl. [3] 7, 434).

C₂O₂N₄

- 1) Nitril d. Trinitroessigsäure. Sm. 41,5° (A. ch. [3] 49, 310). — I, 1462.

C₂NCl₂

- 1) Nitril d. Trichloressigsäure. Sd. 83–84°. + 2AlCl₃ (Bl. 49, 343; B. 6, 732; 9, 1594–1595). — I, 1455.

C₂NBr₂

- 2) polym. Nitril d. Trichloressigsäure (Perchlortrimethylcyanidin). Sm. 96° (J. pr. [2] 33, 77; [2] 46, 142; [2] 50, 114). — I, 1455.

C₂N₂Br₄

- 1) Nitril d. Tribromessigsäure. Sd. 170° (J. pr. [2] 47, 304; [2] 50, 100). — I, 1456.
- 2) polym. Nitril d. Tribromessigsäure. Sm. 129° (J. pr. [2] 47, 304; [2] 50, 102). — I, 1456.

C₂N₂S

- 1) Tetrabromdimethylenhydrazin (Tetrabromformalazin; Isocyanatetrabromid). Sm. 42° (B. 26, 2645; A. 303, 69).

C₂N₂S₂

- 1) Cyansulfid. Sm. 60° (A. 120, 36; A. ch. [2] 39, 197; J. pr. [2] 32, 197). — I, 1285.

C₂N₂S₃

- 1) Cyandisulfid (J. 1868, 314).

C₂N₂Se

- 1) Cyantrisulfid (J. pr. [2] 32, 187). — I, 1286.

C₂N₂Se₂

- 1) Cyanselenid (A. ch. [6] 9, 337). — I, 1289.

C₂N₂Se₃

- 1) Cyandiselenid (Z. 1867, 128; A. 260, 43). — I, 1289.

C₂ClBr₂

- 1) Cyantriselenid (A. ch. [6] 9, 328). — I, 1289.

C₂ClBr₃

- 1) Chlortribromäthen. Sm. 34°; Sd. 203–205° bei 734 mm (B. 12, 2208; Bl. [3] 11, 921; J. pr. [2] 58, 250; C. 1899 [1] 588). — I, 183.

C₂Cl₂Br₂

- 1) Chlorpentabromäthan. Sm. 170° u. Zers. (B. 12, 2207; J. pr. [2] 58, 250). — I, 170.

C₂Cl₂Br₄

- 1) αα-Dichlor-ββ-Dibromäthen. Sd. 194° (Bl. 24, 116; A. 195, 207). — I, 183.

- 2) αβ-Dichlor-αβ-Dibromäthen. Sd. 172° bei 765 mm (C. 1899 [1] 588).

- 3) isom.[?]-Dichlordibromäthen. Sd. 143–160° (J. 1871, 512).

- 4) isom. Dichlordibromäthen. Sm. 1–2°; Sd. 169–171° (Bl. [3] 11, 920).

- 1) αβ-Dichlor-ααββ-Tetrabromäthan. Sm. 191° (C. 1899 [1] 588).

- 2) αα-Dichlor-αβββ-Tetrabromäthan. Sm. 180° u. Zers. (B. 12, 2207). — I, 170.

- 3) isom. Dichlortetrabromäthan. Sm. 194–195° u. Zers.; subl. bei 150° (i. V.) (Bl. [3] 11, 920).

C₂Cl₂S₂

- 1) Chlorsulfoform (Z. 1867, 128). — I, 882.

C₂Cl₂Hg

- 1) Kohlenstoffquecksilberchlorid + $\frac{1}{2}\text{H}_2\text{O}$ (Am. 15, 538; B. 17, 13).

C₂Cl₃Br

- 1) Trichlorbromäthen. Sm. –12° bis –13°; Sd. 145–148° (Bl. [3] 11, 920).

C₂Cl₃Br₂

- 1) αββ-Trichlor-ααβ-Tribromäthan (Bl. [3] 19, 502).

- 2) Trichlortribromäthan. Sm. 178–180° u. Zers. (Bl. [3] 11, 920).

C₂Cl₃Br₃

- 1) αααβ-Tetrachlor-ββ-Dibromäthan (Bl. 23, 4; J. 1871, 259). — I, 170.

- 2) ααββ-Tetrachlor-αβ-Dibromäthan. Sm. 220–225° (Bl. 24, 114; [3] 19, 181). — I, 170.

C₂Cl₃S₂

- 1) Trichlormethylester d. Chlordithioameisensäure. Sm. 114–115° (116°) (A. 167, 205; B. 21, 2539; 26 [2] 600; Soc. 51, 271; G. 23 [2] 12). — I, 874.

C₂Cl₄S

- 1) Hexachlordimethylsulfid. Sd. 156–160° (A. ch. [3] 43, 288; A. 92, 355). — I, 354.

1,8,

- 1) Hexachlordimethyldisulfid. Sd. 135° (i. V.) (B. 20, 2379). — I, 356.

- $C_7Cl_4S_3$ 1) Hexachlordimethyltrisulfid. Sm. 57,4° (A. 167, 209; B. 20, 2380). — I, 356, 889.
- $C_7Cl_4Hg_2$ 1) Verbindung (aus d. Oxymercavid d. Aethan) (B. 31, 1907, 2216).
- $C_7Br_3J_3$ 1) β -Brom- $\alpha\alpha\beta$ -Trijodäthen. Sm. 135° (A. 298, 360).
- $C_7Br_3J_2$ 1) $\beta\beta$ -Dibrom- $\alpha\alpha$ -Dijodäthen. Sm. 95° (A. 298, 353).
- $C_7Br_3F_3$ 1) $\alpha\beta$ -Difluor- $\alpha\beta$ -Dibromäthen. Sd. 70,5° bei 771 mm (C. 1897 [2] 1099).
- $C_7Br_3F_2$ 1) Tribromfluoräthen. Sd. 147,2° (R. 17, 235).
- $C_7Br_3F_2$ 1) $\alpha\beta$ -Difluor- $\alpha\alpha\beta\beta$ -Tetrabromäthan. Sm. 62,5°; Sd. 186,5° bei 758 mm (C. 1897 [2] 1099).
- C_7Br_3F 1) Pentabromfluoräthan. Sm. 176° u. Zers. (R. 17, 236).
- $C_7Br_3S_3$ 1) Hexabromdimethyltrisulfid. Sd. 125° u. Zers. (B. 15, 276, 987; 16, 1144, 1147). — I, 356.
- $C_7J_4Hg_2$ 1) Verbindung (aus d. Nitrat $C_7HO_4NHg_2$) (B. 31, 2216).
- C_7Cr_3Fe 1) Kohlenstoffchromeisen (B. 28 [2] 49; R. 13, 169).
- $C_7Fe_3Mo_3$ 1) Kohlenstoffeisenmolybdän (Bl. [3] 19, 1024).

C_2 -Gruppe mit drei Elementen.

- C_2HOCl_2 1) Chlorid d. Dichloressigsäure. Sd. 107–108° (B. 14, 1618, 2066). — I, 470.
- 2) Aldehyd d. Trichloressigsäure (Chloral). Sd. 97,2° (cor.) Lit. bedeutend. — I, 929.
- 3) Metachloral (A. 54, 183; 171, 76; J. 1880, 696). — I, 930.
- 4) Polychloral. Sd. 239,5–240° (A. ch. [6] 12, 267). — I, 930.
- 5) Chloralhydrat. Sm. 57°; Sd. 97,5°. Lit. bedeutend. — I, 930.
- 6) isom. Chloralhydrat. Sm. 80° (A. 171, 74). — I, 930.
- C_2HOBr_2 1) Bromid d. Dibromessigsäure. Sd. 194° (A. 129, 55; B. 11, 318). — I, 479.
- 2) Aldehyd d. Tribromessigsäure (Bromal). Sd. 172–173°. + $NaHSO_4$ (A. 3, 305; 179, 69; B. 4, 366). — I, 935.
- 3) Bromalhydrat + $2H_2O$. Sm. 53,5° (B. 4, 366–367; 27, 2106). — I, 935.
- C_2HOJ_2 1) Aldehyd d. Trijodessigsäure (Jodal). Sd. über 200° (J. 1881, 588; R. 7, 322). — I, 936.
- C_2HO_2N C 33,8 — H 1,4 — O 45,1 — N 19,7 — M. G. 71.
- 1) Cyanameisensäure, nur Ester bekannt. — I, 1217.
- 2) Paracyanameisensäure = $(C_2HO_2N)_2$. Sm. über 250° u. Zers. K, Ag (J. pr. [2] 10, 212). — I, 1217.
- 3) Imid d. Oxalsäure (Oximid) (B. 19, 3229). — I, 1364.
- $C_2HO_2Cl_2$ 1) Trichloressigsäure. Sm. 55° (52,3°); Sd. 195°. Salze meist bekannt. Lit. bedeutend. — I, 470.
- $C_2HO_2Br_2$ 1) Tribromessigsäure. Sm. 135°. $Na + 2\frac{1}{2}H_2O$, $Ba + 3H_2O$, Pb , Ag (B. 4, 371; 8, 731; A. 129, 56). — I, 479.
- $C_2HO_2J_2$ 1) Trijodessigsäure. Sm. 150° u. Zers. (B. 26, 596).
- $C_2HO_2N_2$ C 18,3 — H 0,8 — O 48,8 — N 32,1 — M. G. 131.
- 1) Nitril d. Dinitroessigsäure. NH_4 , K, Ag, (Ag, NH_3) (A. 101, 215; 104, 251; 119, 249). — I, 1461.
- C_2HNCI_2 1) Nitril d. Dichloressigsäure. Sd. 112–113°. + HCl , + HBr (J. pr. [2] 31, 176; [2] 46, 148; B. 6, 723). — I, 1455.
- 2) polym. Nitril d. Dichloressigsäure. Sm. 69–70° (J. pr. [2] 31, 176; [2] 46, 148). — I, 1455.
- C_2HNBr_2 1) Nitril d. Dibromessigsäure. Sm. 142° (B. 7, 1571). — I, 1456.
- $C_2HN_2S_2$ 1) Verbindung (aus Dithiourazol). Sm. 244–245° (B. 28, 949).
- $C_2HN_2Se_2$ 1) Säure (aus Cyantriselenid). $NH_4 + H_2O$, K (A. ch. [6] 9, 348, 351).
- C_2HClBr_2 1) α -Chlor- $\alpha\beta$ -Dibromäthen. Sd. 141–142° bei 734 mm (A. 195, 207; Am. 5, 255). — I, 183.
- C_2HClBr_3 1) α -Chlor- $\alpha\alpha\beta\beta$ -Tetrabromäthan. Sm. 32–33°; Sd. 200–205° bei 285 mm (Am. 5, 255; A. 195, 199; 203, 90; B. 14, 1681; C. 1899 [1] 588). — I, 169.
- C_2HCl_2Br 1) $\alpha\alpha$ -Dichlor- β -Bromäthen. Sd. 114–116° bei 740 mm (A. 195, 208); Sd. 110–115° (A. 216, 261). — I, 183.
- 2) $\alpha\beta$ -Dichlor- α -Bromäthen. Sd. 112–113° (C. 1899 [1] 588).

- C_2HCl_3Br , 1) $\alpha\beta$ -Dichlor- $\alpha\alpha\beta$ -Tribromäthan. Sd. 133° bei 35 mm (C. 1899 [1] 588).
2) $\alpha\alpha$ -Dichlor- $\alpha\beta\beta$ -Tribromäthan. Sd. 215—220° (A. 195, 201). — I, 170.
- C_2HCl_3Br , 1) $\alpha\alpha\alpha$ -Trichlor- $\beta\beta\beta$ -Dibromäthan. Sd. 200° u. Zers. (J. 1871, 512). — I, 170.
- C_2HBrJ , 1) β -Brom- $\alpha\alpha$ -Dijodäthen. Sd. 104° bei 10 mm (A. 298, 358).
- C_2HBrF , 1) $\alpha\beta$ -Difluor- α -Bromäthen. Sd. 19,6° bei 770 mm (C. 1897 [2] 1099).
- C_2HBr_2J , 1) $\alpha\beta$ -Dibrom- α -Jodäthen. Sm. 66° (B. 18, 2285). — I, 197.
- C_2HBr_2F , 1) Dibromfluoräthen. Sd. 90° bei 748 mm (R. 17, 234).
- $C_2HBr_2F_2$, 1) $\alpha\alpha\beta$ -Trifluor- $\alpha\beta$ -Dibromäthan. Sd. 81,5° (C. 1897 [2] 1099).
- $C_2HBr_2F_2$, 1) $\alpha\beta$ -Difluor- $\alpha\alpha\beta$ -Tribromäthan. Sd. 146° (C. 1897 [2] 1099).
- $C_2HBr_2F_2$, 1) β -Fluor- $\alpha\alpha\alpha\beta$ -Tetrabromäthan. Sd. 106° bei 30 mm (C. 1897 [2] 1099; R. 17, 235).
- C_2H_2ON , C 34,3 — H 2,8 — O 22,9 — N 40,0 — M. G. 70.
1) Amid d. Cyanameisensäure. Sm. 60° (J. r. 7, 99; J. pr. [2] 10, 204). — I, 1236.
2) Amid d. Paracyanameisensäure = $(C_2H_2ON)_2$ (J. pr. [2] 10, 215). — I, 1236.
- $C_2H_2ON_2$, C 13,2 — H 1,1 — O 8,8 — N 76,9 — M. G. 182.
- $C_2H_2OCl_2$, 1) Oxyazotetrazol? Na, + 5H₂O, Ba + 4H₂O (A. 273, 150). — I, 1496.
1) Aldehyd d. Dichloressigsäure. Sd.: 88—90°; Hydrat + 2H₂O. Sm. 43° (56—57°) (Z. 1868, 667; 1871, 385; Bl. 34, 29; A. 206, 251; 257, 331; 279, 310; G. 14, 120). — I, 928.
2) polym. Aldehyd d. Dichloressigsäure. Sm. 129—130°; subl. bei 210 bis 220° (B. 8, 87). — I, 928.
3) polym. Aldehyd d. Dichloressigsäure. Sm. noch nicht bei 200° (A. 206, 253; 279, 310). — I, 928.
4) Chlorid d. Chloressigsäure. Sd. 105—106° (A. 102, 96; 130, 372 bis 373; B. 15, 1340; Z. 1868, 234). — I, 468.
- $C_2H_2OCl_2$, 1) Tetrachlordimethyläther (Gemisch d. s- u. uns-Aethers). Sd. 145° (B. 27, 337; A. 34, 33). — I, 293.
- $C_2H_2OBr_2$, 1) Aldehyd d. Dibromessigsäure. Sm. 142°. + H₂O (Sm. 63°) (A. 179, 70; B. 3, 758; Bl. [3] 11, 889). — I, 935.
2) Paraldehyd d. Dibromessigsäure (A. 179, 72). — I, 935.
3) Bromid d. Bromessigsäure. Sd. 149—150° (A. 124, 321; 129, 54, 263; 132, 179; Bl. 29, 305; Z. 1871, 693). — I, 478.
C 27,9 — H 2,3 — O 37,2 — N 32,6 — M. G. 86.
1) Cyanamidoameisensäure (Cyanamidokohlensäure), nur Salze bekannt. K₂, Na₂, Ca + 5H₂O, Sr + 2½H₂O, Ba + 1½H₂O (J. pr. [2] 18, 419). — I, 1438.
2) Knallsäure, nur Salze bekannt. Lit. bedeutend. — I, 1456.
3) Diazoessigsäure. Na (B. 18, 1283; 29, 669).
4) Nitril d. Nitroessigsäure. Sm. 40° (B. 9, 781). — I, 1461.
5) polym. Nitril d. Nitroessigsäure. Sm. 216° u. Zers. Hg (B. 9, 783). — I, 1461.
- $C_2H_2O_2N_2$, C 16,9 — H 1,4 — O 22,5 — N 59,1 — M. G. 142.
1) 1,2,3,4-Tetrazol-5-Azocarbonsäure. K₂ (A. 287, 238; 303, 73). — IV, 1494.
- $C_2H_2O_2Cl_2$, 1) Dichloressigsäure. Sm. — 4°; Sd. 189—191°. K, Ca + 3H₂O, Na + 2UrO, Ag, β -Naphthylaminsalz (J. 1864, 316; J. pr. [2] 27, 16; [2] 58, 125; A. 133, 154, 159; 155, 132; 173, 290; 206, 254; Am. 9, 215; B. 9, 1212; 10, 1526; 14, 35, 578; 18, 757, 1764; 22, 1476; Ph. Ch. 3, 177; C. r. 47, 1017; C. 1896 [1] 997). — I, 462.
- $C_2H_2O_2Br_2$, 1) Dibromessigsäure. Sm. 45—50°; Sd. 232—234° u. Zers. NH₄, K + H₂O, Ba + 4(6)H₂O, Pb, Ag (A. 110, 115; 189, 169; B. 4, 368; 11, 319; 14, 583; J. 1877, 695; Z. 1866, 188; M. 3, 621; Bl. [3] 7, 365). — I, 478.
- $C_2H_2O_2J_2$, 1) Dijodessigsäure. Sm. 110°. Ba (A. 117, 351; 231, 273; B. 26, 596). — I, 490.
- $C_2H_2O_2S$, 1) Thioglyoxylsäure. Pb + 2H₂O (Bl. [3] 15, 134).
- $C_2H_2O_2Cl_2$, 1) Dichloroxyessigsäure, nur Ester bekannt. — I, 551.
- $C_2H_2O_2N_2$, C 20,3 — H 1,7 — O 54,2 — N 23,7 — M. G. 118.
1) Azodicarbonsäure. K₂, Ba (A. 271, 130). — I, 1495.
- $C_2H_2O_2S$, 1) Dicarbothionsäure (B. 2, 298).
- $C_2H_2O_2Hg_2$, 1) Oxymercabid d. Aethan. Zers. bei 230°. 2HNO₃, 2H₂SO₄ (B. 31, 1904, 2216).

- $C_4H_4O_4N_4$ C 11,4 — H 0,9 — O 60,9 — N 26,7 — M. G. 210.
 1) $\alpha\alpha\beta\beta$ -Tetranitroäthan. K_2 , Ag, (B. 31, 647).
- C_4H_4NCl 1) Nitril d. Chloressigsäure. Sd. 123—124° (B. 6, 732, 1003; 29, 2417 Anm.; Bl. 49, 342). — I, 1455.
- $C_4H_4NCl_2$ 1) Chloralimid. Sm. 150—155° (B. 10, 1068; A. ch. [6] 26, 7). — I, 931.
 2) Isochloralimid = $(C_4H_4NCl_2)_n$. Sm. 105—106° (A. ch. [6] 26, 34, 60). — I, 931.
- C_4H_4NBr 1) Nitril d. Bromessigsäure. Sd. 148—150° (Bl. 47, 400). — I, 1456.
- C_4H_4NJ 1) Nitril d. Jodessigsäure. Sd. 186—187° (182—184° bei 720 mm) (Bl. 47, 400; B. 29, 2416). — I, 1456.
- $C_4H_4N_2S$ 1) Amid d. Cyanthioameisensäure (Flaveanwasserstoff). Sm. 87—90° u. Zers. (A. ch. [2] 95, 136; A. 38, 319; 254, 263). — I, 1369.
- $C_4H_4N_2S_2$ 1) norm. Dithiocyansäure. K_2 (J. pr. [2] 38, 385). — I, 1284.
 2) Isodithiocyansäure. $K + H_2O$, $Ba + 2H_2O$, Pb , Cu , (K, Ag) , Ag (A. 179, 204; J. pr. [2] 38, 383). — I, 1284.
- $C_4H_4N_2S_3$ 1) 3,5-Dimerkapto-1,2,4-Thiodiazol (norm. Persulfocyansäure). $K + H_2O$, $Ba + 4H_2O$, Pb , Ag , (J. pr. [2] 38, 373). — I, 1287.
 2) 2,5-Dimerkapto-1,3,4-Thiodiazol. Sm. 168°. K_2 , Na , Hydrazinsalz (B. 27, 2518).
 3) 3,5-Dithiocarbonyltetrahydro-1,2,4-Thiodiazol (Isopersulfocyansäure). Pb , Ag , (A. 10, 8; 43, 75; 154, 39; Z. 1866, 417; J. pr. [2] 38, 368; Soc. 32, 254; 37, 226; 71, 608, 833; B. 15, 1603). — I, 1286.
- $C_4H_4N_2Cl$ 1) 5-Chlor-1,2,4-Triazol. Sm. 167,5° (A. 303, 50).
- $C_4H_4N_2Br$ 1) 5-Dibrommethylenhydrazido-1,2,3,4-Tetrazol + $\frac{1}{2}H_2O$. Sm. 177° (A. 303, 67). — IV, 1509.
- C_4H_4ClBr 1) α -Chlor- α -Bromäthen. Sd. 62—63° bei 750 mm (55—58°) (A. Spl. 3, 288; B. 11, 1304 u. Anm.; Bl. 42, 263; A. 195, 206). — I, 183.
 2) isom. α -Chlor- α -Bromäthen. Fest (A. 195, 206).
 3) α -Chlor- β -Bromäthen (Acetylenchlorobromid). Sd. 82° (Soc. 41, 391); Sd. 80—83° (A. 216, 258). — I, 183.
- $C_4H_4Cl_2Br$ 1) α -Chlor- $\alpha\alpha\beta$ -Tribromäthan. Sd. 200—201° bei 735 mm (A. 195, 197; Bl. 42, 262). — I, 169.
- $C_4H_4Cl_2J$ 1) α -Chlor- β -Jodäthen (Acetylenchlorojodid). Sd. 119° (114—116°) (Soc. 41, 392; A. 216, 263; G. 19, 593). — I, 197.
- $C_4H_4Cl_2Br_2$ 1) $\alpha\alpha$ -Dichlor- $\alpha\beta$ -Dibromäthan. Sd. 176—178° (A. 195, 200). — I, 170.
 2) $\alpha\alpha$ -Dichlor- $\beta\beta$ -Dibromäthan. Sd. 195—200° (A. 216, 257; C. 1899 [1] 588). — I, 170.
 3) $\alpha\beta$ -Dichlor- $\alpha\beta$ -Dibromäthan. Sd. 190—195° (A. 216, 262; Bl. [3] 19, 501). — I, 170.
- $C_4H_4Cl_3Br$ 1) $\alpha\alpha\alpha$ -Trichlor- β -Bromäthan. Sd. 151—152° (Bl. 42, 262). — I, 170.
- $C_4H_4Cl_3S$ 1) Dichlormethyläther d. Dichlormerkaptomethan (s-Tetrachlordimethylsulfid). Fl. (A. ch. [3] 43, 287; A. 92, 355). — I, 354.
- C_4H_4BrJ 1) α -Brom- α -Jodäthen. Sd. 128—130° (Bl. 42, 263). — I, 197.
 2) α -Brom- β -Jodäthen. Sd. 150° (140—150° u. Zers.) (Soc. 41, 394; A. 216, 266). — I, 197.
- $C_4H_4Br_2J$ 1) Dibromdijodäthan. Sm. 100° (A. 135, 259).
- $C_4H_4Br_2F_2$ 1) Dibromdifluoräthan. Sd. 107,5° bei 760 mm (R. 17, 233).
- $C_4H_4Br_3F$ 1) $\alpha\beta\beta$ -Tribrom- α -Fluoräthan. Sd. 178° bei 760 mm (R. 17, 233).
- C_4H_4ON C 42,1 — H 5,2 — O 28,1 — N 24,6 — M. G. 57.
 1) norm. Cyansäuremethyläther (B. 3, 271). — I, 1266.
 2) polym. Cyansäuremethyläther = $(C_4H_4ON)_n$. Sm. 98° (B. 3, 766). — I, 1271.
 3) Isocyansäuremethyläther. Sd. 43—45° (A. ch. [3] 42, 59; A. 149, 313; Bl. [3] 19, 198; C. 1899 [1] 785). — I, 1265.
 4) Nitril d. Oxyessigsäure. Sd. 183° u. Zers. (Bl. [3] 4, 402). — I, 1469.
 5) Glykolimidanhydrid, siehe $C_4H_4O_4N_2$.
- $C_4H_4ON_2$ C 28,2 — H 3,5 — O 18,8 — N 49,4 — M. G. 85.
 1) Cyanharnstoff (Amidodicyansäure; Carbamiucyamid). Zers. bei 100°. Na , Ka , $Ba + 3H_2O$, $Cu + 4H_2O$, Ag (A. 153, 295; B. 8, 709; M. 10, 343). — I, 1442.
 2) 3-Oxy-1,2,4-Triazol. Sm. 234° (232°). $CuOH$, Ag , (B. 31, 379, 2447). — IV, 1100.
 3) Amid d. Diazoessigsäure. Sm. 114° u. Zers. (B. 18, 1284; J. pr. [2] 38, 411). — I, 1493.

- $C_4H_5ON_4$ C 17,0 — H 2,1 — O 11,3 — N 69,5 — M. G. 141.
1) Amid d. 1,2,3,4-Tetrazol-5-Azocarbonsäure. Na + 2H₂O (A. 303, 72). — IV, 1494.
- C_4H_5OCl 1) Chloräthanoxyd (Chloräthylenoxyd). Sd. 70—80°. (A. 216, 269). — I, 306.
2) Aldehyd d. Chloressigsäure + $\frac{1}{2}$ H₂O. Sm. 43—45° (65—75°); Sd. 85,5° bei 738 mm (cor.) (87—90°). + NaHSO₄ + $\frac{1}{2}$ H₂O, + H₂Cl₂ (Z. 1867, 678; 1868, 617; 1870, 513, 647; B. 4, 216; 6, 1256; A. 206, 340; 257, 335; 279, 307; M. 3, 442, 455). — I, 927.
3) polym. Aldehyd d. Chloressigsäure. Kryst. Sm. 87—87,5° (M. 3, 461; 6, 521; Bl. [3] 13, 663). — I, 927.
4) polym. Aldehyd d. Chloressigsäure. Amorph (M. 3, 459). — I, 927.
5) Chlorid d. Essigsäure. Sd. 50,9°. 3 + AlCl₃, + TiCl₄ (Z. 1870, 105; Bl. 33, 403; A. 95, 208; 120, 330; 203, 14; Soc. 37, 188; J. 1873, 534; A. ch. [6] 12, 204; B. 11, 1971; J. pr. [2] 35, 95). — I, 459.
- $C_4H_5OCl_3$ 1) $\beta\beta\beta$ -Trichlor- α -Oxyäthan (Trichloräthylalkohol). Sm. 17,8°; Sd. 150 bis 152°. Zn (A. 210, 67; B. 15, 1020; 26, 2758; H. 6, 488; Bl. 48, 785). — I, 243.
2) Trichlordimethyläther. Sd. 130—132° (B. 27 [2] 337).
- C_4H_5OBr 1) Bromäthanoxyd (Bromäthylenoxyd). Sd. 89—92° (B. 9, 51; A. ch. [3] 69, 326). — I, 306.
2) Aldehyd d. Bromessigsäure. Sd. 80—105° (B. 25, 2551). — I, 935.
3) Bromid d. Essigsäure (Bromacetyl). Sd. 81° (A. 95, 209; 129, 53; B. 13, 1688; Z. 1870, 105; A. ch. [5] 17, 83). — I, 460.
- C_4H_5OJ 1) Aldehyd d. Jodessigsäure (Z. 1868, 618; A. ch. [6] 16, 147). — I, 936.
2) Jodid d. Essigsäure (Jodacetyl). Sd. 108° (A. 95, 209; 103, 335; 231, 272). — I, 461.
- C_4H_5OF 1) Fluorid d. Essigsäure. Gas; bei 10,5° u. 750 mm flüssig (B. 25 [2] 502, 503; Bl. [3] 17, 59). — I, 457.
- $C_4H_5OS_2$ 1) Verbindung (aus Glyoxylsäure) = (C₄H₅OS₂)_n (A. 198, 214). — I, 898.
- $C_4H_5O_2N_2$ C 23,8 — H 3,0 — O 31,7 — N 41,5 — M. G. 101.
1) Urazol (3,5-Diketotetrahydro-1,2,4-Triazol). Sm. 244—245°. NH₄, Na + 2H₂O, K, Ba + 3H₂O, Pb, Ag (A. 283, 41; 303, 102; G. 24 [1] 502).
2) Methylester d. Stickstoffkohlenensäure. Sd. 102° (J. pr. [2] 52, 480).
3) Azid d. Oxyessigsäure (J. pr. [2] 52, 225).
- $C_4H_5O_2N_3$ C 18,6 — H 2,3 — O 24,8 — N 54,3 — M. G. 129.
1) Azid d. Harnstoffcarbonsäure (A. d. Allophansäure). Sm. 195° u. Zers. (A. 303, 105).
- $C_4H_5O_2Cl$ 1) Chloressigsäure. Sm. 62,5—63,2° (u. 52°); Sd. 185—187°. K + $\frac{1}{2}$ H₂O, Na + 2UrO, Ba + H₂O, Ag. Lit. bedeutend. — I, 467.
2) Unterchlorig-Essigsäureanhydrid (A. 120, 114, 115; B. 12, 26). — I, 462.
3) Methylester d. Chlorameisensäure. Sd. 66,5—67,5° (71—71,5° bei 750 mm) (B. 6, 964—965; J. 1863, 474; J. pr. [2] 26, 447; [2] 36, 213; A. 15, 39; 205, 229). — I, 465.
4) Chlormethylester d. Ameisensäure. Sd. 100° (B. 6, 742).
5) Chlorid d. Oxyessigsäure (J. pr. [2] 7, 343). — I, 548.
- $C_4H_5O_2Br$ 1) Bromessigsäure. Sm. 50—51°; Sd. 208° (196°). Na + 2UrO, Pb, Ag (A. 108, 106; 119, 123; 129, 269; 251, 342; A. Spl. 7, 115; M. 2, 599; Am. 5, 202; 15, 484; B. 7, 496; 9, 561; 11, 243, 316; 12, 735; 14, 35; 16, 588; J. 1878, 684; Bl. [3] 7, 365; Ph. Ch. 3, 178). — I, 477.
- $C_4H_5O_2J$ 1) Jodessigsäure. Sm. 82° (84°). Ba, Pb (Z. 1868, 483; A. 112, 125; 131, 223; B. 26, 597). — I, 489.
- $C_4H_5O_2F$ 1) Fluoressigsäure. Sm. 33°; Sd. 165° (Bl. [3] 15, 1134).
- $C_4H_5O_3N$ C 27,0 — H 3,3 — O 54,0 — N 15,7 — M. G. 89.
1) Oximidoessigsäure + H₂O (Nitrosoessigsäure). Sm. 137—138° u. Zers. (wasserfrei). Ba + 2H₂O (B. 25, 713; A. 289, 294). — I, 492.
2) Monamid d. Oxalsäure (Oxaminsäure). Sm. 210° u. Zers. Salze meist bekannt (J. 1856, 453; 1857, 296; 1860, 244; 1874, 847; A. 42, 198; 120, 237; 137, 105; B. 19, 3229; 21, 2990; 22, 1569; A. ch. [6] 28, 116; Ph. Ch. 3, 286; J. pr. [2] 53, 23). — I, 1361.
- $C_4H_5O_3N$ C 22,9 — H 2,8 — O 61,0 — N 13,3 — M. G. 105.
1) Nitroessigsäure. Nur Aethylester C₄H₇O₃N bekannt.
2) Oxalmonohydroxamsäure. NH₄, Na, K, K₂ + $\frac{1}{2}$ H₂O (B. 27, 803, 1108, 1111).

- C₂H₂O₂N₂ C 14,5 — H 1,8 — O 58,2 — N 25,5 — M. G. 165.
 1) ααα-Trinitroäthan. Sm. 56° (B. 32, 637).
- C₂H₂O₂N₂ C 12,4 — H 1,6 — O 49,7 — N 36,3 — M. G. 193.
 1) Nitroamid d. β-Nitroharnstoff-α-Carbonsäure (Dinitrobiuret). Zers. bei 124°. K, (A. 303, 97).
- C₂H₂NBr 1) Verbindung (aus Essigsäurenitril). Subl. bei 65° (A. 133, 139; 142, 69). — I, 1454.
- C₂H₂NJ 1) ββ-Dijod-α-Amidoäthen (Dijodvinylamin). Sm. 192° u. Zers. (B. 19, 851). — I, 1140.
- C₂H₂NS 1) Methylsenföhl. Sm. 34°; Sd. 119° (B. 1, 172; G. 17, 70). — I, 1282.
 2) Rhodanmethan (Methylrhodanid). Sd. 132,9° bei 757,2 mm (J. 1851, 51; 1875, 257; A. 61, 95; G. 17, 70; Soc. 51, 268; C. 1898 [1] 886). — I, 1278.
- C₂H₂NSe 1) Selencyanmethan (Methylselencyanid). Sd. 158° (B. 19, 1577). — I, 1289.
- C₂H₂N₂S 1) 2-Merkapto-1,3,4-Triazol. Sm. 215—216° (B. 29, 2484). — IV, 1101.
 2) 2-Imido-2,3-Dihydro-1,3,4-Thiodiazol (Imidothiobiazolin). Sm. 191°. HCl (B. 29, 2514). — IV, 1102.
- C₂H₂N₂S 1) 3,5-Dithiocarbonyltetrahydro-1,2,4-Triazol (Dithiourazol). Sm. 245° u. Zers. (B. 27, 1774; 28, 949).
- C₂H₂ClBr 1) α-Chlor-αα-Dibromäthan. Sd. 123—124° (A. 195, 196). — I, 162.
 2) α-Chlor-αβ-Dibromäthan. Sd. 162,5—163° (A. Spl. 3, 287; A. 195, 196; Bl. 42, 263). — I, 162.
 3) α-Chlor-ββ-Dibromäthan (Bl. 42, 263). — I, 162.
- C₂H₂Cl₂Br 1) αα-Dichlor-α-Bromäthan. Sd. 98—99° (A. 195, 199). — I, 170.
 2) αα-Dichlor-β-Bromäthan. Sd. 138° (Bl. 42, 262; 47, 959). — I, 170.
 3) αβ-Dichlor-α-Bromäthan (3 isom. Formen). α-Form Sd. 137°; β-Form Sd. 151°; γ-Form Sd. 158—162° (Bl. 29, 485). — I, 170.
- C₂H₂Cl₂J 1) αα-Dichlor-β-Jodäthan. Sm. 171—172° (Bl. 42, 263). — I, 191.
- C₂H₂Cl₂S 1) Verbindung (aus Aethylrhodanid). Sd. 134—135° (J. pr. [2] 30, 316). — I, 1278.
- C₂H₂Br₂J 1) Dibromjodäthan. Sd. 170—180° (J. 1874, 327). — I, 191.
- C₂H₂F₂B 1) Difluorboräthan. Sd. 124—125° (B. 12, 1586). — I, 112.
- C₂H₂ON C 33,3 — H 5,5 — O 22,2 — N 38,9 — M. G. 72.
 1) Methylenharnstoff (M. 12, 94; B. 29, 2438, 2751; C. 1897 [2] 737). — I, 1313.
 2) Aethylazaurolsäure, siehe C₂H₂O₂N₂.
- C₂H₂ON C 24,0 — H 4,0 — O 16,0 — N 56,0 — M. G. 100.
 1) 3-Keto-1,2,3,4-Tetrahydro-1,2,4,5-Tetrazin (Methenylcarbohydrazid). Sm. 181°. Ag (B. 27, 2685; J. pr. [2] 52, 475).
- C₂H₂ON C 18,7 — H 3,1 — O 12,5 — N 65,6 — M. G. 128.
 1) Azid d. Guanidincarbonsäure. HCl (A. 303, 112).
- C₂H₂OCl 1) ββ-Dichlor-α-Oxyäthan (Dichloräthylalkohol). Sd. 146° (J. 1887, 1247). — I, 243.
 2) α-Dichlordimethyläther. Sd. 105° (103°) (Z. 1865, 618; A. 34, 31; J. r. 19, 473; B. 27 [2] 337; G. 28 [2] 484). — I, 292.
- C₂H₂OBr 1) ββ-Dibrom-α-Oxyäthan (Dibromäthylalkohol). Sd. 179—181° (B. 9, 49). — I, 243.
 2) α-Dibromdimethyläther. Sd. 154—155° (148,5—151°) (J. r. 19, 472; B. 27 [2] 336; Bl. [3] 17, 222). — I, 292.
- C₂H₂OJ 1) α-Dijoddimethyläther. Sd. 218—219° (J. r. 19, 470; B. 26 [2] 934). — I, 292.
- C₂H₂OS 1) Methanthiolcarbonsäure (Thiolessigsäure, Thiacefsäure). Sd. 93° (95°). Na + 1/2 H₂O, K, Ca + 2H₂O, Sr + 2H₂O, Ba + 3H₂O, Cd, Bi, Pb, Cu, Hg, (Hg, HgO) (J. 1859, 354; Z. 1866, 543; A. 90, 311; 109, 272; 123, 278; B. 19, 1934; 27, 3437; 28, 1204; G. 25 [1] 269, 341; 27 [1] 316). — I, 874.
- C₂H₂OS 1) Oxydithioameisenmethyläthersäure (Methylxanthogensäure). K (B. 11, 1505). — I, 884.
- C₂H₂O₂N₂ C 27,3 — H 4,5 — O 36,4 — N 31,8 — M. G. 88.
 1) αβ-Dioximidoäthan (Glyoxim). Sm. 178°. Ag (B. 16, 506; 17, 2001; 25, 705; A. 289, 293). — I, 970.
 2) Formylharnstoff. Sm. 168—169° (159°). Hg + H₂O (Z. 1868, 300; A. ch. [6] 28, 92; B. 29, 2046; Bl. [3] 11, 573). — I, 1302.

- C₂H₂O₂N₂** 3) *s*-Diformylhydrazin. Sm. 159—160°. Na, Na₂, Pb (*J. pr.* [2] 51, 182; *B.* 27, 2277; 28, 503).
- 4) Hydrazieessigsäure. Ag (*B.* 27, 777).
- 5) Amid d. Oxalsäure (Oxamid). Sm. 417—419° u. Druck. HCl, Tartrat, Zn, + HgO, 4 + 5 CuO (*A.* 9, 129; 82, 233; 109, 72; 113, 246; 128, 128; *J.* 1849, 293; 1854, 393; 1857, 419; 1885, 1333; *Z.* 1868, 299; *C.* 1895 [1] 1112; *A. ch.* [2] 44, 129; [2] 54, 240; *B.* 12, 562; 18, 355; 28, 1632; *Soc.* 55, 107; *R.* 4, 195). — I, 1364.
- C₂H₂O₂N₂** C 20,7 — H 3,4 — O 27,6 — N 48,3 — M. G. 116.
- 1) 3,6-Diketo-hexahydro-1,2,4,5-Tetrazin (Bishydrazincarboxyl; Diharnstoff). Sm. 270° (266—267°). NH₄ + H₂O, N₂H₄, Ba + 3H₂O, Ag (*B.* 27, 2684; *J. pr.* [2] 52, 481; *G.* 27 [2] 63).
- 2) *s*-Dinitrosoazomethan (Methylazauronsäure) (*A.* 214, 328). — I, 203.
- 3) Amid d. Azodicarbonsäure (*A.* 270, 42; 271, 129; *B.* 27, 774; *J. pr.* [2] 52, 469, 480). — I, 1495.
- C₂H₂O₂Cl₂** 1) Hydrat d. Aldehyd d. Dichloressigsäure. Sm. 57° (*A.* 206, 251).
- C₂H₂O₂S** 1) Merkaptoessigsäure. Fl. Salze meist bekannt (*B.* 6, 660; 10, 1354; 12, 1368; 14, 1265; 19, 117, 1931; 21, 478; *A.* 187, 113; 198, 215; 207, 124; *Ph. Ch.* 3, 182; *H.* 17, 463). — I, 889.
- C₂H₂O₂N₂** C 23,1 — H 3,8 — O 46,2 — N 26,9 — M. G. 104.
- 1) α -Nitroso- α -Nitroäthan (Aethylnitrolsäure). Sm. 88° (81—82°) u. Zers. HN₃, HK (*A.* 175, 98; 180, 170; 214, 329; 280, 283; 283, 239, 242; *B.* 31, 2863). — I, 206.
- 2) Isoäthylnitrolsäure. Sm. 75° (*J. r.* 15, 91; *B.* 31, 2863, 2879). — I, 206.
- 3) Erythroäthylnitrolsäure. K, Ag (*B.* 31, 2864).
- 4) Leukoäthylnitrolsäure. K (*B.* 31, 2872).
- 5) Methazonsäure. Sm. 79—80°. K (*B.* 9, 705; 29, 2288). — I, 203.
- 6) Harnstoffcarbonsäure (Allophansäure). K₂, Ca, Ba (*A.* 59, 291; 244, 38; *B.* 4, 265). — I, 1305.
- 7) Nitrosoacethydroxamsäure. Sm. 75° (*B.* 16, 960).
- 8) Oxaminhydroxamsäure. NH₄ (*B.* 27, 803).
- 9) Amidooximidoessigsäure (Oxalenmonamidoxim). Sm. 158°. Ag (*R.* 13, 84; 15, 148).
- 10) Methylester d. Nitrosamidoameisensäure. Sm. 61° u. Zers. NH₄, Ag (*A.* 302, 251).
- 11) Monoxydiamid d. Oxalsäure (Hydroxyloxamid). Sm. 159° (*A.* 288, 314; *R.* 15, 148).
- C₂H₂O₂S** 1) Merkaptooxyessigsäure. Pb, Ag (*B.* 25 [2] 511).
- 2) Aethensulfonsäure. Fl. NH₄, Na, K, Ba + H₂O, Pb + 2H₂O (*Am.* 19, 740, 750; 20, 684).
- C₂H₂O₂N₂** C 20,0 — H 3,3 — O 53,3 — N 23,3 — M. G. 120.
- 1) $\alpha\alpha$ -Dinitroäthan. Sd. 185—186° (cor.). K, Ag (*A.* 181, 4; 280, 282; 283, 239, 243; *J.* 1883, 1079; *Bl.* 31, 504; *B.* 26, 3008; 32, 626; *J. pr.* [2] 51, 504; [2] 55, 192). — I, 207.
- 2) $\alpha\beta$ -Dinitroäthan. Sm. 37,5° (*J.* 1864, 480). — I, 207.
- 3) Dinitrit d. $\alpha\beta$ -Dioxyäthan (Salpetrigsäureäthylenester). Sd. 96—98° (*G.* 15, 353). — I, 323.
- 4) Oxalhydroxamsäure. Sm. 165 u. Zers. NH₄, Na, Ka, Ca, Ba, Zn, Ag, (*A.* 150, 314; *B.* 27, 801, 1107). — I, 1371.
- 5) isom. Oxalhydroxamsäure. Ca + 4H₂O, Ba, Cu + H₂O, Ag, (*A.* 153, 314; *B.* 27, 1105). — I, 1371.
- 6) Nitramidoessigsäure. Sm. 103—104° u. Zers. Cu + 2H₂O, Ag, (*B.* 29, 1684).
- 7) Isonitramidoessigsäure. NH₄, Ca + 2H₂O (*B.* 28, 1791).
- 8) Methylester d. Nitramidoameisensäure. Sm. 88°; Zers. bei 120 bis 130°. NH₄, K, Hg, Ag (*A.* 302, 249).
- C₂H₂O₂N₂** C 16,2 — H 2,7 — O 43,2 — N 37,8 — M. G. 148.
- 1) Dinitroacetonitril + Ammoniak (*A.* 101, 215; 104, 250; 119, 249).
- 2) Amid d. β -Nitroharnstoff- α -Carbonsäure (Nitrobiuret). Sm. 165° u. Zers. K, Ag (*A.* 303, 95).
- C₂H₂O₂Hg₂** 1) Verbindung (Base). HNO₂, C₂H₂O₂ (*Soc.* 39, 242).
- C₂H₂O₂N₂** C 17,7 — H 2,9 — O 58,8 — N 20,6 — M. G. 136.
- 1) Nitritnitrat d. $\alpha\beta$ -Dioxyäthan? Fl. (*B.* 2, 329). — I, 325.

- $C_2H_4O_3S$ 1) Methancarbonsäuresulfonsäure + $1\frac{1}{2}H_2O$ (Sulfoessigsäure). Sm. 75° ($68-72^\circ$). K, K₂ + H_2O , Ca + H_2O , Ba + H_2O , Pb, Ag, + H_2O (A. 52, 276; 124, 55; 131, 165; 140, 81; 148, 109; 168, 145; B. 6, 659; 13, 1425; 14, 64; M. 1, 452; 4, 132, 133 Anm.; R. 7, 28; J. 1881, 859). — I, 901.
- $C_2H_4O_3S_2$ 1) Methanunterschweiflensäure-Carbonsäure (Acetunterschweiflige Säure). Na, K, Ba + $2H_2O$, Ag, (G. 22 [1] 422). — I, 902.
- $C_2H_4O_2N_2$ C 15,8 — H 2,6 — O 63,2 — N 18,4 — M. G. 152.
- 1) Dinitrat d. $\alpha\beta$ -Dioxyäthan (Z. 1871, 469; B. 3, 530; A. ch. [4] 27, 253; Soc. 55, 685). — I, 325.
- $C_2H_4O_3S_2$ 1) Anhydrid d. Aethan- α -Sulfonsäure- β -Schwefelsäure (Aethionsäureanhydrid). Sm. 80° (A. 25, 32; P. 47, 509; J. pr. [2] 19, 253). — I, 381.
- $C_2H_4O_3S$ 1) Verbindung (Säure) (A. 140, 83).
- $C_2H_4O_3S_2$ 1) α -Oxyäthan- $\beta\beta$ -Disulfonsäure. Fl. Na, + H_2O , K, + H_2O , Ba + $2H_2O$, Ba, + BaO + $4H_2O$, Pb (A. 303, 119).
- $C_2H_4O_3S_2$ 1) Methancarbonsäuredisulfonsäure (Disulfoessigsäure) (A. 161, 156). — I, 901.
- $C_2H_4N_2Cl_2$ 1) α -Imido- α -Dichlormethylamidomethan (Dichlormethylformamidin). HCl (Sm. 180° u. Zers.) (B. 15, 2361; 16, 309; 31, 1770). — I, 1411.
- $C_2H_4N_2Br_2$ 1) α -Imido- α -Dibrommethylamidomethan (Dibrommethylformamidin). HBr (A. ch. [4] 17, 141; B. 15, 2362; 16, 311). — I, 1411.
- $C_2H_4N_2S$ 1) Methylenthioharnstoff. Sm. 200° u. Zers. (M. 12, 90). — I, 1330.
- 2) Methylthiocyanamid. HCl (B. 29, 2499).
- $C_2H_4N_2S_2$ 1) Amid d. Dithiooxalsäure (Rubeanwasserstoff). Na, Pb (A. 38, 315; P. 3, 177; J. pr. [2] 29, 129; B. 13, 528; 22, 2655). — I, 1369.
- $C_2H_4N_2S_2$ 1) Anhydrid d. Amidodithioameisensäure (Thiuramsulfid). $(NH_4)_2$, Cu (Berz. J. 4, 97; A. 166, 141; J. pr. [2] 36, 62). — I, 1262.
- $C_2H_4N_2S_2$ 1) Thiuramdisulfid. Zers. bei 153° (A. 48, 95; 73, 27; 166, 142; 285, 201; B. 14, 2757; J. pr. [2] 36, 60; C. 1899 [1] 128). — I, 1263.
- $C_2H_4N_2S$ 1) 5-Imido-3-Thiocarbonyltetrahydro-1,2,4-Triazol (Imidothiourazol). Sm. $221-223^\circ$. HCl + H_2O (B. 27, 1775; 28, 950). — IV, 1235.
- 2) 5-Methylamido-1,2,3,4-Thiotriazol. Sm. 96° (B. 29, 2497). — IV, 1232.
- C_2H_4ClBr 1) α -Chlor- α -Bromäthan (uns-Aethylidenechlorobromid). Sd. $82,7^\circ$ bei 760 mm (A. 155, 215; 195, 194; 231, 278; B. 15, 2563; Bl. 29, 483). — I, 169.
- 2) α -Chlor- β -Bromäthan. Sd. $107-108^\circ$ (A. 156, 16; J. pr. [2] 13, 422; [2] 26, 380; Bl. 29, 484; 31, 410; 33, 12; B. 9, 556; 16, 1217). — I, 169.
- C_2H_4ClJ 1) α -Chlor- α -Jodäthan. Sd. $117-119^\circ$ (Bl. 31, 411). — I, 191.
- 2) α -Chlor- β -Jodäthan. Sd. 140° ($137-138^\circ$) (A. 125, 102; 127, 372; A. Spl. 6, 253; Bl. 17, 242; Z. 1870, 518; Soc. 37, 189; B. 6, 964). — I, 191.
- $C_2H_4Cl_2S$ 1) β -Dichlormerkaptoäthan? Fl. (A. 113, 277). — I, 349.
- 2) Chlormethyläther d. Chlormerkaptomethan (α -Dichlordimethylsulfid). Fl. (A. ch. [3] 43, 286; A. 92, 354). — I, 354.
- C_2H_4BrJ 1) α -Brom- α -Jodäthan. Sd. $142-143^\circ$ (A. 155, 213; Bl. 31, 412; J. 1865, 483; B. 7, 913). — I, 191.
- 2) α -Brom- β -Jodäthan. Sm. 28° ; Sd. 163° (J. r. 5, 334; 6, 203; B. 7, 655, 907; J. 1874, 326; A. 155, 213). — I, 191.
- C_2H_4ON C 40,7 — H 8,5 — O 27,1 — N 23,7 — M. G. 59.
- 1) Oximidoäthan (Acetaldoxim). Sm. 47° ; Sd. $114-115^\circ$ (B. 15, 1526 Anm.; 15, 2784; 16, 829; 26, 1432; 26 [2] 610; R. 10, 236; Soc. 61, 473; 65, 209; C. 1898 [2] 178). — I, 969.
- 2) isom. Oximidoäthan? Sm. 12° (Soc. 61, 473; 65, 209; C. 1898 [2] 178).
- 3) Aldehyd d. Amidoessigsäure. HCl, (2HCl, PtCl₄ + $2CH_3O$ u. $2C_2H_5O$) (B. 26, 92). — I, 936.
- 4) Amid d. Essigsäure (Acetamid). Sm. 82° (78°); Sd. 222° (cor.). HCl, (HCl, PtCl₄), HBr, HJ, HNO₃, Oxalat, Tartrat, Pikrat. Na, Zn, Hg, Ag (J. 1857, 419; 1863, 325; C. 1895 [1] 1112; A. 103, 321; 105, 277; B. 8, 832; 9, 1135; 12, 562; 31, 2347; Bl. 24, 539; J. pr. [2] 52, 60; Soc. 71, 467). — I, 1236.
- 5) Methylamid d. Ameisensäure. Sd. $180-185^\circ$ (J. 1869, 601; A. ch. [4] 17, 224). — I, 1235.
- $C_2H_4ON_2$ C 16,8 — H 3,5 — O 11,2 — N 68,5 — M. G. 143.
- 1) 5-Amidoformylhydrazido-1,2,3,4-Tetrazol (Semicarbazid d. Tetrazol). Sm. $211-218^\circ$ (A. 287, 237). — IV, 1329.

- C₂H₅OCl**
- 1) α -Chlor- α -Oxyäthan^P (Salzsaurer Acetaldehyd). Sd. 25–30° bei 10 mm (A. ch. [5] 25, 220). — I, 216.
 - 2) β -Chlor- α -Oxyäthan (Chloräthylalkohol). Sd. 128° (130–131°) (A. 110, 125; 120, 92; 124, 257; 126, 197; 144, 40; Z. 1871, 265; J. 1885, 1165; B. 7, 70, 9, 555; 15, 1572; 16, 1408; Soc. 39, 143; M. 16, 3). — I, 242.
 - 3) Chlordimethyläther. Sd. 59,5° bei 759 mm (Bl. 28, 171; [3] 11, 881; A. 246, 97; B. 26 [2] 933). — I, 292.
 - 4) Aethylester d. Unterchlorigensäure. Sd. 36° bei 752 mm (35° u. Zers.) (B. 18, 1768; 19, 858; A. 287, 274 Anm.). — I, 321.
- C₂H₅OBr**
- 1) β -Brom- α -Oxyäthan (Bromäthylalkohol). Sd. 147° (J. 1872, 304; A. ch. [3] 67, 284; B. 9, 48; C. 1899 [1] 591). — I, 243.
 - 2) Bromdimethyläther. Sd. 87° (B. 26 [2] 934).
- C₂H₅OJ**
- 1) β -Jod- α -Oxyäthan (Jodäthylalkohol). Sd. 176–177° u. ger. Zers. (A. 113, 121; 144, 42; 145, 259; B. 24 [2] 75). — I, 243.
 - 2) Joddimethyläther. Sd. 123–125° (B. 26 [2] 934).
- C₂H₅OBI**
C₂H₅O₂N
- 1) Wismuthäthoxyd. HNO₃ (A. 92, 377). — I, 1517.
C 32,0 — H 6,7 — O 42,7 — N 18,6 — M. G. 75.
 - 1) Nitroäthan. Sd. 114–114,8° (113–114° bei 731 mm); + NH₃, Na, K, Ag, HgCl (A. 171, 19; 157, 88; 180, 163; 243, 105; 280, 267; B. 7, 1620; 11, 1225; 19, 567; 28, 202; 32, 617; J. r. 14, 43; Soc. 55, 687; M. 2, 652; Bl. [3] 11, 870). — I, 205.
 - 2) Isonitroäthan (B. 32, 617).
 - 3) α -Oximido- α -Oxyäthan + $\frac{1}{2}$ H₂O (Acethydroxamsäure). Sm. 58–59° (87–88° wasserfrei). Cu(OH)₂ (B. 22, 2854; 25, 700; 26 [2] 1015; 27, 804; Bl. [3] 3, 121). — I, 1244.
 - 4) α -Imido- α - β -Dioxyäthan (Glykolimidohydrin). Sm. 160–161°. HCl, HNO₃, H₂SO₄ (B. 30, 1001; C. 1898 [2] 527).
 - 5) Nitrit d. Oxyäthan (Salpetrigsäureäthylester). Sd. 17° (A. ch. [2] 37, 15; A. 64, 320; 126, 71; 253, 251; B. 15, 1574; 21 [2] 515; J. 1854, 561; 1856, 575). — I, 321.
 - 6) Amidoessigsäure (Glykokoll, Glycin). Sm. 232–236° u. Zers. Salze meist bek. Lit. bedeutend. — I, 1183.
 - 7) Methylester d. Amidoameisensäure. Sm. 52°; Sd. 177° (A. 79, 110; 244, 39; 302, 249 Anm., 267). — I, 1253.
 - 8) Amid d. Oxyessigsäure. Sm. 120° (J. 1861, 446; A. 89, 343; 123, 315; B. 14, 578; 30, 1002). — I, 1341.
 - 9) Verbindung. Sd. 29–30° (J. r. 13, 226).
C 23,3 — H 4,8 — O 31,1 — N 40,8 — M. G. 103.
- C₂H₅O₂N₂**
- 1) α -Nitroso- α -Methylharnstoff. Sm. 123–124° u. Zers. (A. 253, 6; B. 30, 2609). — I, 1297.
 - 2) Amid d. Harnstoffearbonsäure (A. d. Allophansäure; Biuret). Sm. 190° u. Zers. HCl, Cyanurat, NaOH, KOH, Ag₂, + HgO, (2 + Hg, 2HgO), 2 + CuCl₂, 2 + CuN₂O₆, 2 + CuSO₄, 2 + NiCl₂, 2 + NiSO₄, [2 + 2KOH + Ni(OH)₂] (A. 68, 323; 124, 335; 130, 154; 299, 236; 303, 95 Anm.; B. 4, 262, 475; 7, 287; 8, 708; 10, 1743; 29, 300; Z. 1867, 691; Bl. 46, 244; M. 2, 410). — I, 1307.
 - 3) Hydrazid d. Oxaminsäure (Semioxamazid). Sm. 220–221° u. Zers. HCl, (HCl, CuCl), H₂SO₄, + Cu, + H₂O (B. 30, 585).
- C₂H₅O₂B**
C₂H₅O₂N
- 1) Monoäthylborat. Fl. (A. Spl. 5, 170; A. 57, 320). — I, 344.
C 26,3 — H 5,5 — O 52,7 — N 15,4 — M. G. 91.
 - 1) β -Nitro- α -Oxyäthan (Nitroäthylalkohol). Sd. 194° bei 765 mm. Na (A. 256, 29; B. 21, 3529; C. 1898 [1] 192; R. 16, 252). — I, 243.
 - 2) Nitrat d. Oxyäthan (Salpetersäureäthylester). Sd. 87,6° (A. 47, 373; 64, 320; 98, 367; A. Spl. 6, 220; J. 1876, 333; B. 23, 2180; Bl. 33, 566; J. pr. [2] 31, 359; Soc. 55, 682). — I, 324.
 - 3) Amidooxyessigsäure. (NH₄)₂, Ca (A. 198, 217). — I, 1208.
 - 4) Oxamidoessigsäure (Amidooxylessigsäure). Sm. 135° (132°) (B. 28, 2300; A. 289, 309).
 - 5) Hydroxylaminessigsäure (Amidooxylessigsäure). HCl (Sm. 156° u. Zers.), Ag (B. 26, 1567).
C 20,2 — H 4,2 — O 40,3 — N 35,3 — M. G. 119.
- C₂H₅O₂N₂**
- 1) Hydroxylbiuret. Sm. 134°. K, Cu (A. 150, 248). — I, 1296.
 - 2) s-Nitromethylharnstoff. Sm. 105–106°. K (B. 30, 651).
 - 3) uns-Nitromethylharnstoff. Sm. 156–157°. K (B. 30, 652).

- $C_4H_4O_4N_4$ 4) Amid d. Nitroamidoessigsäure. Zers. bei 120—130° (*R.* 7, 238). — *I*, 1242.
 $C_4H_4O_4N_4$ C 16,3 — H 3,4 — O 32,7 — N 47,6 — M. G. 147.
 $C_4H_4O_4N_4$ 1) α Nitro- β -Imidoamidomethylharnstoff (Nitrodicyandiamidin). Ag, Carbonat (*A.* 303, 108).
 $C_4H_4O_4P$ 1) Aethylester d. Metaphosphorsäure. Sd. unter 100° (*J.* 1861, 586). — *I*, 341.
 $C_4H_4O_4N$ C 22,5 — H 4,6 — O 59,8 — N 13,1 — M. G. 107.
 $C_4H_4O_4N_4$ 1) Mononitrat d. $\alpha\beta$ -Dioxyäthan. Fl. (*A. ch.* [4] 27, 243). — *I*, 325.
 $C_4H_4O_4N_4$ C 17,8 — H 3,7 — O 47,4 — N 31,1 — M. G. 135.
 $C_4H_4O_4N_4$ 1) α -Nitro- α -Isonitramidoäthan. Ba (*A.* 300, 106).
 $C_4H_4O_4N_4$ 2) Di[Oximidooxymethyl]amin (Dioxim d. Imidokohlensäure). Sm. 65 bis 70° (*C.* 1898 [2] 1015).
 $C_4H_4O_4Cl$ 1) Aethylester d. Ueberchlorsäure. Sd. 74° (unter Wasser) (*A.* 124, 124). — *I*, 321.
 $C_4H_4O_4P$ 1) Acetylphosphorige Säure (*J. r.* 20, 31). — *I*, 463.
 $C_4H_4O_4B_3$ 1) Aethyltriborat (*A. Spl.* 5, 176). — *I*, 344.
 $C_4H_4NCl_2$ 1) Aethyldichloramin. Sd. 88—89° bei 762 mm (*A.* 76, 328; 107, 281; *B.* 9, 146; 12, 1870, 2129; 16, 1047; 25, 3621; 30, 2053). — *I*, 1124.
 $C_4H_4NBr_2$ 1) Aethyldibromamin (*A.* 76, 328; *B.* 16, 558). — *I*, 1124.
 $C_4H_4NJ_2$ 1) $\alpha\alpha$ -Dijod- α -Amidoäthan (Acetamidjodid) (*B.* 25, 2542).
 C_4H_4NS 2) Aethyldijodamin (*A.* 76, 329). — *I*, 1124.
 C_4H_4NS 1) Amid d. Thioessigsäure. Sm. 107,5—108,5°. 4 + CuCl, + HgCl, 4 + PtCl, 4 + PtSO, 4 + PdCl, (*B.* 11, 340; *A.* 192, 45; 250, 264; *J. r.* 25, 610; *J. pr.* [2] 51, 246). — *I*, 1243.
 C_4H_4ClHg 1) Quecksilberäthylchlorid. Sm. 190° (*A.* 92, 97, 379; 109, 219; 111, 60; *B.* 12, 563; *J. pr.* [2] 29, 134). — *I*, 1525.
 $C_4H_4Cl_2P$ 1) Aethyldichlorphosphin. Sd. 110° (*B.* 13, 2174). — *I*, 1499.
 $C_4H_4Cl_2As$ 1) Aethyldichlorarsin (Arsenäthylchlorid). Sd. 156° (*A.* 208, 34). — *I*, 1512.
 $C_4H_4Cl_2Bi$ 1) Wismuthäthylchlorid (*A.* 92, 376; *B.* 20, 1521). — *I*, 1517.
 $C_4H_4Cl_2Si$ 1) Siliciumäthyltrichlorid. Sd. 100° (*A.* 164, 306). — *I*, 1518.
 $C_4H_4Cl_2P$ 1) Aethylphosphortetrachlorid (*B.* 13, 2175). — *I*, 1499.
 C_4H_4BrHg 1) Quecksilberäthylbromid (*A.* 92, 78, 375, 379). — *I*, 1525.
 C_4H_4BrBi 1) Wismuthäthylbromid (*B.* 20, 1521).
 C_4H_4JHg 1) Quecksilberäthyljodid (*A.* 92, 77, 379; *M.* 1, 714). — *I*, 1525.
 C_4H_4JZn 1) Zinkäthyljodid (*G.* 22 [2] 387).
 C_4H_4JAs 1) Arsenäthyljodid (*A.* 116, 367). — *I*, 1512.
 C_4H_4JBi 1) Wismuthäthyljodid (*A.* 82, 107; 92, 374; *B.* 20, 1521). — *I*, 1517.
 C_4H_4ON C 32,4 — H 8,1 — O 21,6 — N 37,8 — M. G. 74.
 C_4H_4ON 1) Methylharnstoff. Sm. 102°. HNO, Oxalat, Methylparabanat (*B.* 14, 1908, 1913, 2734; 30, 650, 2609; *R.* 3, 220; *A.* 215, 260). — *I*, 1297.
 C_4H_4ON 2) Dimethylnitrosamin. Sd. 148,5° bei 724 mm. HCl (*B.* 13, 2170; *R.* 5, 248). — *I*, 1119.
 C_4H_4ON 3) α -Amido- α -Oximidoäthan (Aethenylamidoxim). Sm. 135°. HCl, Cu (*B.* 17, 2746; 27, [2] 261). — *I*, 1484.
 C_4H_4ON 4) Aldehyd d. Hydrazidoessigsäure. HCl (*B.* 27, 180).
 C_4H_4ON 5) Amid d. Amidoessigsäure (Glycinamid). HCl, (2HCl, PtCl,) (*A.* 148, 190; 150, 67). — *I*, 1242.
 C_4H_4ON 6) Hydrazid d. Essigsäure. Sm. 67° (*J. pr.* [2] 51, 185; [2] 53, 524).
 C_4H_4ON C 23,5 — H 5,9 — O 15,7 — N 54,9 — M. G. 102.
 C_4H_4ON 1) Dicyandiamidin (Guanylharnstoff, Biuretamidin). HCl + $\frac{1}{2}$ H₂O, (2HCl, PtCl), HNO, H₂SO, + 2H₂O. H₂CO, Oxalat, Cu (*A.* 122, 25; *B.* 6, 1374; 7, 446, 1766, 1771; 20, 69; 26, 1586; *M.* 10, 88). — *I*, 1441.
 C_4H_4ON 2) Formylamidoguanidin. HNO, Pikrat (*A.* 303, 37).
 C_4H_4ON C 18,5 — H 4,6 — O 12,3 — N 64,6 — M. G. 130.
 C_4H_4ON 1) Amid d. Amidoimidomethyltriazencarbonsäure + H₂O. Zers. bei 139°. HCl, HNO, + AgNO, (*A.* 305, 71).
 C_4H_4OS 1) β -Merkapto- α -Oxyäthan (Monothioäthylenglykol). Fl. (*A.* 124, 257). — *I*, 351.
 C_4H_4OS 2) Dimethylsulfoxyd. HNO, (*A.* 144, 148). — *I*, 355.
 C_4H_4OHg 1) Quecksilberäthylsulfoxydhydrat. Salze siehe (*A.* 92, 97, 379; 109, 219; 111, 60; *B.* 12, 563; *J. pr.* [2] 29, 134). — *I*, 1525.
 C_4H_4OSn 1) Zinndimethylsulfoxyd. 2HCl, 2HBr, H₂SO, (*A.* 114, 373). — *I*, 1527.

C₂H₄O₂N₂

C 26,7 — H 6,7 — O 35,5 — N 31,1 — M. G. 90.

- 1) Aethylnitroamin. Sm. 3° (6°). Na, K, Li, Ba, Zn + 2H₂O, Co + 2H₂O, Cu, Hg, Ag (R. 7, 356; 18, 388; 17, 289; B. 29, 962). — I, 1124.
- 2) Dimethylnitroamin. Sm. 57—58°; Sd. 187° (R. 2, 123, 343; 3, 9, 224, 427; 7, 355; B. 28, 403, 537; 29, 474; 30, 647; 31, 1397). — I, 1119.
- 3) isom. Dimethylnitroamin. Sd. 112° (R. 15, 213; B. 31, 1398).
- 4) Dinitroäthylsäure. Na, Ca + 3H₂O, Mg, Ba, Zn, Cu + 1/2 H₂O, Ag, (Ag + AgNO₃) (A. 99, 359, 369; 174, 302; B. 13, 1985; 15, 1007; Soc. 35, 570). — I, 1523.
- 5) Diamidoessigsäure. HCl (H. 19, 301, 302). — I, 1194.
- 6) Hydrazidoessigsäure (Amidoglykokoll). Sm. 152° u. Zers. HJ (B. 29, 2729; 31, 164).
- 7) Hydrazid d. Oxyessigsäure. Sm. 93°. HCl, 2HCl, + C₂H₅ONa (B. 23, 3029; J. pr. [2] 51, 365; [2] 52, 225). — I, 1194.

C₂H₄O₂N₂

C 20,3 — H 5,1 — O 27,1 — N 47,5 — M. G. 118.

- 1) αβ-Diamido-αβ-Dioximidoäthan (Oxalendiamidoxim). Sm. 196° u. Zers. 2HNO₃, H₃PO₄, Pikrat (B. 22, 1931, 1936, 2946, 2306; R. 13, 80). — I, 1485.
- 2) Amid d. Hydrazodicarbonsäure. Sm. 244—245° u. Zers. (245—246°) (A. 270, 44; 271, 128; B. 27, 57; J. pr. [2] 52, 469; G. 24 [1] 507). — I, 1495.
- 3) Hydrazid d. Harnstoffcarbonsäure (Amidobiuret). HCl, HNO₃, Pikrat (A. 303, 100).
- 4) Dihydrazid d. Oxalsäure. Sm. 235° u. Zers. 2HCl (J. pr. [2] 51, 194, 363).

C₂H₄O₂S

- 1) Aethansulfinsäure (Aethylsulfinsäure). Na, Ba, Pb, Cu + xH₂O, Zn + H₂O, Ag (A. 102, 76; 139, 364; 174, 308; 259, 363; B. 12, 846; 15, 126; J. pr. [2] 15, 199, 222). — I, 368.
- 2) Dimethylsulfon. Sm. 109°; Sd. 238° (235°) (A. 144, 148; B. 17, 2819; 26, 1131; J. pr. [2] 31, 347). — I, 355.

C₂H₄O₂S

- 1) Aethanthiolsulfonsäure. Na, K (A. 53, 346; Z. 1868, 141; B. 7, 1162; 11, 2073; 15, 123; 24, 1156). — I, 374.
- 2) Methylester d. Methanthiolsulfonsäure (Z. 1868, 641). — I, 374.
- 3) Dimethylester d. Thionschwefligensäure. Sd. 41—42° bei 23 mm (B. 28, 450).

C₂H₄O₂Mg

- 1) Magnesiummethylat. + 3CH₄O (B. 30, 807, 1836).

C₂H₄O₂Se

- 1) Aethanselinsäure. + HCl (A. 152, 216). — I, 384.

C₂H₄O₂Si

- 1) Silicopropionsäure (A. 159, 271; 164, 305; 173, 146). — I, 1519.

C₂H₄O₂S

- 1) Aethansulfonsäure (Aethylsulfonsäure). Na + H₂O, 4Na + NaJ + H₂O, K + H₂O, Ba + 1(2)H₂O, Zn + 7H₂O, Pb + H₂O, Cu + 5H₂O, Hg + HgO (P. 49, 329; A. 35, 346; 65, 258; 76, 289; 146, 37 Anm.; 148, 90; B. 15, 445; 23, 909; 31, 408, 413; J. pr. [2] 15, 206; R. 5, 275; Am. 20, 688). — I, 371.

- 2) β-Oxyäthan-α-Sulfinsäure. Ba (B. 26, 1138).

- 3) Dimethylester d. Schwefligensäure. Sd. 121,5° (A. 110, 219; 111, 95). — I, 322.

- 4) Monoäthylester d. Schwefligensäure. Na, K (B. 7, 1074; 31, 408; A. 143, 76). — I, 322.

C₂H₄O₂S

- 1) Aethylunterschweflige Säure. Na + H₂O, K, Ba + 2H₂O (J. 1869, 352; B. 7, 646, 1162; 8, 764; 22, 1734; 23, 538; 25, 988). — I, 329.

C₂H₄O₂N₂

C 16,0 — H 4,0 — O 42,7 — N 37,3 — M. G. 150.

- 1) αβ-Dinitramidoäthan (Aethylendinitroamin). Sm. 174—176° u. Zers. K₂, Ag, (R. 7, 17, 244, 343). — I, 1153.
- 2) αα-Diisonitramidoäthan. Pb (A. 300, 120).

C₂H₄O₂S

- 1) α-Oxyäthan-β-Sulfonsäure (Isäthionsäure). NH₄, K, Na, Ba, Cu + 2H₂O, Ag. Lit. bedeutend. — I, 378.

- 2) Dimethylester d. Schwefelsäure. Sd. 188,3—188,6° (A. 15, 40; J. pr. [2] 13, 161; [2] 19, 243; B. 13, 1699; Soc. 49, 785). — I, 331.

- 3) Monoäthylester d. Schwefelsäure (Aethylschwefelsäure). Salze meist bekannt. Lit. bedeutend. — I, 331.

C₂H₄O₂S

- 1) αβ-Aethandisulfinsäure. Na, + 4H₂O, Ba, Zn, Ag, (J. pr. [2] 36, 439; B. 26, 1137). — I, 368.

- 2) β-Oxyäthylunterschwefligensäure. Na (G. 22 [1] 421).

- $C_2H_4O_4Se$ 1) Aethylselensäure. K, Sr, Cu + $4H_2O$ (A. Spl. 1, 244). — I, 336.
 $C_2H_4O_4S$ 1) β -Oxyäthylschwefelsäure (Aethylenglykolschwefelsäure). Ba (A. 112, 146; B. 3, 735). — I, 334.
 2) Verbindung (Anhydrid einer Säure) (Z. 1867, 566).
 $C_2H_4O_4S$ 1) Aethan- $\alpha\alpha$ -Disulfonsäure. Na, + H_2O , K, + H_2O , Mg + $5H_2O$, Ca, Ba + $3H_2O$, Cu + H_2O , Cd + $2H_2O$ (B. 12, 682; 21, 1551; G. 9, 75; A. 222, 302). — I, 376.
 2) Aethan- $\alpha\beta$ -Disulfonsäure + H_2O . Sm. 104° (wasserfrei) (100°). $(NH_4)_2$, Na, + $2H_2O$, K + $1\frac{1}{2}H_2O$, K, Mg + $3H_2O$, Ca, Ba, Zn + $6H_2O$, Pb + $1\frac{1}{2}H_2O$, Cu + $4H_2O$, Hg, + H_2O , Ag, (A. 100, 148, 232; 126, 272; 148, 99; 262, 67; J. 1862, 425; Z. 1869, 682; M. 4, 144; B. 12, 682; 16, 1185; 18, 1350; 26, 1138; J. pr. [2] 36, 438; G. 9, 88; Am. 19, 732). — I, 376.
 $C_2H_4O_4S$ 1) Aethylendiunterschwefligesäure. Na, Ba + $2H_2O$ (G. 22 [1] 419).
 $C_2H_4O_4P$ 1) Acetylpyrophosphorige Säure + $2H_2O$. K + $2\frac{1}{2}H_2O$, Ba, Pb (A. 133, 317). — I, 463.
 $C_2H_4O_4Se$ 1) $\alpha\beta$ -Aethandiselensäure (Diselenoätholsäure). Ba, Pb, Ag (B. 7, 1281). — I, 384.
 $C_2H_4O_4S$ 1) Aethan- α -Sulfonsäure- β -Schwefelsäure (Aethionsäure), nur Salze bekannt. Na, + H_2O , K, + $\frac{1}{2}H_2O$, Ba + $\frac{1}{2}H_2O$ (P. 27, 378; 47, 514; A. 223, 208). — I, 380.
 2) α -Oxyäthan- $\alpha\beta$ -Disulfonsäure. K, + $\frac{1}{2}H_2O$, Ba (Z. 1868, 271; A. 143, 196). — I, 380.
 3) isom. P-Oxyäthandisulfonsäure. $(NH_4)_2$ + $\frac{1}{2}H_2O$, Na, + $3\frac{1}{2}H_2O$, Ba + $2H_2O$ (B. 18, 1347). — I, 380.
 $C_2H_4O_4Wo$ 1) Verbindung (aus Wolframsäure) (A. 139, 240). — I, 347.
 $C_2H_4O_4S$ 1) $\alpha\beta$ -Dioxyäthandischwefelsäure (Aethylenglykoldischwefelsäure). K, Ba + $2H_2O$ (J. pr. [2] 20, 2). — I, 334.
 $C_2H_4O_4P$ 1) Acetylpyrophosphorsäure. Ba + $2H_2O$ (A. 136, 254). — I, 463.
 $C_2H_4O_4S$ 1) Aethan- $\alpha\alpha\beta$ -Trisulfonsäure. $(NH_4)_2$, Na, + $4H_2O$, Ba, + $5\frac{1}{2}H_2O$ (B. 18, 1346). — I, 377.
 $C_2H_4O_4S$ 1) α -Oxyäthan- $\alpha\beta\beta$ -Trisulfonsäure. K, + H_2O (A. 303, 121).
 C_2H_4NCl 1) α -Chlor- β -Amidoäthan. HCl, $(2HCl, PtCl_4)$, Pikrat + $\frac{1}{2}H_2O$ (B. 21, 573, 1053; 24, 2626). — I, 1124.
 2) Dimethylchloramin. Sd. 46° bei 765 mm (B. 26 [2] 405).
 C_2H_4NBr 1) α -Brom- β -Amidoäthan. HBr, Pikrat + $\frac{1}{2}H_2O$ (B. 21, 567, 1054; 30, 2494). — I, 1124.
 C_2H_4NJ 1) α -Jod- β -Amidoäthan. HJ, Pikrat + $\frac{1}{2}H_2O$ (B. 21, 1055). — I, 1124.
 2) Dimethyljodamin (A. 230, 223). — I, 1119.
 $C_2H_4N_2S$ 1) Methylthioharnstoff. Sm. 118°. HJ, 4 + $PtCl_4$ (M. 2, 277; B. 11, 493; 26, 2499; J. pr. [2] 50, 499; J. r. 25, 581; A. 285, 171). — I, 1319.
 $C_2H_4N_2S$ 1) Thiodicyandiamidin (Guanylthioharnstoff). HCl, Oxalat + $2H_2O$ (B. 11, 962; 16, 1460). — I, 1441.
 2) Cyansulfid + 2 Molec. Ammoniak. Sm. 94° (A. 120, 40). — I, 1285.
 $C_2H_4N_2S$ 1) Carbamidoimidodisulfid. Dioxalat + $\frac{1}{2}(2)H_2O$ (J. pr. [2] 33, 190; M. 11, 458). — I, 1330.
 2) Amid d. Hydrazo-s-Di[Thiocarbonsäure]. Sm. 214—215° (B. 26, 2877; 27, 1774 Anm.; J. pr. [2] 52, 489).
 C_2H_4ClAs 1) Kakodylchlorid. Sd. bei 100°. 2 + Cu_2Cl_2 , 2 + $PtCl_4$ (A. 37, 31; 42, 22; Berz. J. 21, 500). — I, 1511.
 C_2H_4ClBi 1) Dimethylwismuthchlorid (B. 20, 1519). — I, 1516.
 $C_2H_4Cl_2S$ 1) Dimethydisulfiddichlorid (A. 92, 357).
 $C_2H_4Cl_2Se$ 1) Dimethylselenidchlorid. Sm. 59,5°. 2 + $PtCl_4$ (A. 179, 4). — I, 382.
 $C_2H_4Cl_2Sn$ 1) Zinndimethylchlorid. Sm. 90°. + $PtCl_4$ + $7H_2O$ (J. 1880, 939). — I, 1527.
 $C_2H_4Cl_2Te$ 1) Dimethyltelluridchlorid. Sm. 97,5° (J. 1861, 567). — I, 383.
 $C_2H_4Cl_3As$ 1) Kakodyltrichlorid (A. 107, 267). — I, 1511.
 C_2H_4BrAs 1) Kakodylbromid (A. 37, 38; 92, 362). — I, 1511.
 C_2H_4BrBi 1) Dimethylwismuthbromid (B. 20, 1520). — I, 1516.
 $C_2H_4Br_2S$ 1) Dimethylsulfidbromid (A. 135, 355; Bl. 50, 202). — I, 354.
 $C_2H_4Br_2Se$ 1) Dimethylselenidbromid. Sm. 82° (A. 179, 5). — I, 382.
 $C_2H_4Br_2Sn$ 1) Zinndimethylbromid. Sd. 208—210° (J. 1880, 939). — I, 1527.
 $C_2H_4Br_2Te$ 1) Dimethyltelluridbromid. Sm. 89° (J. 1861, 567). — I, 383.
 C_2H_4JAs 1) Kakodyljodid. Sd. 160° (A. 37, 35; 92, 362). — I, 1511.

- C_2H_5J, S 1) Dimethylsulfidjodid (*Bl.* 50, 205). — I, 354.
 C_2H_5J, Se 1) Dimethylselenidjodid (*A.* 179, 6). — I, 382.
 C_2H_5J, Sn 1) Zinndimethyljodid. Sm. 28°; Sd. 228° (*A.* 114, 369). — I, 1527.
 C_2H_5J, Te 1) Dimethyltelluridjodid (*Bl.* 40, 100).
 C_2H_5F, As 1) Kakodylfluorid (*A.* 37, 38).
 C_2H_5ON C 39,3 — H 11,5 — O 26,2 — N 23,0 — M. G. 61.
 1) α -Amido- α -Oxyäthan (Aldehydammoniak) oder $C_2H_5N_3 + 3H_2O$. Sm. 70 bis 80°; Sd. bei 100° (*A.* 14, 144; 90, 301; *B.* 8, 1684; *J. r.* 7, 282; *J. pr.* [2] 24, 124; [2] 35, 457; *Bl.* [3] 19, 15. — I, 917.
 2) β -Amido- α -Oxyäthan (β -Amidoäthylalkohol). Sd. 171° bei 757 mm. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HBr, HNO₃, Pikrat, Pikrolonat (*A.* 121, 226; *B.* 21, 569, 2668; 30, 911, 1492). — I, 1170.
 3) Methylamidooxymethan. Fl. (*B.* 28 [2] 851).
 4) α -Aethylhydroxylamin (Aethoxylamin). HCl, (2HCl, PtCl₄), H₂SO₄, Dioxalat (*A.* 182, 223; 205, 274; 217, 12; *B.* 16, 828; *Am.* 20, 46). — I, 1139.
 5) β -Aethylhydroxylamin (Oxyamidoäthan). Sm. 59—60°. HCl, HJ, saures Oxalat (*A.* 257, 239; *B.* 26, 2378, 2515; 27, 587; 30, 1894; 31, 2065). — I, 1139.
 6) Methyläther d. Methylhydroxylamin. Sd. 42,2—42,6°. HCl, (2HCl, PtCl₄) (*Am.* 20, 43).
 7) Methylmethylenammoniumhydrat? (*B.* 28 [2] 924).
 C_2H_7ON C 27,0 — H 7,8 — O 18,0 — N 47,2 — M. G. 89.
 1) Methylamidoharnstoff (Methylsemicarbazid). Sm. 113° (*A.* 253, 11). — I, 1295.
 C_2H_7ON C 20,5 — H 6,0 — O 13,7 — N 59,8 — M. G. 117.
 1) α -Amido- β -Imidoamidomethylharnstoff (Amidodicyandiamidin), 2HCl, 2Pikrat (*A.* 303, 110).
 C_2H_7ON C 16,6 — H 4,8 — O 11,0 — N 67,6 — M. G. 145.
 1) Amidoimidomethyl-Amidooximidomethyltriazin. Sm. 144° u. Zers. 2HCl, 2HNO₃, H₂SO₄ (*A.* 305, 75).
 C_2H_5OCl 1) Chlorwasserstoff + Methyläther. Sd. 2° (*Bl.* 24, 160, 241).
 C_2H_5OBi 1) Dimethylwismuthhydroxyd (*B.* 20, 1523). — I, 1516.
 $C_2H_5O_2P$ 1) Dimethylphosphinsäure. Sm. 76° (*B.* 5, 108). — I, 1498.
 $C_2H_5O_2As$ 1) Kakodylsäure. Sm. 200°. HCl, HBr, Ag, Ag + AgNO₃ (*A.* 46, 2, 18; 107, 263; 208, 32; *Am.* 8, 128; *Ph. Ch.* 1, 533). — I, 1511.
 $C_2H_5O_2B$ 1) Aethylborsäure (*A.* 124, 142; *J.* 1876, 468). — I, 1518.
 $C_2H_5O_2Br$ 1) Verbindung (aus Bromäthylen). Sm. 40—45°; Sd. 89—91° (*B.* 9, 50).
 $C_2H_5O_2P$ 1) Aethylphosphorige Säure. Ba, Pb (*A.* 58, 72; *Z.* 1867, 266). — I, 337.
 2) Aethylphosphinsäure. Sm. 44°. Ba, Ag₂ (*B.* 5, 110; 31, 3058). — I, 1499.
 3) Oxyäthylunterphosphorigesäure. Fl. Ba (*A. ch.* [6] 23, 353). — I, 1499.
 $C_2H_5O_2As$ 1) Aethylarsinsäure. Sm. 95°. Ag, (*C. r.* 50, 1022; *A.* 208, 34). — I, 1512.
 $C_2H_5O_2P$ 1) Aethylphosphorsäure. NH₄, K, Ca + 2H₂O, Ba + 6H₂O, Sr, Pb, Hg, + H₂O, Fe, + 3H₂O, FeAl + 3H₂O, Ag₂ + H₂O, As₂O₃, UrO₃ (*A.* 6, 129, 149; 262, 209; *J.* 1847/48, 694; 1865, 472; *Bl.* [3] 11, 814; [3] 19, 670, 827). — I, 340.
 2) Dimethylphosphorsäure. Ca, Ba, Pb, Ag (*A.* 102, 334; 262, 211; *Bl.* [3] 19, 733, 886). — I, 339.
 3) β -Oxyäthylphosphinsäure. Sm. 74—78°. Ca (*M.* 7, 31). — I, 1500.
 C_2H_7NBr 1) Dimethylamindibromid (*Am.* 18, 94).
 C_2H_7NJ 1) Dimethylamindijodid. HJ (*Am.* 20, 56).
 C_2H_7NS 1) β -Amido- α -Merkaptoäthan. HCl (*B.* 22, 1138; 24, 1112; 31, 2837). — I, 1173.
 $C_2H_7N_2S$ 1) α -Amido- β -Methylthioharnstoff. Sm. 137—138° (*B.* 27, 622).
 $C_2H_7S_2As$ 1) Thiokakodylsäure. Pb, Bi, Sb, Cu₂, Au (*A.* 46, 23). — I, 1511.
 $C_2H_7ON_{10}$ C 12,7 — H 4,2 — O 8,5 — N 74,5 — M. G. 188.
 1) Verbindung (aus Amidoguanidin) (*A.* 270, 49). — I, 1496.
 $C_2H_7O_2N$ C 26,1 — H 8,7 — O 34,8 — N 30,4 — M. G. 92.
 1) $\alpha\beta$ -Di[Amidoxyl]äthan (Aethylendihydroxylamin). 2HCl, 2HBr (Sm. noch nicht bei 250°) (*Soe.* 67, 1018; *B.* 29, 1164).

- $C_2H_4O_2N_2$ C 22,2 — H 7,4 — O 44,4 — N 25,9 — M. G. 108.
 1) Verbindung (aus Oxysparteïn). Pikrat (Sm. 227—228°) (B. 30, 200). — III, 932.
- $C_2H_4O_2S$ 1) Verbindung (Säure). NH_4 , Ba (Z. 1867, 566).
 $C_2H_4O_2P$ 1) Aethylunterphosphorsäure. $Ca + 5H_2O$ (A. 232, 14). — I, 339.
 $C_2H_4O_2P$ 1) Acetodiphosphorige Säure. $(NH_4)_2Na$, $(NH_4)_2 + Na_2 + 2H_2O$, $(NH_4)_2 + Na_2 + H_2O$, $Na_2 + 3H_2O$, $(NH_4)_2 + Ca$, $(NH_4)_2 + Mn$, Ag_2 , $Ca + Ag$ (B. 30, 1973).
- C_2ON_2S 1) Thionyleyanid. Sm. 70° (A. 143, 264). — I, 1288.
 $C_2ON_2S_2$ 1) Thionylrhodanid (Soc. 55, 48). — I, 1280.
 C_2OCl_2Br 1) Chlorid d. Chlordibromessigsäure. Sd. 167° (Bl. [3] 11, 921; [3] 15, 1135).
 C_2OCl_2F 1) Fluorid d. Dichlorfluoressigsäure. Sd. 31° (Bl. [3] 13, 992).
 C_2OCl_2Br 1) Bromid d. Trichloressigsäure. Sd. 143° (J. 1873, 536; J. pr. [2] 20, 196). — I, 471.
 C_2OCl_2J 1) Jodid d. Trichloressigsäure. Sd. 180° (J. 1873, 536). — I, 472.
 C_2OCl_2F 1) Chlorid d. Dichlorfluoressigsäure. Sd. 75° (Bl. [3] 13, 992).
 C_2OCl_2Br 1) Tetrabromperchlorvinyläthyläther (A. ch. [3] 16, 19).
 C_2OBr_2F 1) Fluorid d. Dibromfluoressigsäure. Sm. 74,5°. (C. 1898 [2] 702).
 C_2ONCl_2 1) $\alpha\alpha\beta$ -Trichlor- β -Nitroäthen (J. pr. [2] 6, 96). — I, 211.
 C_2ONBr_2 1) $\alpha\alpha\beta$ -Tribrom- β -Nitroäthen. Sd. 108—110° bei 19 mm (B. 31, 651; J. pr. [2] 58, 253).
 C_2ONBr_2 1) Pentabromnitroäthan. Sm. 147° (B. 31, 652; J. pr. [2] 58, 253).
 C_2ONJ_2 1) $\alpha\alpha\beta$ -Trijod- β -Nitroäthen. Sm. 107° (B. 30, 1209).
 C_2ON_2Br 1) Nitril d. Dibromnitroessigsäure? Sm. 50° (A. 105, 281; B. 26, 1403; 31, 643 Anm.). — I, 1462.
 $C_2ON_2J_2$ 1) Nitril d. Dijodnitroessigsäure. Sm. 90—91° (86°) (B. 5, 89). — I, 1462.
 $C_2ON_2J_2$ 1) Nitril d. $\beta\beta$ -Dijod- α -Oxyäthen. Sm. 110—111° (A. 298, 346).
 $C_2ON_2Cl_4$ 1) Tetrachlordinitroäthan. Zers. bei 140° (B. 2, 326; J. pr. [2] 4, 60). — I, 207.
 $C_2ON_2Br_2$ 1) $\alpha\beta$ -Dibrom- $\alpha\beta$ -Dinitroäthen. Sm. 45° (B. 31, 652).
 $C_2ON_2Cl_2$ 1) Trichlortrinitroäthan (J. pr. [2] 6, 96). — I, 211.
 $C_2ON_2Br_2$ 1) $\alpha\beta\beta$ -Tribrom- $\alpha\alpha\beta$ -Trinitroäthan. Sm. 124—125° u. Zers. (B. 31, 649).
 $C_2ON_2Br_2$ 1) Tetranitrodibromäthan. + 2 KOH (C. r. 94, 1122; Bl. 37, 451; B. 16, 51).

C_2 -Gruppe mit vier Elementen.

- C_2HONCl 1) Chloramid d. Trichloressigsäure (Chloracetaminsäure). Sm. 121°. K (A. 60, 261; B. 15, 1607). — I, 1240.
 C_2HOC_2Br 1) Aldehyd d. Chlordibromessigsäure. Sd. 148—149°; Hydrat + H_2O Sm. 51—52° (B. 15, 601). — I, 936.
 C_2HOC_2Br 1) Aldehyd d. Dichlorbromessigsäure. Sd. 126°; Hydrat Sm. 51° (B. 15, 600). — I, 936.
 C_2HOBr_2F 2) polym. Aldehyd d. Dichlorbromessigsäure (B. 15, 600). — I, 936.
 $C_2HO_2NBr_2$ 1) Bromid d. Bromfluoressigsäure. Sd. 116° (C. 1899 [1] 588).
 $C_2HO_2ClBr_2$ 1) $\alpha\alpha$ -Dibrom- β -Nitroäthen? Sm. 112° (B. 12, 2047). — I, 211.
 $C_2HO_2ClBr_2$ 1) Chlordibromessigsäure. Sm. 89°; Sd. 232—234° u. Zers. $K + 2H_2O$, Na , Ca , Cd , Zn , $Pb + H_2O$ (B. 15, 603; Bl. [3] 11, 921). — I, 479.
 $C_2HO_2Cl_2Br$ 1) Dichlorbromessigsäure. Sm. 64°; Sd. 215° u. Zers. NH_4 , $K + 3H_2O$, $Na + 5H_2O$, Zn , $Pb + H_2O$ (B. 15, 602). — I, 479.
 $C_2HO_2Cl_2F$ 1) Dichlorfluoressigsäure. Sm. —20°; Sd. 162,5° (Bl. [3] 13, 992).
 $C_2HO_2Cl_2Hg_2$ 1) Verbindung (aus d. Nitrat $C_2HO_2NHg_2$) (B. 31, 2217).
 $C_2HO_2Br_2F$ 1) Dibromfluoressigsäure. Sm. 26,5°; Sd. 198° bei 760 mm. Na , K , Ca , $Ba + 6H_2O$ (C. 1897 [2] 1099; 1898 [2] 702; 1899 [1] 588).
 $C_2HO_2Cl_2S$ 1) Chlorid d. Chlormethancarbonsäuresulfonsäure (Chlorid d. Sulfochloressigsäure). Sd. 130—135° bei 150 mm (B. 6, 660). — I, 901.
 $C_2HO_2NHg_2$ 1) Nitrat (aus Acetylen u. salpeters. Quecksilberoxyd) (B. 31, 2213, 2784).
 $C_2HO_2N_2Cl_2$ 1) Dinitrit d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan. Sd. 70—75° u. Zers. (G. 24 [2] 25).
 $C_2HO_2NCl_2$ 1) Verbindung (aus Albumin) (A. 101, 189). — IV, 1585.
 $C_2HO_2NHg_2$ 1) Verbindung (aus Acetylen) (B. 31, 2787).

- $C_2H_5ONHg_2$ 1) Verbindung (aus d. Nitrat $C_2H_5ONHg_2$) (B. 31, 2217).
 $C_2H_5ONCl_3$ 1) $\beta\beta\beta$ -Trichlor- α -Oximidoäthan (Chloraloxim). Sm. 39–40° (A. 264, 119). — I, 969.
 2) Amid d. Trichloressigsäure. Sm. 141°; Sd. 238–239° (A. 56, 286; 60, 261; 122, 120; 184, 23; B. 14, 590; 15, 1607; 23, 241; J. 1881, 669; A. ch. [6] 9, 196). — I, 1240.
 $C_2H_5ONBr_3$ 1) Amid d. Tribromessigsäure. Sm. 120–121° (B. 9, 1435; 10, 1149; J. 1881, 673; J. pr. [2] 50, 98). — I, 1241.
 $C_2H_5ON_2S$ 1) 3-Nitroso-2-Imido-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 220° u. Zers. (B. 29, 2514). — IV, 1102.
 C_2H_5OClBr 1) Bromid d. Chloressigsäure. Sd. 127° (133–135°) (A. 132, 173, 180). — I, 469.
 2) Chlorid d. Bromessigsäure. Sd. 127° (133–135°) (A. 132, 171, 179). — I, 478.
 $C_2H_5OCl_3P$ 1) Phosphid d. Trichloressigsäure (A. ch. [3] 17, 309). — I, 1507.
 $C_2H_5O_2N_2Zn$ 1) Verbindung (J. 1857, 419).
 $C_2H_5O_2ClBr$ 1) Chlorbromessigsäure. Sd. 201° (B. 8, 1174).
 $C_2H_5ONCl_2$ 1) Amid d. Dichloressigsäure. Sm. 98° (96°); Sd. 233–234° bei 745 mm (A. 122, 120; 184, 28; J. 1864, 317; 1881, 669; A. ch. [6] 9, 192; B. 6, 734; 10, 1066; 14, 1618; 24, 2995; 26, 2757; G. 9, 338; Soc. 75, 171). — I, 1240.
 $C_2H_5ONBr_2$ 1) Amid d. Dibromessigsäure. Sm. 156° (A. 122, 121; 291, 242; B. 4, 369; 9, 1435; 11, 318, 2116; 19, 2698; 24, 3002; 29, 1046). — I, 1241.
 2) Dibromamid d. Essigsäure. Sm. 100°. + NaBr (B. 15, 413; 26, 424; 27, 1252 Anm.). — I, 1238.
 $C_2H_5ONJ_2$ 1) Amid d. Dijodessigsäure. Sm. 201–202° u. Zers. (A. 117, 356; J. pr. [2] 38, 434). — I, 1242.
 $C_2H_5ON_2S$ 1) 5-Thiocarbonyl-3-Ketotetrahydro-1,2,4-Triazol (Thiourazol). Sm. 177° (B. 29, 2509).
 $C_2H_5O_2NBr_2$ 1) $\alpha\alpha$ -Dibrom- α -Nitroäthan. Sd. 165° (B. 7, 1313; A. 180, 114; J. pr. [2] 48, 357). — I, 207.
 $C_2H_5O_2NJ_2$ 1) Dijodnitroäthan (A. 135, 261).
 $C_2H_5O_2NS$ 1) Thioxaminsäure (Sulfoxaminsäure). K (J. pr. [2] 9, 133). — I, 1364.
 $C_2H_5O_2N_2Cl$ 1) α -Chlor- $\alpha\beta$ -Dioximidoäthan + H_2O (Chloramphiglyoxim). Sm. 114° (B. 16, 499; 25, 708). — I, 970.
 2) isom. α -Chlor- $\alpha\beta$ -Dioximidoäthan (Chlorantiglyoxim). Sm. 161° u. Zers. (B. 25, 709). — I, 971.
 $C_2H_5O_2ClBr_2$ 1) Chlorobromalhydrat. Sm. 51–52° (B. 15, 601). — I, 936.
 $C_2H_5O_2Cl_2S$ 1) Chlorid d. Aethensulfonsäure. Sd. 118–120° bei 250 mm (Am. 20, 685).
 $C_2H_5O_2Cl_2Br$ 1) Bromochloralhydrat. Sm. 51° (B. 15, 600). — I, 936.
 $C_2H_5O_2NCl_2$ 1) Nitrat d. $\beta\beta$ -Dichlor- α -Oxyäthan. Sd. 155–156° (Bl. 47, 959). — I, 324.
 $C_2H_5O_2NS$ 1) Nitrosomerkaptoessigsäure? Ba + H_2O , Pb (B. 13, 601; M. 1, 163; 6, 824). — I, 891.
 $C_2H_5O_2N_2Br$ 1) polym. α -Brom- α -Nitro- α -Nitrosoäthan. Sm. 164–165° u. Zers. (B. 31, 2878).
 $C_2H_5O_2N_2Br_2$ 1) Bromid d. polym. α -Brom- α -Nitro- α -Nitrosoäthan (B. 31, 2878).
 $C_2H_5O_2Br_2S$ 1) α -Bromäthen- α -Sulfonsäure. K (Am. 20, 693).
 $C_2H_5O_2N_2Cl_2$ 1) α -Chlor- $\alpha\alpha$ -Dinitroäthan? Fl. (B. 12, 677). — I, 207.
 $C_2H_5O_2N_2Br_2$ 1) α -Brom- $\alpha\alpha$ -Dinitroäthan. Fl. (A. 181, 15). — I, 207.
 $C_2H_5O_2N_2Br$ 1) Nitrat d. β -Brom- β -Nitro- α -Oxyäthan. Fl. (C. 1899 [1] 179).
 $C_2H_5O_2Cl_2S$ 1) Chlormethancarbonsäuresulfonsäure (Sulfochloroessigsäure). (NH_4)₂, K + $1\frac{1}{2}$ H_2O , Ba + H_2O , Ag₂ + $\frac{1}{2}$ H_2O (A. 161, 167; M. 7, 159). — I, 901.
 C_2H_5ClBrJ 1) Chlorbromjodäthan. Sd. 190–200° (A. 136, 142; Bl. 42, 263). — I, 191.
 C_2H_5ONCl 1) α -Chlor- α -Oximidoäthan. HCl (Sm. 141°) (B. 28, 1282).
 2) Amid d. Chloressigsäure. Sm. 116° (119,5°); Sd. 224–225° bei 743 mm. Hg (A. 102, 110; 184, 30; 229, 165; 301, 69; Z. 1871, 5; B. 6, 734; J. 1881, 669). — I, 1240.
 3) Chloramid d. Essigsäure. Sm. 110° (107–108°) (B. 15, 410, 1609). — I, 1237.

- C_2H_5ONCl 4) Chlorid d. Methylamidoameisensäure. Sm. 90°; Sd. 93—94° u. Zers. (A. 244, 34). — I, 1254.
- $C_2H_5ONCl_2$ 1) Chloralammoniak. Sm. 62—64° (A. 106, 253; 157, 114; B. 10, 166; A. ch. [6] 27, 320; Bl. [3] 19, 171.) — I, 931.
- C_2H_5ONBr 1) Amid d. Bromessigsäure. Sm. 91° (89°) (B. 11, 2117; 25, 1160; 30, 2311; A. 298, 336). — I, 1241.
- 2) Bromamid d. Essigsäure + H_2O . Sm. 70—80° (108° wasserfrei). Na + H_2O (B. 15, 408; 26, 423). — I, 1237.
- C_2H_5ONBr , 1) Bromalammoniak (B. 10, 1786). — I, 935.
- C_2H_5ONJ 1) Amid d. Jodessigsäure. Sm. 157° (Z. 1871, 6; J. pr. [2] 31, 128). — I, 1242.
- 2) Jodamid d. Essigsäure (B. 26, 987).
- C_2H_5ONF 1) Amid d. Fluoressigsäure. Sm. 104° (Bl. [3] 15, 1134).
- C_2H_5ON,S 1) Diamid d. Monothioxalsäure (Sulfoxamid) (J. pr. [2] 9, 137). — I, 1369.
- C_2H_5OCIP 1) Phosphid d. Chloressigsäure (B. 8, 1179, 1180). — I, 1507.
- C_2H_5O,NCl 1) α -Chlor- α -Nitroäthan. Sd. 124—125° bei 758 mm (C. 1898 [1] 192).
- 2) β -Chlor- α -Nitroäthan. Sd. 173—174° (C. 1898 [1] 193).
- 3) Nitrit d. β -Chlor- α -Oxyäthan. Sd. 117° u. Zers. (G. 24 [2] 24).
- C_2H_5O,NCl_2 1) $\beta\beta$ -Trichlor- α -Oxamido- α -Oxyäthan (Chloralhydroxylamin). Sm. 98° (B. 25, 702). — I, 969.
- C_2H_5O,NBr 1) α -Brom- α -Nitroäthan. Sd. 147—150° (147°). Hg (A. 180, 126; J. pr. [2] 48, 351, 357, 382). — I, 207.
- C_2H_5O,NJ 1) α -Jod- α -Nitroäthan. Sd. 75° bei 40 mm (R. 16, 207).
- C_2H_5O,N,S 1) Amid d. Nitrothioessigsäure (B. 8, 1177; 9, 779, 780). — I, 1243.
- C_2H_5O,N,S 1) $\alpha\beta$ -Di[Thionylamido]äthan. Sm. 5,5°; Sd. 100° bei 25 mm (B. 30, 1009).
- C_2H_5O,Cl,S 1) Chlorid d. α -Chloräthan- β -Sulfonsäure. Sd. 200° (200—203°) (A. 122, 37; 174, 320; B. 6, 502; 7, 1164; J. pr. [2] 26, 383; Am. 20, 690). — I, 372.
- C_2H_5O,NCl 1) Nitrat d. β -Chlor- α -Oxyäthan. Sd. 149—150° (B. 3, 530; 16, 1218). — I, 324.
- C_2H_5O,NBr 1) β -Brom- β -Nitro- α -Oxyäthan. Sd. 147—148° bei 45 mm (C. 1899 [1] 179).
- 2) Nitrat d. β -Brom- α -Oxyäthan. Sd. 164—165° (A. ch. [4] 27, 258.) — I, 324.
- C_2H_5O,Cl,S 1) Dichloräthansulfonsäure (B. 15, 446). — I, 372.
- C_2H_5O,Cl,S 1) Chlorid d. Äthan- $\alpha\beta$ -Disulfonsäure. Sm. 91° (B. 7, 1163, 1164; Am. 9, 734; 20, 680). — I, 376.
- C_2H_5O,N,S 1) Hydrazimethylen-C-Carbonsäure-N-Sulfonsäure. $K_2 + H_2O$ (B. 28, 1850). — IV, 486.
- C_2H_5O,N,S 1) Azinmethantetrasulfonsäure. $K_4 + 2H_2O$ (B. 29, 2161).
- C_2H_5O,N,S 1) Thionyläthylamin. Sd. 73° (B. 24, 756; A. 274, 188). — I, 1128.
- C_2H_5ONS 2) Methylamidothiolameisensäure. Methylaminsalz (A. 285, 173).
- 3) Methylester d. Amidothioameisensäure. Sm. 43° (J. pr. [2] 8, 115). — I, 1260.
- 4) Methylester d. Amidothiolameisensäure. Sm. 95—98° (J. pr. [2] 16, 376). — I, 1258.
- 5) Amid d. Merkaptoessigsäure (Z. 1865, 73). — I, 1342.
- C_2H_5ON,S 1) Formylamidothioharnstoff. Sm. 174—175° (B. 29, 2513).
- 2) Amid d. Thioharnstoffcarbonsäure + H_2O (Thiobiuret). Sm. 186° wasserfrei (B. 19, 452; 25, 749; 28, 1113). — I, 1326.
- C_2H_5OCIS 1) Chlorid d. Thioäthylsulfonsäure (B. 7, 1163).
- C_2H_5OCl,P 1) Äthylphosphoroxchlorid. Sd. 175° (B. 13, 2175; 30, 1008). — I, 1499.
- 2) Dichlorid d. Äthylphosphorigensäure. Sd. 117° (cor.) (A. 139, 344; J. 1876, 205, 206; Soc. 37, 346; G. 24 [1] 36; C. 1897 [2] 333). — I, 337.
- C_2H_5OCl,Si 1) Trichlorid d. Äthylkieselsäure. Sd. 104° (A. ch. [4] 9, 15). — I, 346.
- C_2H_5OCl,Ti 1) Äthyltitantrichlorid. Sm. 76—78°; Sd. 186—188° (Bl. 14, 98; A. 180, 235). — I, 347.
- C_2H_5OF,B 1) Bordifluoräthylin. Sm. 23°; Sd. 82° (B. 28 [2] 780).
- C_2H_5O,NS 1) Inn. Anhydrid d. α -Amidoäthan- β -Sulfonsäure. Sm. 45—50° (88°). Hg (J. pr. [2] 34, 350; Am. 19, 745). — I, 1180.

- C_2H_5O, ClS 1) Chlorid d. Aethansulfonsäure. Sd. 177,5° (171°) (A. 114, 142; J. 1852, 434; 1870, 727; B. 15, 122, 447). — I, 371.
2) Chlorid d. Aethylschwefligen Säure. Sd. 122° (B. 7, 1074). — I, 329.
- $C_2H_5O, ClS,$
 $C_2H_5O, ClSe$ 1) Chlorid d. Aethylunterschwefligen Säure (B. 7, 1162).
1) Chlorid d. Aethylselenigensäure. Sd. 175° u. Zers. (A. 241, 156). — I, 336.
- C_2H_5O, ClP 1) Chlorid d. Aethylphosphorsäure (J. 1876, 205; A. Spl. 6, 265). — I, 340.
- C_2H_5O, SP 1) Aethylester d. Thiometaphosphorsäure (J. 1861, 586). — I, 341.
 C_2H_5O, ClS 1) α -Chloräthan- α -Sulfonsäure. Na (Z. 1869, 165; A. 170, 321). — I, 372.
2) α -Chloräthan- β -Sulfonsäure. NH_4 , K, Na + 2H₂O, Mg + 4H₂O, Ca + 2H₂O, Sr + 2H₂O, Ba + 2H₂O, Zn + 4[6]H₂O, Mn + 4H₂O, Fe + 4H₂O, Pb + 2H₂O, Cu + 3[4]H₂O, Ag (J. pr. [2] 20, 353; [2] 26, 382; [2] 31, 412; A. 122, 41; 223, 213; B. 48, 629; Am. 19, 737; 20, 691). — I, 372.
3) Chlorid d. α -Oxyäthan- β -Sulfonsäure (Ch. d. Isäthionsäure) (B. 6, 504; Z. 1867, 566; J. pr. [2] 19, 253). — I, 379.
4) Chlorid d. Aethylschwefelsäure. Sd. 151—158° (154°) (J. pr. [2] 15, 30; [2] 19, 250; B. 6, 229, 505; 19, 860; Z. 1867, 566). — I, 332.
- C_2H_5O, BrS 1) α -Bromäthan- β -Sulfonsäure. K (Am. 20, 691).
 C_2H_5O, ClS 1) ?-Chlor- α -Oxyäthan- β -Sulfonsäure (Chlorisäthionsäure). Ba (B. 15, 446). — I, 380.
2) Chlorid d. β -Oxyäthylschwefelsäure (J. pr. [2] 17, 344). — I, 334.
- C_2H_5O, BrS 1) β -Bromäthylschwefelsäure. Ba, Pb + 3H₂O (Z. 1868, 563—564; B. 15, 1370). — I, 332.
2) isom. Bromäthylschwefelsäure. Ba (B. 15, 1369). — I, 332.
- $C_2H_5O, ClS,$ 1) α -Chlorid d. Aethan- α -Sulfonsäure- β -Schwefelsäure (Ch. d. Aethionsäure) (J. pr. [2] 19, 254). — I, 381.
- $C_2H_5O, NS,$ 1) α -Oximidoäthan- β -Disulfonsäure. K, + H₂O (A. 303, 125).
 C_2H_5Cl, SP 1) Aethylthiophosphorigsäurechlorid. Sd. 172—175° (B. 5, 7). — I, 338.
- C_2H_5ONAg 1) Verbindung (Argentaminaldehydat?) (B. 16, 993, 994).
 C_2H_5ON,S 1) α -Oxy- β -Methylthioharnstoff. Sm. 95° (A. 298, 120).
 C_2H_5ON,S 1) Diamid d. Hydrazo- α -Carbonsäure- β -Thiocarbonsäure. Sm. 218 bis 220° u. Zers. (B. 29, 2508).
- C_2H_5OCiP 1) Chlorid d. Dimethylphosphinsäure. Sm. 66°; Sd. 204° (B. 6, 307). — I, 1498.
- C_2H_5OF,B 1) Verbindung (aus Fluorbor u. Methyläther). Sd. 126—127° (B. 28 [2] 780).
- C_2H_5O, Cl, Si 1) Dichlorid d. Dimethylkieselsäure. Sd. 98—103° (A. ch. [4] 9, 40). — I, 346.
- C_2H_5O, FB 1) Borfluordimethylin. Sd. 53° (B. 28 [2] 779).
 C_2H_5O, N,S 1) Diazoäthansulfonsäure. K (A. 199, 302). — I, 1150.
 C_2H_5O, N,S 1) Dinitro- α -Dimethylsulfamid. Sm. 90° (R. 3, 419). — I, 1118.
 C_2H_5O, NS 1) Aethylthionaminsäure (A. 274, 192).
2) Amid d. Aethansulfonsäure. Sm. 58° (J. pr. [2] 26, 384). — I, 372.
- C_2H_5O, S,P 1) Dimethylester d. Dithiophosphorsäure. Fl. Pb (A. 119, 306). — I, 339.
- C_2H_5O, NS 1) Aethylsulfaminsäure. Ca + 2H₂O, Ba + $\frac{1}{2}$ H₂O, Pb (B. 16, 1265). — I, 1178.
2) Dimethylsulfaminsäure. Sm. 165° u. Zers. Ba + H₂O, Pb + H₂O, Ag + H₂O (B. 15, 1613; A. 222, 129). — I, 1177.
3) α -Amidoäthan- β -Sulfonsäure (Taurin). Zers. bei 240°. Na, Ca, Cd, Pb, (Hg, HgO), Ag (A. 122, 33; Gm. 5, 26; J. 1858, 550; B. 25, 180; B. 8, 830; 21, 2668; 22, 1153; Fr. 31, 503; A. ch. [6] 28, 137). — I, 1178.
4) Aethylester d. Amidosulfonsäure. Fl. (B. 27, 1243).
5) Amid d. Aethylschwefelsäure? (Z. 1867, 567). — I, 332.
- C_2H_5O, SP 1) Aethylthiophosphorsäure. Ba + $\frac{1}{2}$ H₂O (Z. 1869, 413; J. 1847/48, 695). — I, 341.
- C_2H_5O, NS 1) β -Amidoäthylschwefelsäure (B. 21, 1056, 2666). — I, 1170.
 C_2H_5N, ClS 1) Thioharnstoff + Methylchlorid. 2 + PtCl₄ + H₂O (B. 11, 493). — I, 1318.

- C₂H₅N₂JS 1) Thioharnstoff + Methyljodid. Sm. 117° (B. 11, 493). — I, 1318.
C₂H₅ON₂S 1) Verbindung (aus Thioharnstoffmethyljodid) (B. 11, 494). — I, 1318.
C₂H₅O₂N₂S 1) Aethylenthionaminsäure (B. 30, 1011).
 2) s-Dimethylsulfamid. Sm. 78° (B. 3, 418). — I, 1118.
 3) Amid d. Dimethylsulfaminsäure. Sm. 96—96,5° (B. 15, 1611; A. 222, 126). — I, 1178.
C₂H₅O₂N₂S 1) Aethylhydrazinsulfonsäure. K (A. 199, 300). — I, 1150.
 2) uns-Dimethylhydrazinsulfonsäure. K (B. 13, 2173). — I, 1148.
C₂H₅O₂N₂S 1) C-Amid d. Amidoimidomethyltriazancarbonsäuresulfonsäure. Sm. 141°. HCl + H₂O (A. 305, 90).
C₂H₅N₂Cl₂S 1) Thioharnstoffchlorid (A. 179, 139; J. pr. [2] 33, 188; Soc. 51, 380). — I, 1317.
C₂H₅N₂Cl₂S 1) Selenharnstoffchlorid. 2 + PtCl₄ + 2H₂O (A. ch. [6] 9, 309). — I, 1331.
C₂H₅N₂Br₂S 1) Thioharnstoffbromid (A. 179, 138; Soc. 51, 378). — I, 1317.
C₂H₅N₂Br₂Se 1) Selenharnstoffbromid (A. ch. [6] 9, 316). — I, 1331.
C₂H₅N₂J₂S 1) Thioharnstoffjodid (J. pr. [2] 33, 192). — I, 1317.
C₂H₅N₂J₂Se 1) Selenharnstoffjodid (A. ch. [6] 9, 316). — I, 1331.
C₂H₅ON₂J 1) Ammoniakverbindung (aus s-Dijodmethyläther) (J. r. 19, 470). — I, 293.
C₂ONCl₂P 1) Verbindung (aus Trichloracetamid). Sm. 78—81°; Sd. 255—259° (A. 184, 25; B. 15, 1608). — I, 1240.
C₂OCIBrF 1) Fluorid d. Chlorbromfluoressigsäure. Sd. 51° (C. 1898 [2] 702; Bl. [3] 15, 1135).
C₂OCIBr₂F 1) Fluorid d. Chlordibromessigsäure. Sd. 114° (Bl. [3] 15, 1135).
C₂O₂NCl₂Br 1) ααβ-Trichlor-αβ-Dibrom-β-Nitroäthan. Zers. bei 120° (J. pr. [2] 6, 96). — I, 208.

C₂-Gruppe mit fünf Elementen.

- C₂HONCl₂P 1) Verbindung (aus Dichloressigsäureamid) (A. 184, 28). — I, 1240.
C₂HO₂ClBrF 1) Chlorbromfluoressigsäure. Sm. — 5°; Sd. 181° (Bl. [3] 15, 1135).
C₂H₂ONClBr₂ 1) Amid d. Chlordibromessigsäure. Sm. 127° (B. 15, 604; 23, 238; 1721; A. 249, 75). — I, 1241.
C₂H₂ONCl₂Br 1) Amid d. Dichlorbromessigsäure. Sm. 139°; Sd. 253—255° u. Zers. (B. 15, 604; 25, 857). — I, 1241.
C₂H₂ONCl₂F 1) Amid d. Dichlorfluoressigsäure. Sm. 126,5°; Sd. 215° (Bl. [3] 13, 992).
C₂H₂ONBr₂F 1) Amid d. Dibromfluoressigsäure. Sm. 136°; subl. bei 100° (C. 1897 [2] 1099; 1898 [2] 703).
C₂H₂ONClBr 1) Amid d. Chlorbromessigsäure. Sm. 117° (B. 8, 1174; 24, 2995; 29, 1045). — I, 1241.
C₂H₂O₂N₂Cl₂S 1) Verbindung (aus Thioharnstoff) (Soc. 51, 669). — I, 1319.
C₂H₂O₂ClBrS 1) Chlorid d. α-Bromäthan-β-Sulfonsäure (Am. 20, 682).
C₂H₂O₂NBr₂Na 1) Acetnatriumbromamid. + Br₂ + H₂O (B. 15, 414).
C₂H₂O₂N₂Cl₂S 1) Trichlormethansulfonsaurer Thioharnstoff. Sm. 139° u. Zers. (Soc. 51, 667). — I, 1319.
C₂H₂O₂N₂SFe 1) Aethyleisennitrososulfid. Sm. 78° (B. 15, 2607). — I, 349.
C₂H₂OCIS₂P 1) Verbindung (aus Dithiophosphorsäuremethylester) (A. 119, 306). — I, 332.
C₂H₂O₂NClS 1) Chlorid d. Dimethylsulfaminsäure. Sd. 182—184° u. Zers. (B. 14, 1810; A. 222, 121). — I, 1178.
C₂H₂O₂NClS 1) ?-Chlor-β-Amidoäthan-α-Sulfonsäure (Monochlortaurin). Sm. 191 bis 201° (B. 15, 446). — I, 1179.
C₂H₂O₂N₂S₂P 1) Verbindung (aus Harnstoff). Ag, Ag₂ (M. 9, 406). — I, 1309.
C₂H₂O₂N₂S₂Se 1) Verbindung + H₂O (aus Selenharnstoff) (A. ch. [6] 9, 321). — I, 1331.

C₂-Gruppe mit sechs Elementen.

- C₂H₂ONClBrF 1) Amid d. Chlorbromfluoressigsäure. Sm. 131,5° (Bl. [3] 15, 1135).

C₃-Gruppe mit einem Element.**C₃H₄**

C 90,0 — H 10,0 — M. G. 40.

- 1) Propin (Methylacetylen; uns. Allylen). Gas; fl. bei 3—4 Atm. Ag. (2 + 3HgO, 3HgCl₂), (3 + 5HgO, HgSO₄ + 7H₂O), Cu₂, Ag (A. 118, 332; 119, 186; 133, 119; 134, 262; 135, 268; A. Spl. 5, 97; 8, 47; A. ch. [4] 9, 395; [5] 23, 185; J. pr. [2] 7, 146; J. r. 12, 288; Am. 18, 328; B. 8, 17, 367; 14, 1541; 17, 13, 25; 26 [2] 855; 28, 2665; 28 [2] 849; Bl. [3] 11, 391). — I, 129.
- 2) Propadien (s-Allylen). Gas (J. pr. [2] 6, 266; [2] 7, 312; [2] 38, 202); siehe auch (A. ch. [6] 16, 359). — I, 130.
- 3) R-Propen (Bl. [3] 17, 614).

C₃H₆

C 85,7 — H 14,3 — M. G. 42.

- 1) Propen (Propylen). Gas, flüssig bei 7—8 Atm.; Sd. — 37° bei 760 mm. Lit. bedeutend. Polym. Formen siehe (J. 1873, 320; Am. 2, 23; B. 9, 695; 26, 2430; 26 [2] 855). (KCl, PtCl₂ + H₂O (A. 145, 72). — I, 113.
- 2) R-Trimethylen (Cyklopropan). Gas, flüssig bei 5—6 Atm. (M. 2, 642; 3, 624; J. pr. [2] 26, 367; [2] 36, 300; J. r. 21, 32; B. 21, 1236; 26 [2] 855; 29, 1297; 31, 3067; 32, 702; A. ch. [5] 14, 488). — I, 114.

C₃H₈

C 81,8 — H 18,2 — M. G. 44.

- 1) Propan (Propylwasserstoff). Sd. — 37° bei 760 mm (A. 150, 209; 270, 161; 282, 225, 229; Bl. 7, 60; 9, 13, 184; Soc. 47, 239; Z. 1865, 523; 1869, 185; THOMSEN, Thermochem. Unters. 4, 52; B. 16, 561; 26, 2070, 2430; 26 [2] 855; 27, 2767, 3305; Am. 15, 258). — I, 101.

C₃Cl₂

- 1) Hexachlorpropen. Sd. 209—210° (A. 297, 314).

C₃Cl₄

- 1) Oktochlorpropan. Sm. 160°; Sd. 268—269° bei 734 mm (B. 8, 1298; 16, 328). — I, 151.

- 2) isom. Oktochlorpropan. Fl. Modif. Sd. 280° (A. 76, 283). — I, 151.

C₃S₂

- 1) Trikohlenstoffdisulfid. Fl. Zers. bei 100—120° (B. 26, 2965).

C₃Al₂

- 1) Kohlenstoffaluminium (Bl. [3] 11, 1010, [3] 19, 871; C. 1896 [2] 1082).

C₃Be₂

- 1) Kohlenstoffberyllium (Bl. [3] 13, 1065).

C₃Ur₂

- 1) Kohlenstoffuran (C. 1896 [1] 640; Bl. [3] 17, 13).

C₃-Gruppe mit zwei Elementen.**C₃HCl₂**

- 1) ααβγγ-Pentachlorpropen. Sd. 200° (A. 252, 337). — I, 161.

C₃HCl₃

- 1) αααβγγ-Heptachlorpropan. Sm. 30°; Sd. 247—248° (A. 297, 314).

- 2) Heptachlorpropan. Sd. 260° (A. 76, 283). — I, 151.

C₃HBr₂

- 1) P-Pentabrompropen (B. 11, 2242). — I, 184.

C₃H₂O₂

C 51,4 — H 2,9 — O 45,7 — M. G. 70.

- 1) Aethincarbonsäure (Propiolsäure, Propargylsäure). Sm. 6°; Sd. 140 bis 145°; Zers. bei 154°. K + H₂O (B. 13, 2340; 15, 2698, 2701; 18, 2270). — I, 529.

C₃H₂N₂

C 54,5 — H 3,0 — N 42,4 — M. G. 66.

- 1) Nitril d. Methandicarbonsäure (N. d. Malonsäure). Sm. 29—30°; Sd. 218—219°. Na (J. 1886, 537; A. ch. [6] 17, 128; B. 29, 1171; Am. 18, 726). — I, 1478.

C₃H₂Cl₂

- 1) Tetrachlorpropen. Sd. 165° (A. 133, 118). — I, 161.

C₃H₂Cl₃

- 1) ααββγγ-Hexachlorpropan. Sd. 184—188° u. Zers. (A. 252, 335). — I, 151.

- 2) isom. Hexachlorpropan. Sd. 240—245° (A. 76, 283). — I, 151.

- 3) isom. Hexachlorpropan. Sd. 250° (A. 152, 162). — I, 151.

C₃H₂Br₂

- 1) αγ-Dibrompropin. Sd. 52—55° bei 15 mm (Bl. [3] 13, 630; C. 1897 [2] 182).

C₃H₂N

C 67,9 — H 5,7 — N 26,4 — M. G. 53.

- 1) Nitril d. Akrylsäure. Sd. 78° (Bl. [3] 9, 424, 426).

C₃H₂N₂

C 44,4 — H 3,7 — N 51,9 — M. G. 81.

- 1) Nitril d. Amidomethandicarbonsäure (polym. Blausäure). Sm. 180° (B. 6, 100; 7, 767; Bl. 34, 473; A. 287, 347). — I, 1412.

C₃H₂Cl

- 1) γ-Chlorpropin (Propargylchlorid). Sd. 65° (B. 8, 398). — I, 163.

- C₃H₂Cl**
- 1) $\alpha\alpha\beta$ -Trichlorpropen. Sd. 115° (A. 133, 117; B. 28, 2668). — I, 160.
 - 2) $\alpha\beta\gamma$ -Trichlorpropen. Sd. 142° (A. 135, 361). — I, 160.
 - 3) isom. Trichlorpropen (aus Butyrylchloral). Sd. 138—140° (B. 5, 207). — I, 160.
- C₃H₂Cl₂**
- 1) Pentachlorpropan. Sd. 194° (A. 133, 116; B. 26, 2436). — I, 151.
 - 2) isom. Pentachlorpropan. Sd. 220—225° (A. 76, 283). — I, 151.
 - 3) isom. Pentachlorpropan (A. 133, 123). — I, 151.
 - 4) isom. Pentachlorpropan. Sd. 170° (Bl. 48, 625). — I, 151.
- C₃H₂Br**
- 1) γ -Brompropin (Propargylbromid). Sd. 88—90° (B. 6, 728; 7, 761; 14, 404). — I, 187.
 - 2) Bromallylen, oder (C₃H₂Br)_n. Sm. 115—116° (B. 14, 1082).
- C₃H₂Br₂**
- 1) $\alpha\alpha\beta$ -Tribrompropen. Sd. 183—185° (A. 179, 60; Z. 1865, 719), siehe auch (A. 135, 276). — I, 184.
 - 2) $\alpha\beta\gamma$ -Tribrompropen. Sd. 109—112° bei 20 mm (B. 7, 761; 25 [2] 583; Bl. [3] 13, 629; C. 1897 [2] 182). — I, 184.
 - 3) polym. Tribrompropen. Sm. 160° u. Zers. (B. 28, 1886).
- C₃H₂Br₃**
- 1) $\alpha\alpha\beta\gamma$ -Pentabrompropan (Propargylpentabromid). Sd. 166—168° (B. 7, 761; C. 1897 [2] 182). — I, 172.
 - 2) $\alpha\alpha\beta\gamma\gamma$ -Pentabrompropan. Sd. 165—175° bei 17 mm (Bl. [3] 19, 809).
 - 3) Pentabrompropan (Tribrompropylenbromid). Sd. 255° (A. 76, 284). — I, 172.
 - 4) Pentabrompropan. Sm. 173° (A. 179, 61; Z. 1865, 719). — I, 172.
- C₃H₂J**
- 1) α -Jodpropin? (α -Jodallylen). Sd. 98° (A. 135, 270; B. 26, 845). — I, 199.
 - 2) γ -Jodpropin (Propargyljodid). Sd. 115° (B. 17, 1132; Ann. scient. Brux. 1878). — I, 200.
 - 3) polym.? γ -Jodpropin. Sm. 48—49° (B. 8, 398).
- C₃H₂J₂**
- 1) $\alpha\alpha\beta$ -Trijodpropen. Sm. 64° (A. 135, 126, 274; B. 26, 844). — I, 198.
 - 2) $\alpha\beta\gamma$ -Trijodpropen (Propargyltrijodid). Sm. 40—41° (B. 17, 1132). — I, 198.
- C₃H₂O**
- C 64,3 — H 7,1 — O 28,6 — M. G. 56.
- 1) γ -Oxypropin (Propargylalkohol). Sd. 114—115°. Ba, Cu, Ag, (B. 5, 569; 15, 1573; 24, 3039; A. 200, 218; 235, 78; 283, 193). — I, 256.
 - 2) Propen- $\alpha\beta$ -Oxyd (Allylenoxyd). Sd. 62—63° (Bl. 14, 116). — I, 310.
 - 3) Aldehyd d. Aethencarbonsäure (A. d. Akrylsäure; Akrolein). Sd. 52,4°. + 2NaHSO₄ + 4H₂O. Lit. bedeutend. — I, 957.
 - 4) polym. Akrolein (Disakryl) (A. 47, 141; 112, 12, 13). — I, 958.
 - 5) polym. Akrolein (Akroleinharz). Sm. bei 60° (A. 112, 12, 13). — I, 958.
 - 6) Metakrolein, siehe C₃H₄O₂. — I, 958.
 - 7) Hexakrolsäure = (C₃H₄O)₆ (polym. Form d. Akroleins), siehe C₁₈H₁₂O₆. — I, 958.
- C₃H₄O**
- C 50,0 — H 5,6 — O 44,4 — M. G. 72.
- 1) Aethencarbonsäure (Akrylsäure). Sm. 7—8°; Sd. 140°. Na, K, Sr, Ca, Pb, Zn, Ag (A. Spl. 2, 123; A. 47, 125; 102, 291; 114, 204; 122, 372; 136, 288; 166, 2; 167, 241; 171, 294; 191, 376; 192, 105; B. 3, 339; 7, 66; 25, 1707; J. r. 13, 156; Bl. [3] 9, 386; Ph. Ch. 3, 273). — I, 500.
 - 2) Parakrylsäure = (C₃H₄O)_n. Sm. 68—69° (J. r. 12, 102; 22, 100). — I, 506.
 - 3) Parakrylsäure = (C₃H₄O)_n. Sm. 180—182° (J. r. 9, 116).
 - 4) Aldehyd d. Methanacetocarbonsäure (Methylglyoxal) (B. 20, 2543). — I, 966.
 - 5) Verbindung (Säure) = (C₃H₄O)_n. Sm. 96° (B. 15, 293 Anm.). C 40,9 — H 4,5 — O 54,6 — M. G. 88.
- C₃H₄O₂**
- 1) β -Oxyäthen- α -Carbonsäure (Akrylmilchsäure?) (A. 178, 91). — I, 584.
 - 2) Aethanoxydcarbonsäure (Glycidssäure). Fl. NH₄, Na + $\frac{1}{2}$ H₂O, K + $\frac{1}{2}$ H₂O, Ca, Zn + H₂O (B. 13, 271, 457; 14, 939; J. r. 13, 211). — I, 584.
 - 3) α -Ketoäthan- α -Carbonsäure (Brenztraubensäure). Sm. 9°; Sd. 165° u. Zers. Ca, Sr + 2H₂O, Ba + H₂O, Zn + 3H₂O, Pb + H₂O, Cu, Ag. Lit. bedeutend. Sulfidverbindungen (J. pr. [2] 17, 241; B. 11, 1380; 15, 892). — I, 585.
 - 4) Parabrenztraubensäure, siehe C₆H₈O₆.
 - 5) Lakton d. $\alpha\beta$ -Dioxypropionsäure. Zers. bei 250° (B. 11, 679). — I, 632.

- $C_3H_4O_3$ 6) Aethylenester d. Kohlensäure. Sm. 38,5—39°; Sd. 236° (J. pr. [2] 28, 439; A. 280, 186). — I, 543.
- $C_3H_4O_4$ 7) Akrykolloid (3 Modif.) = $(C_3H_4O_4)_n$ (A. 171, 355).
C 34,6 — H 3,8 — O 61,6 — M. G. 104.
- 1) Methandicarbonsäure (Malonsäure). Sm. 132° (130,3° u. Zers.). Salze meist bek. Lit. bedeutend. — I, 648.
- 2) β -Oxy- α -Ketoäthan- α -Carbonsäure (Oxybrenztraubensäure). Fl. Ca + 8H₂O, Sr + 4H₂O, Cd + 4H₂O (B. 24, 401; 26, 3061). — I, 653.
- 3) Carbacetoxyssäure? Fl. Ag (A. 143, 7; 144, 351; B. 3, 468; 5, 477; 7, 1406; 10, 2039). — I, 653.
- 4) Monomethylester d. Oxalsäure. K (B. 8, 1509; 19, 1442; A. 254, 9). — I, 646.
- $C_3H_4O_5$ C 30,0 — H 3,3 — O 66,7 — M. G. 120.
- 1) Oxymethandicarbonsäure (Tartronsäure) + $\frac{1}{2}$ H₂O; subl. bei 110—120°; Sm. 185—187° u. Zers. (NH₄), Na, K, + H₂O, Ca, Ba, Pb, Pb₂ + 2H₂O, Cd, Ag. Lit. bedeutend. — I, 739.
- $C_3H_4O_6$ C 26,5 — H 2,9 — O 70,6 — M. G. 136.
- 1) Dioxymethandicarbonsäure (Mesoxalsäure). Sm. 119—120° u. Zers. NH₄, Na, K + H₂O, Ca + 2[3]H₂O, Ba, Pb + H₂O, Bi, Ag, (A. 26, 298; 131, 298; 203, 138; 215, 283; B. 1, 265; 24, 347, 865; J. 1864, 639; J. r. 10, 72; Bl. [3] 11, 693). — I, 787.
- $C_3H_4N_2$ C 52,9 — H 5,9 — N 41,2 — M. G. 68.
- 1) Pyrazol. Sm. 70°; Sd. 186—188°. HCl, (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃), HNO₃, Oxalat, Pikrat, Ag, 2 + PtCl₄, 2 + PtCl₄ (B. 22, 846, 2165; 23, 1105; 27, 956; 31, 2950; J. pr. [2] 50, 544; A. 273, 214, 237, 251, 257; G. 22 [2] 362). — IV, 496.
- 2) Imidazol (Glyoxalin). Sm. 88—89°; Sd. 255° (263°). (2HCl, ZnCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), Oxalat, Ag, 2 + PtCl₄. Lit. bedeutend. — IV, 499.
- 3) Nitril d. Methylenamidoessigsäure. Sm. 129,5°. HCl (B. 27, 59).
C 37,5 — H 4,2 — N 58,3 — M. G. 96.
- $C_3H_4N_4$ 1) Amidocyanurwasserstoff. Sm. 225° u. Zers. (B. 32, 696).
- $C_3H_4Cl_2$ 1) $\alpha\alpha$ -Dichlorpropen. Sd. 78° (B. 3, 789; 28, 2663; C. 1899 [1] 778).
- 2) $\alpha\beta$ -Dichlorpropen (Allylendichlorid). Sd. 78° (75°; 84—86°). Na, (J. 1872, 322; A. 158, 47; 179, 44; B. 8, 898; 14, 1081; 28, 2667; M. 4, 536). — I, 160.
- 3) $\alpha\gamma$ -Dichlorpropen (β -Epidichlorhydrin). Sd. 106° (109—110°) (J. 1872, 323; 1873, 328; J. pr. [2] 7, 308; C. r. 92, 1110; Z. 1865, 26; Bl. 36, 549; B. 8, 1318). — I, 160.
- 4) $\beta\gamma$ -Dichlorpropen (α -Epidichlorhydrin). Sd. 94° (A. 135, 359; 170, 126; A. Spl. 1, 229; B. 5, 187; 15, 3089; J. 1871, 404—405; 1872, 323; 1882, 439). — I, 159.
- 5) $\gamma\gamma$ -Dichlorpropen (Allylidenchlorid). Sd. 84,4° (A. 114, 37; Z. 1865, 25; A. Spl. 3, 181; Bl. 36, 549; J. pr. [2] 50, 382). — I, 158.
- 6) 1,1-Dichlor-R-Trimethylen. Sd. 75° (J. pr. [2] 42, 496; B. 25 [2] 841). — I, 160.
- $C_3H_4Cl_4$ 1) $\alpha\alpha\beta\beta$ -Tetrachlorpropan (zweifach gechlortes Chloracetol). Sd. 153° (A. 133, 115; 179, 47; B. 28, 2667). — I, 150.
- 2) $\alpha\alpha\beta\gamma$ -Tetrachlorpropan (β -Tetrachlorglycid). Sd. 179—180° (171°) (J. pr. [2] 7, 313; Bl. 36, 553; B. 26, 2435). — I, 150.
- 3) $\alpha\beta\beta\gamma$ -Tetrachlorpropan (α -Tetrachlorglycid). Sd. 164° (A. 135, 360; B. 15, 1577; 26, 2436). — I, 150.
- 4) isom. Tetrachlorpropan. Sm. 145°; Sd. 180—190° (A. 155, 109). — I, 150.
- 5) isom. Tetrachlorpropan. Sm. 177—178° (A. 152, 162). — I, 150.
- 6) isom. Tetrachlorpropan. Sd. 161—164° (A. 155, 108). — I, 150.
- 7) isom. Tetrachlorpropan. Sd. 179—180° (C. r. 92, 1110).
- 8) isom. Tetrachlorpropan. Sd. 195—200° (A. 76, 283). — I, 150.
- 9) Allylentetrachlorid? Sd. 150° (B. 10, 1057). — I, 150.
- $C_3H_4Br_2$ 1) $\alpha\alpha$ -Dibrompropen. Sd. 125—126° (B. 28, 2664).
- 2) $\alpha\beta$ -Dibrompropen. Sd. 132° (127—131°) (A. 132, 126; 136, 57). — I, 184.
- 3) $\alpha\gamma$ -Dibrompropen (β -Epidibromhydrin). Sd. 151—152° (A. Spl. 1, 230; Bl. [3] 6, 420; C. 1897 [2] 181). — I, 184.

- C₃H₄Br₂** 4) $\beta\gamma$ -Dibrompropen (α -Bromallylbromid; α -Epidibromhydrin). Sd. 145° (140—143°) (A. [154](#), [371](#); [156](#), [168](#); B. [14](#), [404](#); C. [1897](#) [2] [181](#)). — [I](#), [184](#).
- C₃H₄Br** 1) $\alpha\alpha\beta\beta$ -Tetrabrompropan (s-Allylentetrabromid). Sd. 225—230° u. Zers. (A. [132](#), [126](#); [179](#), [59](#); Z. [1865](#), [719](#)). — [I](#), [172](#).
2) $\alpha\alpha\beta\gamma$ -Tetrabrompropan. Sd. 179—180° bei 80 mm (C. [1897](#) [2] [181](#); Bl. [3] [19](#), [807](#)).
3) $\alpha\beta\beta\gamma$ -Tetrabrompropan. Sm. 195°; Sd. 215—230° u. Zers. (J. pr. [2] [7](#), [317](#); [2] [38](#), [204](#)). — [I](#), [172](#).
4) isom. $\alpha\beta\beta\gamma$ -Tetrabrompropan. Sm. 10—11°; Sd. 169—170° bei 80 mm (C. [1897](#) [2] [181](#)).
5) isom. Tetrabrompropan (dreifach gebromtes Isopropylbromid). Sm. 69°; Sd. 230—240° u. Zers. (A. [136](#), [64](#)). — [I](#), [172](#).
6) isom. Tetrabrompropan (Dibrompropylenbromid). Sd. 226° (A. [76](#), [284](#)). — [I](#), [172](#).
7) isom. Tetrabrompropan (Tetrabromglycid). Sd. 250—252° (A. Spl. [1](#), [232](#)). — [I](#), [172](#).
8) isom. Tetrabrompropan (a. d. Kohlenw. C₃H₄). Sd. 162° bei 20 mm (Bl. [3] [17](#), [615](#)).
- C₃H₄J₂** 1) $\alpha\beta$ -Dijodpropen (Allylenjodid). Sd. 198° (Bl. [4](#), [434](#); Z. [1865](#), [718](#)). — [I](#), [198](#).
- C₃H₄S₂** 1) Aethylenester d. Trithiokohlensäure. Sm. 39,5° (A. [123](#), [83](#)). — [I](#), [888](#).
- C₃H₄N** C [65,5](#) — H [9,1](#) — N [25,4](#) — M. G. [55](#).
1) γ -Amidopropin (Propargylamin). HCl, HBr, HJ, Pikrat, Dioxalat (B. [22](#), [3080](#)). — [I](#), [1146](#).
2) Aethylisocyanid (Aethylcarbylamin). Sd. 78,1°. 2 + 3 HCl (A. [152](#), [222](#); [280](#), [295](#); A. ch. [4] [17](#), [233](#); Bl. [11](#), [221](#); [30](#), [185](#); J. pr. [2] [30](#), [319](#)). — [I](#), [1483](#).
3) Nitril d. Propionsäure (Aethylecyanid). Sd. 97° (98°). HCl, 2 HBr, 2 HJ, 2 + TiCl₄, 2 + SnCl₄, + BCl₃, + CNCl, + SbCl₅, + AuCl₃, 2 + PtCl₄, + Al₂Cl₆, 2 + Al₂Cl₆, 4 + Al₂Cl₆. Lit. bedeutend. — [I](#), [1462](#). C [43,4](#) — H [6,0](#) — N [50,6](#) — M. G. [83](#).
- C₃H₄N₂** 1) 3-Methyl-1,2,4-Triazol. Sm. 93—94°; Sd. 265° (B. [25](#), [227](#)). — IV, [1104](#).
2) 1-Methyl-1,3,4-Triazol. Sm. 90°. HCl (B. [29](#), [2489](#)). — IV, [1101](#). C [32,4](#) — H [4,5](#) — N [63,1](#) — M. G. [111](#).
- C₃H₄N₄** 1) Formoguanamin (2,4-Diamido-1,3,5-Triazin). Sm. oberh. 350°. HCl, (2HCl, PtCl₄), HNO₃, Oxalat (B. [7](#), [1584](#); [25](#), [539](#)). — IV, [1316](#).
2) Diamidocyanurwasserstoff. Sm. 325° u. Zers. (B. [32](#), [694](#)).
- C₃H₄Cl** 1) α -Chlorpropen (α -Chlorpropylen). Sd. 35—36° (A. ch. [5] [14](#), [462](#); A. [248](#), [306](#); J. [1850](#), [496](#)). — [I](#), [159](#).
2) isom. α -Chlorpropen (α -Chlorisopropylen). Sd. 33,2—33,5° bei 752 mm (A. [248](#), [297](#)). — [I](#), [159](#).
3) β -Chlorpropen (β -Chlorpropylen). Sd. 23° (A. [134](#), [263](#); [138](#), [125](#); [161](#), [66](#); [191](#), [53](#); A. Spl. [6](#), [357](#); A. ch. [5] [14](#), [462](#)). — [I](#), [159](#).
4) γ -Chlorpropen (Allylchlorid). Sd. 46° (A. [140](#), [206](#); [156](#), [154](#); [200](#), [179](#); [214](#), [142](#); [220](#), [98](#); A. Spl. [6](#), [368](#); J. r. [14](#), [394](#); M. [2](#), [659](#)). — [I](#), [159](#).
5) Chlor-R-Trimethylen. Sd. 43° bei 744 mm (J. pr. [2] [43](#), [396](#)). — [I](#), [159](#).
- C₃H₄Cl₂** 1) $\alpha\alpha\alpha$ -Trichlorpropan. Sd. 145—150° (Bl. [48](#), [625](#)). — [I](#), [150](#).
2) $\alpha\alpha\beta$ -Trichlorpropan. Sd. 132° (Z. [1871](#), [683](#); Bl. [34](#), [129](#); B. [26](#), [1258](#), [2434](#), [2436](#)). — [I](#), [149](#).
3) $\alpha\alpha\gamma$ -Trichlorpropan. Sd. 144—148° (146—148°) (Z. [1865](#), [30](#); Bl. [37](#), [100](#), [103](#); B. [26](#), [2434](#); J. pr. [2] [50](#), [381](#)). — [I](#), [150](#).
4) $\alpha\beta\beta$ -Trichlorpropan. Sd. 123° (125°) (Z. [1871](#), [536](#), [683](#); B. [9](#), [924](#); [26](#), [1259](#), [2435](#), [2436](#)). — [I](#), [150](#).
5) $\alpha\beta\gamma$ -Trichlorpropan (Trichlorhydrin). Sd. 158° (A. [124](#), [223](#) Anm.; [133](#), [383](#); [135](#), [362](#); [136](#), [48](#); [152](#), [160](#); [155](#), [108](#); Z. [1871](#), [684](#); Bl. [39](#), [522](#); J. [1857](#), [477](#); B. [15](#), [3089](#); [26](#), [2435](#); J. pr. [2] [50](#), [382](#)). — [I](#), [150](#).
- C₃H₄Br** 1) α -Brompropen. Sd. 59,5—60° bei 740 mm (A. ch. [5] [14](#), [479](#); J. pr. [2] [25](#), [392](#); A. [248](#), [325](#); J. [1881](#), [408](#); B. [15](#), [49](#); [26](#) [2] [598](#); C. [1899](#) [1] [248](#)). — [I](#), [183](#).

- C₃H₅Br**
- 2) isom. α -Brompropen. *Sd.* 63—64° (*A.* [248](#), [325](#)). — *I.* [184](#).
 - 3) β -Brompropen. *Sd.* 47—48° bei 742 mm (*A.* [77](#), [122](#); *J.* [1881](#), [408](#); *A. ch.* [5] [14](#), [479](#)). — *I.* [183](#).
 - 4) γ -Brompropen (Allylbromid). *Sd.* 70—71° bei 753 mm (*A.* [156](#), [152](#); [214](#), [144](#); [278](#), [11](#); *Bl.* [30](#), [98](#); *A. ch.* [3] [48](#), [291](#); *B.* [2](#), [660](#); [26](#) [2] [854](#)). — *I.* [183](#).
- C₃H₅Br₂**
- 1) $\alpha\alpha\beta$ -Tribrompropan (Brompropylenbromid). *Sd.* 200—201° (cor.) (*A.* [76](#), [284](#); [104](#), [247](#); [136](#), [62](#); [248](#), [325](#); *J. pr.* [2] [25](#), [393](#); *B.* [15](#), [49](#); *A. ch.* [5] [14](#), [481](#); *Bl.* [3] [19](#), [805](#)). — *I.* [172](#).
 - 2) $\alpha\beta\beta$ -Tribrompropan (gebromtes Bromacetol). *Sd.* 190—191° (cor.) (*A. ch.* [5] [14](#), [476](#)). — *I.* [172](#).
 - 3) $\alpha\beta\gamma$ -Tribrompropan (Tribromhydrin). *Sm.* 16°; *Sd.* 219—221° (*A.* [101](#), [76](#); [104](#), [248](#); [136](#), [63](#); [154](#), [368](#); *B.* [24](#), [4245](#); *J.* [1857](#), [475](#); *Bl.* [3] [19](#), [807](#)). — *I.* [172](#).
- C₃H₅J**
- 1) β -Jodpropen. *Sd.* 82° (93—103°) (*Z.* [1865](#), [719](#), [725](#)). — *I.* [197](#).
 - 2) γ -Jodpropen (Allyljodid). *Sd.* 101° bei 734 mm (101—102° bei 761 mm). *Lit.* bedeutend. — *I.* [197](#).
- C₃H₅F**
C₃H₅B
C₃H₅O
- 1) γ -Fluorpropen (Allylfluorid). *Gas*, bei 1° fl. (*B.* [24](#) [2] [40](#)). — *I.* [142](#).
 - 1) Borglyceryl. *Fl.* (*J. pr.* [2] [18](#), [379](#)). — *I.* [345](#).
 - C* [62,1](#) — *H* [10,3](#) — *O* [27,6](#) — *M. G.* [58](#).
 - 1) β -Oxypropen. *Na* (*A.* [278](#), [118](#), [135](#)).
 - 2) γ -Oxypropen (Allylalkohol). *Sd.* [96,6°](#) (cor.). **2** + BaO. *Lit.* bedeutend. — *I.* [242](#).
 - 3) $\alpha\beta$ -Propanoxyd (gew. Propylenoxyd). *Sd.* 35° (*A. Spl.* [1](#), [253](#); *A.* [140](#), [178](#); *C. r.* [92](#), [532](#); *J. r.* [14](#), [394](#); *M.* [6](#), [369](#)). — *I.* [306](#).
 - 4) $1-\alpha\beta$ -Propanoxyd (1-Propylenoxyd) (*J.* [1881](#), [512](#)). — *I.* [306](#).
 - 5) $\alpha\gamma$ -Propanoxyd (norm. Propylenoxyd). **2** isom. Form.; *Sd.* 50° (*A. ch.* [5] [14](#), [495](#)). — *I.* [308](#).
 - 6) polym. Propanoxyd. *Sd.* über 320° (*A. ch.* [5] [14](#), [495](#)).
 - 7) β -Ketopropan (Dimethylketon; Aceton). *Sd.* [56,3°](#). *Lit.* bedeutend. — *I.* [976](#).
 - 8) Aldehyd d. Propionsäure (Propionaldehyd). *Sd.* [48,8°](#) (*A.* [151](#), [301](#), [362](#); [159](#), [79](#); [161](#), [20](#), [64](#); [163](#), [273](#); [203](#), [13](#), [355](#); [206](#), [4](#); *B.* [10](#), [1739](#); [22](#), [105](#); *J. r.* [8](#), [335](#); *M.* [2](#), [674](#); [4](#), [14](#); *Soc.* [45](#), [476](#)). — *I.* [940](#).
 - 9) Metapropionaldehyd = C₃H₄O₂. *Sm.* 180° (*Am.* [12](#), [353](#); [16](#), [645](#)). — *I.* [940](#).
 - 10) Parapropionaldehyd = C₃H₄O₂. *Sd.* 169—171° (*Am.* [12](#), [353](#); [16](#), [645](#); *J. r.* [22](#), [197](#)). — *I.* [940](#).
- C₃H₅O₂**
- C* [48,7](#) — *H* [8,1](#) — *O* [43,2](#) — *M. G.* [74](#).
 - 1) Methylenäther d. $\alpha\beta$ -Dioxyäthan. *Sd.* 78° bei 750 mm (*Bl.* [3] [13](#), [591](#); [3] [21](#), [275](#)).
 - 2) α -Oxy- β -Ketopropan (Brenztraubenalkohol; Acetylcarbinol; Acetol). *Sd.* 147° u. *Zers.* (*B.* [5](#), [966](#); [13](#), [639](#); [15](#), [3086](#); [16](#), [837](#); *A.* [204](#), [40](#); [216](#), [314](#); *Bl.* [39](#), [526](#); *Soc.* [59](#), [791](#); *J. pr.* [2] [49](#), [405](#)). — *I.* [267](#).
 - 3) γ -Oxypropan- $\alpha\beta$ -Oxyd (Glycid). *Sd.* 161—163° (157—160°) (*Bl.* [23](#), [160](#); *A. ch.* [5] [17](#), [112](#); *J. pr.* [2] [20](#), [192](#); *A. ch.* [6] [22](#), [482](#)). — *I.* [313](#).
 - 4) Aethancarbonsäure (Propionsäure). *Sm.* —23° bis —24° (—36,5°); *Sd.* [140,7°](#). *Salze* u. *Ester* meist bekannt. *Lit.* bedeutend. — *I.* [418](#).
 - 5) Methylester d. Essigsäure. *Sd.* [57,5°](#). *Lit.* bedeutend. — *I.* [407](#).
 - 6) Aethylester d. Ameisensäure. *Sd.* [54,4°](#). *Lit.* bedeutend. — *I.* [395](#).
- C₃H₅O₃**
- C* [40,0](#) — *H* [6,7](#) — *O* [53,3](#) — *M. G.* [90](#).
 - 1) $\alpha\gamma$ -Dioxy- β -Ketopropan (Dioxyaceton). *Sm.* 68—75°. + NaHSO₄ (*B.* [28](#), [1521](#); [30](#), [3164](#); *Bl.* [3] [19](#), [504](#); *C.* [1898](#) [2] [1012](#)).
 - 2) Trioxymethylen. *Sm.* 152° (171—172° nach d. Sublimiren); *subl.* unter 100° (*A.* [111](#), [247](#); [115](#), [322](#); [120](#), [295](#); [138](#), [40](#); *J.* [1861](#), [444](#); [1877](#), [518](#); *Z.* [1865](#), [619](#); *A. ch.* [5] [17](#), [303](#); *Bl.* [3] [17](#), [854](#); *B.* [15](#), [1448](#), [1830](#); [16](#), [917](#); [27](#) [2] [336](#); *J. r.* [15](#), [321](#); [19](#), [479](#)). — *I.* [911](#).
 - 3) isom. Trioxymethylen. *Sm.* 60—61° (*G.* [14](#), [140](#)). — *I.* [912](#).
 - 4) α -Oxypropionsäure (gew. inact. Aethylidenmilchsäure). *Fl.* *Sd.* [82](#) bis [85°](#) bei 1 mm. *Salze* siehe (*A.* [63](#), [83](#); [104](#), [191](#)). *Lit.* bedeutend. — *I.* [552](#).
 - 5) Rechtsmilchsäure (Paramilchsäure). *Fl.* Ca + [4\(4 1/2\)H₂O](#), Zn + [2\(3\)H₂O](#), Ag + [1/2 H₂O](#). *Lit.* bedeutend. — *I.* [558](#).

- C₃H₄O₃**
- 6) Linksmilchsäure. Fl. $\text{Mg} + 3\frac{1}{2}\text{H}_2\text{O}$, $\text{Ca} + 4\frac{1}{2}\text{H}_2\text{O}$, $\text{Sr} + 4\text{H}_2\text{O}$, $\text{Cd} + 1\frac{1}{2}\text{H}_2\text{O}$, $\text{Zn} + 2\text{H}_2\text{O}$, $\text{Ag} + \frac{1}{2}\text{H}_2\text{O}$ (M. 11, 551; Soc. 61, 760; 63, 1143; 67, 625). — I, 559.
 - 7) β -Oxypropionsäure (Hydrakrylsäure). Fl. Salze meist bekannt (A. 122, 369; 128, 1; 150, 168; 157, 298; 166, 10; 167, 346; 174, 286; 191, 268; 200, 82; J. r. 22, 102; B. 8, 1096; 27, 468; Ph. Ch. 3, 191). — I, 559.
 - 8) Oxyessigmethyläthersäure. Sd. 198°. $\text{K} + 4\text{H}_2\text{O}$, Na , $\text{Ca} + 2\text{H}_2\text{O}$, Ba , $\text{Zn} + 2\text{H}_2\text{O}$, Pb , $\text{Cu} + 2\text{H}_2\text{O}$, Ag (J. 1859, 358; Ph. Ch. 1, 100; 3, 183; B. 27, 469; Bl. [3] 17, 357). — I, 548.
 - 9) Aldehyd d. $\alpha\beta$ -Dioxypropionsäure. Sm. 132° (B. 20, 3386; 31, 2394; Bl. 47, 885; 49, 251; R. 17, 259). — I, 567.
 - 10) Methylester d. Oxyessigsäure. Sd. 151,2° (A. 197, 6, 21). — I, 548.
 - 11) Dimethylester d. Kohlensäure. Sm. 0,5°; Sd. 90,6° (B. 13, 1697; A. 205, 231; J. pr. [2] 22, 357; A. ch. [6] 8, 134). — I, 541.
 - 12) Monäthylester d. Kohlensäure. Sm. — 61 bis — 57°. K , Na , Ba (A. 35, 284; 112, 124; J. 1868, 513; A. ch. [5] 27, 10; M. 7, 543; B. 31, 3001). — I, 542.
- C₃H₄O₄**
- C 34,0 — H 5,6 — O 60,4 — M. G. 106.
- 1) $\alpha\beta$ -Dioxypropionsäure ($\alpha\beta$ -Glycerinsäure). Fl. Salze meist bek. Lit. bedeutend. — I, 631.
- C₃H₅O₄**
- C 29,5 — H 4,9 — O 65,6 — M. G. 122.
- 1) Triepinsäure (B. 12, 372; 15, 2244; 26, 3060, 3061).
- C₃H₄N₂**
- C 51,4 — H 8,6 — N 40,0 — M. G. 70.
- 1) 4,5-Dihydropyrazol (Pyrazolin). Sd. 144° bei 760 mm. HCl , (2HCl , PtCl_2), Pikrat (J. pr. [2] 50, 538). — IV, 487.
 - 2) Nitril d. α -Amidopropionsäure. Fl. HCl , (2HCl , PtCl_2) (A. 200, 124). — I, 1464.
 - 3) Nitril d. Methylamidoessigsäure. Fl. (A. 279, 40).
 - 4) Aethylcyanamid (A. 90, 95).
 - 5) Dimethylcyanamid. Sd. 163,5° bei 760 mm (B. 26 [2] 405).
- C₃H₅N₃**
- C 36,7 — H 6,1 — N 57,1 — M. G. 98.
- 1) 3,5-Diamidopyrazol. Fl. Pikrat (B. 27, 690; J. pr. [2] 52, 45). — IV, 1238.
 - 2) 5-Amido-3-Methyl-1,2,4-Triazol? Sm. 148°. HNO_3 , Pikrat, Ag (B. 26, 2598). — IV, 1237.
- C₃H₃N₃**
- C 28,5 — H 4,8 — N 66,7 — M. G. 126.
- 1) 2,4,6-Triamido-1,3,5-Triazin (Melamin, Triguanid, Cyanuramid). $\text{HCl} + \frac{1}{2}\text{H}_2\text{O}$, (2HCl , $\text{PtCl}_2 + \text{H}_2\text{O}$), $\text{H}_2\text{SO}_4 + 2(3)\text{H}_2\text{O}$, Oxalat, CNSH , $+\text{AgNO}_3$. Lit. bedeutend. — I, 1443.
 - 2) Trimethintriazimid. Sm. 78°. $+ 3\text{HgCl}_2$, $+ 2\text{AgNO}_3$ (J. pr. [2] 38, 549). — I, 1494.
 - 3) Verbindung (aus d. Säure $\text{C}_3\text{H}_3\text{O}_3\text{N}_3$). Sm. 145°. $+ 2\text{AgNO}_3$ (J. pr. [2] 38, 554). — I, 1494.
 - 4) Verbindung (aus Triazoessigsäure). Amorph. $+ \text{HgCl}_2$, $+ 2\text{AgNO}_3$ (J. pr. [2] 38, 555). — I, 1494.
- C₃H₂Cl₂**
- 1) $\alpha\alpha$ -Dichlorpropan (Propylidenchlorid). Sd. 85–87° (A. ch. [5] 14, 458; B. 26, 2434). — I, 149.
 - 2) $\alpha\beta$ -Dichlorpropan (gew. Propylenchlorid). Sd. 96,8° (cor.) (A. 76, 283; 77, 124; 150, 214; 161, 62; Bl. 16, 3; J. 1873, 321; B. 6, 558; 19, 563; J. pr. [2] 46, 176). — I, 149.
 - 3) $\alpha\gamma$ -Dichlorpropan (Trimethylenchlorid). Sd. 119° bei 740 mm (117°; 125°) (J. 1873, 321; A. ch. [5] 14, 460; M. 2, 638; B. 26, 2434; J. pr. [2] 50, 380). — I, 149.
 - 4) $\beta\beta$ -Dichlorpropan (Chloracetol). Sd. 69,7° (cor.) (A. 112, 236; 142, 315; 161, 67; 191, 49; J. 1857, 271; 1873, 321; Z. 1868, 48; 1871, 489, 704; B. 2, 213; 14, 758; 26, 2435). — I, 149.
- C₃H₂Br₂**
- 1) $\alpha\alpha$ -Dibrompropan (Propylidenbromid). Sd. bei 130° (A. ch. [5] 14, 467). — I, 172.
 - 2) $\alpha\beta$ -Dibrompropan. Sd. 141,6° (A. 76, 284; 77, 20; 104, 214; 136, 52; 158, 370; 161, 41; 196, 358; 197, 169; 214, 175; B. 10, 1111; 15, 1496; 24, 4250; 26, 1260; J. r. 10, 212; J. 1850, 496; J. pr. [2] 46, 171; Bl. [3] 19, 804; C. 1899 [1] 248). — I, 171.

- C_3H_5Br 3) $\alpha\gamma$ -Dibrompropan (Trimethylenbromid). *Sd.* 160—163° bei 719 mm (165°) (A. 198, 370; 197, 169; 214, 176; B. 14, 1351; 15, 1496; J. pr. [2] 26, 371; [2] 36, 303; A. ch. [5] 14, 472; Bl. 28, 54; M. 2, 639, 642; 3, 838; J. r. 25, 679; C. 1899 [1] 248). — I, 171.
- 4) $\beta\beta$ -Dibrompropan (Bromacetol). *Sd.* 114—114,5° bei 740 mm (A. 138, 125 Anm.; 161, 67; Z. 1868, 48; A. ch. [5] 14, 465). — I, 171.
- C_3H_5J 1) $\alpha\beta$ -Dijodpropan (gew. Propylenjodid). *Fl.* (J. 1854, 453; A. ch. [6] 19, 354). — I, 192.
- 2) $\alpha\gamma$ -Dijodpropan (Trimethylenjodid). *Sd.* 227° u. Zers. (170° bei 170 mm) (M. 2, 640; B. 18, 519; 25, 1710; Soc. 51, 13; Bl. [3] 15, 1224). — I, 192.
- 3) $\beta\beta$ -Dijodpropan (Jodacetol). *Sd.* 147—148° u. Zers. (Z. 1865, 719, 725; 1871, 264). — I, 192.
- C_3H_5S 1) γ -Merkaptopropen (Allylmerkaptan). *Sd.* 90°. $HgCl$ (A. 102, 292; 178, 88). — I, 350.
- 2) $\alpha\beta$ -Thiopropen (Propylensulfid) oder $(C_3H_5S)_2$ (A. 126, 296). — I, 365.
- 3) $\alpha\gamma$ -Thiopropen (norm-Propylensulfid) oder $(C_3H_5S)_2$ (B. 19, 698). — I, 365.
- 4) Thioacetone, siehe $C_3H_5S_2$, Duplothioacetone.
- $C_3H_5S_2$ 1) Trimethylenedisulfid oder $(C_3H_5S)_2$. *Sm.* 71° (B. 23, 1086). — I, 365.
- 2) Dithioglycid (A. 124, 241). — I, 374.
- $C_3H_5S_3$ 1) Trimethylensulfid (Trithioformaldehyd). *Subl.*; *Sm.* 216°. + $HgCl_2$, + $AgNO_3$, + H_2O , + $2AgNO_3$ (B. 1, 176; 2, 158; 3, 585; 15, 2223; 19, 698; 23, 67; 25, 304; A. 100, 307; 126, 294; 145, 360; J. 1870, 591). — I, 913.
- 2) Merkaptodithioameisenäthyläthersäure (Aethyltrithiokohlensäure). *K* (J. 1851, 513). — I, 888.
- 3) Methylester d. Merkaptodithioameisenmethyläthersäure (Dimethylester d. Trithiokohlensäure). *Sd.* 204—205° (Berz. J. 27, 548). — I, 887.
- $C_3H_5S_4$ 1) Trimethylentetrasulfid. *Sm.* 83—84° (B. 23, 1870). — I, 914.
- $C_3H_5Se_2$ 1) Trimethylenediselenid (oder $C_3H_5Se_2$). *Sm.* 54,5° (B. 23, 1090). — I, 383.
- C_3H_5N C 63,2 — H 12,3 — N 24,5 — M. G. 57.
- 1) α -Amidopropen (Isoallylamin). *Sd.* 66—67° bei 751 mm. ($2HCl$, $PtCl_4$), ($3HJ$ + $2BiJ_3$) (B. 23, 968; 29, 2747). — I, 1141.
- 2) γ -Amidopropen (Allylamin). *Sd.* 53,3°. ($2HCl$, $PtCl_4$), ($2HCl$, $PtCl_4$), H_2SO_4 , Pikrat (A. 102, 301; 134, 9; 168, 262; B. 1, 183; 19, 565; 25, 1707; 30, 1124; M. 5, 35; Soc. 55, 697; J. pr. [2] 33, 362; G. 23 [1] 346). — I, 1141.
- 3) Aethylimidomethan. *Sd.* 207—208° (B. 28 [2] 924).
- 4) Trimethylenimin. *Sd.* 66—70°. (HCl , $AuCl_3$), ($2HCl$, $PtCl_4$), ($3HJ$, $2BiJ_3$), Pikrat (B. 21, 2677; 23, 2727). — I, 1144.
- $C_3H_7N_3$ C 31,9 — H 6,2 — N 61,9 — M. G. 113.
- 1) 5-Methylamido-1-Methyl-1,2,3,4-Tetrazol. Zers. bei 80°. HCl , ($2HCl$, $PtCl_4$), (HCl , $AuCl_3$), Pikrat (A. 287, 249). — IV, 1312.
- C_3H_7Cl 1) α -Chlorpropan. *Sd.* 46,4° (44°). $2H_2S$ + $23H_2O$ (A. 161, 39; 163, 266; 200, 179; 214, 156; 220, 98; 223, 73; 231, 306; B. 8, 1296; A. ch. [5] 28, 35). — I, 148.
- 2) β -Chlorpropan (sec-Propylchlorid). *Sd.* 37° (A. 136, 42; 150, 211; 152, 159; 214, 157; Z. 1871, 489; M. 2, 644; B. 15, 1906; C. r. 93, 739). — I, 149.
- C_3H_7Br 1) α -Brompropan. *Sd.* 71°. $2H_2S$ + $23H_2O$ (A. 161, 40; 163, 270; 203, 13; 214, 159; B. 12, 2279; 14, 607; 16, 391; J. 1869, 360; J. r. 15, 61; R. 1, 134; A. ch. [5] 28, 35). — I, 170.
- 2) β -Brompropan. *Sd.* 60—63° (59°) (A. 136, 41; 161, 57; 203, 13; 214, 160; B. 12, 2279; 14, 607; 15, 1904; 16, 391; M. 2, 646; J. pr. [2] 34, 105). — I, 171.
- C_3H_7J 1) α -Jodpropan. *Sd.* 102,2° (A. 160, 239; 163, 270; 203, 15; 214, 159; 231, 306; 243, 25; B. 12, 2140; J. 1877, 22; J. pr. [2] 26, 373; Bl. 39, 648). — I, 192.
- 2) β -Jodpropan. *Sd.* 89,5 (cor.). *Lit.* bedeutend. — I, 192.
- C_3H_7F 1) α -Fluorpropan. *Gas* bei + 2° flüssig (B. 18, 2647; 22 [2] 268). — I, 141.
- 2) β -Fluorpropan (Isopropylfluorid). *Gas* bei — 5° flüssig (B. 22 [2] 268). — I, 141.

C_3H_8O

C 60,0 — H 13,3 — O 26,7 — M. G. 60.

- 1) α -Oxypropan (norm. Propylalkohol). Sd. 97,4°. Na, K, Na + $2C_3H_8O$, Ca, Ba, Al, 3 + $CaCl_2$. Lit. bedeutend. — I, 223.
- 2) β -Oxypropan (Isopropylalkohol). Sd. 82,5°. Na, 3 + Na (B. 25 [2] 324). Hydrate (A. 126, 307; 136, 40). Lit. bedeutend. — I, 222.
- 3) Methyläther d. Oxyäthan (Methyläthyläther). Sd. 10,8 (A. 81, 77; 243, 2; J. 1856, 563; J. r. 15 [2] 27; Am. 6, 244). — I, 297.

 $C_3H_8O_2$

C 47,4 — H 10,5 — O 42,1 — M. G. 76.

- 1) $\alpha\beta$ -Dioxypropan (gew. Propylenglykol). Sd. 188—189° (A. Spl. 1, 380; A. 120, 91; 192, 61; 196, 359; 214, 177; B. 11, 1256; 12, 1872; J. pr. [2] 16, 383; A. ch. [3] 55, 438; [5] 17, 84; M. 2, 789; C. r. 45, 306; 92, 532; J. r. 10, 210, 348; 19, 311; Soc. 47, 132). — I, 261.
- 2) $\alpha\gamma$ -Dioxypropan (norm. Propylenglykol). Sd. 216° (214°). + HBr (A. ch. [5] 14, 491; J. 1874, 336; M. 2, 636; 3, 838; B. 15, 1497; A. 214, 178; C. 1896 [1] 96; 1897 [1] 741; 1899 [1] 592; Am. 19, 766). — I, 262.
- 3) Dimethyläther d. Dioxymethan (Methylendimethyläther; Methylal). Sd. 42° (45,5°) (A. 19, 176; 32, 55; 203, 12; 240, 198; 276, 162; A. ch. [5] 17, 291; [5] 23, 201; B. 16, 2633; 26 [2] 934; 27 [2] 337; 30, 159, 3054; Bl. [3] 11, 752, 881). — I, 212.

 $C_3H_8O_3$

C 39,1 — H 8,7 — O 52,2 — M. G. 92.

- 1) $\alpha\beta\gamma$ -Trioxypropan (Glycerin). Sm. 17° (20°); Sd. 290°. Na, Na₂, K, Ca, Ba, Pb. Lit. bedeutend. — I, 272.

 $C_3H_8O_4$

C 33,3 — H 7,4 — O 59,3 — M. G. 108.

- 1) Di[Oxymethyläther] d. Dioxymethan. Sm. 107—108°. $2 + 11C_3H_8O$, (G. 28 [2] 480).

 $C_3H_8N_2$

C 50,0 — H 11,1 — N 38,9 — M. G. 72.

- 1) $\alpha\beta$ -Diamidopropen. ($2HCl$, $PtCl_4$ + H_2O) (Soc. 73, 240).
- 2) α -Amido- α -Imidopropen (Propionamidin). HCl , ($2HCl$, $PtCl_4$), HNO_3 , (B. 11, 1484; 16, 1654; 17, 178; A. 265, 167). — I, 1160.
- 3) Dimethylamidoimidomethan (uns-Dimethylformamidin). HCl (B. 16, 1650). — I, 1159.
- 4) Methylamidomethylimidomethan (α -Dimethylformamidin). HCl , ($2HCl$, $PtCl_4$) (B. 16, 358, 1648). — I, 1159.
- 5) Isopropylidenhydrazin. Sd. 124—125° (B. 26, 2060; J. pr. [2] 44, 543). — IV, 480.
- 6) Dimethylmethylenhydrazin. Sd. 124° (J. pr. [2] 44, 535; B. 26, 2060; A. 279, 217).

 $C_3H_8N_3$

C 36,0 — H 8,0 — N 56,0 — M. G. 100.

- 1) Aethylidenamidoguanidin. HNO_3 (Sm. 144°) (A. 302, 278).

 C_3H_8S

- 1) α -Merkaptopropan (norm. Propylmercaptan). Sd. 67—68°. Hg (B. 6, 784). — I, 349.

- 2) β -Merkaptopropan (Isopropylmercaptan). Sd. 57—60° (B. 5, 659; 8, 532). — I, 350.

- 3) Methyläther d. Merkaptoäthan (Methyläthylsulfid). Sd. 66,9° (65—66°). + HgJ_2 , (A. 120, 64; J. pr. [2] 14, 206; [2] 38, 354; B. 20, 3413). — I, 359.

 $C_3H_8S_2$

- 1) $\alpha\beta$ -Dimerkaptopropan (Propylenmercaptan). Sd. 152° (B. 23, 1087). — I, 353.

- 2) $\alpha\gamma$ -Dimerkaptopropan (Trimethylenmercaptan). Sd. 169° (B. 23, 1085). — I, 353.

- 3) Methyläthyldisulfid. Fl. (B. 25 [2] 641).

 $C_3H_8S_3$

- 1) $\alpha\beta\gamma$ -Trimerkaptopropan (Triithioglycerin). Pb_3 , Cu_3 , Ag_3 (A. 124, 236). — I, 353.

 C_3H_7N

C 61,0 — H 15,2 — N 23,7 — M. G. 59.

- 1) α -Amidopropen (norm. Propylamin). Sd. 49,7°. HCl , (HCl , $2HgCl_2$), (HCl , $5HgCl_2$), ($2HCl$, $PtCl_4$), (HCl , $AuCl_3$), Acetat, Dioxalat + $\frac{1}{2}H_2O$. Lit. bedeutend. — I, 1128.

- 2) β -Amidopropen (Isopropylamin). Sd. 31,5° bei 743 mm (33—34°). HCl , ($2HCl$, $PtCl_4$), HJ , (HCl , $AuCl_3$). Lit. bedeutend. — I, 1130.

- 3) Methylamidoäthan (Methyläthylamin). Sd. 34—35°. HCl , (HCl , $AuCl_3$), ($2HCl$, $PtCl_4$), Dioxalat (M. 10, 107; A. 265, 181). — I, 1125.

- 4) Dimethylamidomethan (Trimethylamin). Sd. 3,2—3,8°. Salze meist bekannt. Lit. bedeutend. — I, 1119.

- C₃H₃N₃** C 41,4 — H 10,3 — N 48,3 — M. G. 87.
 1) Trimethylentriamin (A. 288, 251).
 2) Dimethylguanidin. (2HCl, PtCl₄), (HCl, AuCl₃) (J. 1879, 401; 1882, 364; B. 14, 1868). — I, 1164.
- C₃H₃N₃** C 31,3 — H 7,8 — N 60,9 — M. G. 115.
 1) Methyldiguanid. Fl. H₂SO₄, (Cu₂, H₂SO₄ + 2 $\frac{1}{2}$ H₂O), Cu + 3 $\frac{1}{2}$ H₂O (M. 4, 388; 12, 12). — IV, 1310.
- C₃H₃P** 1) Trimethylphosphin. Sd. 40–42°. (2HCl, PtCl₄), 2 + PtCl₄ (A. 104, 29; Z. 1870, 662; J. pr. [2] 10, 180; B. 4, 205, 354, 430; 30, 1089). — I, 1499.
 2) Isopropylphosphin. Sd. 41° (B. 6, 294). — I, 1503.
- C₃H₃Al** 1) Aluminiumtrimethyl. Sd. 130° (A. Spl. 4, 112; R. 4, 80). — I, 1526.
- C₃H₃As** 1) Trimethylarsen. Sd. unter 100° (A. 92, 365; 112, 230; J. 1855, 538). — I, 1511.
- C₃H₃B** 1) Bortrimethyl (Gas). + NH₃, + KOH (A. 124, 144). — I, 1517.
- C₃H₃Bi** 1) Wismuthtrimethyl. Sd. 110° (B. 20, 1517). — I, 1516.
- C₃H₃Sb** 1) Antimontrimethyl. Sd. 80,6° (J. 1860, 374; 1861, 569; 1863, 470). — I, 1514.
- C₃H₃N₃** C 48,6 — H 13,5 — N 37,8 — M. G. 74.
 1) $\alpha\beta$ -Diamidopropan (Propylendiamin). Sd. 119–120°. + H₂O, 2HCl, (2HCl, PtCl₄), Pikrat (B. 6, 308; 21, 2359; 28, 1179). — I, 1155.
 2) $\alpha\gamma$ -Diamidopropan (Trimethylendiamin). Sd. 135–136° bei 738 mm. 2HCl, (2HCl, PtCl₄), 2HBr, 2CNSH, Pikrat (B. 17, 1799; 21, 2670; 25, 2638; A. 228, 227; 232, 222). — I, 1155.
- C₃H₃S₃** 1) Trimethylsulfhydrat + H₂O (J. pr. [2] 23, 395). — I, 356.
- C₃OCl₃** 1) Hexachlor- β -Ketopropan (Hexachloraceton). Sm. –2°; Sd. 202–204° (199–201°). Hydrat + H₂O (Sm. 15°) (Berz. J. 26, 428; A. 122, 120; 279, 318; A. ch. [6] 9, 201; C. 1896 [1] 100). — I, 988.
- C₃OBr₃** 1) Hexabrom- β -Ketopropan (Hexabromaceton). Sm. 110–111° (B. 10, 1146; 21, 2040, 2441; M. 3, 831; A. Spl. 8, 21; A. 249, 80). — I, 989.
- C₃OJ₃** 1) Hexajod- β -Ketopropan (Hexajodaceton). Sm. 78° (C. 1898 [1] 811).
- C₃O₂Cl₃** 1) Trichlormethylester d. Trichloressigsäure. Sm. 34°; Sd. 73–74° bei 10 mm (A. 273, 59; J. pr. [2] 47, 104; [2] 55, 502).
 2) Pentachloräthylester d. Chlorameisensäure. Sm. 26–27°; Sd. 83 bis 84° bei 10 mm (184–185° u. Zers.?) (A. 60, 259; 258, 61; 273, 61). — I, 467.
- C₃O₂Si** 1) Kohlenstoffsiliciumverbindung (B. 15, 1442).
- C₃O₂Cl₃** 1) Hexachlordimethylester d. Kohlensäure. Sm. 78–79° (B. 13, 1698). — I, 542.
- C₃N₃Br₃** 1) Nitril d. Dibrommethandicarbonsäure. Sm. 109° (Am. 18, 729).
- C₃N₃Cl₃** 1) Cyanurchlorid. Sm. 145°; Sd. 190° (Berz. J. 9, 84; 19, 195; A. 61, 96; 116, 357; 141, 123; B. 19, 2056; 32, 692; Soc. 51, 269; J. pr. [2] 34, 154; Bl. [3] 19, 36; C. 1897 [1] 284; 1899 [1] 785). — I, 1433.
- C₃N₃Br₃** 1) Cyanurbromid. Sm. über 300° (P. 14, 446; B. 2, 159; 16, 2894; 18, 3261). — I, 1434.
- C₃N₃J₃** 1) Cyanurjodid (J. pr. [2] 34, 157). — I, 1434.
- C₃N₃P** 1) Cyanphosphor. Sm. 200° (A. 128, 254; 132, 279). — I, 1509.
- C₃N₃As** 1) Cyanarsen (B. 25 [2] 561). — I, 1509.
- C₃Br₃S₃** 1) Verbindung (aus Trikohlenstoffdisulfid) (B. 26, 2967).
- C₃Cr₃Fe₃** 1) Kohlenstoffchromeisen (B. 28 [2] 49).

C₃-Gruppe mit drei Elementen.

- C₃HOCl₃** 1) Chlorid d. $\beta\beta$ -Dichlorakrylsäure. Sd. über 145° (A. 193, 25). — I, 502.
- C₃HOCl₃** 1) $\alpha\alpha\beta\gamma\gamma$ (P)-Pentachloropropan- $\alpha\beta$ -Oxyd (Pentachlorpropylenoxyd). Sd. 178° (A. ch. [6] 9, 197). — I, 308.
 2) $\alpha\alpha\alpha\gamma\gamma$ -Pentachlor- β -Ketopropan (Pentachloraceton). Sd. 186–188° (Hydrat + 4H₂O; Sm. 15–17°) (Berz. J. 26, 429; A. 111, 180, 293; 122, 120; 249, 87; 279, 317; A. ch. [6] 9, 189). — I, 988.
 3) Isopentachloraceton. Sd. 185° (A. ch. [6] 9, 195). — I, 988.

- C₃HOCl₄** 4) Chlorid d. $\alpha\beta\beta\beta$ -Tetrachlorpropionsäure. Sd. 140—142° bei 12 mm (A. 253, 132). — I, 473.
- C₃HOBr₅** 1) $\alpha\alpha\alpha\gamma$ -Pentabrom- β -Ketopropan (Pentabromaceton). Sm. 76° (72,8°) (J. 1864, 330; 1874, 522; 1878, 626; A. 64, 352; 122, 121; 127, 168; 152, 261; 189, 168; B. 7, 505, 1285; 23, 1725; 29, 2127; C. 1898 [1] 24; 1898 [2] 742; 1899 [1] 596). — I, 989.
- C₃HOJ₃** 1) Pentajod- β -Ketopropan (Pentajodaceton). Sm. 164° (C. 1898 [1] 811; G. 28 [2] 299).
- C₃HO₃N₃** C 23,9 — H 0,7 — O 23,0 — N 50,4 — M. G. 139.
- C₃HO₃Cl** 1) 3,5-Anhydrid d. 5-Diazo-1,2,4-Triazol-3-Carbonsäure + H₂O. Zers. bei 96°; explodiert bei 120—130° (A. 303, 54). — IV, 1558.
- C₃HO₃Cl₂** 1) β -Chloräthin- α -Carbonsäure (Chlorpropionsäure) Ba, Ag (A. 203, 93). — I, 530.
- C₃HO₃Cl₃** 1) $\alpha\beta\beta$ -Trichloräthen- α -Carbonsäure (Trichlorakrylsäure). Sm. 76° (73°). K, Ca + 3 $\frac{1}{2}$ H₂O, Ba + 3 $\frac{1}{2}$ H₂O, Ag (Am. 9, 3; A. 297, 317; 299, 380). — I, 502.
- C₃HO₃Cl₄** 1) $\alpha\alpha\beta\beta$ -Tetrachloräthylester d. Chlorameisensäure. Sd. 176—177° (A. 258, 60). — I, 467.
- C₃HO₃Br** 1) β -Bromäthin- α -Carbonsäure (Brompropionsäure). Ba, Ba + H₂O, Ag (B. 11, 1676; 12, 660; Am. 3, 121; 4, 169). — I, 530.
- C₃HO₃Br₂** 1) $\alpha\beta\beta$ -Tribromäthen- α -Carbonsäure ($\alpha\beta\beta$ -Tribromakrylsäure). Sm. 117 bis 118°. Ca + 3H₂O, Ba + 5H₂O (M. 2, 109; Am. 3, 178; 4, 92). — I, 504.
- C₃HO₃J** 1) β -Jodäthin- α -Carbonsäure (Jodpropionsäure). Sm. 140°. K, Ba, Cu, Ag (B. 18, 2274, 2282). — I, 530.
- C₃HO₃J₃** 1) $\alpha\beta\beta$ -Trijodäthen- α -Carbonsäure (Trijodakrylsäure). Sm. 207° (B. 18, 2286). — I, 505.
- C₃HO₃Br₃** 1) $\beta\beta\beta$ -Tribrom- α -Ketoäthan- α -Carbonsäure + 2H₂O (Tribrombrenztraubensäure). Sm. 104° (wasserfrei 90°) (Bl. 21, 393; J. r. 8, 125; B. 27, [2] 882). — I, 588.
- C₃HNBr₂** 1) Nitril d. Dibromessigsäure. Sm. 142° (B. 7, 1571).
- C₃HN₂Br** 1) Nitril d. Brommethandicarbonsäure. Sm. 65—66° (Am. 18, 728).
- C₃HN₂Br₂** 1) 2,4,5-Tribromimidazol (Tribromglyoxalin). Sm. 214° u. Zers. Ag (B. 10, 1371). — IV, 500.
- C₃HN₂S₂** 1) Pseudoschwefelcyan (GILBERTS Ann. 69, 271; P. 15, 545; A. 59, 339; 89, 126; 120, 42; J. r. 8, 211; J. pr. [2] 44, 500). — I, 1286.
- C₃HN₂Se₂** 1) Säure (aus Selentrieyanid) K (A. ch. [6] 9, 348, 351). — I, 1289.
- C₃HN₂Se₃** 1) Perselenocycansäure. NH₄ + H₂O, K + H₂O, (6K + CNJ + H₂O) (A. ch. [6] 9, 343, 356; B. 23, 1091). — I, 1289.
- C₃H₂ON₂** C 43,9 — H 2,4 — O 19,5 — N 34,2 — M. G. 82.
- C₃H₂OCl₄** 1) Verbindung (aus d. Jodessigsäurenitril). Sm. 72—73°. — I, 1456.
- C₃H₂OBr₅** 1) $\alpha\alpha\alpha\gamma$ -Tetrachlor- β -Ketopropan + 4H₂O ($\alpha\alpha\alpha\gamma$ -Tetrachloraceton). Sm. 38—39°; Sd. 177—180° (183°) (A. 64, 316; B. 8, 1341; A. ch. [6] 9, 180; Bl. [3] 13, 118; C. 1897 [1] 281). — I, 987.
- 2) $\alpha\alpha\gamma\gamma$ -Tetrachlor- β -Ketopropan + 4H₂O ($\alpha\alpha\gamma\gamma$ -Tetrachloraceton). Sm. 48—49°; Sd. 180—189° bei 718 mm (A. ch. [6] 9, 182; B. 21, 2438; 22, 1474, 1478; A. 249, 89; 252, 334; 254, 87). — I, 988.
- 3) Isotetrachloraceton. Sd. 180° (A. ch. [6] 9, 184). — I, 988.
- C₃H₂OBr₄** 1) $\alpha\alpha\alpha\gamma$ -Tetrabrom- β -Ketopropan (Tetrabromaceton). Sm. 42—43° (J. 1864, 330; A. ch. [6] 9, 214; B. 29, 2127). — I, 989.
- 2) $\alpha\alpha\beta\beta$ -Tetrabrom- β -Ketopropan (s-Tetrabromaceton). Fl. (C. 1898 [2] 742).
- C₃H₂OJ₃** 1) $\alpha\alpha\gamma\gamma$ -Tetrajod- β -Ketopropan (s-Tetrajodaceton). Sm. 142° (B. 26 [2] 599; G. 23 [2] 97; C. 1898 [1] 811).
- C₃H₂O₃N₃** C 23,4 — H 1,3 — O 20,8 — N 54,5 — M. G. 154.
- C₃H₂O₃Cl₂** 1) Azid d. Malonsäure. Fl. (J. pr. [2] 52, 224).
- 1) $\alpha\beta$ -Dichloräthen- α -Carbonsäure ($\alpha\beta$ -Dichlorakrylsäure). Sm. 87—88°. K, Ca + 3H₂O, Ba + H₂O, Ag (B. 12, 655; 16, 2392; 24, 918; Am. 3, 168; 4, 174). — I, 502.
- C₃H₂O₃Cl₃** 1) $\beta\beta$ -Dichloräthen- α -Carbonsäure ($\beta\beta$ -Dichlorakrylsäure). Sm. 76—77°. K, Ca + 2H₂O, Ba + 2H₂O, Zn + 2H₂O, Ag (A. 193, 21; 203, 83). — I, 502.
- 2) Chlorid d. Methandicarbonsäure (Ch. d. Malonsäure). Sd. 58° bei 27 mm (A. ch. [6] 22, 347). — I, 651.

- C₃H₂O₂Cl₄ 1) Tetrachlorpropionsäure. Sm. 76°. K, Ca, Ba, Ag (B. 22, 2659). — I, 473.
- C₃H₂O₂Cl₃ 1) $\alpha\alpha\beta$ -Trichloräthylester d. Chlorameisensäure. Sd. 169—170° (A. 258, 58). — I, 466.
- C₃H₂O₂Br₂ 1) $\alpha\beta$ -Dibromäthen- α -Carbonsäure ($\alpha\beta$ -Dibromakrylsäure). Sm. 85—86°; Sd. 243—250° u. Zers. K, Ca + 3H₂O, Ba + 4H₂O, Pb + 2H₂O, Ag (B. 11, 1674; 14, 1676; 15, 2703; Am. 3, 111; 19, 664; M. 2, 104; C. 1897 [2] 182). — I, 503.
- 2) $\beta\beta$ -Dibromäthen- α -Carbonsäure ($\beta\beta$ -Dibromakrylsäure). Sm. 85—86°; Sd. 243—250° u. Zers. Ca + 3H₂O, Ba + 2(2H₂O) (A. 195, 70; B. 12, 660; Am. 3, 172). — I, 503.
- C₃H₂O₂Br 1) $\alpha\alpha\beta\beta$ -Tetrabrompropionsäure. Sm. 125,5—126°. Ca, Ba + 2H₂O (M. 2, 107; Am. 4, 264). — I, 482.
- 2) $\alpha\beta\beta\beta$ -Tetrabrompropionsäure. Sm. 118—120°. K + 2H₂O, Ca + 1H₂O, Ba + 1H₂O (Am. 5, 251). — I, 482.
- C₃H₂O₂J₂ 1) $\alpha\beta$ -Dijodäthen- α -Carbonsäure ($\alpha\beta$ -Dijodakrylsäure). Sm. 106° (104°). Ag (B. 18, 2284; 24, 4120). — I, 505.
- 2) $\beta\beta$ -Dijodäthen- α -Carbonsäure ($\beta\beta$ -Dijodakrylsäure). Sm. 133° (B. 18, 2284). — I, 505.
- C₃H₂O₂N₂ C 31,6 — H 1,7 — O 42,1 — N 24,6 — M. G. 114.
- 1) 2,4,5-Triketotetrahydroimidazol (Oxalylharnstoff; Parabansäure). Hydrat + H₂O, NH₄, Na, K, Ag, Ag₂ + 1H₂O (A. 26, 285; 118, 156; 132, 304; 166, 321; 172, 73; 175, 227; Z. 1866, 746; A. ch. [3] 24, 175; [5] 11, 380; [6] 28, 111; Bl. 18, 97; 22, 56; J. 1854, 470; 1864, 631; J. pr. [2] 32, 372; [2] 35, 457; M. 2, 285; J. r. 17, 278). — I, 1366.
- 2) 1,2,5-Oxdiazol-3-Carbonsäure (Furazancarbonsäure). Sm. 107°. Ca + 1H₂O, Ag (B. 24, 1167). — I, 1218.
- 3) Nitrosocyanessigsäure + 1H₂O. Sm. 103° u. Zers. (wasserfrei 129° u. Zers.). Ca + 7H₂O, Cu + 4H₂O, Ag, Ag₂ (B. 24, 1169, 1231, 1989; 28, 761; Ph. Ch. 10, 11; A. 280, 333). — I, 1218.
- C₃H₂O₂Cl₂ 1) $\beta\beta$ -Dichlor- α -Ketoäthan- α -Carbonsäure + 1H₂O (Dichlorbrenztraubensäure). Sm. 78—79° (B. 22, 2851). — I, 587.
- C₃H₂O₂Br 1) $\beta\beta$ -Dibrom- α -Ketoäthan- α -Carbonsäure + 1H₂O (Dibrombrenztraubensäure). Sm. 89—91° (wasserfrei) (A. 148, 208; 152, 265; Bl. 19, 103; 21, 391; B. 1, 264; 10, 903; 14, 1236, 1599). — I, 588.
- C₃H₂O₂N₂ C 27,7 — H 1,5 — O 49,2 — N 21,6 — M. G. 130.
- 1) 4-Oxy-1,2,5-Oxdiazol-3-Carbonsäure (Oxfurazancarbonsäure). Sm. 175°. (NH₄), K + 1H₂O, Ba (A. 280, 325; B. 28, 764).
- C₃H₂O₂Cl 1) Dichlormethandicarbonsäure. K, (Soc. 75, 170).
- C₃H₂O₂Br₂ 1) Dibrommethandicarbonsäure (Dibrommalonsäure). Sm. 126°. Ba, Ag, (J. r. 10, 65; Bl. [3] 7, 638; B. 25 [2] 556 — I, 652.
- C₃H₂O₂N C 24,6 — H 1,6 — O 54,8 — N 19,2 — M. G. 146.
- 1) Oxazomalonsäure. Na₂ + 2H₂O, Ba + 2H₂O (B. 28, 1795).
- C₃H₂N₂S 1) Dirhodanmethan (Methylenrhodanid). Sm. 102° (B. 7, 1282; C. 1898 [1] 886). — I, 1279.
- C₃H₂N₂Se 1) Methylenselencyanid. Sm. 132° (B. 7, 1279). — I, 1289.
- C₃H₂N₂Cl₂ 1) Cyanuramidodichlorid. Sm. noch nicht bei 400° (B. 32, 696).
- C₃H₂ON C 52,2 — H 4,3 — O 23,2 — N 20,3 — M. G. 69.
- 1) Aldehyd d. Cyanessigsäure. Sd. 71,5° (A. ch. [6] 16, 178 — I, 937).
- 2) Nitril d. α -Ketoäthan- α -Carbonsäure (N. d. Brenztraubensäure). Sd. 93° (A. 120, 334; 124, 315; B. 20, 2196). — I, 1473.
- C₃H₂ON₂ C 37,1 — H 3,1 — O 16,5 — N 43,3 — M. G. 97.
- 1) Azulminsäure (siehe auch C₃H₂ON₂). Ag (A. ch. [4] 17, 158). — I, 1478.
- C₃H₂OCl 1) Chlorid d. Äthencarbonsäure (Chl. d. Akrylsäure). Sd. 75—76°. (Bl. [3] 9, 390).
- C₃H₂OCl₂ 1) Methyläther d. Trichloroxyäthen (Trichlorvinylmethyläther). Fl. (B. 12, 1839). — I, 301.
- 2) $\alpha\alpha\alpha$ -Trichlor- β -Ketopropan + 2H₂O ($\alpha\alpha\alpha$ -Trichloraceton). Sd. 170 bis 172° (B. 7, 257; 8, 1338; J. pr. [2] 12, 381; A. ch. [6] 12, 239). — I, 987.
- 3) $\alpha\alpha\gamma$ -Trichlor- β -Ketopropan ($\alpha\alpha\gamma$ -Trichloraceton). Sd. 172° (A. ch. [6] 9, 176). — I, 987.

- C₃H₅OCl** 4) Chlorid d. $\alpha\alpha$ -Dichlorpropionsäure. Sd. 105—115° (B. 11, 388). — I, 473.
- C₃H₅OBr** 1) Aldehyd d. α -Bromakrylsäure. Sd. bei 120° bei 749 mm (B. 31, 1385).
- C₃H₅OBr₂** 1) $\alpha\alpha\alpha$ -Tribrom- β -Ketopropan (Tribromaceton). Sd. 255° u. Zers. (B. 25 [2] 501). — I, 989.
- 2) Aldehyd d. $\alpha\alpha\beta$ -Tribrompropionsäure. Sd. 85,5° bei 11 mm. + 2H₂O (Sm. 57°) (B. 31, 1386).
- 3) Aldehyd d. $\alpha\beta\beta$ -Tribrompropionsäure. + 2H₂O (Sm. 61,5°) (M. 11, 87). — I, 942.
- C₃H₅OJ** 1) α -Jod- γ -Oxypropin. Sm. 43—44° (C. 1897 [2] 182).
- C₃H₅O₂N** C 42,3 — H 3,5 — O 37,6 — N 16,5 — M. G. 85.
- 1) Cyanessigsäure. Sm. 65—66° (55°; 69—70°). K, Ba, Zn + H₂O, Pb + H₂O, Mn + 4H₂O, Cu, (Hg, 2HgO), Ag (A. 131, 348; 143, 201; J. 1874, 561; 1875, 528; Z. 1887, 69; Soc. 52, 797; B. 7, 1382, 1571; 24, 1207; 27 [2] 262; Bl. 44, 425; Ph. Ch. 3, 178). — I, 1217.
- 2) Isocyanessigsäure. Fl. (Bl. 42, 266). — I, 1219.
- 3) Methylester d. Cyanameisensäure. Sd. 100—101° (J. pr. [2] 10, 199). — I, 1217.
- 4) Methylester d. Paracyanameisensäure = (C₃H₅O₂N)₂. Sm. 154° (J. pr. [2] 10, 2' 1). — I, 1217.
- 5) Imid d. Malonsäure? Sm. 115° (C. 1898 [2] 858).
- 6) Verbindung (aus Isonitropropan), nur HCl-Salz bekannt (Sm. 96) (J. r. 16, 138).
- C₃H₅O₂N₂** C 31,9 — H 2,6 — O 23,3 — N 47,2 — M. G. 113.
- 1) 4-Nitropyrazol. Sm. 162°; Sd. 323° (A. 273, 265; 279, 228). — IV, 496.
- 2) 4-Oximido-5-Keto-4,5-Dihydropyrazol + 1/2 H₂O. Sm. 180—181° u. Zers. (87°?). Ag (B. 26, 2973; 27, 792; 29, 256; J. pr. [2] 51, 46). — IV, 498.
- 3) 4-Imido-2,5-Diketotetrahydroimidazol + H₂O (Allantoxalidin). K, Ag (J. r. 11, 47). — I, 1359.
- 4) Oxalylguanidin + H₂O (B. 26, 2552; J. pr. [2] 35, 458; [2] 49, 32).
- 5) Desoxyfulminursäure + H₂O (Nitril d. α -Oximido- β -Oxy- β -Imidopropionsäure). Sm. 184° (wasserfrei). Ag (B. 25, 432, 2757; A. 280, 328). — I, 1460.
- 6) 1,2,4-Triazol-5-Carbonsäure. Sm. 137° u. Zers. Ca + 2H₂O (B. 25, 744). — IV, 1112.
- 7) 1,2,5-Triazol-3-Carbonsäure. Sm. 211°. Ca + 2H₂O (A. 262, 317). — IV, 1111.
- C₃H₅O₂Cl** 1) α -Chloräthen- α -Carbonsäure (α -Chlorakrylsäure). Sm. 65°. K + H₂O, Ba + 2H₂O, Ag (A. 170, 168; B. 9, 1879; 10, 264, 1499, 1948; 18, 242; J. pr. [2] 46, 373). — I, 501.
- 2) β -Chloräthen- α -Carbonsäure (β -Chlorakrylsäure). Sm. 84—85°. Ba, Ag (A. 179, 87; 193, 28; 203, 94; 239, 264; B. 15, 2702). — I, 501.
- C₃H₅O₂Cl₂** 1) Trichlorpropionsäure. Sm. 60°. Ag (A. ch. [3] 16, 67, 72, 82). — I, 473.
- 2) Methylester d. Trichloressigsäure. Sd. 152,3—152,5° bei 765,3 mm (B. 16, 789; J. 1885, 1329; A. 253, 124; Ph. Ch. 1, 379). — I, 471.
- 3) $\alpha\beta$ -Dichloräthylester d. Chlorameisensäure. Sd. 159—160° (A. 258, 57). — I, 467.
- C₃H₅O₂Br** 1) α -Bromäthen- α -Carbonsäure (α -Bromakrylsäure). Sm. 69—70°. NH₄, Na + H₂O, K, Sr + H₂O, Ca + 4H₂O, Ba + 4H₂O, Pb, Zn, Ag (A. 171, 333, 340, 357; B. 14, 1867; J. 1881, 690). — I, 503.
- 2) β -Bromäthen- α -Carbonsäure (β -Bromakrylsäure). Sm. 115—116° (A. 193, 55; B. 15, 2702; 19, 541). — I, 503.
- 3) isom. β -Bromäthen- α -Carbonsäure. Sm. 140° (C. 1897 [2] 182).
- C₃H₅O₂Br₂** 1) $\gamma\gamma\gamma$ -Tribrom- α -Oxy- β -Ketopropan (Tribrommethylketol). Sm. 174° u. Zers. (A. 291, 239, 240, 247).
- 2) $\alpha\beta\beta$ -Tribrompropionsäure. Sm. 95° (93°, 92°). Na + 2H₂O, Ba + 4(5)H₂O, Fe (Am. 2, 18; M. 2, 98; 11, 87). — I, 481.
- 3) isom. Tribrompropionsäure (aus Akroleinbromid). Sm. 93° (B. 8, 1098). — I, 481.
- 4) isom. Tribrompropionsäure (aus $\alpha\beta$ -Dibromakrylsäure). Sm. 118°. Ca + 2H₂O, Ba, Ag (Am. 3, 116; 4, 180). — I, 481.

- C₃H₃O₂J 1) α -Jodäthen- α -Carbonsäure (α -Jodakrylsäure). Sm. 65° (B. 19, 542). — I, 505.
- 2) β -Jodäthen- α -Carbonsäure (β -Jodakrylsäure). Sm. 139—140°. Pb (B. 15, 2703; 19, 542). — I, 505.
- C₃H₃O₂N C 35,6 — H 3,0 — O 47,5 — N 13,9 — M. G. 101.
- 1) β -Imido- α -Ketoäthan- α -Carbonsäure (Imidobrenztraubensäure). + AgNO₃, Ag + AgNO₃ (B. 1, 265; A. 152, 270). — I, 587.
- C₃H₃O₂N₂ C 27,9 — H 2,3 — O 37,2 — N 32,6 — M. G. 129.
- 1) norm. Cyanursäure (nur Ester bekannt). — I, 1270.
- 2) Isocyanursäure + 2H₂O (Tricarbonimid). Salze meist bek. Lit. bedeutend. — I, 1267.
- 3) α -Cyanursäure + H₂O. Ba + 4H₂O, Cu(NH₄)₂, Ag(NH₄)₂ (B. 12, 170).
- 4) β -Cyanursäure. Cu(NH₄)₂, Ag(NH₄)₂ (B. 12, 176).
- 5) Fulminursäure (Isocyanursäure). Salze meist bek. (A. 95, 282; 97, 59; 101, 213; 280, 328; B. 5, 381; 9, 781; 25, 2756; J. pr. [2] 30, 64; [2] 32, 98; R. 15, 159). — I, 1459.
- 6) α -Isoufulminursäure. NH₄, Ba, Ag (J. pr. [2] 30, 55; A. 280, 324). — I, 1460.
- 7) β -Isoufulminursäure + 2 $\frac{1}{2}$ H₂O. Sm. 196° (wasserfrei) u. Zers. NH₄, Ba, Ag (J. pr. [2] 32, 474). — I, 1461.
- 8) Metafulminursäure + 3H₂O. Sm. 81°. NH₄, (NH₄)₂, K₂, Pb + H₂O, Ag, + H₂O, Methylaminsalz (J. pr. [2] 32, 464). — I, 1461.
- 9) Cyanilsäure + 2H₂O. Ag (A. 10, 32). — I, 1270.
- 10) 4-Oximido-3,5-Diketotetrahydropyrazol. Ag (J. pr. [2] 51, 77). — IV, 499.
- 11) 3-Oxy-1,2,4-Triazol-5-Carbonsäure + H₂O. Sm. 205° u. Zers. (B. 31, 2445).
- 12) Nitril d. $\alpha\beta$ -Oximido- β -Oxypropionsäure + $\frac{1}{2}$ H₂O (Cyanisonitrosoacethydroxamsäure). Sm. 117—118° u. Zers. K₂ + H₂O, Ag (A. 280, 321).
- C₃H₃O₂Cl 1) Monochlorid d. Oxalsäuremonomethylester. Sd. 118—120° (A. 254, 26). — I, 583.
- C₃H₃O₂Cl₂ 1) $\beta\beta\beta$ -Trichlor- α -Oxypropionsäure. Sm. 115—118° (105—110°; 124°). Sd. 140—170° bei 45 mm. NH₄, K (A. 179, 79; 253, 132; Ph. Ch. 3, 194; B. 17, 1997; C. 1896 [1] 101). — I, 556.
- 2) Verbindung (aus d. Chlorameisensäuretrichlormethylester). Sd. 91° bei 42 mm (J. pr. [2] 36, 314). — I, 465.
- C₃H₃O₂Br 1) β -Brom- α -Ketoäthan- α -Carbonsäure (Brombrenztraubensäure). Fl. (B. 1, 265, 266). — I, 587.
- 2) isom. Brombrenztraubensäure (A. 148, 219). — I, 587.
- C₃H₃O₂Br₂ 1) $\beta\beta\beta$ -Tribrom- α -Oxypropionsäure. Sm. 141—143° (A. 193, 50; B. 7, 1501). — I, 557.
- C₃H₃O₂N C 30,8 — H 2,5 — O 54,7 — N 12,0 — M. G. 117.
- 2) Aldehyd d. Nitromalonsäure. Na + H₂O, K, Ca + 4H₂O, Ba, Pb, Cu, Ag (B. 15, 1908; 28, 2597). — I, 616.
- C₃H₃O₂N₂ C 24,8 — H 2,1 — O 44,1 — N 29,0 — M. G. 145.
- 1) 1-Nitro-2,4-Diketotetrahydroimidazol (Nitrohydantoïn). Sm. 170° u. Zers. (R. 7, 12). — I, 1309.
- 2) Oximanhidridd. α -Nitro- $\alpha\beta$ -Dioximidopropan. Sm. 66—67° (A. 277, 325).
- C₃H₃O₂Cl 1) Chlormethandicarbonsäure (Chlormalonsäure). Sm. 133°. K₂, Ag, (B. 15, 605; A. 279, 163). — I, 651.
- C₃H₃O₂Cl₂ 1) $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxypropionsäure. Sm. 102°. Na + H₂O, Ca, Ba (J. pr. [2] 20, 198, 200; A. 177, 285; B. 13, 1938; 26, 656). — I, 632.
- C₃H₃O₂Br 1) Brommethandicarbonsäure (Brommalonsäure). Ba, Ag (J. r. 10, 65). — I, 652.
- C₃H₃O₂N C 27,1 — H 2,2 — O 60,1 — N 10,5 — M. G. 133.
- 1) Nitrosomethandicarbonsäure (Nitrosomalonsäure). Sm. 139° u. Zers. K₂ + $\frac{1}{2}$ H₂O, Pb + H₂O, Ag, + $\frac{1}{2}$ H₂O (A. 131, 292; 209, 214; 280, 333; B. 13, 599; 16, 608, 1134, 1621; 24, 1172; 25, 909; M. 16, 774; 17, 633). — I, 652.
- C₃H₃O₂N₂ C 22,4 — H 1,8 — O 49,7 — N 26,1 — M. G. 161.
- 1) Verbindung (aus Methylglyoxim). Sm. 107—108° u. Zers. (B. 23, 3501; A. 283, 236 Anm.). — I, 971.
- C₃H₃O₂N₃ C 18,6 — H 1,5 — O 58,0 — N 21,8 — M. G. 193.
- 1) Verbindung (Säure aus Mucobromsäure). K₂ (B. 15, 1907). — I, 616.

- $C_3H_5NCl_2$** 1) Nitril d. $\alpha\alpha$ -Dichlorpropionsäure. Flüssig. Sd. 105° (A. 116, 199; 132, 182; B. 9, 1593; 10, 2040; J. pr. [2] 46, 353). — I, 1463.
 2) polym. Nitril d. $\alpha\alpha$ -Dichlorpropionsäure. Fest. Zers. bei 130° (J. pr. [2] 46, 358, 360). — I, 1464.
 3) polym. Nitril d. $\alpha\alpha$ -Dichlorpropionsäure = $C_3H_5N_2Cl_2$. Sm. $73,5^\circ$ (A. 116, 199; 132, 182; B. 10, 263; J. pr. [2] 36, 79, 97; [2] 46, 357; [2] 50, 446, 460). — I, 1464.
- $C_3H_5NBr_2$** 1) Nitril d. $\alpha\beta$ -Dibrompropionsäure. Fl. (Bl. [3] 9, 425).
 C_3H_5NS 1) Thiazol. Sd. $116,8^\circ$. (HCl, $HgCl_2$), (2 HCl, $PtCl_4$ + $2H_2O$), (HCl, $AuCl_3$), Pikrat (A. 250, 275). — IV, 63.
- $C_3H_5N_2Cl$** 1) 4-Chlorpyrazol. Sm. $69-71^\circ$; Sd. 220° (B. 28, 715 Anm.).
 $C_3H_5N_2Br$ 1) 4-Brompyrazol. Sm. $96-97^\circ$. HBr, HNO_3 , Ag (B. 22, 2166; 28, 715 Anm.; A. 273, 263; J. pr. [2] 50, 545). — IV, 496.
- $C_3H_5N_2J$** 1) ?-Jodpyrazol. Sm. $108,5^\circ$ (A. 273, 264). — IV, 496.
 $C_3H_5N_2S$ 1) Trithiocyanursäure. Na, K, + $3H_2O$, Sr + $5H_2O$, Ca + $5H_2O$, Ba + $2(3)H_2O$ (B. 13, 1351; 18, 2201; J. pr. [2] 33, 116). — I, 1285.
- $C_3H_5Cl_2Br$** 1) $\alpha\beta$ -Dichlor- α -Brompropen? Sd. 143° (A. 179, 45). — I, 185.
 $C_3H_5Cl_2Br_2$ 1) Dichlortribrompropan. Sm. 207° (A. 179, 45). — I, 174.
 $C_3H_5Br_2J$ 1) Dibromjodpropen. Fl. (A. 135, 275). — I, 198.
 C_3H_5JHg 1) Quecksilberpropargyljodid (B. 17, 1132). — I, 1526.
 $C_3H_5ON_2$ C 42,9 — H 4,8 — O 19,0 — N 33,3 — M. G. 84.
 1) 5-Keto-4,5-Dihydropyrazol. Sm. 165° . Ag (B. 27, 792, 1662; 28, 988; 29, 253; J. pr. [2] 50, 230; [2] 51, 431). — IV, 498.
 2) isom. Ketodihydropyrazol? Sd. $156-157^\circ$ bei 750 mm. Ag (B. 27, 792; 29, 249; J. pr. [2] 51, 431).
 3) 2-Keto-2,3-Dihydroimidazol (B. 25, 2357). — IV, 502.
 4) β -Keto- α -Diazopropan? (G. 24 [2] 370).
 5) Amid d. Cyanessigsäure. Sm. 120° (105°). Na (Am. 18, 723; J. 1874, 561; Bl. 48, 656). — I, 1243.
 6) Methylamid d. Paracyanamelsensäure = $(C_3H_5ON_2)_x$. Sm. 250° u. Zers. (J. pr. [2] 10, 2171). — I, 1236.
 7) Cyanamid d. Essigsäure. Na, Ag (J. pr. [2] 11, 344; [2] 17, 7). — I, 1437.
- $C_3H_5OCl_2$** 1) Methyläther d. $\beta\beta$ -Dichlor- α -Oxyäthen (Methyldichlorvinyläther). Sd. $109-110^\circ$ (G. 14, 117). — I, 301.
 2) $\gamma\gamma$ -Dichlorpropan- $\alpha\beta$ -Oxyd (Dichlorpropylenoxyd). Sd. 170° (A. ch. [6] 9, 170). — I, 307.
 3) $\alpha\alpha$ -Dichlor- β -Ketopropan (uns-Dichloraceton). Sd. 120° . + $NaHSO_4$ + $\frac{1}{2}H_2O$ (B. 5, 1008; 6, 897; 8, 1330; 15, 1165; 25, 2629; 26, 598; A. 110, 40; 133, 112; 186, 236; A. ch. [6] 9, 165). — I, 286.
 4) $\alpha\gamma$ -Dichlor- β -Ketopropan (s-Dichloraceton). Sm. 45° ; Sd. $172,5^\circ$. + $NaHSO_4$ + $\frac{1}{2}H_2O$ (J. 1871, 531; 1881, 608; 1882, 439; A. 192, 94; 208, 355; 269, 18, 46; 279, 315; J. r. 5, 314; B. 7, 468; 8, 1332; 13, 1706; 26, 598; Bl. 36, 19; A. ch. [6] 9, 168). — I, 286.
 5) isom. ?-Dichlor- β -Ketopropan (isom. Dichloraceton). Sm. 44° (B. 7, 468; 8, 1332; A. ch. [6] 9, 212). — I, 286.
 6) isom. ?-Dichlor- β -Ketopropan (isom. Dichloraceton). Sd. $130-140^\circ$ (B. 8, 1438). — I, 286.
 7) Aldehyd d. $\alpha\alpha$ -Dichlorpropionsäure. Sm. $111-112^\circ$ (Bl. [3] 3, 402). — I, 242.
 8) Aldehyd d. $\alpha\beta$ -Dichlorpropionsäure. Fl. + C_3H_5O . (Sd. $150-155^\circ$) (A. Spl. 3, 192). — I, 242.
 9) Chlorid d. α -Chlorpropionsäure. Sd. $109-110^\circ$ (A. 107, 194; B. 9, 35; Bl. 43, 617). — I, 472.
 10) Chlorid d. β -Chlorpropionsäure. Sd. $143-145^\circ$ (Bl. 43, 617). — I, 472.
- $C_3H_5OCl_4$** 1) Methyläther d. $\alpha\beta\beta\beta$ -Tetrachlor- α -Oxyäthan (Methyltetrachloräthyläther). Sd. 178° (G. 16, 332). — I, 297.
- $C_3H_5OBr_2$** 1) $\alpha\beta$ -Dibrom- γ -Oxypropen. Sd. $205-208^\circ$ bei 760 mm (C. 1897 [2] 182).
 2) $\alpha\alpha$ -Dibrom- β -Ketopropan (Dibromaceton). Fl. (B. 9, 1688). — I, 289.
 3) $\alpha\gamma$ -Dibrom- β -Ketopropan (Dibromaceton). Sm. 24° (A. 192, 97). — I, 289.
 4) isom. Dibromaceton. Fl. + $NaHSO_4$ + $\frac{1}{2}H_2O$ (B. 21, 3288, 3289). — I, 289.

- C₃H₅OBr,** 5) Aldehyd d. $\alpha\alpha$ -Dibrompropionsäure. Sd. 137°. Hydrat (+ 2 H₂O), + NaHSO₄ (B. 25 [2] 501). — I, 942.
 6) Aldehyd d. $\alpha\beta$ -Dibrompropionsäure. Sd. 79—84° bei 5—6 mm (A. Spl. 3, 188; B. 7, 112; 8, 1097; Bl. 36, 136). — I, 942.
 7) polym. Aldehyd d. $\alpha\beta$ -Dibrompropionsäure. Sm. 70° (u. 82—84°) (Bl. 36, 136). — I, 942.
 8) Bromid d. α -Brompropionsäure. Sd. 152—154° (154—155°) (J. r. 13, 81; A. 280, 247). — I, 480.
- C₃H₅OBr,** 1) $\beta\beta\gamma\gamma$ -Tetrabrom- α -Oxypropan. Sd. 164—168° bei 20 mm (C. 1897 [2] 182).
- C₃H₅OJ,** 1) $\alpha\gamma$ -Dijod- β -Ketopropan (α -Dijodaceton). Sm. 61,5—62,5° (65—66°) (Z. 1867, 375; A. 192, 89; Bl. 43, 615; C. 1898 [1] 811). — I, 991.
- C₃H₅OS** 1) Verbindung (aus uns-Dichloraceton). + PbO + H₂O (B. 5, 1008). — I, 986.
- C₃H₅OS,** 1) Aethylenester d. Dithiolkohlsäure. Sm. 33—34° (31°) (A. 126, 269; 262, 79; C. 1898 [2] 362). — I, 887.
- C₃H₅O₂N,** C 36,0 — H 4,0 — O 32,0 — N 28,0 — M. G. 100.
 1) 3,5-Diketotetrahydropyrazol. Sd. 195—205° u. Zers. (J. pr. [2] 51, 76). — IV, 499.
 2) 2,4-Diketotetrahydroimidazol (Glykolylharnstoff; Hydantoïn). Sm. 216°. Ag + H₂O (A. 130, 158; 254, 260; A. ch. [6] 28, 99; J. pr. [2] 25, 151; B. 8, 612; 14, 1605, 1834; 29, 2652). — I, 1309.
 3) Methylester d. Diazoessigsäure. Sd. 129° bei 721 mm (J. pr. [2] 38, 406; [2] 44, 564). — I, 1942.
 C 28,1 — H 3,1 — O 25,0 — N 43,7 — M. G. 128.
- C₃H₅O₂N,** 1) Dicyandiamidcarbonsäure. NH₄, Ba + H₂O, Ag + AgNO₃, HCl (B. 16, 1075).
 2) Melanurensäure (Triuretamidin). Salze meist bekannt (A. ch. [2] 19, 93; A. 10, 30, 54, 371; 154, 355; B. 8, 1165; 9, 1556; 11, 251; 16, 1078, 1703; J. pr. [2] 11, 289; [2] 33, 165, 297; M. 10, 96; 11, 203). — I, 1449.
 3) 5-Amido-1,2,4-Triazol-3-Carbonsäure. Sm. 182°. NH₄, Na, HCl (A. 303, 51).
 4) Amid d. Isofulminursäure. 2 + AgNO₃, (2 + CuO, NH₃) (J. pr. [2] 30, 48; A. 280, 327). — I, 1460.
- C₃H₅O₂Cl,** 1) $\alpha\alpha$ -Dichlorpropionsäure. Sd. 185—190°. NH₄, K + 6 H₂O, Ba + H₂O, Ca + H₂O, Zn + H₂O (A. 132, 184; B. 3, 467; 7, 1405; 9, 1877; 10, 264, 2037; 11, 386; 18, 230; J. pr. [2] 58, 122). — I, 472.
 2) $\alpha\beta$ -Dichlorpropionsäure. Sm. 50°; Sd. 210° u. Zers. Pb + 2 PbO (A. 135, 255; 143, 1; 167, 51; 170, 168; J. r. 13, 163; B. 7, 414; 10, 1499; 12, 178; 18, 244). — I, 473.
 3) $\beta\beta$ -Dichlorpropionsäure. Sm. 56°. (A. 239, 267). — I, 473.
 4) Methylester d. Dichloressigsäure. Sd. 142—144° (A. 173, 299; Ph. Ch. 1, 378; J. 1885, 1329). — I, 469.
 5) Dichlormethylester d. Essigsäure. Sd. 145—148° (A. 32, 48).
 6) α -Chloräthylester d. Chlorameisensäure. Sd. 118—119° (A. 258, 54). — I, 466.
 7) β -Chloräthylester d. Chlorameisensäure. Sd. 150—160° (J. pr. [2] 31, 174). — I, 466.
 8) Dichloräthylester d. Ameisensäure (A. 32, 40; 60, 259).
- C₃H₅O₂Cl,** 1) Di[Dichlormethyl]äther d. Dioxymethan? Sm. 67—68°; Sd. 185° bei 752 mm (B. 28 [2] 277).
- C₃H₅O₂Br,** 1) $\alpha\alpha$ -Dibrompropionsäure. Sm. 71° (61°); Sd. 221°. NH₄ + $\frac{1}{2}$ H₂O, Na, K + H₂O, Ca + 2 H₂O, Sr + 6 H₂O, Ba + 9 H₂O (A. 171, 315; A. Spl. 2, 70; B. 18, 235; J. 1881, 687; J. r. 24, 365). — I, 480.
 2) $\alpha\beta$ -Dibrompropionsäure (2 Modif.). Sm. 51° (und 64°); Sd. 227°. NH₄, K, Ca + 2 H₂O, Sr + 6 H₂O, Ag (A. 167, 222, 256; 171, 337; 192, 102; A. Spl. 2, 73; J. pr. [2] 51, 556; B. 8, 1098, 1449, 1452; J. 1878, 693; 1881, 687; J. pr. [2] 24, 43; M. 2, 116; J. r. 13, 227; 24, 694). — I, 480.
 3) $\beta\beta$ -Dibrompropionsäure. Sm. 71° (Bl. [3] 11, 734).
 4) isom. Dibrompropionsäure (Bromitonsäure) (A. ch. [3] 19, 502). — I, 481.
 C 31,0 — H 3,4 — O 41,4 — N 24,1 — M. G. 116.
- C₃H₅O₂N,** 1) $\alpha\gamma$ -Dioximido- β -Ketopropan (Diisonitrosoaceton). Prismen, Zers. bei 143—144° (B. 19, 2465; 21, 2990). — I, 992.

- $C_3H_4O_5N_2$ 2) Glyoxylharnstoff. K, Ag (A. 175, 234). — I, 1357.
 3) Allantursäure (Lantanursäure, Diffhuan). K + H_2O , Ba, Pb, Pb + $3H_2O$ (A. 44, 107; 56, 5; 67, 222; 117, 179; 119, 127; 130, 160; 134, 220, 228; 159, 359; B. 9, 1162; 10, 545; 11, 2155). — I, 1357.
 4) Allylnitrolsäure. Sm. 68° (B. 25, 1703).
- $C_3H_4O_5N_2$ 1) Verbindung (aus Nitrodiazoisonitrosomethyluracil) = $(C_3H_4O_5N_2)_x$ (A. 245, 223). — I, 1352.
- $C_3H_4O_5N_2$ C 25,0 — H 2,8 — O 33,3 — N 38,9 — M. G. 144.
 1) Amid d. Fulminursäure. Sm. über 250° u. Zers. (B. 25, 2757). — I, 1460.
- $C_3H_4O_5Cl_2$ 1) $\beta\beta$ -Dichlor- α -Oxypropionsäure. Sm. 76,5—77° (B. 10, 903; Bl. 34, 29). — I, 556.
- $C_3H_4O_5Br_2$ 1) $\alpha\beta$ -Dibrom- α -Oxypropionsäure. Sm. 98° (B. 8, 1101). — I, 557.
 2) $\beta\beta$ -Dibrom- α -Oxypropionsäure (B. 7, 1501). — I, 557.
 3) isom.- β -Dibromoxypropionsäure (A. 148, 208). — I, 557.
- $C_3H_4O_5S$ 1) Allylsulfonsäure. Ba (B. 8, 18, 367; J. 1856, 487). — I, 129.
 $C_3H_4O_5N_2$ C 27,3 — H 3,0 — O 48,5 — N 21,2 — M. G. 132.
 1) Dioximidopropionsäure + H_2O . Sm. 141—143° u. Zers. NH_4 , Na + $3H_2O$, Ca + $2H_2O$, Ba + $5H_2O$, Ag (B. 25, 905). — I, 494.
 2) isom. Dioximidopropionsäure. Sm. 172° u. Zers. NH_4 , Na + $2H_2O$, Ca + $4H_2O$, Ba, Ag + $2H_2O$ (B. 25, 909). — I, 494.
 3) Oxalursäure. NH_4 , Na, K + H_2O , Ca + $2H_2O$, Ba + $2H_2O$, Ag (A. 26, 287; 113, 53; J. 1866, 749; B. 4, 644; A. ch. [5] 11, 367; [6] 28, 112; Ph. Ch. 3, 287). — I, 1368.
 4) Acetylmethylnitrolsäure (α -Nitro- α -Oximidodimethylketon). Sm. 55—62° (A. 283, 223, 234).
- $C_3H_4O_5N_4$ C 10,5 — H 2,3 — O 45,4 — N 31,8 — M. G. 176.
 1) 1,3-Dinitro-2-Ketotetrahydroimidazol (Aethylendinitroharnstoff). Sm. 210° u. Zers. (R. 7, 16). — I, 1301.
- $C_3H_4O_5N_2$ C 22,0 — H 2,4 — O 58,5 — N 17,1 — M. G. 164.
 1) Nitramidoformoxylessigsäure. K, (A. 302, 264).
- C_3H_4NCl 1) Nitril d. α -Chlorpropionsäure. Sd. 122—123° bei 744 mm (B. 9, 1592; C. 1898 [2] 22). — I, 1463.
 2) Nitril d. β -Chlorpropionsäure. Sd. 174—176° bei 752 mm (C. 1898 [2] 22).
- C_3H_4NBr 1) Nitril d. α -Brompropionsäure. HBr. Sm. 64° (A. 142, 65). — I, 1464.
- $C_3H_4N_2S$ 1) 2-Merkaptoimidazol. Sm. 222° u. Zers. Ag, 2 + $PtCl_4$ (B. 25, 2359). — IV, 503.
 2) 2-Amidothiazol. Sm. 90°. HCl + H_2O , (2HCl, $PtCl_4$) (A. 249, 36). — IV, 504.
- $C_3H_4N_2Se$ 1) 2-Amidoselenazol. Sm. 121°. (2HCl, $PtCl_4$) (A. 250, 308). — IV, 505.
- $C_3H_4N_2Cl$ 1) 5-Chlor-3-Methyl-1,2,4-Triazol. Sm. 147°. Ag (A. 303, 42).
- $C_3H_4N_2S_2$ 1) Dithiomelanurensäure. Na + $1\frac{1}{2}H_2O$, K + $1\frac{1}{2}H_2O$, Mg + $6H_2O$, Ca + $2H_2O$, Sr + $4H_2O$, Ba + $5H_2O$, Ag (A. 59, 343; J. r. 8, 222). — I, 1451.
- $C_3H_4N_2Cl$ 1) Chlorocyanamid (B. 9, 247; A. 10, 43; A. ch. [2] 19, 90; [2] 20, 98; Bl. [3] 19, 95). — I, 1447.
- C_3H_4ClBr 1) β -Chlor- α -Brompropen? Sd. 105° (A. 112, 237). — I, 184.
 2) γ -Chlor- α -Brompropen (β -Bromallylchlorid). Sd. 120° (B. 5, 453). — I, 184.
 3) γ -Chlor- β -Brompropen (α -Bromallylchlorid). Sd. 120° (126—127°) (A. Spl. 1, 230; 6, 375; B. 5, 453). — I, 184.
 4) β -Chlor- γ -Brompropen (α -Chlorallylbromid). Sd. 121° (Bl. 39, 526). — I, 184.
- $C_3H_4ClBr_2$ 1) α -Chlor- $\beta\beta\gamma$ -Tribrompropan. Sd. 238° (A. Spl. 1, 231). — I, 173.
- $C_3H_4Cl_2J$ 1) α -Chlor- γ -Jodpropen (β -Chlorallyljodid). Sd. 162° bei 760,4 mm (B. 16, 392, 393). — I, 198.
 2) β -Chlor- γ -Jodpropen (α -Chlorallyljodid). Sd. 92—95° bei 40 mm (B. 16, 393). — I, 198.
- $C_3H_4Cl_2Br_2$ 1) $\alpha\beta$ -Dichlor- $\alpha\beta$ -Dibrompropan (Allylendichlorodibromid). Sd. 190° (188°) (J. 1872, 323; A. 179, 44). — I, 173.
 2) $\alpha\beta$ -Dichlor- $\beta\gamma$ -Dibrompropan (α -Epidichlorhydrinbromid). Sd. 205° (J. 1872, 323). — I, 173.

- $C_3H_4Cl_2Br$ 3) $\alpha\gamma$ -Dichlor- $\beta\gamma$ -Dibrompropan (α -Epidichlorhydrinbromid). Sd. 220° (212°) (A. Spl. 1, 231; J. 1872, 324; J. pr. [2] 7, 313). — I, 173.
- 4) $\beta\beta$ -Dichlor- $\alpha\gamma$ -Dibrompropan. Sd. 203–207° (J. pr. [2] 42, 498). — I, 174.
- $C_3H_4Br_2S$
 C_3H_4ON 1) $\alpha\beta$ -Dibromäthan + Schwefelkohlenstoff. + $AlBr_3$ (C. 1898 [2] 362). C 50,7 — H 7,0 — O 22,5 — N 19,7 — M. G. 71.
- 1) norm. Cyansäureäthyläther (Cyanätholin). Fl. (A. 102, 355; 287, 312; B. 3, 274; 15, 515; R. 1, 41, 210; 2, 133; 3, 287; C. r. 70, 1172). — I, 1266.
- 2) isom. Cyansäureäthyläther (B. 15, 515).
- 3) Isocyansäureäthyläther. Sd. 60°. HCl , HBr (A. ch. [3] 42, 43; J. 1861, 515; 1862, 335; A. 103, 353; 115, 275; B. 15, 513; Bl. [3] 19, 198). — I, 1265.
- 4) polym. Cyansäureäthyläther. Sm. 95° (B. 3, 766; 15, 71). — I, 1271.
- 5) Inneres Anhydrid d. α -Amidopropionsäure (Laktimid) oder $C_3H_4O_2N_2$. Sm. 275° (A. 134, 372; Am. 20, 132). — I, 1194.
- 6) Nitril d. α -Oxypropionsäure. Sd. 182–184° u. Zers. (Z. 1867, 660). — I, 1470.
- 7) Nitril d. β -Oxypropionsäure. Sd. 220–222° bei 723,5 mm (A. 191, 273; Bl. [3] 9, 426). — I, 1471.
- $C_3H_4ON_2$ 8) Amid d. Akrylsäure. Sm. 84–85°; Zers. bei 125° (Bl. [3] 9, 417). C 36,4 — H 5,0 — O 16,2 — N 42,4 — M. G. 99.
- 1) 2-Imido-5-Ketotetrahydroimidazol (Glykocyamidin). HCl , (2HCl, $PtCl_4$) (J. 1861, 531; B. 25 [2] 345). — I, 1188.
- 2) Nitril d. β -Oximido- β -Amidopropionsäure (Cyanäthenylamidoxim). Sm. 124–127° u. Zers. (B. 29, 1168).
- 3) Hydrazid d. Cyanessigsäure. Sm. 114,5–115° (B. 27, 687).
- $C_3H_4ON_2$ 4) Verbindung (aus Azulminsäure) (Bl. 34, 473). — I, 1478. C 28,3 — H 3,9 — O 12,6 — N 55,1 — M. G. 127.
- 1) Ammelin (Triuretamidin). HCl , (2HCl, $PtCl_4$), HNO_3 , H_2CrO_4 + 2H₂O, H_2SO_4 + H₂O, Oxalat, + $AgNO_3$ (A. 10, 24; 21, 251; B. 9, 247; 20, 1063; 23, 1858; J. pr. [2] 20, 347; [2] 33, 286; M. 9, 701; 10, 95; 11, 42). — I, 1446.
- 2) Diamidocyanursäure (identisch mit Ammelin?). (2HCl, $PtCl_4$) (J. pr. [2] 33, 86). — I, 1447.
- 3) Dicyansemicarbazid (A. 295, 162). — IV, 1322.
- C_3H_4OCl 4) 5-Acetylamido-1,2,3,4-Tetrazol. Sm. 269° (A. 287, 234). — IV, 1312.
- 1) α -Chlor- γ -Oxypropen (Chlorallylalkohol). Sd. 153° (Bl. 36, 557; B. 15, 3086; 16, 393). — I, 250.
- 2) β -Chlor- γ -Oxypropen (Chlorallylalkohol). Sd. 136–140° (Bl. 39, 526; B. 5, 454; 15, 3085; 16, 393; R. 1, 238). — I, 250.
- 3) γ -Chlorpropan- $\alpha\beta$ -Oxyd (α -Epichlorhydrin). Sd. 116,5°. Lit. bedeutend. — I, 306.
- 4) β -Chlorpropan- $\alpha\gamma$ -Oxyd (β -Epichlorhydrin). Sd. 132–134° (A. ch. [6] 22, 468). — I, 308.
- 5) polym. Chlorpropanoxyd (Polyepichlorhydrin). Sm. 109–110° (Bl. 48, 237). — I, 307.
- 6) polym. Epichlorhydrin = $(C_3H_4OCl)_n$. Fl. (G. 24 [1] 305; 24 [2] 541).
- 7) α -Chlor- β -Ketopropan (Monochloraceton). Sd. 119°; + $NaHSO_4$ (A. 112, 322; 134, 170; 138, 124; B. 5, 190, 1009; 6, 318; 7, 467; 25, 262, 2631; 26, 597; A. ch. [6] 9, 158; Bl. 33, 203; Z. 1870, 529; A. 279, 313). — I, 286.
- 8) Aldehyd d. α -Chlorpropionsäure. Sd. 86° bei 755 mm (C. 1895 [2] 1113; Bl. [3] 15, 13).
- 9) Aldehyd d. β -Chlorpropionsäure. Sm. 34,5–35,5°; Sd. 125–130° (Z. 1865, 29; A. 112, 3; J. r. 11, 249; Bl. 36, 23). — I, 941.
- 10) polym. Aldehyd d. β -Chlorpropionsäure. Sd. 170–175° bei 12–15 mm (Bl. 36, 23). — I, 942.
- 11) Chlorid d. Propionsäure. Sd. 80° (A. 203, 14; Bl. 11, 470). — I, 452.
- $C_3H_4OCl_2$
 C_3H_4OBr 1) $\alpha\alpha\alpha$ -Trichlor- β -Oxypropan (Trichlorisopropylalkohol). Sm. 49,2°; Sd. 150–160° (A. 210, 78). — I, 245.
- 1) α -Brom- γ -Oxypropen (Bromallylalkohol). Sd. 155° (169–170°) (B. 5, 455; C. 1897 [2] 181). — I, 250.

- C₃H₅OBr** 2) β -Brom- γ -Oxypropen (Bromallylalkohol). *Sd.* 152°₇₇₆ (154°) (*B.* 14, 404; *C.* 1897 [2] 181). — *I.* 250.
- 3) γ -Brompropan- $\alpha\beta$ -Oxyd (Epibromhydrin). *Sd.* 138—148° (*A.* 101, 71; 125, 310; *A. Spl.* 1, 227; *A. ch.* [3] 48, 311). — *I.* 308.
- 4) α -Brom- β -Ketopropan (Bromaceton). *Sd.* 136,5°₇₂₅ (*J.* 1873, 480; *J. r.* 8, 330; *A.* 125, 311; 204, 29; *B.* 9, 1687, 1688; 29, 1555; *Am.* 10, 215; *J. pr.* [2] 58, 389). — *I.* 989.
- 5) Aldehyd d. β -Brompropionsäure. *Fl.* (*J. pr.* [2] 42, 348). — *I.* 942.
- 6) Bromid d. Propionsäure. *Sd.* 96—98° (103,5—104°) (*Bl.* 11, 468; *R.* 3, 389; *J. r.* 13, 81). — *I.* 460.
- C₃H₅OBr₂** 1) $\beta\beta\gamma$ -Tribrom- α -Oxypropan. *Sd.* 125—129°₁₈ (*C.* 1897 [2] 182).
- C₃H₅OJ** 2) $\beta\gamma\gamma$ -Tribrom- α -Oxypropan. *Sd.* 155—157°₇₇ (*C.* 1897 [2] 182).
- 1) β -Jod- γ -Oxypropen (Jodallylalkohol). *Sm.* 160° (*B.* 13, 461; 14, 207). — *I.* 250.
- 2) γ -Jodpropan- $\alpha\beta$ -Oxyd (Epijodhydrin). *Sd.* 160—180° (*A. Spl.* 1, 227, 228). — *I.* 308.
- 3) α -Jod- β -Ketopropan (Jodaceton). *Sd.* 58,4°₁₁ (*J.* 1871, 530; *Bl.* 43, 614; *B.* 29, 1557). — *I.* 991.
- 4) Aldehyd d. β -Jodpropionsäure. *Fl.* (*A. ch.* [6] 18, 156). — *I.* 943.
- 5) Jodid d. Propionsäure. *Sd.* 127—128° (*Bl.* 11, 469). — *I.* 461.
- C₃H₅OF** 1) Fluorid d. Propionsäure. *Sd.* 44° (*C.* 1897 [1] 1090; *Bl.* [3] 15, 877; [3] 17, 59).
- C₃H₅O₂N** *C* 41,4 — *H* 5,7 — *O* 36,8 — *N* 16,1 — *M. G.* 87.
- 1) γ -Nitropropen (Nitroallyl). *Sd.* 125—130°. *Na* (*B.* 25, 1701; *C.* 1898 [1] 192).
- 2) α -Oximido- β -Ketopropan (Isonitrosoaceton). *Sm.* 65°. *Ag* (*B.* 11, 695; 14, 1468; 15, 1059, 1326, 2786; 20, 252). — *I.* 991.
- 3) Nitrit d. γ -Oxypropen (Salpetrigsäureallylester). *Sd.* 43,5—44,5° (*B.* 7, 225, 1141; *G.* 15, 364). — *I.* 323.
- 4) 2-Ketotetrahydrooxazol (Lakton d. β -Oxyäthylamidoameisensäure). *Sm.* 90—91° (*B.* 21, 568; 30, 2494). — *I.* 1255.
- 5) β -Amidoäthen- α -Carbonsäure? (β -Amidoakrylsäure) (*A.* 179, 97). — *I.* 1206.
- 6) α -Imidopropionsäure. *NH₄*, *Pb*, *Ag* (*A.* 208, 135). — *I.* 587.
- 7) Amid d. α -Ketoäthan- α -Carbonsäure (Amid d. Brenztraubensäure). *Sm.* 124—125° (*B.* 11, 1566). — *I.* 1344.
- 8) Formylamid d. Essigsäure (Formylacetamid). *Sm.* 70° (*B.* 16, 1653). — *I.* 1239.
- C₃H₅O₂N₂** *C* 31,3 — *H* 4,3 — *O* 27,8 — *N* 36,5 — *M. G.* 115.
- 1) 1-Amido-2,4-Diketotetrahydroimidazol (Amidohydantoïn). *Sm.* 244°. *HCl* (*B.* 31, 167).
- 2) 3,5-Diketo-1-Methyltetrahydro-1,2,4-Triazol (Methylurazol). *Sm.* 216° (*C.* 1898 [1] 39).
- 3) Amid d. Imidomethandicarbonsäure (*A.* d. Imidomalonsäure) (*B.* 24, 3003). — *I.* 1372.
- C₃H₅O₂N₃** *C* 25,2 — *H* 3,5 — *O* 22,4 — *N* 48,9 — *M. G.* 143.
- 1) Verbindung (*a.* d. Dicyansemicarbazidamidoxim) (*A.* 295, 165). — *IV.* 1329.
- C₃H₅O₂Cl** 1) α -Chlorpropionsäure. *Sd.* 186°. *Ag* (*A.* 107, 194; 109, 268; 148, 169; *J. pr.* [2] 29, 367; *G.* 12, 261). — *I.* 472.
- 2) β -Chlorpropionsäure. *Sm.* 41,5°; *Sd.* 203—205° (*A.* 129, 86; 163, 96; *Z.* 1868, 451; *J. r.* 11, 248; *B.* 18, 226; *J. pr.* [2] 31, 126; *Bl.* [3] 9, 387). — *I.* 472.
- 3) Methylester d. Chloressigsäure. *Sd.* 130°₇₄₀ (*B.* 6, 742; 8, 1152; *A.* 197, 8; *J.* 1885, 1329; *Ph. Ch.* 1, 389). — *I.* 468.
- 4) Chlormethylester d. Essigsäure. *Sd.* 115—116° (*B.* 6, 740).
- 5) Aethylester d. Chlorameisensäure. *Sd.* 93,1° (*J.* 1863, 474; *Sov.* 41, 33; *A.* 147, 151; 205, 229; 226, 281; 302, 256; *B.* 21, 1516; 25, 1449). — *I.* 466.
- C₃H₅O₂Cl₂** 1) Monomethyläther d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan (Chloralmethylalkoholat). *Sm.* 50°; *Sd.* 106° (98°) (*A.* 157, 244; *B.* 3, 445). — *I.* 933.
- 2) Chlormethyldichlormethyläther d. Dioxymethan. *Sd.* 143—145°₇₆₂ (*B.* 28 [2] 277).

- $C_3H_5O_2Br$ 1) α -Brompropionsäure. Sm. 24,5°; Sd. 303,5°. Na, K, Mg + H_2O , Ba, Pb, Cu, Ag (A. 120, 286; 130, 17; 242, 163; 280, 247; B. 18, 223; 20, 2026; 26, 263; J. pr. [2] 32, 324; Bl. [3] 7, 366). — I. 479.
2) β -Brompropionsäure. Sm. 62,5° (Z. 1868, 450; B. 18, 227; J. pr. [2] 42, 384; Bl. [3] 9, 388). — I. 480.
3) Methylester d. Bromessigsäure. Sd. 144° u. Zers. (A. 108, 109). — I. 478.
- $C_3H_5O_2J$ 1) α -Jodpropionsäure. Fl. (A. 144, 352). — I. 490.
2) β -Jodpropionsäure. Sm. 82° (A. 120, 231; 122, 366; 131, 223, 328; 166, 1; 191, 284 Ann.; 206, 350; B. 18, 225; 19, 3295; 21, 24; 28, 2436; Ph. Ch. 3, 193; J. pr. [2] 58, 128). — I. 490.
3) Methylester d. Jodessigsäure. Sd. 169–171° (B. 14, 604). — I. 490.
- $C_3H_4O_2F$
 $C_3H_4O_2N$ 1) Methylester d. Fluoressigsäure. Sd. 104,5° (Bl. [3] 15, 1134).
C 34,9 — H 4,8 — O 46,6 — N 13,6 — M. G. 103.
1) α -Nitro- β -Ketopropan (Nitroaceton). Sd. 152°₁₁₇ (C. 1898 [2] 887; B. 32, 606).
2) Isonitroaceton. Fl. NH_4 (B. 32, 604, 624).
3) Nitrat d. γ -Oxypropen (Salpetersäureallylester). Sd. 106° (B. 5, 452). — I. 325.
4) α -Oximidopropionsäure (α -Nitrosopropionsäure). Zers. bei 177° u. Zers. K + H_2O , Ba, Cu, Ag (B. 11, 694; 13, 1117; 15, 1525; 24, 50; 26, 1551; A. 288, 30; 289, 297). — I. 493.
5) β -Oximidopropionsäure. Sm. 117–118° u. Zers. (A. 264, 286; B. 25, 1904). — I. 493.
6) Monamid d. Oxalsäuremonomethylester (M. d. Oxaminsäure; Oxamethylan) (A. 15, 46). — I. 1361.
7) Methylmonamid d. Oxalsäure (Methyloxaminsäure). Sm. 145–146°. K, Ca, Ca + $3H_2O$, Ba + $2H_2O$ (A. ch. [3] 30, 443; A. 184, 69; 215, 295; B. 14, 895; 17, 2919; M. 2, 128). — I. 1362.
C 27,5 — H 3,8 — O 36,6 — N 32,1 — M. G. 131.
1) $\alpha\beta\gamma$ -Trioximidopropan. Sm. 171° u. Zers. (B. 21, 2991). — I. 1029.
2) Diformylamidoharnstoff. Sm. 158° (B. 31, 379).
3) Amid d. Oxalursäure (Oxalan) (B. 9, 375–376; A. 106, 256; 113, 48; J. pr. [2] 9, 143). — I. 1368.
- $C_3H_4O_2Cl$ 1) β -Chlor- α -Oxypropionsäure. Sm. 78°. Ca + $3H_2O$, Ba, Zn + $3H_2O$, Mn + $3H_2O$, Cu, Ag (Z. 1870, 515; J. pr. [2] 20, 193; B. 12, 2227; 13, 309, 458, 2153; A. 206, 344; 257, 337; J. r. 13, 157; J. 1880, 775). — I. 556.
2) α -Chlor- β -Oxypropionsäure. Fl. (B. 12, 178, 2227; 13, 273, 956, 2153; J. r. 13, 164). — I. 559.
- $C_3H_4O_2Cl_2$ 1) Oxymethyläther d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan (Chloralmethylen-glykolat). Sm. 95–120° (B. 31, 1934).
- $C_3H_4O_2Br$ 1) β -Brom- α -Oxypropionsäure. Sm. 89–90° (B. 13, 958; J. r. 14, 223). — I. 557.
2) α -Brom- β -Oxypropionsäure. Fl. Zn (B. 18, 236). — I. 560.
- $C_3H_4O_2J$ 1) β -Jod- α -Oxypropionsäure. Sm. 84–85°. Zn (B. 6, 1257). — I. 557.
2) α -Jod- β -Oxypropionsäure. Sm. 100–101°. Ca + $3H_2O$, Zn (B. 14, 937).
- $C_3H_4O_2As$ 1) Arsenigsäureglycerinester. Sm. 50° (J. 1867, 574; 1884, 931). — I. 343.
- $C_3H_4O_2B$ 1) Borsäureglycerinester (Z. 1866, 147; siehe auch J. pr. [2] 18, 380). — I. 345.
- $C_3H_4O_2N$ C 30,2 — H 4,2 — O 53,8 — N 11,8 — M. G. 119.
1) β -Nitropropionsäure. Sm. 66–67° (J. pr. [2] 20, 169). — I. 497.
2) Amidomethandicarbonsäure + H_2O (Amidomalonsäure). Sm. 109°. NH_4 , Pb, Ag (A. 131, 295; Soc. 67, 1006). — I. 1210.
3) Monamid d. Oxymethandicarbonsäure (Tartronaminsäure). Sm. 160° u. Zers. K + H_2O , Ba + H_2O , Pb + $\frac{1}{2}H_2O$, Ag (J. r. 8, 177; A. 182, 821). — I. 1393.
4) Malonmonohydroxamsäure. NH_4 (B. 27, 804).
5) Methylester d. Oxalmonohydroxamsäure. Sm. 120°. NH_4 , Na (B. 27, 1110).
C 24,5 — H 3,4 — O 43,5 — N 28,6 — M. G. 147.
1) α -Nitro- $\alpha\beta$ -Dioximidopropan. Sm. 97–98° (A. 277, 323; 283, 236; B. 26, 627).

- $C_3H_5O_4N$, 2) Amid d. Nitromethandicarbonsäure. Zers. bei 172° . K, Pb, Ag (Soc. 67, 1005).
- $C_3H_5O_4N$ C 26,6 — H 3,7 — O 59,3 — N 10,4 — M. G. 135.
- $C_3H_5O_4N$, 1) Nitrat d. α -Oxypropionsäure (Salpetermilchsäure). Fl. (B. 3, 532; 12, 1837; G. 21 [2] 359). — I, 555.
- $C_3H_5O_4N$, C 20,1 — H 2,8 — O 53,6 — N 23,5 — M. G. 179.
- $C_3H_5O_4N$, 1) Trinitrit d. $\alpha\beta\gamma$ -Trioxypropan (Salpetrigsäureglycerinester). Sd. 150° u. Zers. (B. 6, 1290; 16, 1697). — I, 323.
- $C_3H_5O_4N$, C 15,8 — H 2,2 — O 63,4 — N 18,5 — M. G. 227.
- $C_3H_5O_4N$, 1) Trinitrat d. $\alpha\beta\gamma$ -Trioxypropan (Nitroglycerin). Fl. Lit. bedeutend. — I, 326.
- C_3H_5NCl , 1) Aethylimidodichlormethan. Sd. 102° (A. 280, 297).
- C_3H_5NBr , 1) Bromid d. Propionsäurenitril. Sm. 64° (A. 142, 65). — I, 1463.
- 2) Dibromisocyanäthyl (Bl. 30, 185).
- 3) Verbindung (Base aus Tribrompropylamin). Fl. HBr, (2HBr, PtCl₂) (B. 22, 3079). — I, 1141.
- C_3H_5NS , 1) Rhodanäthan (Aethylrhodanid). Sd. $141-142^\circ$ (146°). HBr, HJ. Lit. bedeutend. — I, 1278.
- 2) Aethylsenfö. Sd. $131-132^\circ$ (B. 1, 206; Am. 1, 417; 6, 259; G. 17, 70; A. 280, 296). — I, 1282.
- C_3H_5NS , 1) 2-Merkapto-4,5-Dihydrothiazol. Sm. $106-107^\circ$ (B. 22, 1152; 28, 2932; 31, 2837). — I, 1262.
- 2) Imidomethylenäther d. $\alpha\beta$ -Dimerkaptoäthan (Rhodanäthylsulfid). Fl. HCl, (2HCl, SnCl₂), HJ, HSCN, HNO₃ + $\frac{1}{2}$ H₂O (A. 153, 313; 262, 68). — I, 1279.
- C_3H_5NHg , 1) Quecksilberäthylecyanid (A. 92, 380). — I, 1526.
- $C_3H_5N_3S$, 1) 2-Merkapto-1-Methyl-1,3,4-Triazol. Sm. 168° (B. 29, 2489). — IV, 1102.
- 2) 5-Merkapto-2-Methyl-1,3,4-Triazol. Sm. $260-261^\circ$ (B. 29, 2486). — IV, 1106.
- 3) 2-Imido-3-Methyl-2,3-Dihydro-1,3,4-Thiodiazol. Fl. HJ (B. 29, 2514). — IV, 1102.
- 4) 2-Imido-5-Methyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 235° . HCl (B. 29, 2516). — IV, 1106.
- 5) 2-Methylimido-2,3-Dihydro-1,3,4-Thiodiazol. Sm. $65-66^\circ$. HCl (B. 27, 623). — IV, 1102.
- 6) Cyanamid d. Methylamidothioameisensäure (Cyanamid d. Methylthiocarbaminsäure). Na (B. 19, 450).
- $C_3H_5N_3S$, 1) 2,5-Dithiocarbonyl-1-Methyltetrahydro-1,3,4-Triazol (Methyldithio-urazol). Sm. 187° (B. 27, 1774).
- $C_3H_5N_3Cl$, 1) Trichloräthylidenamidoguanidin. HCl + 2H₂O, HNO₃ + H₂O (A. 302, 278).
- $C_3H_5N_3S$, 1) Thioammelin (Diamidothiocyanursäure). HCl, H₂SO₄ + 3H₂O, Oxalat, Ag, Ag₂ (J. r. 8, 217; B. 18, 3106; 20, 1059; J. pr. [2] 33, 296). — I, 1448.
- C_3H_5ClBr , 1) α -Chlor- $\alpha\beta$ -Dibrompropan (α -Chlorpropylenbromid). Sd. 177° (cor.) (Bl. 26, 278). — I, 173.
- 2) α -Chlor- $\beta\gamma$ -Dibrompropan (Chlorallylbromid). Sd. 195° ($195-200^\circ$; $202-203^\circ$) (A. 152, 320; A. Spl. 1, 230; 6, 372). — I, 173.
- 3) β -Chlor- $\alpha\beta$ -Dibrompropan. Sd. $169-170^\circ$ (A. 112, 236, 237; Bl. 26, 278; B. 17, 533). — I, 173.
- 4) β -Chlor- $\alpha\gamma$ -Dibrompropan (Chlordibromhydrin). Sd. 200° (J. 1857, 476; J. pr. [2] 46, 157). — I, 173.
- 5) Chlordibrompropan (Bromallylchlorobromid). Sd. $197-200^\circ$ (Bl. 31, 410). — I, 173.
- C_3H_5ClS , 1) Chlorid d. Thiopropionsäure (Bl. 29, 304).
- C_3H_5ClS , 1) Aethylester d. Chlordithioameisensäure. Sd. 100° (i. V.) (B. 20, 2384). — I, 874.
- $C_3H_5Cl_2Br$, 1) $\alpha\beta$ -Dichlor- α -Brompropan? (Brompropylenchlorid). Sd. $156-160^\circ$ (A. 138, 123 Anm.). — I, 173.
- 2) $\alpha\gamma$ -Dichlor- β -Brompropan (Dichlorbromhydrin). Sd. 176° (J. 1857, 477). — I, 173.
- 3) Dichlorbrompropan (Allyldichlorobromid). Sd. $180-187^\circ$ (Bl. 31, 410). — I, 173.

- $C_3H_5Cl_2J$ 1) $\alpha\gamma$ -Dichlor- β -Jodpropan. *Sd.* 205° (*B.* 3, 352; 4, 702; *A.* 136, 142). — *I.* 192.
- $C_3H_5Cl_2F$ 1) Dichlorfluorpropan. *Sd.* 122–123° (*B.* 25 [2] 502).
- $C_3H_5Br_2F$ 1) Dibromfluorpropan. *Sd.* 162–163° (*B.* 25 [2] 502).
- C_3H_5JHg 1) Quecksilberallyljodid. *Sm.* 135° (*A.* 98, 363; 140, 180; *B.* 4, 670; *A. Spl.* 3, 262). — *I.* 1526.
C 41,9 — H 7,0 — O 18,6 — N 32,5 — M. G. 86.
- $C_3H_5ON_2$ 1) Aethylidenharnstoff. *Sm.* 154° (*A.* 151, 204). — *I.* 1313.
2) 3-Keto-2,3,4,5-Tetrahydropyrazol. *Sd.* 133–135° (*B.* 26, 2972; *J. pr.* [2] 51, 72). — *IV.* 488.
3) 2-Ketotetrahydroimidazol (Aethylenharnstoff). *Sm.* 131° (*A.* 232, 227). — *I.* 1301.
4) 2-Imido-2,3,4,5-Tetrahydrooxazol? (Aethylenpseudoharnstoff). (2 HCl, $PtCl_4$, (HCl, $AuCl_3$), Pikrat (*B.* 22, 1150). — *I.* 1301.
5) Propylazaurolsäure, siehe $C_6H_{11}O_2N_4$.
6) Nitril d. α -Oxamidopropionsäure. *Sm.* 97° (*B.* 25, 2070). — *I.* 969.
7) Verbindung (oder $C_3H_5O_2N_2$) (*A.* 208, 136).
- $C_3H_5OCl_2$ 1) $\beta\gamma$ -Dichlor- α -Oxypropan (Dichlor-norm. Propylalkohol). *Sd.* 182° (*A.* 154, 247; 156, 164; 159, 179; *B.* 3, 352; 6, 720; 7, 414; 15, 1573; 24, 2670; *Z.* 1871, 252). — *I.* 244.
2) $\alpha\gamma$ -Dichlor- β -Oxypropan. *Sd.* 176–177° (*A.* 92, 302; 122, 73; 159, 173; 168, 42; 208, 349; *A. Spl.* 1, 225; 5, 250; *B.* 3, 252; 5, 354; 6, 1211; 13, 1707; 24, 2670; *A. ch.* [6] 22, 437; *Bl.* 48, 237; 50, 212). — *I.* 244.
3) Chlormethyläther d. β -Chlor- α -Oxyäthan. *Sd.* 153–154° (*B.* 28, [2] 850).
- $C_3H_5OBr_2$ 1) $\beta\gamma$ -Dibrom- α -Oxypropan (Dibrompropylalkohol). *Sd.* 219° (212–214°) (*A. Spl.* 1, 138; *A.* 167, 225; 221, 84; *Ann.* 2, 18; *J.* 1864, 490; *M.* 8, 562; *J. r.* 25, 678). — *I.* 245.
2) $\alpha\gamma$ -Dibrom- β -Oxypropan (*s.*-Dibromisopropylalkohol). *Sd.* 219° (*A. ch.* [3] 48, 313; [3] 60, 32; *A.* 124, 349; 174, 96; *B.* 14, 403; 21, 2890; 23, 1828). — *I.* 245.
3) Acetonbromid? (*A.* 125, 310; *B.* 9, 1688). — *I.* 989.
- $C_3H_5OJ_2$ 1) $\beta\gamma$ -Dijod- α -Oxyäthan (Dijodpropylalkohol). *Sm.* 45° u. Zers. (*B.* 13, 460; 14, 207). — *I.* 246.
2) $\alpha\gamma$ -Dijod- β -Oxypropan (Dijodisopropylalkohol). *Fl.* (*A.* 168, 25). — *I.* 246.
- C_3H_5ON 1) γ -Merkaptopropan- $\alpha\beta$ -Oxyd (Thioglycid). *Fl.* (*A. ch.* [3] 60, 66). — *I.* 314.
2) Aethanthiocarbonsäure (Thiopropionsäure). Nur Na + H_2O bekannt (*Bl.* 29, 304). — *I.* 875.
3) Methylester d. Methanthiolcarbonsäure (M. d. Thiolessigsäure). *Sd.* 62–68° (95–96°) (*Bl.* 25, 562; *B.* 12, 1062; 20, 2921).
4) Aethylester d. Thiolameisensäure (*B.* 16, 146).
- $C_3H_5ON_2$ 1) Oxydithioameisenäthyläthersäure (Aethylxanthogensäure). *Fl.* Salze meist bek. (*Bers. J.* 3, 83; 16, 302; 17, 332; *J.* 1887, 675; *A.* 51, 346; 72, 9; 122, 87; *B.* 10, 1293; 11, 1505). — *I.* 884.
2) Methylester d. Oxydithioameisenmethyläthersäure (Methylester d. Methylxanthogensäure). *Sd.* 167–168° (*J. pr.* [2] 8, 117). — *I.* 884.
3) Methylester d. Merkaptothiolameisenmethyläthersäure (Dimethylester d. Dithiolkohlensäure). *Sd.* 169° (*B.* 1, 169). — *I.* 887.
- $C_3H_5ON_2O$ 1) Oxydiselenoameisenäthyläthersäure (Selenxanthogensäure). *K* (*A.* 152, 207). — *I.* 906.
- $C_3H_5O_2N_2$ C 35,3 — H 5,9 — O 31,4 — N 27,4 — M. G. 102.
1) $\alpha\beta$ -Dioximidopropan (Methylglyoxim). *Sm.* 153° (156°). *Ag* (*B.* 15, 1166, 1325, 2786; 29, 1553; *A.* 289, 292). — *I.* 971.
2) Acetylharnstoff. *Sm.* 212° (218–219°). NaOH, KOH (*A.* 92, 405; 94, 100; 229, 30; *J. ch.* [6] 28, 94; *Soc.* 73, 364; *J. pr.* [2] 17, 17; *B.* 23, 3543; *B.* 8, 235; *Bl.* [3] 11, 574; *C.* 1897 [2] 897). — *I.* 1302.
3) Hydrazipropionsäure. Hydrazinsalz (*Sm.* 115–117°) (*J. pr.* [2] 44, 555). — *I.* 587.
4) Amid d. α -Oximidopropionsäure. *Sm.* 178,5° u. Zers. (173–175°) (*B.* 26, 1551; 28, 766; *A.* 288, 29).

- C₃H₃O₃N₃** 5) Amid d. Methandicarbonensäure (A. d. Malonsäure). Sm. 170°. Hg (*J.* 1875, 528; 1885, 1333; *B.* 7, 1287; 17, 133; *M.* 17, 188). — I, 1371.
- C₃H₄O₃N₃** 6) Monomethylamid d. Oxalsäure. Sm. 227—229° (*A.* 184, 70). — I, 1365.
C 27,7 — H 4,6 — O 24,6 — N 43,1 — M. G. 130.
1) Imidoamidomethylhydrazonessigsäure + H₂O (Amidoguanidinglyoxylsäure). Sm. 150—157° u. Zers. Ca + H₂O, Ba + H₂O, Ag + H₂O, HCl + H₂O, HNO₃ + H₂O, H₂SO₄ + 2H₂O (*A.* 302, 280).
2) Amid d. Hydrazomethandicarbonensäure. Sm. 175° (*Soc.* 67, 1003).
- C₃H₄O₃Cl₂** 1) Di[Chlormethyläther] d. Dioxymethan. Sm. 127° (102—104°) (*B.* 27 [2] 338; *G.* 28 [2] 482, 489).
- C₃H₄O₃S** 1) α -Merkaptopropionsäure. Fl. Ba, Pb, Cu, Bi, Hg, Ag, Pt (*A.* 129, 1; 188, 321; 196, 103; *B.* 11, 1353; 16, 1046; 18, 486; *J. pr.* [2] 29, 367; *Soc.* 63, 820; *H.* 20, 577). — I, 893.
2) β -Merkaptopropionsäure. Fl. Cu, Hg (*B.* 16, 790; *J. pr.* [2] 29, 376; *M.* 6, 835; *A.* 233, 32). — I, 895.
3) Aethylthiolarbonsäure. K, Cu, Zn, Ag (*A.* 75, 130; 148, 138; *J.* 1851, 513; *J. pr.* [2] 5, 477). — I, 882.
- C₃H₃O₃Hg** 1) Acetat d. Quecksilbermethyloxyhydrat. Sm. 142—143° (*Z.* 1870, 25). — I, 1525.
- C₃H₄O₃N₃** C 30,5 — H 5,1 — O 40,7 — N 23,7 — M. G. 118.
1) α -Nitroso- α -Nitropropan (Propylnitrolsäure). Sm. 60° (*A.* 175, 114; 214, 333; *B.* 7, 672; 9, 395). — I, 208.
2) β -Nitroso- β -Nitropropan (Pseudopropylnitrol). Sm. 76° (67; 68°) (*A.* 175, 120; *J. r.* 15, 93; *B.* 16, 960; 21, 508; 24, 976; 29, 87). — I, 208.
3) α -Nitro- β -Oximidopropan. Fl. (*B.* 28, 2100).
4) Methylnitrosoamidoessigsäure (Nitrososarkosin). Ca + 2H₂O, Cu, Ni, Ag (*Z.* 1867, 616; *C.* 1895 [1] 327). — I, 1186.
5) β -Amido- β -Oximidopropionsäure (Methenylamidoximeessigsäure). Sm. 144°. HCl, H₂SO₄, Cu, Ag (*B.* 27 [2] 261).
6) Harnstoffmethylcarbonsäure (Hydantoinsäure). Sm. 153—156° u. Zers. NH₄ + H₂O, Na + H₂O, K, Ba + 2H₂O, Pb + H₂O, Ag (*A.* 130, 160; 133, 71; 134, 222; 136, 276; 153, 105; 165, 103; *B.* 2, 106; 7, 37; *J. pr.* [2] 25, 154; *A. ch.* [6] 28, 103; *M.* 17, 189). — I, 1309.
7) Methylester d. Harnstoffcarbonsäure (Methylester d. Allophansäure). Sm. 208° u. Zers. (*A.* 23, 138; 244, 40). — I, 1306.
8) Methylester d. Methylnitrosamidoameisensäure. Fl. (*R.* 9, 139). — I, 1254.
9) Aethylester d. Nitrosamidoameisensäure. Sm. 51—52° u. Zers. Ag (*A.* 288, 304; 302, 255).
10) Amid d. Oxymethandicarbonensäure (A. d. Tartronsäure). Sm. 195 bis 196° u. Zers. (198°) (*B.* 17, 786; 18, 2854). — I, 1394.
C 24,7 — H 4,1 — O 32,9 — N 38,3 — M. G. 146.
- C₃H₄O₃N₃** 1) Carbonyldiharnstoff. Sm. 231—232°. + HgO (*J. pr.* [2] 5, 40; *A.* 291, 374). — I, 1305.
2) Oxalylamidoguanidin. Sm. 231—232° u. Zers. (*A.* 303, 38).
3) Oxamidharnstoff (β -Amidoformylhydrazid d. Oxaminsäure). Sm. 215° u. Zers. (*B.* 30, 588).
- C₃H₄O₃N₃** C 20,7 — H 3,4 — O 27,6 — N 48,3 — M. G. 174.
1) Trinitrosotrimethylentriamin (Trimethylentriinitrosamin). Sm. 105 bis 106° (*B.* 21, 2884; *A.* 288, 236). — I, 1169.
- C₃H₄O₃S** 1) Propen- γ -Sulfonsäure (Allylsulfonsäure) (*A.* 161, 218). — I, 374.
2) isom. Propen- β -Sulfonsäure. Ba (*A.* 233, 38). — I, 374.
3) Mesitylschwefelsäure? (*J.* 1856, 487). — I, 277.
- C₃H₄O₃S** 1) Allylunterschweflige Säure. Na + H₂O (*G.* 22 [1] 417).
- C₃H₄O₃N₃** C 26,8 — H 4,5 — O 47,8 — N 20,9 — M. G. 134.
1) $\alpha\alpha$ -Dinitropropan. Sd. 189,5°. NH₄, K (*A.* 52, 296; 64, 331; 161, 208; 181, 19; *B.* 31, 503; *J. pr.* [2] 25, 271; [2] 51, 505; [2] 55, 193; *J.* 1883, 1079; 1884, 1048; *B.* 26, 3008). — I, 209.
2) $\alpha\gamma$ -Dinitropropan. Fl. Na (*B.* 25, 1709, 2638).
3) $\beta\beta$ -Dinitropropan. Sm. 53° (50°; 55°); Sd. 185,5° (187°) (*A.* 180, 149; 280, 285; *B.* 15, 2323). — I, 209.
4) Dinitrit d. $\alpha\gamma$ -Dioxyprom. Sd. 108—110° (*G.* 16, 519). — I, 323.
5) Malondihydroxamsäure. Sm. 154—155° u. Zers. NH₄ (*B.* 27, 803).
6) α -Isonitramidopropionsäure. Pb. (*B.* 28, 1793).

- C₃H₆O₂N₂** 7) **Methylnitramidoessigsäure**. Sm. 164—168°. Ag (C. 1895 [1] 327).
 8) **N-Methylisonitramidoessigsäure**. Fl. K (A. 300, 130).
 9) **Methylester d. Methylnitramidoameisensäure**. Fl. (R. 8, 297). — I, 1254.
 10) **Aethylester d. Nitramidoameisensäure**. Sm. 64°; Zers. bei 140°. NH₄, K, Hg, Ag (B. 27, 1520, 1909; 31, 1469; A. 288, 287).
 11) **Amid d. Dioxymethandicarbonsäure (A. d. Mesoxalsäure)** (J. r. 10, 76). — I, 1398.
- C₃H₆O₂S** 1) **Allylschwefelsäure**. Ba (A. 102, 293; 230, 44). — I, 334.
 2) **β-Ketopropan-α-Sulfonsäure (Acetonsulfonsäure)**. Fl. K, Ba + H₂O, Pb + H₂O, Cu (Z. 1870, 162; B. 4, 517). — I, 995.
 3) **Dimethylsulfoncarbonsäure (Methylsulfonessigsäure)**. Ba (B. 26, 1131).
 4) **Aldehyd d. Aethan-α-Carbonsäure-β-Sulfonsäure (Aldehyd d. α-Sulfopropionsäure)**. + NaHSO₃ (B. 6, 1445, 1446; 31, 1864).
 5) **Verbindung (Säure aus Citronensäure)** (A. 127, 174). — I, 995.
- C₃H₆O₂S₂** 1) **Methylenäthylendisulfon**. Sm. 204—205° (B. 26, 1129).
 2) **β-Lakton d. β-Oxyäthylsulfonmethylen-sulfonsäure**. Sm. 164° (B. 26, 1131).
- C₃H₆O₂S₃** 1) **Trimethylendisulfonsulfid**. Sm. noch nicht bei 340° (B. 25, 248). — I, 913.
- C₃H₆O₂S₄** 1) **Aethan-α-Carbonsäure-α-Sulfonsäure (α-Sulfopropionsäure)**. Fl. (NH₄), + H₂O, K, + H₂O, Ca + 2H₂O, Ba + 1½(2)H₂O, Cd + 2H₂O, Ag, (A. 177, 5; 233, 27; R. 7, 27; J. pr. [2] 47, 180). — I, 902.
 2) **Aethan-α-Carbonsäure-β-Sulfonsäure (β-Sulfopropionsäure)**. Sm. 68 bis 69°. Salze meist bekannt (A. 233, 16, 34; M. 6, 837). — I, 902.
- C₃H₆O₂S₅** 1) **β-Lakton d. β-Oxyäthylsulfonmethylen-sulfonsäure**. Sm. 206 bis 207° u. Zers. (B. 26, 1132).
 C 21,7 — H 3,6 — O 57,8 — N 16,9 — M. G. 166.
- C₃H₆O₂N₂** 1) **Dinitrat d. αβ-Dioxypropan**. Fl. (A. ch. [4] 27, 261). — I, 326.
- C₃H₆O₂S₃** 1) **Trimethylentrisulfon**. Sm. noch nicht bei 340°. Li + 4H₂O, Na + H₂O, K, Ba + 4H₂O, Ag (B. 23, 70; 25, 234). — I, 913.
- C₃H₆NCl₂** 1) **β-Trichlor-α-Amidopropan**. Fl. (2HCl, PtCl₄) (A. 179, 56). — I, 1129.
- C₃H₆NBr** 1) **β-Brom-γ-Amidopropen? (Bromallylamin)**. Sd. 125° u. Zers. HBr, HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Oxalat (B. 21, 3191; 22, 3079; 23, 1067). — I, 1141.
- C₃H₆NBr₂** 1) **β-Tribrom-α-Amidopropan**. Fl. HCl, (HCl, AuCl₃), (2HCl, PtCl₄), HBr (B. 21, 3193; 22, 3079). — I, 1129.
- C₃H₆NP** 1) **Cyanäthylphosphid**. Sm. 49—50° (B. 3, 179, 180). — I, 1509.
- C₃H₆NAs** 1) **Kakodylecyanid**. Sm. 33°; Sd. 140° (A. 37, 23). — I, 1511.
- C₃H₆N₂S** 1) **Aethylenthioharnstoff**. Sm. 194° (2HCl, PtCl₄), 2 + Cu₂Cl₂, + 3HgCl₂, 2 + Hg(CN)₂, 3 + AgCl, 2 + PtCl₄ (B. 5, 242; C. 1897 [2] 194). — I, 1323.
 2) **Aethylidenthioharnstoff** (Z. 1871, 325). — I, 1330.
 3) **2-Amido-4,5-Dihydrothiazol (Aethylenpseudothioharnstoff)**. Sm. 84 bis 85°. HBr (B. 22, 1141; 31, 2833). — I, 1323.
- C₃H₆N₂Se** 1) **Aethylselenharnstoff**. (2HCl, PtCl₄), HBr (B. 23, 1003). — I, 1331.
- C₃H₆N₂S** 1) **5-Aethylamido-1,2,3,4-Thiotriazol**. Sm. 66—67° (B. 29, 2499). — IV, 1232.
- C₃H₆ClBr** 1) **α-Chlor-α-Brompropan (Propylidenchlorobromid)**. Sd. 110—112° (A. ch. [5] 14, 487). — I, 173.
 2) **α-Chlor-β-Brompropan (Propylenchlorobromid)**. Sd. 120° (A. ch. [5] 14, 487). — I, 173.
 3) **α-Chlor-γ-Brompropan (Trimethylenchlorobromid)**. Sd. 140—142°₇₄₅ (A. ch. [5] 14, 487). — I, 172.
 4) **β-Chlor-β-Brompropan (Chlorbromacetol)**. Sd. 93—95,5°₇₄₅ (A. ch. [5] 14, 482). — I, 173.
 5) **Chlorbrompropan (aus Propen)**. Sd. 118—120° (Bl. 31, 410). — I, 173.
 6) **Chlorbrompropan (aus Propylenbromid)**. Sd. 120° (Bl. 17, 532). — I, 173.
- C₃H₆ClJ** 1) **β-Chlor-α-Jodpropan (Propylenchlorojodid)**. Sd. 148—149° (J. 1881, 386; Z. 1870, 519; 1871, 264; Bl. 17, 536; C. r. 93, 739). — I, 192.
 2) **γ-Chlor-α-Jodpropan**. Sd. 170—172° (Bl. [3] 15, 1224; [3] 17, 93).
 3) **β-Chlor-γ-Jodpropan (Chlorjodacetol)**. Sd. 110—130°₁₀ (A. Spl. 6, 360). — I, 192.

- C₃H₅BrJ** 1) α -Brom- β -Jodpropan? Sd. 160—168° u. Zers. (J. 1874, 327). — I, 193.
2) β -Brom- β -Jodpropan (Bromjodacetol). Sd. 147—148° (cor.) (A. ch. [5] 14, 483). — I, 193.
- C₃H₅BrS₂** 1) Bromid d. Perthiokohlensäuredimethylester (A. 128, 327). — I, 888.
- C₃H₅ON** C 49,3 — H 9,6 — O 21,9 — N 19,2 — M. G. 73.
1) γ -Amidopropan- α - β -Oxyd (Glycidamin). HCl, (2HCl, PtCl₄) (A. 168, 37). — I, 1176.
2) α -Amido- β -Ketopropan (Amidoacetone). Fl. (2HCl, PtCl₄), Pikrat (A. ch. [6] 9, 159; B. 26, 2197). — I, 1230.
3) α -Oximidopropan (Propionaldoxim). Sd. 130—132° (B. 15, 2784; 25, 1915; 26, 1432; 28, 2019; Soc. 65, 221). — I, 969.
4) isom. α -Oximidopropan? Sm. 21,5° (Soc. 65, 222).
5) β -Oximidopropan (Acetoxim). Sm. 59—60°; Sd. 134,8°₇₃₃. Na, Na + C₃H₅O, HCl, 2 + Cu₂Cl₂, 2 + Cu₂Br₂ (B. 15, 1324, 1529, 2779; 16, 167, 170; 20, 2542; 21, 767; 25, 477; 26, 2893; 29, 88; Am. 19, 490; Soc. 71, 461). — I, 1029.
6) Aethyläther d. Imidooxymethan (Formimidoäthyläther). HCl (B. 16, 354, 1644; 28, 2454; A. 287, 328). — I, 1488.
7) Amid d. Propionsäure. Sm. 79° (79—81°); Sd. 213°. HCl, Na, Hg (Z. 1871, 34; B. 12, 562; 15, 981; 31, 2347; J. pr. [2] 27, 517; [2] 52, 60, 431; Bl. [3] 4, 229; Soc. 71, 467). — I, 1244.
8) Methylamid d. Essigsäure. Sm. 28° (25°); Sd. 206° (202—206°). HNO₃ (B. 14, 2730; R. 2, 341; Bl. [3] 9, 691). — I, 1238.
9) Dimethylamid d. Ameisensäure. Sd. 155° (Bl. [3] 9, 692; R. 13, 336).
10) Aethylamid d. Ameisensäure. Sd. 199° (J. 1854, 567; 1869, 602; B. 5, 247; R. 13, 416). — I, 1235.
C 35,6 — H 6,9 — O 15,8 — N 41,6 — M. G. 101.
1) Aethylidenamidoharnstoff (Semicarbazonäthan). Sm. 162° (A. 303, 79).
2) Amid d. β -Imido- β -Amidopropionsäure (Imidomalonamid). HCl (B. 28, 479).
- C₃H₅OCl** 1) β -Chlor- α -Oxypropan (β -Chlor-norm. Propylalkohol) (Bl. 7, 1649, 1790). — I, 244.
2) γ -Chlor- α -Oxypropan (γ -Chlorpropylalkohol). Sd. 160—162° (A. ch. [5] 14, 491). — I, 244.
3) α -Chlor- β -Oxypropan (Chlorisopropylalkohol). Sd. 127° (Z. 1870, 423; 1871, 600; J. r. 8, 25; 10, 222; B. 18, 24; Soc. 47, 133; A. Spl. 1, 254; 6, 369; Bl. 7, 1649, 1790; 25, 389). — I, 244.
4) Methyläther d. α -Chlor- α -Oxyäthan. Sd. 72—75° (A. 225, 269). — I, 297.
5) Methyläther d. β -Chlor- α -Oxyäthan. Sd. 90—91° (G. 27 [2] 294).
6) Chlormethyläther d. Oxyäthan. Sd. 80° (Bl. [3] 11, 881; [3] 17, 914; B. 27 [2] 670; G. 27 [2] 297).
- C₃H₅OBr** 1) γ -Brom- α -Oxypropan (γ -Brompropylalkohol). Sd. 98—112°₁₀₀ (M. 3, 697). — I, 245.
2) α -Brom- β -Oxypropan (Bromisopropylalkohol). Sd. 145—148° (Z. 1870, 423). — I, 245.
- C₃H₅OJ** 1) γ -Jod- α -Oxypropan. Sd. 225°₇₄₈ (C. 1897 [2] 344; R. 16, 213).
2) β -Jod- α -Oxypropan (Jodpropylalkohol). Sd. 105°₆₀ (Z. 1870, 424). — I, 246.
- C₃H₅OF** 1) Acetonhydrofluorid. Sd. 55° (Bl. 40, 302; B. 16, 962). — I, 978.
- C₃H₅O₂N** C 40,4 — H 7,8 — O 36,0 — N 15,7 — M. G. 89.
1) α -Nitropropan. Sd. 130,5—131,5° (125—127°). Na (A. 171, 36; M. 2, 653; J. r. 20, 498; Soc. 55, 688; C. 1898 [1] 193). — I, 208.
2) β -Nitropropan. Sd. 115—118° (117—120°₇₅₀). Na (A. 171, 39; 280, 274; M. 2, 654; J. pr. [2] 48, 353; B. 26, 130). — I, 208.
3) Isositropropan. Sd. 43—44° (J. r. 16, 135; 21, 48). — I, 208.
4) α -Oximido- α -Oxypropan (Propionhydroxamsäure). Sm. 85° (B. 25, 700). — I, 1246.
5) β -Oximido- α -Oxypropan. Sm. 71° (B. 30, 2060).
6) α -Imido- α - β -Dioxypropan (Laktimidohydrin). Sm. 135°. HCl, H₂SO₄ (C. 1898 [2] 527).
7) Dimethyläther d. Imidodioxymethan (D. d. Imidokohlensäure). Fl. (B. 19, 866). — I, 1490.

- C₃H₇O₂N**
- 8) Nitrit d. α -Oxypropan (Salpetrigsäure-norm. Propylester). *Sd.* 57° (43 bis 46°) (*J.* 1874, 333; 1883, 853; *M.* 2, 655). — *I.* 322.
 - 9) Nitrit d. β -Oxypropan (Salpetrigsäureisopropylester). *Sd.* 45° (39 bis 39,5₇₅₂) (*A.* 154, 255; *M.* 2, 654; *J. r.* 14, 226; *Bl.* 12, 227; *B.* 25, [2] 571). — *I.* 322.
 - 10) α -Amidopropionsäure (Alanin). $\text{Cu} + \text{H}_2\text{O}$, Pb , Ag , HCl , (2 HCl , PtCl_4), HNO_3 (*A.* 75, 29; 113, 220; 130, 18; *B.* 21, 1530; 25, 3503; *Bl.* [3] 4, 226; *J. pr.* [2] 44, 380). — *I.* 1194.
 - 11) β -Amidopropionsäure. *Sm.* 205—206° (196°). $\text{Cu} + 6\text{H}_2\text{O}$, HCl , (2 HCl , PtCl_4), H_2SO_4 (*A.* 156, 47; 264, 288; *B.* 8, 1597; 9, 1903; *M.* 12, 422; 17, 180, 182; *G.* 19, 438; *R.* 9, 54; 10, 5; *Am.* 15, 507). — *I.* 1196.
 - 12) Methylamidoessigsäure (Sarkosin). *Sm.* 210—215° (201—202°). HCl , (2 HCl , $\text{PtCl}_4 + 2\text{H}_2\text{O}$), (HCl , AuCl_3), HBr , HJ , HNO_3 , $\text{H}_2\text{SO}_4 + \text{H}_2\text{O}$, $2 + \text{ZnCl}_2$, $\text{Cu} + 2\text{H}_2\text{O}$, $\text{Ni} + 2\text{H}_2\text{O}$, $\text{Zn} + 2\text{H}_2\text{O}$ (*J.* 1867, 495; 1886, 1310; *C.* 1895 [1] 325; *A.* 62, 310; 123, 261; 157, 4; 217, 273; 279, 40; *B.* 8, 584; 17, 286; 26, 1922; *R.* 2, 339; *H.* 4, 107; 5, 266; 18, 458; *J. pr.* [2] 44, 380). — *I.* 1185.
 - 13) Sarkosinsäure. *Sm.* 195° (*J.* 1876, 912). — *I.* 1196.
 - 14) Methylester d. Amidoessigsäure. *Sd.* 130°₇₇₀ u. Zers. HCl (*J. pr.* [2] 37, 165). — *I.* 1184.
 - 15) Methylester d. Methylamidoameisensäure. *Sd.* 158°_{766,2} (*R.* 7, 353; *Am.* 16, 372). — *I.* 1254.
 - 16) Aethylester d. Amidoameisensäure (Urethan). *Sm.* 49—50°; *Sd.* 184° (180°). Na , Hg . *Lit.* bedeutend. — *I.* 1253.
 - 17) Amid d. α -Oxypropionsäure (Laktamid). *Sm.* 74° (*A.* 104, 197; 133, 257; *A. ch.* [3] 63, 108). — *I.* 1342.
 - 18) Laktamin. Zers. bei 200° (*Bl.* 42, 265). — *I.* 1343.
 C 30,8 — H 6,0 — O 27,3 — N 35,9 — *M. G.* 117.
- C₃H₇O₂N₂**
- 1) Acetylamidoharnstoff. *Sm.* 165° (*B.* 31, 381).
 - 2) Methylbiuret. *Sm.* 163—164° (*B.* 30, 2617).
 - 3) Guanidinessigsäure (Glykocyamin). HCl , (2 HCl , $\text{PtCl}_4 + 3\text{H}_2\text{O}$), Cu (*J.* 1861, 530; *J. pr.* [2] 17, 477). — *I.* 1188.
 - 4) Amid d. Amidomethandicarbonsäure (Amid d. Amidomalonsäure). *Sm.* 182° (*B.* 15, 607). — *I.* 1372.
- C₃H₇O₂Cl**
- 1) γ -Chlor- $\alpha\beta$ -Dioxypropan (α -Glycerinchlorhydrin). *Sd.* 213° (227°) *A.* 88, 311; 120, 90; *A. Spl.* 1, 233; *A. ch.* [5] 17, 62; *Bl.* 14, 179). — *I.* 261.
 - 2) β -Chlor- $\alpha\gamma$ -Dioxypropan (β -Glycerinchlorhydrin). *Sd.* 146°₁₈ (*A. ch.* [5] 17, 73; *B.* 5, 449; *C.* 1897 [1] 741; *R.* 16, 208). — *I.* 262.
 - 3) Chlordimethyläther α . Dioxymethan. *Sd.* 95° (*B.* 27 [2] 338).
- C₃H₇O₂Br**
- 1) γ -Brom- $\alpha\beta$ -Dioxypropan (α -Glycerinbromhydrin). *Sd.* 138°₁₇; *Sd.* 180°₁₆ (*A. ch.* [3] 48, 304; *M.* 8, 562). — *I.* 261.
 - 2) β -Brom- $\alpha\gamma$ -Dioxypropan? (β -Glycerinbromhydrin). *Sd.* 160°₆₆ (*B.* 16, 786). — *I.* 262.
- C₃H₇O₂J**
C₃H₇O₂P
C₃H₇O₂N
- 1) γ -Jod- $\alpha\beta$ -Dioxypropan (Glycerinjodhydrin). *Fl.* (*J.* 1860, 459). — *I.* 262.
 - 1) Mesitylunterphosphorige Säure. Ba (*J. pr.* [1] 15, 141). — *I.* 277.
 C 34,3 — H 6,7 — O 45,7 — N 13,3 — *M. G.* 105.
 - 1) β -Nitro- α -Oxypropan. *Sd.* 120—122°₉₂ (*R.* 16, 191).
 - 2) γ -Nitro- α -Oxypropan. *Sd.* 138—140°₅₉ (*R.* 16, 193).
 - 3) α -Nitro- β -Oxypropan. *Sm.* — 20°; *Sd.* 112°₃₆ (*Bl.* [3] 13, 999).
 - 4) β -Oximido- $\alpha\gamma$ -Dioxypropan. *Sm.* 84° (*B.* 30, 1662; *Bl.* [3] 19, 504).
 - 5) Nitrat d. α -Oxypropan (Salpetersäure-norm. Propylester). *Sd.* 110,5° (*B.* 14, 421; 23, 2181; *Soc.* 55, 683). — *I.* 324.
 - 6) Nitrat d. β -Oxypropan (Salpetersäureisopropylester). *Sd.* 101—102° (*A.* 154, 256). — *I.* 325.
 - 7) β -Amido- α -Oxypropionsäure (Isoserin). HCl (*B.* 12, 2228; 13, 958, 1077, 1266; *J.* 1880, 779; *J. r.* 13, 60). — *I.* 1209.
 - 8) α -Amido- β -Oxypropionsäure? (Serin). HCl , HNO_3 , Cu (*J. pr.* [1] 96, 76; *J.* 1880, 779; *L.* 15, 1735). — *I.* 1208.
 - 9) α -Hydroxylaminpropionsäure (α -Amidoxypropionsäure). HCl (*B.* 27, 3354).
 - 10) Aethylester d. Hydroxylamidoameisensäure (Oxyurethan). *Fl.* $\text{Na} + \text{H}_2\text{O}$ (*B.* 27, 1254; *Am.* 20, 39).
 C 27,1 — H 5,2 — O 36,1 — N 31,6 — *M. G.* 133.
 - 1) s-Nitroäthylharnstoff. *Sm.* 130—131°. Ag (*A.* 288, 285; *B.* 30, 653).

- C₃H₇O₄N₃ 2) β -Hydroxynitrosamido- $\alpha\alpha$ -Dimethylharnstoff. Fl. (A. 299, 88).
 3) Methenylamidoximacethydroxamsäure. Sm. 152° u. Zers. HCl, HNO₃ (B. 24, 3438; 27 [2] 260). — I, 1219.
 4) Amid d. N-Methylisonitramidocessigsäure. Sm. 142° (A. 300, 130).
C₃H₇O₄P 1) Acetonphosphorige Säure. Ba (J. 1864, 329—330). — I, 1508.
C₃H₇O₄N₃ C 24,2 — H 4,7 — O 42,9 — N 28,2 — M. G. 149.
C₃H₇O₄P 1) α -Nitro- α -Isonitramidopropan. Na + $\frac{1}{2}$ H₂O (A. 300, 109).
 1) Allylphosphorsäure. Salze meist bek. (Bl. [3] 13, 885; [3] 19, 827; C. 1897 [1] 407).
 2) Mesitylphosphorsäure. Na + $2\frac{1}{2}$ H₂O (J. pr. [1] 15, 144). — I, 277.
C₃H₇O₄N C 26,3 — H 5,1 — O 58,4 — N 10,2 — M. G. 137.
 1) Mononitrat d. $\alpha\beta\gamma$ -Trioxyproman (Glycerinmononitrat). Fl. (A. ch. [5] 17, 118). — I, 326.
C₃H₇NCl₂ 1) Propyldichloramin. Sd. 117° (B. 26 [2] 188). — I, 1128.
C₃H₇NBr₂ 1) $\beta\gamma$ -Dibrom- α -Amidopropan. Fl. HCl, (2HCl, PtCl₄), HBr, (2HBr, PtCl₄) (B. 8, 399; 22, 3076). — I, 1129.
C₃H₇NJ₂ 1) $\alpha\alpha$ -Dijod- α -Amidopropan (Propionamidjodid) (B. 25, 2542).
C₃H₇NS 1) Aethylimidomethylmerkaptan. Sd. 125°₁₄ (A. 280, 297).
 2) Amid d. Thiopropionsäure. Sm. 41–42° (A. 259, 229). — I, 1246.
C₃H₇NS₂ 1) Aethylamidodithioameisensäure. Ag (B. 1, 25, 170; J. r. 10, 188). — I, 1261.
 2) Aethylester d. Amidodithioameisensäure. Sm. 41–42° (J. pr. [2] 10, 29; J. 1866, 501; B. 15, 1989). — I, 1261.
C₃H₇N₂S₂ 1) Methylamid d. Thioharnstoffthiocarbonsäure (α -Methyldithiobiuret). Sm. 153° u. Zers. (B. 25, 752). — I, 1326.
C₃H₇N₂Cl 1) β -Chloräthylidenamidoguanidin. HNO₃ (Sm. 144° u. Zers.) (A. 302, 287).
C₃H₇Cl₂P 1) Isopropylphosphorchlorür. Sd. 135° (B. 13, 2175). — I, 1503.
C₃H₇ON₂ C 40,9 — H 9,1 — O 18,2 — N 31,8 — M. G. 88.
 1) α -Amido- α -Imido- β -Oxypropan (Laktamidin). HCl, HNO₃ (B. 23, 2947). — I, 1160.
 2) Aethylharnstoff. Sm. 92°. HCl, HNO₃, Oxalat, Hg (Wurtz, *Répert. chimie pure*; J. pr. [2] 21, 11; A. ch. [6] 9, 278; [6] 28, 78; B. 30, 653; A. 298, 119 Anm.). — I, 1298.
 3) s-Dimethylharnstoff. Sm. 99,5–102,5°; Sd. 268–273°. HNO₃ (Wurtz, *Répert. chimie pure* 1862, 4, 199; B. 14, 726, 896; 30, 651; 31, 2162; A. 215, 302; M. 2, 92; R. 3, 222). — I, 1298.
 4) uns-Dimethylharnstoff. Sm. 180°. HNO₃, Oxalat + H₂O (R. 2, 129; 3, 222; 8, 224, 233). — I, 1298.
 5) $\alpha\gamma$ -Diamido- β -Ketopropan (s-Diamidodimethylketon). 2HCl + $1\frac{1}{2}$ H₂O, (2HCl, PtCl₄ + 2H₂O), (2HCl, SnCl₄), H₂SO₄, Pikrat + H₂O (B. 21, 3328; 22, 1955; 25, 1563; 27, 1042; 28, 1519). — I, 992.
 6) α -Amido- α -Oximidopropan (Propenylamidoxim). HCl (B. 17, 2756). — I, 1484.
 7) Aethyläther d. Amidooximidomethan. Sd. 170–175°. (2HCl, PtCl₄) (A. 280, 340).
 8) Amid d. α -Amidopropionsäure. Sm. oberh. 250°. HCl (A. 173, 344, 345). — I, 1245.
C₃H₇ON₂ C 31,0 — H 6,9 — O 13,8 — N 48,3 — M. G. 116.
 1) Acetylamidoguanidin. HNO₃ + H₂O (Sm. 142–143° u. Zers.), Pikrat (A. 270, 29; 303, 36). — I, 1167.
 2) Hydrazid d. Hydrazipropionsäure (J. pr. [2] 44, 558). — I, 587.
C₃H₇OF₂ 1) Acetondihydrofluorid. Sd. 12–15° (Bl. 40, 302; B. 16, 962). — I, 978.
C₃H₇OS₂ 1) $\alpha\beta$ -Dimerkapto- β -Oxypropan (Dithioglycerin). Fl. Pb, Hg (A. 124, 231). — I, 353.
C₃H₇OZn 1) Zinkmethyläthylat (A. 173, 148). — I, 1522.
C₃H₇O₂N₂ C 34,6 — H 7,7 — O 30,8 — N 26,9 — M. G. 104.
 1) α -Nitramidopropan (Propylnitroamin). Sm. — 21°; Sd. 128–129°₁₀. K, Ag (R. 9, 75; 17, 272, 290). — I, 1129.
 2) β -Nitramidopropan (Isopropylnitroamin). Sd. 90–91°₁₀. K, Ag (R. 9, 77). — I, 1131.
 3) Methylnitramidooäthan (Methyläthylnitramin). Sd. 195,75°_{763,5} (R. 13, 327; 16, 395).
 4) Isomethyläthylnitramin. Sd. 36–38°₂₀ (R. 16, 398; 17, 291).
 5) Isoäthylmethylnitramin. Sd. 35°₁₆ (R. 16, 402; 17, 291).

- $C_3H_5O_2N_2$ 6) $\alpha\beta$ -Diamidopropionsäure. Sm. 97°. HCl, (2HCl, $PtCl_4 + H_2O$), HBr, HNO_3 , $H_2SO_4 + \frac{1}{2}H_2O$, Acetat, Oxalat + $2H_2O$, Pikrat + $2H_2O$, Cu + $4H_2O$, Hg + $4H_2O$ (B. 26, 2264; H. 19, 309).
- 7) α -Hydrazidopropionsäure. Sm. 180° (181°). HCl (B. 29, 671; A. 303, 85).
- 8) Aethylester d. Hydrazidoamelsensäure. HCl (A. 288, 293).
- 9) Verbindung, siehe $C_3H_5ON_2$ (A. 208, 136).
- $C_3H_5O_2N_2$ C 27,3 — H 6,1 — O 24,2 — N 42,4 — M. G. 132.
- 1) $\alpha\gamma$ -Dioximido- $\alpha\gamma$ -Diamidopropan (Malonendiamidoxim). Sm. 163–167° u. Zers. (B. 29, 1169).
- 2) Amid d. Diamidomethandicarbonsäure (A. d. Diamidomalonsäure). Zers. bei 150° (B. 24, 3002; Soc. 67, 1003). — I, 1372.
- 3) Dihydrazid d. Methandicarbonsäure (D. d. Malonsäure). Sm. 154° (152°). 2HCl (B. 27, 1660; J. pr. [2] 51, 187).
- $C_3H_5O_2N_2$ C 22,5 — H 5,0 — O 20,0 — N 52,5 — M. G. 160.
- 1) Amidoxim d. Dicyansemicarbazid (A. 295, 164). — IV, 1329.
- $C_3H_5O_2S$ 1) γ -Merkapto- $\alpha\beta$ -Dioxypropan (Monothioglycerin). Fl. Pb, Hg (A. 124, 222). — I, 353.
- 2) Methyläthylsulfon. Sm. 36° (J. pr. [2] 17, 455). — I, 359.
- $C_3H_5O_2N_2$ C 30,0 — H 6,7 — O 40,0 — N 23,3 — M. G. 120.
- 1) s-Di[Oxymethyl]harnstoff (C. 1897 [2] 194).
- $C_3H_5O_2S$ 1) Propan- α -Sulfonsäure (B. 16, 327). — I, 372.
- 2) Propan- β -Sulfonsäure (Isopropylsulfonsäure). Sm. unter 100°. K (B. 5, 660; 8, 533; 23, 3228). — I, 372.
- 3) Methylester d. Aethansulfonsäure. Sd. 197,5–200,5° (J. 1870, 728). — I, 371.
- 4) Methyl- β -Oxyäthylsulfon. Sm. 20,5 (B. 26, 1131; 27, 3045).
- $C_3H_5O_2S$ 1) Propylunterschweflige Säure. Na + $5H_2O$ (B. 15, 1938). — I, 329.
- 2) Isopropylunterschweflige Säure. Na + $1\frac{1}{2}H_2O$ (G. 22 [1] 419).
- $C_3H_5O_2B$ 1) Borsäure-Aceton. Sd. 50° (B. 12, 1582). — I, 978.
- $C_3H_5O_2N_2$ C 21,9 — H 4,9 — O 39,1 — N 34,1 — M. G. 164.
- 1) $\alpha\gamma$ -Di[Nitramido]propan (Trimethylendinitrodiamin). Sm. 67° (R. 7, 349). — I, 1155.
- 2) $\alpha\alpha$ -Diisonitramidopropan. Pb (A. 300, 123).
- 3) β -Nitramido- α -Methylnitramidoäthan (Aethylenmethyldinitrodiamin). Sm. 121–122° (R. 7, 347). — I, 1154.
- 4) α -Dimethyläther d. Diisonitramidomethan. Sm. 134° (A. 300, 115).
- 5) β -Dimethyläther d. Diisonitramidomethan. Sm. 74° (A. 300, 117).
- $C_3H_5O_2S$ 1) α -Oxypropan- γ -Sulfonsäure. K (B. 6, 1442; 31, 1863).
- 2) Propylschwefelsäure (Monopropylester d. Schwefelsäure). K, Ba + $3H_2O$ (J. 1853, 504; Z. 1870, 576; Ph. Ch. 1, 76, 81). — I, 333.
- 3) Isopropylschwefelsäure. Ba (B. 28 [2] 986).
- $C_3H_5O_2S$ 1) Dimethylsulfonmethan. Sm. 142–143° (B. 23, 1875; H. 14, 55). — I, 351.
- $C_3H_5O_2S$ 1) Glycerinsulfonsäure. K, Ba, Pb, Pb_2 (A. 124, 226).
- 2) Uebermesitylschwefelsäure. Ca (P. [1] 44, 479). — I, 977.
- $C_3H_5O_2S$ 1) β -Oxyäthylsulfonmethylen-sulfonsäure. Fl. K, Ba (B. 26, 1130).
- $C_3H_5O_2S$ 1) $\alpha\beta\gamma$ -Trioxypropan- α -Schwefelsäure (Glycerinschwefelsäure). Ca (A. 19, 211; 20, 48; J. pr. [2] 20, 4). — I, 334.
- $C_3H_5O_2S$ 1) Propan- $\alpha\beta$ -Disulfonsäure. Fl. $Na_2 + H_2O$, Ba, Pb (A. 100, 153; 140, 83; B. 18, 1344). — I, 376.
- 2) Propan- $\alpha\gamma$ -Disulfonsäure (Trimethylendisulfonsäure). $Na_2 + 4\frac{1}{2}H_2O$, Ba + $2H_2O$ (B. 18, 1345). — I, 376.
- 3) β -Methylsulfonäthylschwefelsäure. Ba + H_2O (B. 27, 3048).
- $C_3H_5O_2S$ 1) β -Oxypropan- $\alpha\gamma$ -Disulfonsäure (Glycerindisulfonsäure). $K_2 + 2H_2O$, Ba + $2H_2O$, Pb + $2H_2O$, Ag, (A. 148, 111; J. pr. [2] 1, 96). — I, 381.
- 2) Sulfakroleinschwefligesäure. $Na_2 + 4H_2O$ (B. 6, 1445; A. 233, 36; siehe auch A. 114, 51). — I, 958.
- $C_3H_5O_2S$ 1) $\alpha\beta\gamma$ -Trioxypropandischwefelsäure (Glycerindischwefelsäure) (J. pr. [2] 20, 4). — I, 334.
- $C_3H_5O_2S$ 1) Propantrisulfonsäure (Glycerintrisulfonsäure). Ba_3 (A. 148, 117). — I, 377.
- $C_3H_5O_2S_2$ 1) $\alpha\beta\gamma$ -Trioxypropantrischwefelsäure (Glycerintrischwefelsäure). Ba_3 (J. pr. [2] 20, 4). — I, 335.

- C₃H₇NCl 1) β -Chlor- α -Amidopropan. HCl, Pikrat (B. 29, 2750).
2) γ -Chlor- α -Amidopropan. (2HCl, PtCl₄), Pikrat (B. 24, 2636; 29, 2750). — I, 1128.
- C₃H₇NBr 3) Propylchloramin. Fl. (B. 26 [2] 188). — I, 1128.
1) β -Brom- α -Amidopropan. HBr, Pikrat (B. 21, 2675; 24, 3220; 29, 2747 Anm.). — I, 1129.
2) γ -Brom- α -Amidopropan. HBr, Pikrat + $\frac{1}{2}$ H₂O (B. 21, 2673). — I, 1129.
- C₃H₇NJ 1) β -Jod- α -Amidopropan. HJ, Pikrat (B. 29, 2750).
2) γ -Jod- α -Amidopropan. Fl. (2HCl, PtCl₄), HJ, Pikrat (B. 30, 2506).
- C₃H₇N₂S 1) Aethylthioharnstoff. Sm. 113°. 4 + PtCl₄ (B. 1, 27; 2, 602; 18, 2788; 26, 2500; Soc. 61, 525; J. pr. [2] 50, 499; J. r. 25, 482; A. 285, 195). — I, 1320.
2) s-Dimethylthioharnstoff. Sm. 51,5° (61°) (M. 2, 277; B. 23, 286; A. 249, 49; 285, 170). — I, 1319.
3) uns-Dimethylthioharnstoff. Sm. 159° (81—82°?) (G. 19, 422; B. 26, 2505). — I, 1319.
4) Aethylaminrhodanat (B. 10, 494).
5) Dimethylaminrhodanat. Sm. 114° (B. 26, 2504).
6) Verbindung (Base aus Aceton). (2HCl, PtCl₄) (A. 203, 239).
- C₃H₇N₂S₂ 1) uns-Dimethylhydrazindithiocarbonsäure (B. 13, 2172). — I, 1263.
2) Verbindung (aus Schwefelkohlenstoff u. $\alpha\beta$ -Diamidoäthan) (B. 5, 241). — I, 1253.
- C₃H₇ON C 48,0 — H 12,0 — O 21,3 — N 18,7 — M. G. 75.
1) γ -Amido- α -Oxypropan (γ -Amidopropylalkohol). (HCl, AuCl₃), (2HCl, PtCl₄) (B. 21, 2672). — I, 1173.
2) β -Methylamido- α -Oxyäthan (β -Methylamidoäthylalkohol). Sd. 159°₇₄₇. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 22, 2088; 28, 942; 30, 1387; 31, 1069). — I, 1170.
3) Aethylamidooxymethan. Fl. (B. 28 [2] 852).
4) Dimethylamidooxymethan. Fl. Na (B. 28 [2] 852; C. 1896 [2] 24).
5) α -Oxamidopropan (β -Propylhydroxylamin). Sm. 46° (B. 30, 1892).
6) β -Oxamidopropan (β -Isopropylhydroxylamin). Sm. 87°. HCl (B. 30, 1891).
7) Propionaldehyd + Ammoniak (M. 3, 693; M. 4, 709). — I, 941.
- C₃H₇ON₂ C 35,0 — H 8,7 — O 15,5 — N 40,8 — M. G. 103.
1) Aethylamidoharnstoff (Aethylsemicarbazid). Sm. 105—106° (A. 199, 294). — I, 1295.
- C₃H₇OP 1) Trimethylphosphinoxid. Sm. 137—138°; Sd. 214—215° (A. 104, 32; B. 15, 2020; Soc. 53, 636). — I, 1499.
- C₃H₇OAs 1) Trimethylarsenoxid (A. 112, 230, 231). — I, 1511.
C₃H₇OSb 1) Trimethylantimonoxid. HNO₃, H₂SO₄ (J. 1861, 570). — I, 1514.
C₃H₇O₂N C 39,5 — H 9,9 — O 35,2 — N 15,4 — M. G. 91.
1) γ -Amido- $\alpha\beta$ -Dioxypropan. Sd. 264—265°₇₃₉. (2HCl, PtCl₄), Pikronolat (M. 19, 576; B. 32, 752).
2) β -Amido- $\alpha\gamma$ -Dioxypropan. HCl, H₂SO₄, Oxalat (B. 30, 1665, 2061).
3) Glyceramin. (2HCl, PtCl₄) (A. 101, 74; A. ch. [5] 17, 94).
C 26,7 — H 6,7 — O 35,5 — N 31,1 — M. G. 135.
1) 1,3,5-Trioxyhexahydro-1,3,5-Triazin (Trioximidomethylen). HCl, HBr, HJ (B. 24, 575; 29 [2] 659; Soc. 73, 356). — I, 968.
- C₃H₇O₂N₂ 1) Isopropylphosphinsäure. Sm. 60—70° (B. 6, 304). — I, 1503.
2) Trimethylester d. Phosphorigensäure. Sd. 185° u. Zers. + PtCl₄, 2 + PtCl₄, (2 + PtCl₄, 2NH₃), + AuCl (Bl. 18, 101, 157; A. ch. [6] 11, 190; A. 256, 281). — I, 336.
- C₃H₇O₂P 1) Aluminiummethylat (Am. 19, 599).
2) Arsenigsäuretrimethylester. Sd. 128—129° (Bl. 14, 104). — I, 343.
C₃H₇O₂As 1) Borsäuretrimethylester. Sd. 65° (A. Spl. 5, 186; A. 60, 252, 253). — I, 344.
C₃H₇O₂B 1) Oxypropylphosphinsäure. Sm. 162°. Ca (M. 7, 29). — I, 1503.
2) Monopropylester d. Phosphorsäure. Ba (Bl. 48, 11). — I, 341.
3) Trimethylester d. Phosphorsäure. Sd. 197,2° (A. 221, 89; Bl. [3] 19, 887). — I, 339.
- C₃H₇O₂P 1) Arsensäuretrimethylester. Sd. 213—215° (Bl. 14, 101). — I, 344.
C₃H₇O₂As 1) Glycerinphosphorsäure. Ca, Ba, Zn, Pb, Anilinsalz, Phenylhydrazinsalz, Pyridinsalz, Chinolinsalz, Chininsalz + 4H₂O, Cocaïnsalz (J. pr. [1]

- 36, 257; *J.* 1876, 557; *H.* 4, 214; *C.* 1898 [1] 214; *Bl.* [3] 19, 200, 264, 268, 455, 685). — I, 342.
- C_3H_7NBr , 1) Trimethylaminbromid. HCl (*Am.* 18, 92; 20, 51).
- C_3H_7NJ , 1) Trimethylaminjodid. Sm. 66° (*Am.* 18, 92; 20, 51; *Bl.* [3] 15, 707).
- C_3H_7NJ , 1) Trimethylamintetrajodid. HJ (*Bl.* [3] 15, 707; *A.* 267, 257). — I, 1120.
- C_3H_7NS , 1) γ -Amido- α -Merkaptopropan. HCl (Sm. 69°) (*B.* 23, 89; 26, 1079). — I, 1174.
- 2) α -Amido- β -Merkaptopropan. HCl, Pikrat (*B.* 31, 2838).
- C_3H_7N, Cl , 1) β -Chlor- $\alpha\gamma$ -Diamidopropan. Fl. 2HCl, Pikrat (*B.* 25, 3057). — I, 1155.
- C_3H_7N, Br , 1) β -Brom- $\alpha\gamma$ -Diamidopropan. (2HCl, PtCl₄), (2HCl, AuCl₃), 2HBr, Pikrat (*B.* 22, 225). — I, 1155.
- C_3H_7N, S , 1) β -Amido- α -Aethylthioharnstoff. Sm. 84° (*B.* 29, 2486).
- 2) α -Methylamido- β -Methylthioharnstoff. Sm. 138° (*B.* 29, 2920).
- C_3H_7ClS , 1) Trimethylsulfinchlorid. + HgCl₂, + 2HgCl₂, + 6HgCl₂, 2 + HgCl₂, 2 + PtCl₄, + AuCl₃ (*B.* 7, 1275; 31, 2284; *J. pr.* [2] 31, 41). — I, 355.
- C_3H_7ClPb , 1) Bleitrimethylchlorid (*A.* 122, 68). — I, 1530.
- C_3H_7ClSe , 1) Trimethylseleninchlorid. 2 + PtCl₄ (*A.* 179, 18). — I, 382.
- C_3H_7ClSb , 1) Antimontrimethylchlorid (*J.* 1861, 570; 1863, 470). — I, 1514.
- C_3H_7BrS , 1) Trimethylsulfinbromid (*B.* 25 [2] 642). — I, 355.
- C_3H_7BrPb , 1) Bleitrimethylbromid (*A.* 122, 69). — I, 1530.
- C_3H_7BrSb , 1) Antimontrimethylbromid (*J.* 1861, 570). — I, 1514.
- C_3H_7JS , 1) Trimethylsulfinjodid. 3 + AsJ₃, + CdJ₂, 2 + CdJ₂, + SnJ₄, + HgJ₂ (*A.* 135, 355; 252, 257; *B.* 10, 1880; 15, 881; 24, 3548; 25 [2] 641; 29, 163; *A. ch.* [5] 10, 13; *Bl.* [3] 3, 161). — I, 355.
- C_3H_7JPb , 1) Bleitrimethyljodid (*A.* 122, 69). — I, 1530.
- C_3H_7JSe , 1) Trimethylseleninjodid (*A.* 179, 6, 18). — I, 382.
- C_3H_7JSn , 1) Zinntrimethyljodid. Sd. 170°. 2 + NH₃ (*A.* 114, 377; 122, 56; *A. Spl.* 8, 77; *J.* 1880, 939). — I, 1527.
- C_3H_7JTe , 1) Trimethyltellurjodid (*C. r.* 60, 621).
- C_3H_7JAs , 1) Trimethylarsenjodid (*A.* 112, 228). — I, 1511.
- C_3H_7JSb , 1) Antimontrimethyljodid (*J.* 1860, 374; 1861, 570). — I, 1514.
- C_3H_7SP , 1) Trimethylphosphinsulfid. Sm. 105° (*A.* 104, 32). — I, 1499.
- C_3H_7SSb , 1) Antimontrimethylsulfid (*J.* 1861, 570). — I, 1514.
- C_3H_7SSe , 1) Trimethylphosphinselenid. Sm. 84° (*A.* 104, 32). — I, 1499.
- $C_3H_{10}ON$, C 40,0 — H 11,1 — O 17,8 — N 31,1 — M. G. 90.
- 1) $\alpha\gamma$ -Diamido- β -Oxypropan ($\alpha\gamma$ -Diamidoisopropylalkohol). 2HCl, (2HCl, PtCl₄), 2HBr, Pikrat (*A.* 168, 37; *B.* 21, 2690; 22, 225). — I, 1175.
- $C_3H_{10}OS$, 1) Trimethylsulfinoxydhydrat. Salze, siehe diese. — I, 355.
- $C_3H_{10}OSn$, 1) Zinntrimethyloxydhydrat. Jodid, + 2NH₃ (*A.* 114, 377; 122, 56; *A. Spl.* 8, 75; *J.* 1880, 939; *B.* 3, 358). — I, 1527.
- $C_3H_{10}O_2P$, 1) Propylunterphosphorsäure. Ba + 6H₂O (*A.* 232, 14). — I, 339.
- $C_3H_{11}O_2N$, C 38,7 — H 11,8 — O 34,4 — N 15,1 — M. G. 93.
- 1) Trimethyloxyammoniumhydrat. Chlorid, 2 Chlorid + PtCl₄ + 2H₂O, Jodid + H₂O, Pikrat (*B.* 31, 2061).
- $C_3H_{11}N_2Cl$, 1) Chlormethylat d. uns-Dimethylhydrazin (*B.* 31, 58).
- $C_3H_{11}N_2J$, 1) Jodmethylat d. uns-Dimethylhydrazin. Sm. 235° u. Zers. (*B.* 31, 57).
- $C_3H_{11}ON$, 1) Methyloxydhydrat d. uns-Dimethylhydrazin. Chlorid, Jodid (*B.* 31, 58).
- C_3H_7NB , 1) Bortrimethyl + Ammoniak (*A.* 124, 150). — I, 1517.
- C_3ONCl , 1) Nitril d. $\beta\beta\beta$ -Trichlor- α -Ketoäthan- α -Carbonsäure (N. d. Trichlorbrenztraubensäure). Sd. 121—122° (*J. pr.* [2] 20, 196; *B.* 13, 1936). — I, 1473.
- 2) polym. Nitril d. Trichlorbrenztraubensäure. Sm. 140° (*J. pr.* [2] 20, 198). — I, 1473.
- C_3OClBr , 1) α -Chlor- $\alpha\alpha\gamma\gamma$ -Pentabrom- β -Ketopropan (Chlorpentabromaceton). Sm. 91—92° (*B.* 22, 1255). — I, 991.
- C_3OCl_2Br , 1) $\alpha\alpha$ -Dichlor- $\alpha\gamma\gamma\gamma$ -Tetrabrom- β -Ketopropan (Dichlortetrabromaceton). Sm. 80—81° (*B.* 22, 1254). — I, 991.
- 2) $\alpha\gamma$ -Dichlor- $\alpha\gamma\gamma\gamma$ -Tetrabrom- β -Ketopropan (s-Dichlortetrabromaceton). Sm. 79,5°; Sd. 156—157° (*A. Spl.* 8, 17; *A.* 249, 68). — I, 991.
- C_3OCl_3Br , 1) $\alpha\alpha\gamma$ -Trichlor- $\alpha\gamma\gamma$ -Tribrom- β -Ketopropan (Trichlortribromaceton). Sm. 57° (*B.* 21, 2437). — I, 991.
- C_3OCl_4Br , 1) $\alpha\alpha\gamma\gamma$ -Tetrachlor- $\alpha\gamma$ -Dibrom- β -Ketopropan (s-Tetrachlordibromaceton). Sm. 53° (*B.* 22, 2847; 25, 857). — I, 990.

- $C_3O_2N_2Cl$ 1) Nitril d. Chlornitromethandicarbonensäure (Chlornitrodicyanmethan). + 3PbO, 3 + 4AgNO₃ (Z. 1866, 591). — I, 205.
- $C_3O_2Br_2S_2$ 1) Hexabromtrimethylendisulfonsulfid. Sm. 132° (B. 25, 257). — I, 913.
- $C_3O_2Cl_2S_2$ 1) Hexachlortrimethylentrisulfon. Sm. 252° u. Zers. (B. 25, 247). — I, 913.
- $C_3O_2Br_2S_2$ 1) Hexabromtrimethylentrisulfon. Sm. 146° (B. 25, 246). — I, 914.
- $C_3N_2Cl_2J$ 1) Cyanurchlorodijodid. subl. (J. pr. [2] 34, 160). — I, 1434.
- $C_3N_2S_2P$ 1) Rhodanphosphor. Fl. Zers. über 270° (A. ch. [5] 11, 349). — I, 1509.
- $C_3N_2S_2As$ 1) Rhodanarsen (A. ch. [5] 11, 351). — I, 1509.
- $C_3N_2S_2Si$ 1) Rhodansilicium. Sm. 142°; Sd. 300° (A. ch. [5] 11, 343).

C_3 -Gruppe mit vier Elementen.

- C_3HOCl_2Br 1) $\alpha\alpha\gamma\gamma$ -Tetrachlor- α -Brom- β -Ketopropan (Tetrachlorbromaceton). Sd. 112–114°₃₀ (B. 23, 237). — I, 990.
- C_3HO_2ClBr 1) α -Chlor- $\beta\beta$ -Dibromäthen- α -Carbonsäure (α -Chlor- $\beta\beta$ -Dibromakrylsäure). Sm. 104°. K, Ca + 2 $\frac{1}{2}$ H₂O, Ba + 3H₂O, Ag (Am. 6, 158). — I, 504.
- 2) β -Chlor- $\alpha\beta$ -Dibromäthen- α -Carbonsäure. Sm. 99°. K, Ca + 4H₂O, Ba + 3H₂O (Am. 6, 162). — I, 504.
- C_3HO_2ClJ 1) Chlordijodäthen- α -Carbonsäure (Chlordijodakrylsäure). Sm. 143° (B. 19, 538). — I, 505.
- $C_3HO_2Cl_2Br$ 1) $\alpha\beta$ -Dichlor- β -Bromäthen- α -Carbonsäure ($\alpha\beta$ -Dichlor- β -Bromakrylsäure). Sm. 75–78° (78–80°). K, Ca + 3H₂O, Ba + 3H₂O, Ag (Am. 6, 167; 9, 8). — I, 504.
- 2) $\beta\beta$ -Dichlor- α -Bromäthen- α -Carbonsäure ($\beta\beta$ -Dichlor- α -Bromakrylsäure). Sm. 85°. K, Ca + H₂O, Ba + 3H₂O, Ag (Am. 9, 6). — I, 504.
- $C_3HO_2Cl_2Br$ 1) $\alpha\alpha\beta\beta$ -Tetrachlor- β -Chlorpropionsäure. Sm. 225° u. Zers. (Am. 6, 155). — I, 482.
- $C_3HO_2Br_2J$ 1) α -Brom- $\beta\beta$ -Dijodäthen- α -Carbonsäure (α -Brom- $\beta\beta$ -Dijodakrylsäure). Sm. 182° (B. 18, 2286). — I, 506.
- 2) β -Brom- $\alpha\beta$ -Dijodäthen- α -Carbonsäure (β -Brom- $\alpha\beta$ -Dijodakrylsäure). Sm. 160°. K, Ca, Ba + 4H₂O, Ag (Am. 3, 124). — I, 506.
- $C_3HO_2Br_2J$ 1) $\alpha\beta$ -Dibrom- β -Jodäthen- α -Carbonsäure ($\alpha\beta$ -Dibrom- β -Jodakrylsäure). Sm. 147° (B. 18, 2285). — I, 506.
- 2) $\beta\beta$ -Dibrom- α -Jodäthen- α -Carbonsäure ($\beta\beta$ -Dibrom- α -Jodakrylsäure). Sm. 139–140°. K, Ca, Ba + 3 $\frac{1}{2}$ H₂O, Ag (Am. 4, 92). — I, 505.
- $C_3HO_2Cl_2Br$ 1) $\beta\beta\beta$ -Dichlorbrom- α -Ketoäthan- α -Carbonsäure + 3H₂O (Dichlorbrombrenztraubensäure) (B. 22, 2852). — I, 588.
- $C_3HO_2N_2Br$ 1) Verbindung (aus Mucobromsäure) (B. 15, 1908). — I, 616.
- $C_3HO_2N_2Br$ 1) $\beta\beta\beta$ -Tribrom- $\alpha\alpha$ -Dinitropropionsäure (A. 184, 257). — I, 497.
- C_3H_2ONCl 1) Chlorid d. Cyanessigsäure (Bl. 29, 533). — I, 1218.
- $C_3H_2ONCl_2$ 1) $\alpha\alpha\alpha$ -Trichlor- β -Formylimidoäthan. Sm. 193° (B. 24, 1803). — I, 1236.
- 2) Nitril d. $\beta\beta\beta$ -Trichlor- α -Oxypropionsäure. Sm. 61°; Sd. 215–220° u. geringer Zers. (A. 179, 77; B. 5, 152; 10, 1059; 17, 1997; J. 1888, 1519, 1520). — I, 1470.
- 3) Amid d. Trichlorakrylsäure. Sm. 96–97° (A. 297, 318).
- C_3H_2ONBr 1) Nitril d. β -Brom- α -Ketoäthan- α -Carbonsäure (N. d. Brombrenztraubensäure). Sm. 77–79° (A. 131, 68). — I, 1473.
- 2) Bromid d. Cyanessigsäure (A. 131, 66). — I, 1218.
- $C_3H_2ONBr_2$ 1) Nitril d. $\beta\beta\beta$ -Tribrom- α -Oxypropionsäure (A. 179, 73). — I, 1471.
- $C_3H_2ON_2Br_2$ 1) Amid d. Dibromcyanessigsäure. Sm. 120,5° (Am. 18, 725).
- $C_3H_2OCl_2Br_2$ 1) α -Chlor- $\gamma\gamma\gamma$ -Tribrom- β -Ketopropan (Chlortribromaceton). Sd. 215°. Hydrat + 4H₂O (A. ch. [6] 9, 207). — I, 990.
- 2) isom.- β -Chlor- γ -Tribrom- β -Ketopropan. Sm. 50° (B. 13, 1210). — I, 991.
- 3) γ -Chlor- γ -Tribrom- $\alpha\beta$ -Propanoxyd (Chlortribrompropylenoxyd). Fl. (Hydrat + 4H₂O; Sm. 55°) Bl. 33, 257). — I, 991.
- $C_3H_2OCl_2Br_2$ 1) $\alpha\alpha$ -Dichlor- $\gamma\gamma$ -Dibrom- β -Ketopropan (Dichlordibromaceton). Sd. 120°₂₅. Hydrat + 4H₂O (A. ch. [6] 9, 211). — I, 990.

- $C_3H_5OCl_2Br$ 2) $\alpha\gamma$ -Dichlor- $\alpha\alpha$ -Dibrom- β -Ketopropan + $4H_2O$ (oder $\alpha\gamma$ -Dichlor- $\gamma\gamma$ -Dibrom- $\alpha\beta$ -Propanoxyd). Sm. 55–56°; Sd. 140–141°₂₀ (A. 155, 38; Bl. 32, 14; B. 6, 98; 13, 1209; 16, 1552). — I, 990.
- 3) $\alpha\gamma$ -Dichlor- $\alpha\gamma$ -Dibrom- $\alpha\gamma$ -Propanoxyd. Sm. –8°; Sd. 135°₁₀. (Hydrat + $4H_2O$; Sm. 53–54°) (A. ch. [6] 9, 209). — I, 990.
- $C_3H_5OCl_2Br$ 1) $\alpha\alpha\alpha$ -Trichlor- γ -Brom- β -Ketopropan (Trichlorbromaceton). Sd. 190° (107°₁₀). (Hydrat + $4H_2O$; Sm. 48°) (A. ch. [6] 9, 213). — I, 990.
- $C_3H_5O_2NCl$ 1) Verbindung (aus $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxypropionsäureamid). Sm. 218° (B. 13, 1937). — I, 1360.
- $C_3H_5O_2NBr$ 1) Bromcyanessigsäure (J. r. 10, 160). — I, 1218.
- $C_3H_5O_2N_2S$ 1) Oxalylthioharnstoff (J. pr. [2] 49, 35).
- $C_3H_5O_2ClBr$ 1) β -Chlor- β -Bromakrylsäure? Sm. 70°. K, Ca + $4H_2O$, Ba + $2H_2O$, Ag (Am. 3, 127). — I, 504.
- $C_3H_5O_2ClBr_2$ 1) Chlortribrompropionsäure. Sm. 98° (102–103°). K + H_2O , Ca, Ba (Am. 3, 124; 4, 104; 5, 255). — I, 482.
- $C_3H_5O_2ClJ$ 1) Chlorjodäthen- α -Carbonsäure (Chlorjodakrylsäure). Sm. 72° (B. 19, 538). — I, 505.
- $C_3H_5O_2Cl_2Br$ 1) $\alpha\beta$ -Dichlor- $\beta\beta$ -Dibrompropionsäure. Sm. 100°. K + $2H_2O$, Ca + $1\frac{1}{2}H_2O$, Ba + $2H_2O$, Ag (Am. 4, 270; 6, 166). — I, 482.
- 2) isom. Dichlordibrompropionsäure. Sm. 94–95°. Ba, Ag (Am. 4, 267). — I, 482.
- $C_3H_5O_2Cl_2Br$ 1) Trichlorbrompropionsäure. Sm. 83–84°. K + $2H_2O$, Ca, Ba (Am. 9, 1). — I, 482.
- $C_3H_5O_2BrJ$ 1) α -Brom- β -Jodäthen- α -Carbonsäure (α -Brom- β -Jodakrylsäure). Sm. 96° (B. 18, 2284; 19, 537). — I, 505.
- 2) β -Brom- α -Jodäthen- α -Carbonsäure (β -Brom- α -Jodakrylsäure). Sm. 71° (B. 19, 538). — I, 505.
- 3) β -Brom- β -Jodäthen- α -Carbonsäure (β -Brom- β -Jodakrylsäure). Sm. 110°. Ca + $3\frac{1}{2}H_2O$, Ba + $3H_2O$, Ag (B. 12, 660; Am. 3, 175). — I, 505.
- $C_3H_5O_2N_2Cl$ 1) Chlorfulminursäure. Ag, Ag, (J. pr. [2] 32, 111). — I, 1460.
- $C_3H_5O_2N_2Br$ 1) Bromfulminursäure. Ag (J. pr. [2] 32, 114). — I, 1460.
- $C_3H_5O_2ClBr$ 1) $\beta\beta$ -Chlorbrom- α -Oxyäthen- α -Carbonsäure (Chlorbromoxyakrylsäure). Sm. 104–105° (B. 22, 2660). — I, 585.
- $C_3H_5O_2N_2Br$ 1) $\alpha\alpha\gamma\gamma$ -Tetrabrom- $\alpha\gamma$ -Dinitropropan. Sm. 98–99° (B. 25, 1713).
- C_3H_5NCIS 1) 2-Chlorthiazol. Sd. 144–144,5°. (2HCl, PtCl₄) (A. 261, 10). — IV, 63.
- C_3H_5NBrS 1) 2-Bromthiazol. Sd. 171°. (2HCl, PtCl₄) (A. 261, 12). — IV, 63.
- C_3H_5ONCl 1) Nitril d. Dichloroxyessigmethyläthersäure. Sd. 148–149°₁₂. + PtCl₄ (A. 229, 168). — I, 1469.
- 2) polym. Nitril d. Dichloroxyessigmethyläthersäure (A. 229, 168). — I, 1470.
- 3) Amid d. $\beta\beta$ -Dichloräthen- α -Carbonsäure (A. d. $\beta\beta$ -Dichlorakrylsäure). Sm. 112–113° (A. 193, 25). — I, 1249.
- C_3H_5ONBr 1) $\alpha\beta$ -Dibrom- γ -Oximidopropen (Dibromakroleïnoxim). Sm. 104° (Am. 19, 662).
- 2) Nitril d. $\beta\beta$ -Dibrom- α -Oxypropionsäure (A. 179, 71). — I, 1470.
- C_3H_5ONS 1) Aldehyd d. Rhodanessigsäure. Fl. (A. ch. [6] 18, 194). — I, 937.
- 2) Rhodanid d. Essigsäure. Sd. 132–133° (A. ch. [5] 11, 295; Soc. 61, 529). — I, 1280.
- C_3H_5ONS 1) 3-Thiocarbonyl-4-Ketotetrahydroisothiazol (Rhodaninsäure). Sm. 168–170° u. Zers. Cu + H_2O , 2 + Cu₂Cl₂ (J. pr. [2] 16, 4; B. 12, 1594; 17, 2279; A. 262, 84; M. 10, 83). — I, 1228.
- C_3H_5ONCl 1) Cyanamid + Chloral = (C₃H₅ONCl)₂ (B. 10, 426). — I, 1440.
- $C_3H_5ON_2S$ 1) 2-Nitrosimido-2,3-Dihydrothiazol (A. 265, 110). — IV, 504.
- $C_3H_5ON_2S$ 1) Dithiocyanursäure + H_2O . K, Ba + $2H_2O$, Pb (J. pr. [2] 33, 122). — I, 1284.
- C_3H_5OClBr 1) Chlorid d. $\alpha\beta$ -Dibrompropionsäure. Sd. 191–193° (Bl. [3] 9, 392).
- $C_3H_5O_2NCl$ 1) Dichlornitropropan. Sd. 155–162° (A. 179, 55). — I, 272.
- $C_3H_5O_2NCl$ 1) $\beta\gamma\gamma\gamma$ -Tetrachlor- α -Nitropropan. Sd. 108–109°₂₀ (C. 1898 [1] 193).
- $C_3H_5O_2NS$ 1) 2,4-Diketotetrahydrothiazol (Senfölessigsäure). Sm. 128° (126°). Ba + H_2O , Hg, Ag (J. pr. [2] 9, 6; A. 136, 232; B. 10, 1352; 12, 1594; 14, 734; Ph. Ch. 3, 181). — I, 1228.
- 2) Rhodanmethancarbonsäure (Rhodanessigsäure). Na + H_2O , K + H_2O , Ca + $2H_2O$, Ba + $2H_2O$, Mn + $2H_2O$ (B. 10, 1347; 14, 731; Ph. Ch. 3, 179). — I, 1227.

- C₃H₃O₂NSe 1) 2,4-Diketotetrahydro-selenazol. Sm. 147° (A. 250, 313). — IV, 63.
2) Selencyanmethancarbonsäure (Selencyanessigsäure). Sm. 84–85°. Ba (A. 250, 300). — I, 1222.
- C₃H₃O₂N,Cl₃ 1) Trichloracetylharnstoff. Sm. 150° u. Zers. (A. 1874, 798, 799; A. *ch.* [6] 9, 219). — I, 1303.
- C₃H₃O₂N,Br₃ 1) Tribromacetylharnstoff. Sm. 158°. Ba(OH)₂ (A. 130, 149; 236, 64). — I, 1303.
- C₃H₃O₂N₂S 1) 2-Imido-5-Oximido-4-Ketotetrahydrothiazol? (Nitrosothiohydantoïn). Ba(OH)₂ + H₂O, Ag₂O (B. 12, 967; M. 1, 163; 6, 822). — I, 1328.
- C₃H₃O₂Cl₂Br 1) Dichlorbrompropionsäure. Sm. 75–76° (B. 22, 2660). — I, 482.
- C₃H₃O₂N₂Br 1) Verbindung (aus $\alpha\alpha$ -Dibrom- α -Nitro- β -Oximidopropan). Sm. 62° (B. 28, 2101).
- C₃H₃ONCl₃ 1) Methylamid d. Trichloressigsäure. Sm. 105–106° (R. 6, 234). — I, 1240.
- C₃H₃ON,Cl₃ 1) $\beta\beta$ -Dichloräthylidenharnstoff (A. 151, 208; B. 17, 1998; 20, 2345). — I, 1313.
- C₃H₃ON₂S 1) 2-Imido-4-Ketotetrahydrothiazol (Glykolythioharnstoff; Thiohydantoïn). Sm. 200° u. Zers. HCl, (2HCl, PtCl₄), HNO₃, H₂SO₄, Oxalat, Pikrat. Lit. bedeutend. — I, 1327.
2) 4-Imido-2-Ketotetrahydrothiazol (Isothiohydantoïn). Sm. 71° (G. 23, [1] 93). — I, 1327.
3) Amid d. Rhodanessigsäure. Sm. 112° (B. 10, 1349; G. 23, [1] 91). — I, 1243.
- C₃H₃ON₂Se 1) 2-Selencarbonyl-4-Ketotetrahydroimidazol (Selenhydantoïn). Sm. 190° u. Zers. (A. 250, 312). — I, 1332.
- C₃H₃ON₂S 1) 3-Nitroso-2-Imido-5-Methyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 227° u. Zers. (B. 29, 2516). — IV, 1106.
2) Säure (aus Dicyandiamid u. CS₂). Ba + H₂O (B. 20, 1064).
- C₃H₃OClBr 1) α -Chlor- γ -Brom- β -Ketopropan (Chlorbromaceton). Sm. 34–35,5°; Sd. 177–180°. + NaHSO₄ (B. 6, 1276). — I, 990.
2) Chlorid d. α -Brompropionsäure. Sd. 131–133° (Bl. [3] 15, 717).
- C₃H₃O₂NCl 1) α -Chlor- α -Oximido- β -Ketopropan (Chloroximidoaceton). Sm. 104,5 bis 105,5° (110°) (Z. 1870, 529; B. 6, 321; 20, 640; 26, 626; A. 274, 98; 277, 317; 283, 224; J. r. 27, 122). — I, 992.
- C₃H₃O₂NCl₃ 1) Trichlornitropropan. Sd. 190–195° (A. 179, 54). — I, 209.
2) $\beta\beta\beta$ -Trichlor- α -Formylamido- α -Oxyäthan (Chloralformamid) (B. 24, 1803). — I, 1236.
3) Amid d. $\beta\beta\beta$ -Trichlor- α -Oxypropionsäure (A. d. Trichlormilchsäure). Sm. 95–96° (B. 10, 1061). — I, 1343.
- C₃H₃O₂NBr 1) α -Brom- α -Nitropropen. Fl. (B. 25, 1708).
- C₃H₃O₂NBr₂ 1) $\alpha\beta\gamma$ -Tribrom- α -Nitropropan. Fl. (B. 25, 1708).
- C₃H₃O₂N₂Cl₂ 1) Amid d. Dichlormethandicarbonsäure (A. d. Dichlormalonsäure). Sm. 204–205° (203°) (B. 23, 245; 24, 2994; Soc. 75, 171). — I, 1371.
- C₃H₃O₂N₂Br₂ 1) Amid d. Dibrommethandicarbonsäure (Amid d. Dibrommalonsäure). Sm. 200–206° u. Zers. Hg (B. 17, 782; 19, 2699). — I, 1372.
- C₃H₃O₂N₂S 1) 5-Oxy-2-Thiocarbonyl-4-Ketotetrahydroimidazol + H₂O (B. 13, 788). — I, 1327.
- C₃H₃O₂ClBr 1) β -Chlor- α -Brompropionsäure. Sm. 37°; Sd. 215° (B. 7, 757). — I, 482.
2) isom. Chlorbrompropionsäure (B. 7, 757). — I, 482.
- C₃H₃O₂NCl 1) Nitrat d. β -Chlor- γ -Oxypropen. Sd. 140° (R. 1, 238). — I, 525.
- C₃H₃O₂NCl₃ 1) $\gamma\gamma\gamma$ -Trichlor- α -Nitro- β -Oxypropan. Sm. 42–43° (Bl. [3] 15, 1223).
2) Amid d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxypropionsäure (Amid d. Isotrichlorglycerinsäure). Sm. 127° (B. 13, 1937). — I, 1360.
- C₃H₃O₂NBr 1) Nitrat d. α -Brom- γ -Oxypropen. Sd. 140–150° (B. 5, 452). — I, 325.
- C₃H₃O₂N₂Br₂ 1) $\alpha\alpha$ -Dibrom- α -Nitro- β -Oximidopropan? Sm. 86° (B. 28, 2100).
- C₃H₃O₂N₂Cl₂ 1) Dichlordinitropropan (A. 179, 50). — I, 209.
- C₃H₃O₂Cl₂S₂ 1) Dichlormethylenäthylendisulfon. Sm. 222–223° u. Zers. (B. 26, 1129).
- C₃H₃O₂Br₂S₂ 1) Dibrommethylenäthylendisulfon. Sm. 271° u. Zers. (B. 26, 1130).
- C₃H₃O₂Br₂S₂ 1) Dibromtrimethylenäthylendisulfonsulfid. Sm. noch nicht bei 330° (B. 25, 256). — I, 913.

- $C_3H_5NCI_3$ 1) α -Chlor- β -Rhodanäthan (Chloräthylrhodanid). Sd. 202—203° (*J. pr.* [2] 20, 352; [2] 26, 378; [2] 31, 411; *B.* 16, 1218). — I, 1278.
- C_3H_5ONCl 1) Amid d. $\alpha\alpha$ -Dichlorpropionsäure. Sm. 116°. 2 + HgO (*A.* 132, 184; *B.* 3, 467; 11, 388; *J.* 1882, 363; *J. pr.* [2] 46, 368). — I, 1245.
- 2) Amid d. $\beta\beta$ -Dichlorpropionsäure. Sm. 140°. (*A.* 239, 269). — I, 1245.
- $C_3H_5ONCl_2$ 1) $\alpha\alpha\gamma\gamma$ -Tetrachlor- β -Amido- β -Oxypropan. Sm. 110—111° u. Zers.; subl. (*A.* 252, 338). — I, 1175.
- $C_3H_5ONBr_2$ 1) Dibromamid d. Propionsäure. Sm. bei 100° (*B.* 15, 754). — I, 1245.
- 2) Amid d. $\alpha\beta$ -Dibrompropionsäure. Sm. 130—133° (*Bl.* [3] 9, 419).
- $C_3H_5ONS_2$ 1) Oximidomethylenäther d. $\alpha\beta$ -Dimerkaptopropan. Sm. 126° (*A.* 262, 72). — I, 1280.
- $C_3H_5ON_2Cl$ 1) Chloralharnstoff (*B.* 10, 1069).
- $C_3H_5OCl_2S$ 1) Aethylester d. Chlorthioameisensäure. Sd. 136° (*B.* 20, 2384). — I, 874.
- 2) Aethylester d. Chlorthiolameisensäure. Sd. 136° (*J. pr.* [2] 7, 254). — I, 874.
- $C_3H_5OCl_2P$ 1) Epichlorhydrinphosphorchlorür. Sd. 130—140°₁₀₀ (*Bl.* 32, 551). — I, 307.
- $C_3H_5O_2NCl_2$ 1) Nitril d. $\beta\gamma$ -Dichlor- α -Oxypropan. Sd. 155—160° u. Zers. (*G.* 24 [2] 25).
- $C_3H_5O_2NBr_2$ 1) $\alpha\alpha$ -Dibrom- α -Nitropropan. Sd. 184—186° (*A.* 180, 118). — I, 209.
- 2) Aethylester d. Dibromamidoameisensäure. Fl. 4 + NaBr, 4 + KBr (*B.* 27, 1251).
- $C_3H_5O_2NS$ 1) Methylester d. Thioxaminsäure. Sm. 86° (*J. pr.* [2] 10, 200). — I, 1364.
- $C_3H_5O_2N_2Cl$ 1) α -Chlor- α -Nitroso- β -Oximidopropan. Sm. 182—183° u. Zers. (171°; 175°) (*B.* 20, 640; 26, 626; *A.* 277, 320). — I, 1029.
- 2) Chloracetylharnstoff. Zers. bei 160° (*J.* 1873, 747). — I, 1303.
- 3) Amid d. Chlormethandicarbonsäure (Amid d. Chlormalonsäure). Sm. 170°; Zers. bei 175° (*A.* 209, 231). — I, 1371.
- $C_3H_5O_2N_2Cl_2$ 1) $\gamma\gamma\gamma$ -Trichlor- α -Amido- α -Oximido- β -Oxypropan (Trichloroxypropenylamidoxim). Sm. 145° u. Zers. HCl (*B.* 24, 3676). — I, 1485.
- 2) Chloralharnstoff. Sm. 150° u. Zers. (*A.* 157, 246). — I, 1313.
- $C_3H_5O_2N_2Br$ 1) Bromacetylharnstoff (*A.* 130, 156; *B.* 5, 1012; 6, 1015; 8, 612). — I, 1303.
- $C_3H_5O_2N_2S$ 1) 2-Nitro-2-Amido-4,5-Dihydrothiazol. Sm. 203—204° (*B.* 31, 2835).
- $C_3H_5O_2NCl_2$ 1) Nitrat d. $\beta\gamma$ -Dichlor- α -Oxypropan. Sd. 180° (*J.* 1874, 341). — I, 325.
- 2) Nitrat d. $\alpha\gamma$ -Dichlor- β -Oxypropan. Sd. 180—190° u. Zers. (*A.* 155, 167). — I, 325.
- $C_3H_5O_2NBr_2$ 1) Nitrat d. $\beta\gamma$ -Dibrom- α -Oxypropan. Sd. 106—107°₂₈ (*B.* 23, 1827). — I, 325.
- $C_3H_5O_2NS$ 1) Amidoformylmerkaptocessigsäure. Sm. 143° (132—134°). K, Ca + 2H₂O (*J. pr.* [2] 16, 11; [2] 17, 69; *B.* 10, 1350; *Ph. Ch.* 3, 180). — I, 1259.
- $C_3H_5O_2NS_2$ 1) α -Rhodanäthan- β -Sulfonsäure. Na (*J. pr.* [2] 26, 381). — I, 1278.
- $C_3H_5O_2N_2Cl$ 1) α -Chlor- β -Nitro- β -Nitrosopropan. Sm. 167—168° (*B.* 29, 1554).
- $C_3H_5O_2N_2Cl_2$ 1) Trichloressigsaurer Harnstoff (*J.* 1873, 536).
- $C_3H_5O_2N_2Cl_2$ 1) α -Chlor- $\beta\beta$ -Dinitropropan. Sd. 200—202° u. ger. Zers. (*B.* 29, 1554).
- $C_3H_5O_2N_2Br$ 1) Nitrat d. α -Brom- α -Nitro- β -Oxypropan. Fl. (*C.* 1899 [1] 179).
- $C_3H_5O_2N_2Cl$ 1) Dinitrat d. γ -Chlor- $\alpha\beta$ -Dioxypropan. Fl. (*A.* 155, 168). — I, 326.
- C_3H_5ClBrJ 1) Chlorbromjodpropan (*B.* 3, 351; 4, 702). — I, 193.
- 2) Chlorbromjodpropan (Allylchlorbromjodid) (*Bl.* 30, 98).
- C_3H_5ONCl 1) α -Chlor- α -Amido- β -Ketopropan (Chloramidacetone) (*A. ch.* [6] 9, 165).
- 2) α -Chlor- β -Oximidopropan. Sd. 171°₇₂₇ u. Zers. (*B.* 29, 1552; 31, 2396).
- 3) Propylennitrosylchlorid. Sm. 154—155° u. Zers. (*Soc.* 63, 481; 65, 324).
- 4) Acetoximhypochlorit. Sd. 134° u. ger. Zers. (*B.* 20, 1506). — I, 1029.
- 5) Amid d. α -Chlorpropionsäure. Sm. 80° (*B.* 9, 1592). — I, 1245.
- 6) Chlorid d. Dimethylamidoameisensäure. Sd. 165° (*B.* 12, 1163; *R.* 13, 332; *A.* 299, 85). — I, 1235.

- C₃H₇ONCl 7) Chlorid d. Aethylamidoameisensäure. Sd. 92—93° u. Zers. (A. 109, 107; 244, 36; Bl. 6, 435). — I, 1255.
- C₃H₇ONBr 1) β -Brom- β -Nitrosopropan. Sd. bei 83° (B. 31, 454).
2) α -Brom- β -Oximidopropan. Sm. 36,5°; Sd. 82,8° (B. 29, 1556).
3) Amid d. α -Brompropionsäure. Sm. 123° (B. 30, 2312).
4) Bromamid d. Propionsäure. Sm. 80° (B. 15, 753). — I, 1245.
5) Bromid d. Aethylamidoameisensäure. Sd. 118—122° (Bl. 6, 435).
- C₃H₇ONJ 1) α -Jod- β -Oximidopropan. Sm. 64,5° (B. 29, 1558).
2) Amid d. β -Jodpropionsäure. Sm. 100° (J. pr. [2] 31, 128). — I, 1245.
- C₃H₇ON, S 1) Acetylthioharnstoff. Sm. 165°. (2HCl, PtCl₄), 2 + CuSO₄ (B. 6, 599, 905; J. pr. [2] 21, 147). — I, 1325.
2) Methylmonamid d. Thiooxalsäure (J. pr. [2] 9, 139). — I, 1369.
3) Verbindung (aus Acetylrhodanid u. NH₃). Fl. (Bl. 25, 104). — I, 1326.
- C₃H₇OClBr 1) β -Chlor- γ -Brom- α -Oxypropan (Chlorbrompropylalkohol). Sd. 197° (B. 3, 352, 600; 7, 758; 18, 2288). — I, 246.
2) γ -Chlor- β -Brom- α -Oxypropan. Sd. 197° (B. 7, 757). — I, 246.
3) α -Chlor- γ -Brom- β -Oxypropan (Chlorbromisopropylalkohol). Sd. 197° (A. Spl. 1, 225; B. 7, 758). — I, 246.
- C₃H₇OClJ 1) γ -Chlor- β -Jod- α -Oxypropan (Chlorjodpropylalkohol). Fl. (A. ch. [6] 22, 465). — I, 246.
2) β -Chlor- γ -Jod- α -Oxypropan (Chlorjodpropylalkohol). Fl. (A. ch. [6] 22, 465). — I, 246.
3) α -Chlor- γ -Jod- β -Oxypropan? (Chlorjodpropylalkohol). Sd. 226° (A. Spl. 1, 225). — I, 246.
- C₃H₇OBrJ 1) α -Brom- γ -Jod- β -Oxypropan (Bromjodpropylalkohol). Fl. (A. Spl. 1, 227). — I, 246.
- C₃H₇O, NCl 1) α -Chlor- α -Nitropropan. Sd. 141—142°₇₆₁ (C. 1898 [1] 193).
2) β -Chlor- α -Nitropropan. Sd. 172°₇₄₉ (Bl. [3] 13, 1000; [3] 15, 1224; C. 1898 [1] 193).
3) γ -Chlor- α -Nitropropan. Sd. 197° u. ger. Zers. (Bl. [3] 15, 1225; [3] 17, 93; C. 1898 [1] 193; R. 18, 197).
4) α -Chlor- β -Nitropropan. Sd. 170—171° (172—173°) (C. 1897 [1] 741; 1898 [1] 193).
5) β -Chlor- β -Nitropropan. Sd. 133—134°₇₈₈ (C. 1898 [1] 193).
6) Dimethyläther d. Chlorimidodioxymethan (D. d. Chlorimidokohlensäure). Sm. 20° (B. 19, 864). — I, 1490.
7) β -Chloräthylester d. Amidoameisensäure. Sm. 76°. (J. pr. [2] 31, 174). — I, 1253.
8) isom. β -Chloräthylester d. Amidoameisensäure. Sm. 115° (A. 244, 41). — I, 1253.
- C₃H₇O, NBr 1) α -Brom- α -Nitropropan. Sd. 160—165° (A. 180, 119; 181, 19). — I, 209.
2) β -Brom- β -Nitropropan. Sd. 151—153°₇₁₂ (148—150°) (A. 180, 117; J. pr. [2] 48, 354, 364; B. 26, 131). — I, 209.
- C₃H₇O, N, S 1) Thioharnstoffmethylcarbonsäure (Thiohydantoinsäure) (A. 189, 380; A. ch. [6] 28, 389). — I, 1327.
2) Aethylsulfonyaminsäure. Sm. 134°. Na + H₂O, Ag (J. pr. [2] 41, 115). — I, 1437.
- C₃H₇O, N, S 1) $\alpha\gamma$ -Di-Thionylamido]propan. Sd. 117°₇₀ (B. 30, 1013).
- C₃H₇O, Br, S 1) Dibrommethyläthylsulfon. Sm. 54° (B. 21, 993).
- C₃H₇O, NCl 1) β -Chlor- β -Nitro- α -Oxypropan. Sm. 13,5°; Sd. 115°₄₄ (C. 1897 [2] 338; R. 16, 204).
2) Nitrat d. γ -Chlor- α -Oxypropan. Sd. 173° (Bl. [3] 15, 1224).
3) Nitrat d. α -Chlor- β -Oxypropan. Sd. 157—158° (A. ch. [4] 27, 263). — I, 325.
- C₃H₇O, NBr 1) β -Brom- β -Nitro- α -Oxypropan. Sm. 42° (C. 1897 [2] 338; R. 16, 205).
2) α -Brom- α -Nitro- β -Oxypropan. Sd. 149—150°₄₂ (B. 1899 [1] 179).
- C₃H₇O, NBr 1) β -Brom- β -Nitro- $\alpha\gamma$ -Dioxypropan. Sm. 107° (R. 16, 251; C. 1899, [1] 179).
- C₃H₇O, N, S 1) Sulfoacetylharnstoff (Carbamidsulfonessigsäure). K (B. 13, 1423; M. 1, 446; 4, 131). — I, 1305.
- C₃H₇NCIS 1) Chlorid d. Dimethylamidothioameisensäure. Sm. 42° (B. 26, 1686).
- C₃H₇NCIS 1) Rhodanäthylsulfinchlorid. Sm. über 100° (A. 153, 311).

- C₃H₇NJS,**
C₃H₇ONS 1) Rhodanäthylsulfonjodid (A. 153, 314, 315).
1) Thionyl-norm. Propylamin. Sd. 104° (A. 274, 190).
2) Aethylester d. Amidothioameisensäure (Xanthogenamid). Sm. 38°. 2 + CuCl, 4 + CuCl, 2 + CuJ, 3 + CuJ, + CuCNS, 2 + 3CuCNS, + 10CuCNS, 4 + PtCl₄ (A. 72, 11; 75, 128; 82, 262; J. 1851, 513; J. pr. [2] 8, 115; [2] 10, 34; [2] 51, 251; J. r. 25, 614). — I, 1260.
- C₃H₇ONS,**
C₃H₇ON₂S 3) Aethylester d. Amidothiomeisensäure. Sm. 108° (102°) (J. pr. [2] 7, 257; [2] 10, 32; [2] 16, 375; B. 9, 991; 14, 1083). — I, 1258.
1) Rhodanäthylsulfinoxydhydrat. Siehe Salze (A. 153, 311, 319).
1) Acetylamidothioharnstoff. Sm. 165° (B. 29, 2515).
2) α-Formylamido-β-Methylthioharnstoff. Sm. 167–168° (148°) (B. 27, 623; 29, 2489).
3) Methylamid d. Thioharnstoffcarbonsäure (Methylthiobiuret). Sm. 194° u. Zers. (B. 25, 750). — I, 1326.
- C₃H₇OCl₂P** 1) Dichlorid d. Propylphosphorigensäure. Sd. 143–145°₁₀₀ (C. 1897 [2] 333).
- C₃H₇O₂ClS** 1) Methyl-β-Chloräthylsulfon. Sm. 8,5–9° (B. 27, 3046).
- C₃H₇O₂NS** 1) α-Amido-α-Merkaptopropionsäure (Cystein). HCl, 2 + 3 HgCl₂ (H. 8, 300; 16, 557; 19, 511). — I, 895.
- C₃H₇O₂NS** 1) Dimethylmethylenimidosulfonsäure (B. 25, 477). — I, 1029.
- C₃H₇O₂ClS** 1) Chlorpropansulfonsäure. + 1 Molec. Propansulfonsäure, Ba + $\frac{1}{2}$ H₂O, + 3 Molec. Propansulfonsäure, Ba, (B. 16, 327, 328). — I, 372.
- C₃H₇O₂ClS** 1) α-Chlor-β-Oxypropan-γ-Sulfonsäure? (Glycerinchlorhydrinsulfonsäure). Fl. Na + 2H₂O ($\frac{1}{2}$ H₂O), Ca + 6H₂O, Ba + H₂O, Pb + 2H₂O, Ag + 3H₂O (A. 148, 126; J. pr. [2] 1, 94). — I, 381.
- C₃H₇O₂ClS** 1) γ-Chlor-β-Oxypropylschwefelsäure? Fl. (B. 3, 736). — I, 334.
- C₃H₇NClJ** 1) β-Chlor-β-Jod-α-Amidopropan (Chlorjodpropylamin). (2HCl, PtCl₄) (B. 8, 399). — I, 1129.
- C₃H₇N, Cl₂Br** 1) Verbindung (aus d. αα-Dichlorpropionsäurenitril). Sm. 147–148° (J. pr. [2] 46, 380). — I, 1164.
- C₃H₇ONCl** 1) γ-Chlor-α-Amido-β-Oxypropan (Epichloramin). HCl, Oxalat (G. 21, [2] 3). — I, 1174.
2) Formochloramidoäthyläther. HCl (B. 16, 354).
- C₃H₇ONBr** 1) Bromaceton + Ammoniak (B. 9, 1687; J. r. 8, 330). — I, 989.
- C₃H₇ON₂S** 1) β-Oxyäthylthioharnstoff. HCl (A. 261, 2). — I, 1320.
2) α-Oxy-β-Aethylthioharnstoff. Sm. 109° u. Zers. (A. 298, 119).
3) α-Oxy-αβ-Dimethylthioharnstoff. Sm. 104° (A. 298, 125).
- C₃H₇O₂N₂S** 1) β-Sulfoäthylharnstoff (Taurocarbaminsäure). Ba, Ag (B. 6, 744, 1191; 22, 1142). — I, 1305.
2) Methylnitroamid d. Aethansulfonsäure. Sm. 11° (R. 5, 277). — I, 1233.
- C₃H₇O₂NS** 1) Methyl-β-Amidoäthylsulfon. HCl, (2HCl, PtCl₄) (B. 27, 3047).
2) norm. Propylthionaminsäure (A. 274, 193).
3) Methylamid d. Aethansulfonsäure. Sd. 276°₁₀₀ (R. 5, 277). — I, 1233.
- C₃H₇O₂S₂P** 1) Trimethylester d. Dithiophosphorsäure (A. 119, 303). — I, 339.
- C₃H₇O₂NS** 1) α-Amidopropan-β-Sulfonsäure (B. 22, 2987; 29, 2612, 2751). — I, 1181.
2) α-Amidopropan-γ-Sulfonsäure. Sm. über 300° (B. 23, 92; 26, 1079). — I, 1174.
3) β-Methylamidoäthan-α-Sulfonsäure (Methyltaurin). Sm. 241–242° (J. pr. [2] 18, 63; B. 22, 1147). — I, 1179.
- C₃H₇O₂N₂S** 1) Taurocyamin + H₂O (Tauroglykocyamin). Sm. 260° (224–226°) (B. 8, 1597; J. pr. [2] 18, 76). — I, 1179.
- C₃H₇O₂ClSi** 1) Chlorid d. Trimethylkieselsäure. Sd. 115,5° (A. ch. [4] 9, 40). — I, 346.
- C₃H₇O₂NS** 1) γ-Amidopropylschwefelsäure. Sm. 221° (B. 23, 90). — I, 1174.
- C₃H₇O₂F₂B** 1) α-Fluorborsäure-Aceton. Sd. 120–122° (B. 12, 1580; 16, 962). — I, 978.
2) β-Fluorborsäure-Aceton. Sm. 36°; Sd. 90–92° (B. 12, 1581). — I, 978.
- C₃H₇NCIJ** 1) Trimethylaminchloridjodid. Sm. 77°. HCl (Bl. [3] 7, 74). — I, 1120.
- C₃H₇N₂BrS** 1) Thioharnstoff + Aethylbromid (A. 179, 145). — I, 1318.
- C₃H₇N₂JS** 1) Thioharnstoff + Aethyljodid (B. 8, 41; 11, 494; 17, 308). — I, 1318.

- $C_3H_5Cl_3JS$ 1) Trimethylsulfindichlorojodid. Sm. 103—104° u. Zers. + 2NH₃ (J. pr. [2] 31, 41). — I, 355.
- $C_3H_5Br_3JS$ 1) Trimethylsulfindibromojodid. Sm. 94—95° u. Zers. + 2NH₃ (J. pr. [2] 31, 37). — I, 355.
- C_3H_5ONCl 1) Trimethyloxyammoniumchlorid. Sm. 218°. 2 + PtCl₄ + 2H₂O (B. 31, 2062).
- C_3H_5ONJ 1) Trimethyloxyammoniumjodid + $\frac{1}{2}$ H₂O. Sm. 130° u. Zers. (B. 31, 2061).
- $C_3H_5N_3Cl_3Se_3$ 1) Verbindung + H₂O (aus Selenharnstoff) (A. ch. [6] 9, 304). — I, 1331.
- $C_3H_5N_3Br_3Se_3$ 1) Verbindung + H₂O (aus Selenharnstoff) (A. ch. [6] 9, 316). — I, 1331.
- $C_3H_5N_3JSn$ 1) Zinntrimethyljodid + 2 Molec. Ammoniak (A. 122, 56).

C₃-Gruppe mit fünf Elementen.

- C_3HO_2ClBrJ 1) Chlorbromjodäthen- α -Carbonsäure (Chlorbromjodakrylsäure). Sm. 110°. Ca + H₂O, Ba + 3 $\frac{1}{2}$ H₂O, Ag (Am. 4, 96; B. 15, 1755). — I, 506.
- 2) isom. Chlorbromjodäthen- α -Carbonsäure (isom. Chlorbromjodakrylsäure). Sm. 128—129° (B. 19, 539). — I, 506.
- $C_3H_5ON_2Br_2S$ 1) 5,5-Dibrom-2-Thiocarbonyl-4-Ketotetrahydroimidazol (Dibromthiohydantoïn). Zers. bei 130—140° (B. 8, 1263; 13, 789). — I, 1327.
- $C_3H_5ONCl_2S$ 1) 2,2-Dichlor-4-Ketotetrahydrothiazol (Senfölessigsäurechlorid). Sm. 161°; Zers. bei 170° (A. 249, 30). — I, 1229.
- $C_3H_5ON_2Br_2S$ 1) Bromid d. 2-Imido-4-Ketotetrahydrothiazol (Thiohydantoïndibromid) (M. 18, 89).
- $C_3H_5O_2N_2Cl_2S$ 1) Thioharnstoff + Trichloressigsäure (B. 9, 228).
- $C_3H_5O_2NCIBr$ 1) Nitrat d. ?-Chlorbrom- α -Oxypropan? Fl. (B. 4, 703). — I, 325.
- $C_3H_5O_2NCIS$ 1) β -Nitrat d. γ -Chlor- β -Oxypropylschwefelsäure? Fl. (B. 4, 703). — I, 334.
- $C_3H_5ON_2ClS$ 1) Thioharnstoff + Acetylchlorid (B. 8, 42). — I, 1319.
- $C_3H_5ClBrJS$ 1) Trimethylsulfinchlorbromjodid. Sm. 87° u. Zers. (J. pr. [2] 31, 42). — I, 355.
- $C_3H_5O_2N_2SSe_3$ 1) Verbindung + H₂O (aus Selenharnstoff) (A. ch. [6] 9, 319). — I, 1331.
- $C_3H_5O_2ClPTi$ 1) Verbindung (Bl. 30, 248).

C₄-Gruppe mit einem Element.

- C_4H_8 C 96,0 — H 4,0 — M. G. 50.
- 1) Butadiin (Diacetylen) (B. 18, 2272; Am. 19, 123). — I, 140.
- C_4H_6 1) Kohlenwasserstoff (aus Petroleum) = (C₄H₆)_n. Sm. 280—285° (Soc. 47, 925). — II, 305.
- C_4H_8 C 88,9 — H 11,1 — M. G. 54.
- 1) $\alpha\beta$ -Butadiën. Sd. 18—19° (Am. 10, 433; C. 1897 [1] 1011).
- 2) $\alpha\gamma$ -Butadiën (Vinyläthylen, Divinyl, Erythren, Pyrrolylen). Sd. + 1° (A. 127, 93, 348; B. 6, 70; 19, 569; 25 [2] 377; 26 [2] 314; G. 15, 504; A. ch. [6] 7, 216; J. r. 24, 348). — I, 131.
- 3) α -Butin (Aethylacetylen). Sd. 18°. 2 + 3HgO, + 3HgCl₂ (B. 8, 412; 17, 24; 24 [2] 905; J. r. 17, 143). — I, 130.
- 4) β -Butin (Crotonylen; Dimethylacetylen). Sd. 18° (27,2—27,6°) (A. 127, 347; 250, 232; J. r. 13, 392; J. pr. [2] 6, 110; [2] 37, 385; [2] 42, 143; C. 1897 [2] 260). — I, 130.
- 5) isom. ? Butin (A. ch. [4] 9, 466; [5] 17, 17; Bl. 20, 72). — I, 131.
- 6) Kautschin. Sm. — 10°; Sd. 14,5° (A. 27, 33). — I, 131.
- C_4H_{10} C 85,7 — H 14,3 — M. G. 56.
- 1) α -Buten (Aethyläthylen). Gas. Sd. — 5° (J. pr. [2] 3, 91; A. 152, 21; 158, 163; 179, 330; Bl. 28, 461; 48, 57; B. 10, 136; 25 [2] 377). — I, 114.
- 2) β -Buten (β -Dimethyläthylen; Pseudobutylen). Sd. 1°_{741,4} (A. 129, 200; 132, 275; 133, 198; 144, 235; 150, 108; 195, 113; B. 10, 1904;

- Bl.* 24, 122; 29, 201, 306; 30, 188; 48, 57; [3] 19, 495; *Am.* 2, 23; *J. pr.* [2] 42, 154; *C.* 1897 [2] 262; 1898 [1] 885). — I, 111.
- C₄H₆** 3) isom. β -Buten. *Sd.* 2,5° (*C.* 1897 [2] 261).
- 4) β -Methylpropen (uns-Dimethyläthylen; Isobutylen). *Gas.* *Fl.* bei 15 bis 18° u. 2,5 Atm.; *Sd.* -6°. + AlCl₃, + AlBr₃, + ZnCl₂. *Lit.* bedeutend. — I, 111.
- 5) Methyl-R-Trimethylen. *Gas.* *Sd.* 4—5° (*B.* 28, 22).
- C₄H₁₀** *C* 82,8 — *H* 17,2 — *M. G.* 58.
- 1) Butan (Diäthyl). *Fl.* bei 1° (*A.* 71, 173; 77, 224; 126, 215; 130, 233; 282, 219; *B.* 11, 2244; *Z.* 1865, 523; 1867, 363; 1869, 185; *J.* 1860, 397 *Anm.*; 1863, 524; 1865, 507; *J. r.* 3, 170). — I, 102.
- 2) β -Methylpropan (sec. Butan; Trimethylmethan). *Bei* -17° flüssig (*A.* 144, 10; *B.* 8, 1299; 16, 562; 26, 2431; *Am.* 19, 247). — I, 102.
- C₄O₂** 1) Kohlensuboxyd (*A.* 169, 271; *Bl.* 26, 102). — I, 545.
- C₄Cl₆** 1) $\alpha\alpha\beta\gamma\delta\delta$ -Hexachlorbutadien. *Sm.* 32°; *Sd.* 268—269° u. *Zers.* (*B.* 22, 1269). — I, 163.
- 2) Hexachlorbutin (Perchlormesol). *Sm.* 39°; *Sd.* 283—284°₃₃ (*B.* 10, 803; 24, 1020). — I, 163.
- 3) Perchlorbutin (aus Chloroform). *Sd.* 210° u. *ger. Zers.* (*B.* 26 [2] 88).
- C₄J₂** 1) $\alpha\delta$ -Dijod- $\alpha\gamma$ -Butadiin (Dijoddiacetylen). *Sm.* 101° (*B.* 18, 2276). — I, 200.
- C₄S** 1) Kohlensulfid (*Z.* 1867, 20). — I, 881.

C₄-Gruppe mit zwei Elementen.

- C₄HN₂** *C* 52,7 — *H* 1,1 — *N* 46,2 — *M. G.* 91.
- 1) Nitril d. Methantricarbonsäure (Cyanoforn). *NH₄*, *Na*, *Ag* (*A. Spl.* 3, 373; *J. pr.* [2] 4, 38; [2] 6, 97; *B.* 9, 225; 29, 1171; 32, 643; *G.* 26 [1] 274). — I, 1181.
- C₄HCl₅** 1) Pentachlorbutin. *Sd.* 125°_{75—80} (*B.* 26, 2113).
- C₄H₂O₃** *C* 49,0 — *H* 2,0 — *O* 49,0 — *M. G.* 98.
- 1) Anhydrid d. Maleinsäure. *Sm.* 60° (53°); *Sd.* 196° (192°; 201—202°) (*B.* 12, 2281; 14, 2547, 2791; 15, 641, 1073; *Z.* 1871, 713; *A.* 188, 93; 268, 255; 273, 32; *A. Spl.* 2, 87; *J. r.* 22, 312; *J.* 1881, 716; *Ph. Ch.* 4, 484). — I, 702.
- C₄H₂O₄** *C* 42,1 — *H* 1,7 — *O* 56,2 — *M. G.* 114.
- 1) Aethindicarbonsäure + 2H₂O (Acetylendicarbonsäure). *Sm.* 178 bis 179° (wasserfrei). *Na₂* + 3½H₂O, *K*, *Zn* + 1½H₂O, *Pb* + H₂O, *Cu* + 3H₂O, *Ag*, (*A.* 246, 75; 272, 129, 139; *B.* 10, 838; 12, 2212; 15, 2694, 2700; 18, 677, 2269; *J. pr.* [2] 46, 210, 230; *Ph. Ch.* 3, 381; *M.* 14, 496). — I, 729.
- 2) Superoxyd d. Fumarsäure. *Zers.* bei 80° (*B.* 29, 1726).
- C₄H₂O₅** *C* 36,9 — *H* 1,5 — *O* 61,6 — *M. G.* 130.
- 1) Lakton d. Dioxyfumarsäure? (*Soc.* 69, 559).
- C₄H₂Br₆** 1) 1,1,2,3,3,4-Hexbrom-R-Tetramethylen. *Sm.* 172—174° (*J. r.* 21, 1). — I, 185.
- 2) Hexabrombuten. *Sm.* 52—53° (*B.* 11, 2246). — I, 185.
- 3) Hexabrombuten. *Sm.* 183,5° (*Am.* 19, 126).
- C₄H₂J₄** 1) Verbindung? *Sm.* 74° (*A.* 135, 258).
- C₄H₃Cl₅** 1) Pentachlorbuten (aus Trimethylcarbinol). *Sd.* 185—188°₄₆₀ (*B.* 8, 1017). — I, 161.
- C₄H₃Cl₇** 1) Heptachlorbutan. *Sm.* 34—36°; *Sd.* 125—135° (i. V.) (*J.* 1882, 441). — I, 151.
- 2) isom. Heptachlorbutan. *Sm.* 40—42°; *Sd.* 135—145° (i. V.) (*J.* 1882, 441). — I, 151.
- C₄H₄O** *C* 70,6 — *H* 5,9 — *O* 23,5 — *M. G.* 68.
- 1) Furan (Tetrol). *Sd.* 31,4—31,6°₇₀₀ (*A.* 165, 282; *B.* 13, 879; *A. ch.* [6] 7, 220; *G.* 16, 490; 24 [1] 278; *Bl.* [3] 17, 610, 613; *Soc.* 73, 601). — III, 690.
- 2) Baphinitin = (C₄H₄O)_x (*J.* 1876, 896). — III, 620.

- C₄H₄O₂** C 57,1 — H 4,8 — O 38,1 — M. G. 84.
 1) **Propin- α -Carbonsäure** (Tetrolsäure). Sm. 76°; Sd. 203°. NH₄, Na, K, Li, Mg + 3H₂O, Ca + 3H₂O, Ba + 3H₂O, Zn + 1(2)H₂O, Cd + 4H₂O, Pb + H₂O, Cu + H₂O (Z. 1871, 245; J. r. 12, 290; E 12, 2338; 14, 1081; 15, 218; 22, 1183; 28, 1884, 2671; Ph. Ch. 3, 246; C. 1897 [2] 183; A. 219, 319, 342, 365; 268, 96; Bl. [3] 11, 392). — I, 530.
 2) **Verbindung** (aus Brenzschleimsäure). Fl. (A. 165, 292). — I, 968.
- C₄H₄O₃** C 48,0 — H 4,0 — O 48,0 — M. G. 100.
 1) **Oxytetrolsäure** + H₂O. Subl. über 300°. NH₄ + H₂O, Ba + 5H₂O, Pb (B. 15, 1384; A. 213, 160).
 2) **Lagsäure**. Fl. Ca + 2(2½)H₂O, Pb (A. 260, 345; 263, 121; B. 26, 2327). — I, 616.
 3) **Tetronsäure** (Lakton d. γ -Oxy- β -Ketobuttersäure). Sm. 141°. Ca + 2½ H₂O (A. 291, 234).
 4) **Säure** (aus l-Zuckersäure) (J. 1860, 260).
 5) **Anhydrid d. Aethan- $\alpha\beta$ -Dicarbonsäure** (A. d. Bernsteinsäure). Sm. 119,6°; Sd. 261° (A. 87, 293; 137, 254; 226, 8; 242, 150; A. Spl. 3, 217; B. 10, 326, 1883; 14, 2788; 18, 2459; A. ch. [2] 58, 282; J. pr. [2] 22, 193; J. 1859, 280). — I, 667.
 6) **Monaldehyd d. Fumarsäure?** (A. 165, 285; Am. 19, 650). — I, 968.
 7) **Verbindung** (aus Pyrogallol) = C₁₀H₁₆O₁₂? (Bl. [3] 19, 829).
- C₄H₄O₄** C 41,4 — H 3,4 — O 55,2 — M. G. 116.
 1) **Fumarsäure**. Subl. bei 200°. Sm. 286—287° u. Druck. Salze meist bek. Lit. bedeutend. — I, 697.
 2) **Maleinsäure**. Sm. 130°. Salze meist bek. Lit. bedeutend. — I, 701.
 3) **Isofumarsäure?** Pb (A. 139, 265).
 4) **Anhydrid d. Diglykolsäure**. Sm. 97°; Sd. 240—241° (120°₁₂) (A. 259, 190; 273, 73). — I, 551.
 5) **Bianhydrid d. Oxyessigsäure** (Glykolid). Sm. 86—87° (82—83°) (B. 26, 263, 560; 27, 2949; A. 279, 45).
 6) **Superoxyd d. Bernsteinsäure**. Explodiert bei 120° (B. 29, 1724).
 7) **Aethylenester d. Oxalsäure**. Sm. 142—143°; Sd. 196—198° (B. 27, 2945).
- C₄H₄O₅** C 36,4 — H 3,0 — O 60,6 — M. G. 132.
 1) **Oxyfumarsäure** (Oxaleessigsäure). Sm. 172° u. Zers. (A. 247, 317; 276, 230; G. 17, 520; B. 29, 1792). — I, 761.
 2) **Oxymaleinsäure**. Pb, Ag₂ (Bl. 19, 482).
 3) **β -Oxyäthen- $\alpha\alpha$ -Dicarbonsäure**. Ba (B. 27, 3062).
 4) **Tartrelsäure** (lösliches Weinsäureanhydrid). Ca, Ba, Pb, Cu (A. 29, 152; 78, 315; 125, 140; J. 1847/48, 510). — I, 797.
 5) **Weinsäureanhydrid**, unlöslich (A. 29, 156; J. 1861, 439). — I, 797.
- C₄H₄O₆** C 32,4 — H 2,7 — O 64,9 — M. G. 148.
 1) **Methantricarbonsäure** (Formyltricarbonsäure)? (B. 12, 752, 1236; 14, 618; J. pr. [2] 6, 102). — I, 807.
 2) **Dioxyfumarsäure?** (Traubensäure?) (B. 12, 2293; 13, 159; siehe auch B. 13, 2150).
 3) **isom. Dioxyfumarsäure?** (Soc. 69, 560; 73, 78, 488).
 4) **Dioxymaleinsäure** (aus Weinsäure). Zers. wasserfrei bei 155°. (NH₄)₂, Na₂, Ba + 2H₂O, Anilinsalz, Phenylhydrazinsalz, Hydroxylaminsalz (B. 28 [2] 925; Soc. 65, 899; 67, 48, 774; 69, 547; 73, 77, 483).
 5) **Dioxymaleinsäure**. Ag₂ (Bl. 22, 443).
- C₄H₄O₇** C 29,3 — H 2,4 — O 68,3 — M. G. 164.
 1) **Carboxytartronsäure**, nur Salze bekannt. Na₂ + 3H₂O, Ba₃ + 3H₂O (B. 12, 518; 14, 618; M. 1, 869; 3, 832). = C₄H₄O₈ Dioxyweinsäure.
- C₄H₄N₂** C 60,0 — H 5,0 — N 35,0 — M. G. 80.
 1) **1,2-Diazin** (Pyridazin). Sm. — 8°; Sd. 208°₇₀₀. + AuCl₃, Pikrat (B. 28, 454; 32, 408; Ph. Ch. 22, 389). — IV, 817.
 2) **1,4-Diazin** (Pyrazin). Sm. 47° (52—53°); Sd. 118°₁₆₃₄. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HNO₃, H₂SO₄, + ZnCl₂, + HgCl₂, + AgNO₃, + AuCl₃, + CuSO₄, + 5H₂O, Pikrat (B. 21, 1483; 26, 723, 1830, 2207; 27, 2018; J. pr. [2] 47, 451; [2] 48, 21; [2] 49, 396, 402; [2] 51, 452; [2] 54, 489). — IV, 817.
 3) **Nitril d. Aethan- $\alpha\alpha$ -Dicarbonsäure** (N. d. Isobernsteinsäure). Sm. 26,2°; Sd. 197—198° (J. 1889, 639). — I, 1479.

- $C_4H_4N_2$ 4) Nitril d. Aethan- $\alpha\beta$ -Dicarbonsäure (N. d. Bernsteinsäure). Sm. 51 bis 52° (54,5°); Sd. 265–267°. + Cu_2Cl_2 ; + 4 $AgNO_3$ (A. 118, 374; 121, 154; B. 4, 521; 16, 360; 25, 2542; A. ch. [6] 17, 131; Bl. 30, 101; 43, 618; 50, 214; [3] 19, 786). — I, 1478.
C 35,3 — H 2,9 — N 61,8 — M. G. 136.
- $C_4H_4N_6$ 1) 3,3'-Bi-1,2,4-Triazol? (B. 30, 1194). — IV, 1329.
C 29,3 — H 2,4 — N 68,3 — M. G. 164.
- $C_4H_4N_8$ 1) 5,5'-Azo-1,2,4-Triazol (A. 303, 47). — IV, 1491.
- $C_4H_4Cl_4$ 1) Tetrachlorbuten (aus Butyrylchloral). Sd. 200° (B. 3, 790). — I, 161.
- $C_4H_4Cl_6$ 1) Hexachlorbutan (aus Isobutyljodid). Sd. 146–148°_{40–50} (Bl. 24, 24). — I, 152.
2) Hexachlorbutan (aus Isobutylenchlorid). (A. ch. [5] 28, 553). — I, 152.
3) Hexachlorbutan (aus tert. Butylchlorid). Sd. 115° (i. V.) (J. 1882, 441). — I, 151.
- $C_4H_4Br_2$ 1) $\beta\gamma$ -Dibrom- $\alpha\gamma$ -Butadien (Dibromerythren) (Bl. 48, 34). — I, 187.
2) polym. $\beta\gamma$ -Dibrom- $\alpha\gamma$ -Butadien (Bl. 48, 34). — I, 187.
- $C_4H_4Br_4$ 1) $\beta\gamma\gamma\delta$ -Tetrabrom- α -Buten. Sm. 67° (Bl. 48, 34). — I, 185.
- $C_4H_4Br_6$ 1) $\alpha\beta\beta\gamma\gamma\delta$ -Hexabrombutan (Dibromerythrentetrabromid). Sm. 170° u. Zers. (Bl. 48, 34). — I, 175.
2) Hexabrombutan (Erythrenhexabromid). Sm. 169° (Bl. 48, 53). — I, 176.
3) isom. Hexabrombutan (Erythrenhexabromid). Fl. (Bl. 48, 53). — I, 175.
4) isom. Hexabrombutan (aus Isobutyrbromid). Sm. 108–109° (B. 11, 2245). — I, 176.
- C_4H_4S 1) Thiophen. Sd. 84°. $HgCl_2$, 2 $HgCl_2$. Lit. bedeutend. — III, 738.
- $C_4H_4S_2$ 1) 2-Merkaptothiophen. Sd. 166°. Ag (B. 19, 1616; 20, 1756). — III, 753.
C 71,7 — H 7,4 — N 20,9 — M. G. 67.
- C_4H_5N 1) Pyrrol. Sd. 130–131°. K , 4 + 3 $CdCl_2$, + 2 $HgCl_2$. Lit. bedeutend. — IV, 63.
2) polym. Pyrrol = $(C_4H_5N)_n$. Sm. 121° (B. 27, 478).
3) Methylpyriculin. Sd. 156–157°. (2 HCl , $PtCl_4$), Pikrat (B. 30, 2258).
4) Allylisocyanid (Allylcarbylamin). Sd. 96–106° (A. 112, 316). — I, 1483.
5) Nitril d. Propen- α -Carbonsäure (Nitril d. α -Crotonsäure). Sd. 119° (cor.) (A. 125, 273; 131, 58; 159, 105; B. 6, 388; 12, 2053; 15, 2508; 26 [2] 289; M. 12, 412; C. 1898 [2] 662). — I, 1468.
6) Nitril d. Propen- β -Carbonsäure. Sd. 90–92°₇₆₀ (C. 1898 [2] 662).
7) Nitril d. Propen- γ -Carbonsäure. Sd. 135°₇₆₀ (C. 1898 [2] 662).
C 50,5 — H 5,2 — N 44,2 — M. G. 95.
- $C_4H_5N_3$ 1) Nitril d. Imidodiessigsäure (Imidoacetonitril). Sm. 75° (A. 278, 230, 238; J. pr. [2] 49, 498; B. 27 [2] 235).
- C_4H_5Cl 1) α -Chlor- $\alpha\beta$ -Butadien. Sd. 64–65° (A. 162, 99).
C 68,6 — H 8,6 — O 22,8 — M. G. 70.
- C_4H_5O 1) Methyläther d. γ -Oxy- α -Propin (Methylpropargyläther). Sd. 61–62°. Ag (A. 135, 287; B. 5, 455; J. 1881, 513). — I, 303.
2) Aethenyläther d. Oxyäthen (Vinyläther). Sd. 39° (A. 241, 114). — I, 301.
3) 2,5-Dihydrofuran? Sd. 67° (A. ch. [6] 7, 217; Bl. [3] 3, 417). — III, 620.
4) Aldehyd d. Propan- α -Carbonsäure (A. d. α -Crotonsäure). Sd. 104 bis 105° (A. 117, 141; 162, 92; 191, 370; 264, 300; M. 1, 819; 13, 517, 519; J. r. 11, 74; A. Spl. 1, 119; A. ch. [6] 7, 217; B. 3, 76; 10, 687; Bl. [3] 6, 796; J. 1878, 612; 1885, 192). — I, 959.
C 55,8 — H 7,0 — O 37,2 — M. G. 86.
- $C_4H_6O_2$ 1) Butan- $\alpha\beta\gamma\delta$ -Dioxyd (Anhydrid d. Erythrit). Sd. 138° (49°₃₀) (B. 17, 1092; 26 [2] 932; J. r. 19, 534). — I, 280.
2) isom. Anhydrid d. Erythrit. Sm. 175° (A. ch. [6] 7, 225; J. r. 19, 532). — I, 280.
3) polym. Anhydrid d. Erythrit (B. 20, 3235). — I, 281.
4) Anhydrid eines isom. Erythrit. Sm. 4°; Sd. 59–60°₃₀ (B. 26 [2] 932).
5) $\beta\gamma$ -Diketobutan (Diacetyl). Sd. 87,5–88° (B. 20, 3213; 24, 3954; 25, 1723; 31, 2124; A. 249, 200; 288, 26; J. pr. [2] 50, 140). — I, 1015.
6) Propen- α -Carbonsäure (α -Crotonsäure). Sm. 72°; Sd. 185°. Na , K , Ca , Ba , Zn + 2 H_2O , Pb , Ag . Lit. bedeutend. — I, 506.
7) isom. Propen- α -Carbonsäure (β -Crotonsäure; Isocrotonsäure). Sm. 15,5°; Sd. 171,9° (cor.). Na , K , Ca + 3 H_2O , Ba + 2 H_2O , Pb + 2 H_2O , Ag

- (Z. 1871, 242; A. 174, 322; 259, 361; 268, 16; Ph. Ch. 3, 242; J. pr. [2] 46, 236; B. 9, 1194; 11, 1359; 13, 480; 15, 629; 29, 1639; C. 1897 [2] 259; 1898 [2] 1011). — I, 509.
- $C_4H_6O_2$ 8) isom. Crotonsäure. Sm. 18–19°; Sd. 180–181°. $Ca + 6H_2O, Ba + 2H_2O$, Ag (A. 227, 24). — I, 509.
- 9) Propen- β -Carbonsäure (Methakrylsäure). Sm. 16°; Sd. 160,5°. Ca , Ag (Z. 1866, 723, 724; A. 136, 13; 188, 42, 52, 81; 195, 82; 200, 65; 274, 56; J. pr. [2] 25, 370; [2] 51, 552; B. 14, 2797; 27, 2951). — I, 510.
- 10) polym. Methakrylsäure = $(C_4H_6O_2)_n$. $Ca + \frac{1}{2}H_2O$, $Ba + 2H_2O$ (A. 200, 70; 274, 57; J. 1880, 789; J. pr. [2] 25, 371). — I, 510.
- 11) R-Trimethylenecarbonsäure (Aethylenessigsäure). Sm. 18–19°; Sd. 180 bis 181° (182–184°). $Ca + 6H_2O$, $Ba + 2H_2O$, Ag (A. 227, 24; Soc. 47, 815; 67, 116; C. 1898 [2] 475). — I, 512.
- 12) Lakton d. norm. γ -Oxybuttersäure (Butyrolakton). Sd. 203,5–204° (206°) (A. 171, 266; 227, 22; B. 13, 1061; 15, 629; 29, 1193; M. 3, 702; J. pr. [2] 25, 64; Bl. 45, 341; Soc. 69, 168; 75, 17). — I, 563.
- 13) Methylester d. Akrylsäure. Sm. 85° (80,3°) (A. 167, 247; 221, 79; B. 13, 2349). — I, 501.
- 14) Methylester d. polym. Akrylsäure = $(C_4H_6O_2)_n$ (feste Modifik.) (B. 13, 2348). — I, 501.
- 15) Methylester d. polym. Akrylsäure = $(C_4H_6O_2)_n$ (flüssige Modifik.). Sd. 190°₁₀₀ (B. 13, 2348). — I, 501.
- 16) Allylester d. Ameisensäure (Formiat d. γ -Oxypropen). Sd. 82–83° (Z. 1866, 518; 1868, 441). — I, 397.
- 17) Aldehyd d. β -Ketopropan- α -Carbonsäure (A. d. Acetessigsäure) nur Cu-Verb. bekannt (B. 21, 1144). — I, 966.
- $C_4H_8O_2$ 18) Verbindung (aus d. Aldehyd $C_4H_8O_2$) (A. 165, 289). — I, 968.
C 47,1 — H 5,9 — O 47,0 — M. G. 102.
- 1) Xylan (aus Betula alba) (C. 1896 [1] 898).
- 2) γ -Oxypropen- α -Carbonsäure. Ba (Am. 16, 284).
- 3) γ -Oxypropen- β -Carbonsäure (Oxymethakrylsäure). Fl. Ba, Pb (A. 170, 129). — I, 588.
- 4) γ -Oxypropen- γ -Carbonsäure (Aethenylglykolsäure). Sm. 40°. Ba, Zn + 3H₂O, Ag (J. 4, 226). — I, 589.
- 5) Propan- $\alpha\beta$ -Oxyd- α -Carbonsäure (β -Methylglycidsäure). Sm. 84°. K + $\frac{1}{2}H_2O$, Ag (A. 234, 204; B. 16, 1270). — I, 590.
- 6) isom. Propan- $\alpha\beta$ -Oxyd- α -Carbonsäure (β -Methylisoglycidsäure). Fl. K + H₂O, Ag (A. 266, 365). — I, 590.
- 7) Propan- $\alpha\beta$ -Oxyd- β -Carbonsäure (α -Methylglycidsäure). Fl. K + $\frac{1}{2}H_2O$, Ag (A. 234, 212). — I, 590.
- 8) α -Ketopropan- α -Carbonsäure (Propionylameisensäure). Sd. 74–78°₂₅. Ba + H₂O, Ag (B. 13, 2121; A. 246, 333; J. r. 19, 267). — I, 590.
- 9) β -Ketopropan- α -Carbonsäure (Acetyllessigsäure). Fl. Zers. bei 100°. Ba + H₂O, Cu + 2H₂O (Z. 1866, 6; J. 1863, 324; H. 7, 487; B. 15, 1326, 1496, 1871; 21, 94; Fr. 14, 419; A. 186, 161; 209, 29, 36). — I, 591.
- 10) Itabrenztraubensäure. Ba, Pb (A. 141, 37). — I, 590.
- 11) Epihydrincarbonsäure? Sm. 225°. Pb, Ag (J. pr. [2] 1, 100; [2] 7, 295). — I, 590.
- 12) Hydroxytetrinsäure. Sm. 100°. Ba, Cu, Ag₂ (A. ch. [5] 20, 482).
- 13) Anhydrid d. Essigsäure. Sd. 137,9°. + SnO₂, 2 + SnO₂. Lit. bedeutend. — I, 462.
- 14) $\alpha\gamma$ -Lakton d. $\beta\gamma$ -Dioxybuttersäure. Fl. (B. 27, 2438).
- 15) Lakton d. Butylglycerinsäure (Butylglycidsäure). K (B. 15, 2586; 16, 1269).
- 16) Lakton d. α -Oxypropionoxymethyläthersäure (Methylenester d. α -Oxypropionsäure). Sd. 153–154°₇₋₁₁ (Bl. [3] 13, 383).
- 17) Lakton d. Oxyessig- β -Oxyäthyläthersäure (Aethylenester d. Oxyessigsäure). Sm. 31°; Sd. 214°₇₋₁₀ (B. 27, 2944).
- 18) Aldehyd d. γ -Oxy- α -Ketopropan- α -Carbonsäure? (M. 5, 253). — I, 945.
- 19) Monoaldehyd d. Aethan- $\alpha\beta$ -Dicarbonsäure. Fl. (Soc. 75, 16).

- $C_4H_6O_5$ 20) Methylester d. α -Ketoäthan- α -Carbonsäure (Methylester d. Brenztraubensäure). *Sd.* 134–137° (*B.* 5, 1051). — *I.* 586.
- $C_4H_6O_5$ 21) Verbindung (aus Kohlenoxyd) = $(C_4H_6O_5)_x$ (*Bl.* 26, 102). — *I.* 546.
 C 40,7 — H 5,1 — O 54,2 — *M. G.* 118.
- 1) Aethan- $\alpha\alpha$ -Dicarbonsäure (Isobernsteinsäure; Methylmalonsäure). *Sm.* 130° u. Zers.; subl. u. Zers. Salze meist bek. *Lit.* bedeutend. — *I.* 662.
- 2) Aethan- $\alpha\beta$ -Dicarbonsäure (Bernsteinsäure). *Sm.* 185°; *Sd.* 235° u. Anhydridbildung. Salze meist bek. *Lit.* bedeutend. — *I.* 653.
- 3) Acetoxylessigsäure (Essigglykolsäure). $Ca + 2H_2O$, Ba (*A.* 123, 338 bis 340; 208, 277). — *I.* 550.
- 4) Superoxyd d. Essigsäure (Acetylsuperoxyd). *Sm.* 30°; *Sd.* 63° (*J.* 1863, 317; *B.* 29, 1726; *A.* 298, 287; *C.* 1898 [1] 330; *Bl.* [3] 17, 165). — *I.* 464.
- 5) Dimethylester d. Oxalsäure. *Sm.* 54°; *Sd.* 163,3° (*A.* 32, 49; 64, 313; 221, 86; *B.* 15, 163; 26, 1493; 27, 2106; 30, 951; *J. pr.* [2] 40, 349; *J.* 1874, 572). — *I.* 646.
- 6) Monäthylester d. Oxalsäure (Aethylloxalsäure). *Sd.* 117°₁₅. K , Guanidinsalz, Piperazinsalz (*P.* 33, 332; *B.* 5, 953; 16, 2413; 24, 127; *J. pr.* [2] 49, 34; [2] 53, 23). — *I.* 646.
- 7) Aethylenester d. Ameisensäure (Aethylendiformin). *Sd.* 174° (*B.* 7, 263; *Bl.* 22, 104; *A. ch.* [6] 7, 231). — *I.* 327.
 C 35,8 — H 4,5 — O 59,7 — *M. G.* 134.
- $C_4H_6O_5$ 1) $\alpha\gamma$ -Dioxy- β -Ketopropan- α -Carbonsäure (Acetoxylglykolsäure?) siehe d. Ester $C_{10}H_{18}O_5$ (*J.* 1867, 454; *B.* 11, 59; *A.* 269, 28). — *I.* 746.
- 2) α -Oxyäthan- $\alpha\alpha$ -Dicarbonsäure (Methyltartronsäure). *Sm.* 178° u. Zers. $Ba + H_2O$, $Zn + 2H_2O$, $Ag_2 + H_2O$ (*B.* 14, 148; 17, 144). — *I.* 745.
- 3) α -Oxyäthan- $\alpha\alpha$ -Dicarbonsäure (Isoäpfelsäure). Zers. bei 160°; *Sm.* 140°. $Ba + 2H_2O$, Pb , Ag_2 (*J. pr.* [2] 14, 77; [2] 19, 168; [2] 24, 38; *A.* 273, 43; *B.* 27 [2] 510; *M.* 13, 837). — *I.* 745.
- 4) β -Oxyäthan- $\alpha\alpha$ -Dicarbonsäure (β -Oxyäthylidenbernsteinsäure). Ca , Zn (*A.* 273, 46).
- 5) d - α -Oxyäthan- $\alpha\beta$ -Dicarbonsäure (α -Äpfelsäure). $(NH_4)_2$, Ba (*B.* 30, 2797, 3149; 31, 528). — *I.* 740.
- 6) l - α -Oxyäthan- $\alpha\beta$ -Dicarbonsäure (l -Äpfelsäure). *Sm.* 100°. Salze meist bek. *Lit.* bedeutend. — *I.* 740.
- 7) i -Äpfelsäure. *Sm.* 125–126° (112–115°; 105–108°). NH_4 , Na_2 (*A.* 82, 30; 117, 126; 130, 24; 174, 368; *Bl.* 30, 147; *B.* 13, 161; 14, 2648; 18, 1950, 2170; 24, 3417; 25, 2448; 31, 528; *Ph. Ch.* 3, 371). — *I.* 744.
- 8) i -Äpfelsäure (aus Acetylen). *Sm.* 55° u. 163–168°. Ag_2 (*A.* 216, 275). — *I.* 745.
- 9) i -Äpfelsäure (aus Chloräthenyltricarbonsäuretriäthylester) (*A.* 214, 48). — *I.* 744.
- 10) Äpfelsäure (aus Crassulaceen). *Fl.* $Ca + 6H_2O$, Ba , $Pb + 3H_2O$, Ag_2 (*B.* 31, 1432).
- 11) i -Äpfelsäure (aus Fumarsäure oder Maleinsäure). *Sm.* 132–136° (130 bis 131°). $Ca + H_2O$, $Pb + 1\frac{1}{2}H_2O$, $Ag_2 + \frac{1}{2}H_2O$ (*A.* 192, 80; 273, 39; *B.* 18, 2170, 2713; 29, 1698; *M.* 12, 113, 563; *R.* 4, 181). — *I.* 744.
- 12) i -Äpfelsäure (aus Traubensäure) (*Bl.* 25, 6; *B.* 13, 351; *R.* 4, 130). — *I.* 745.
- 13) i -Äpfelsäure (in d. Blättern von *Fraxinus excelsior*) (*J.* 1853, 409; 1868, 800).
- 14) Isomalsäure. *Sm.* 149°. $NH_4 + 2H_2O$, $K_2 + H_2O$, $Ca + H_2O$, Pb , Ag_2 (*A.* 139, 257).
- 15) Dimethyläther- $\alpha\alpha'$ -Dicarbonsäure + H_2O (Diglykolsäure). *Sm.* 148°. Salze meist bekannt (*J.* 1861, 440; *Z.* 1866, 497; *J. pr.* [2] 13, 438; [2] 31, 347; *Ph. Ch.* 3, 186; *A.* 128, 129; 130, 257; 138, 41; 144, 91; 273, 64; *A. ch.* [3] 69, 342). — *I.* 550.
- 16) Chondronsäure. — *IV*, 1628.
- 17) Säure (aus Dimethylenmalonsäurediäthylester). Ca (*B.* 22, 3301).
- 18) Säure (aus Dibromessigsäure u. malons. Silber). *Sm.* 70–80° (*A.* 273, 51).
- $C_4H_6O_5$ 19) Anhydrid d. Oxyessigsäure? *Sm.* 128–130° (*A.* 127, 154, 155; *J. pr.* [2] 7, 336). — *I.* 548.
 C 32,0 — H 4,0 — O 64,0 — *M. G.* 150.
- 1) d -Weinsäure. *Sm.* 168–170°. Salze fast sämtlich bekannt. *Lit.* bedeutend. — *I.* 788.

- C₄H₆O₆** 2) 1-Weinsäure. Sm. 168–170° (*J.* 1853, 418, 423; 1866, 400; 1883, 1084; *A. ch.* [3] 28, 56; *Bl.* 41, 223; 46, 54; *B.* 14, 2789; 22, 1820; 29, 42, 1702; *Ph. Ch.* 3, 372; 8, 466). — I, 797.
3) inact. Weinsäure + H₂O (Mesoweinsäure). Sm. 140–143° (wasserfrei). Salze meist bekannt. Lit. bedeutend. — I, 801.
4) Metaweinsäure. NH₄, Ca + 4H₂O (*A.* 21, 9; *J.* 1847, 48, 508). — I, 797.
5) Traubensäure + H₂O. Sm. 203–204° (205–206° wasserfrei). Salze fast sämtlich bekannt. Lit. bedeutend. — I, 798.
- C₄H₆O₈** C 26,4 — H 3,3 — O 70,3 — M. G. 182.
1) Tetraoxyäthan-αβ-Dicarbonsäure (Dioxyweinsäure). Sm. 98° u. Zers. (NH₄) + 2H₂O, Li₂ + 2½H₂O, Na₂ + 3H₂O, K + H₂O, K₂ + H₂O, Cs, Cs₂ + 2H₂O, Rb₂ + 3H₂O, Ba, Ba₂ + H₂O (*B.* 12, 514; 22, 2016; *M.* 1, 869; *A.* 221, 247; 302, 291 Anm.; *Soc.* 67, 48; 73, 71, 472, 488). — I, 851.
- C₄H₆N** 1) Verbindung (Base aus Isonitrosomethyläthylketon) = (C₄H₆N)₂. (2HCl, PtCl₄) (*B.* 22, 559).
- C₄H₆N₂** C 58,5 — H 7,3 — N 34,2 — M. G. 82.
1) Dimethylaziäthan. Sm. oberh. 270° (*J. pr.* [2] 44, 175). — I, 1028.
2) Allylcyanamid (Sinamin). Sm. 100°. 2 + PtCl₄, + HgCl₂ (*A.* 52, 15; *J. pr.* [1] 19, 234; *M.* 2, 780; *B.* 29, 2496). — I, 1437.
3) 1-Methylpyrazol. Sd. 126–127°. (2HCl, PtCl₄) (*A.* 273, 261; *B.* 28, 715). — IV, 496.
4) 3-Methylpyrazol (identisch mit 5-Methylpyrazol) (*A.* 279, 222, 225). — IV, 505.
5) 5-Methylpyrazol. Sd. 204°₇₅₂. (2HCl, PtCl₄ + 2H₂O), Pikrat, Ag, 2 + 3HgCl₂, 2 + PtCl₄, 2 + AgNO₃ (*B.* 27, 789, 955; *A.* 279, 222, 225; *G.* 24 [1] 278; *J. pr.* [2] 52, 49; [2] 58, 330). — IV, 515.
6) 1-Methylimidazol (Oxalmethylin; Methylglyoxalin). Sm. — 6°; Sd. 197 bis 199°. (2HCl, ZnCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), HJ, + Hg(CN)₂, Pikrat (*B.* 10, 1372; 14, 422, 1846; 15, 644; 16, 285; 22, 1359; *A.* 214, 308, 320; 271, 351). — IV, 500.
7) 2-Methylimidazol (Paramethylglyoxalin; Glyoxaläthylin). Sm. 136 bis 137°; Sd. 266–268°. (2HCl, PtCl₄) (*B.* 14, 425, 644; 15, 2707; 16, 487, 541, 542; 17, 1290; *A.* 214, 297; *A. ch.* [6] 24, 534). — IV, 516.
8) 4-[oder] 5-Methylimidazol. Sd. 263°₇₆₁. (HCl, AuCl₃), HNO₃ (*B.* 26, 2204). — IV, 518.
9) Nitril d. β-Imidobuttersäure (Diacetonitril). Stabile Form Sm. 52 bis 53°; labile Form Sm. 74–76°. Na, HCl (*J. pr.* [2] 39, 320; [2] 47, 112; [2] 52, 83, 91). — I, 1454.
- C₄H₆N₂** C 34,8 — H 4,3 — N 60,8 — M. G. 138.
1) Hydrazulmin (*B.* 4, 949). — I, 1478.
- C₄H₆N₄** C 28,9 — H 3,6 — N 67,5 — M. G. 166.
1) s-Di[1,2,4-Triazolyl-5-]hydrazin (5,5'-Hydrazo-1,2,4-Triazol). 2HCl (*A.* 303, 49). — IV, 1508.
- C₄H₆Cl₂** 1) αα-Dichlor-β-Buten. Sd. 125–127° (*A.* 162, 98; *Am.* 5, 113). — I, 161.
2) αα-Dichlor-β-Methylpropen. Sd. 107–109° (*C.* 1899 [1] 606; 778).
- C₄H₆Cl₄** 1) αβγγ-Tetrachlorbutan. Sd. 85°₁₉ (*A.* 213, 372). — I, 152.
2) αβγδ-Tetrachlorbutan. Sm. 72,5–73°; Sd. 130–140°_{sm} (*A. ch.* [6] 7, 229). — I, 152.
3) αααβ-Tetrachlor-β-Methylpropan. Sm. u. Sd. bei 167° (*B.* 20, 540; *Bl.* 48, 626; *J. pr.* [2] 39, 284). — I, 152.
- C₄H₆Br₂** 1) γδ-Dibrom-α-Buten. Sd. 74–76°₂₆ (*B.* 26 [2] 314, 931).
2) αδ-Dibrom-β-Buten. Sm. 53–54°; Sd. 92–93°₁₅ (*B.* 26 [2] 315, 931).
3) isom. αδ-Dibrom-β-Buten. Sd. 70°₂₀ (*B.* 26 [2] 931).
4) βγ-Dibrom-β-Buten (Crotonylenbromid). Sd. 146–147° (148–158°) (*A.* 127, 96; 250, 227). — I, 185.
5) αα-Dibrom-β-Methylpropen? Sd. 154–155° (140–150°) (*A.* 127, 96; *Am.* 9, 89). — I, 185.
- C₄H₆Br₄** 1) ααββ-Tetrabrombutan (Äthylacetylentetrabromid) (*B.* 8, 412). — I, 175.
2) αβγδ-Tetrabrombutan. Sm. 116° (118–119°); Sd. 260–270° u. ger. Zers. (*Bl.* [3] 3, 417; *B.* 19, 570; 20, 3064; 21, 1432; 26 [2] 931; *J. r.* 24, 349; *Bl.* 48, 21, 53). — I, 175.
3) ββγγ-Tetrabrombutan. Sm. 114–115° (*A.* 127, 350; *Bl.* 20, 72; *A. ch.* [5] 11, 112, 117; [5] 17, 17; *J. pr.* [2] 49, 443; *J. r.* 25, 563). — I, 175.

- $C_4H_6Br_4$ 4) isom. $\beta\beta\gamma\gamma$ -Tetrabrombutan (Dimethylacetylentetrabromid). Sm. 230° (J. pr. [2] 42, 144, 145). — I, 175.
5) $\alpha\alpha\alpha\beta$ -Tetrabrom- β -Methylpropan. Sm. 205° u. Zers. (A. 127, 96; Am. 9, 89). — I, 175.
6) isom. Tetrabrombutan. Sm. 38–39° (37,5°) (B. 19, 572; 19, 570; 20, 3064; Bl. 48, 32). — I, 175.
- $C_4H_6J_2$ 1) $\beta\gamma$ -Dijod- β -Buten (Crotonylendijodid). Sm. 41,5°; Sd. 111°₂₂ (G. 22 [2] 89).
- C_4H_6S 1) Aethenyläther d. Merkaptoäthen (Vinylsulfid). Sd. 101°. + AgNO₃, + HgCl₂, + PtS₂ (A. 241, 92). — I, 366.
- $C_4H_6S_3$ 1) Aethenyltrisulfid = C₄H₆S₃. Sm. 224–225° (B. 19, 2182; 28 [2] 157; G. 25 [1] 81). — I, 375.
2) Propylenester d. Trithiokohlensäure (A. 126, 295). — I, 389.
- $C_4B_6Be_6$ 1) Berylliumborkohlenstoff (Bl. [3] 19, 823).
- C_4H_7N C 69,6 — H 10,1 — N 20,3 — M. G. 69.
1) γ -Methylamidopropin (Propargylmethylamin). HJ, Dioxalat (B. 22, 3038). — I, 1146.
2) β -Dihydropyrrol (Pyrrolin). Sd. 90–91°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 15, 1831; 16, 1536; 22, 2512; G. 15, 481). — IV, 47.
3) Nitril d. Buttersäure (Propylecyanid). Sd. 118,5° (A. 64, 334; J. pr. [2] 39, 233; Bl. [3] 13, 1032). — I, 1465.
4) Nitril d. Isobuttersäure (Isopropylecyanid). Sd. 107–108° (B. 5, 671; J. pr. [2] 37, 400). — I, 1465.
5) Isopropylisocyanid (Isopropylcarbylamin). Sd. 87° (A. 149, 155; A. ch. [4] 17, 249). — I, 1483.
6) Verbindung (Base). Sm. 88°; Sd. 189° (2HCl, PtCl₄) (B. 13, 1116). C 49,5 — H 7,2 — N 43,3 — M. G. 97.
- $C_4H_7N_3$ 1) 1-Aethyl-1,3,4-Triazol. Fl. HCl (B. 29, 2488). — IV, 1101.
2) Imidin d. Bernsteinsäure. HCl, HNO₂ + $\frac{1}{2}$ H₂O, Ag (B. 16, 362, 1657; 18, 2848; A. 265, 169). — I, 1165.
- $C_4H_7N_5$ C 38,4 — H 5,6 — N 56,0 — M. G. 125.
1) 4,6-Diamido-2-Methyl-1,3,5-Triazin (Acetguanamin). Sm. 265° HCl + 2H₂O, (2HCl, PtCl₄), HNO₃, H₂SO₄ + 2H₂O, + AgNO₃ (B. 7, 776, 1585). — IV, 1316.
- C_4H_7Cl 1) β -Chlor- α -Buten. Sd. 55° (B. 8, 412). — I, 161.
2) α -Chlor- β -Methylpropen (Isocrotylchlorid). Sd. 62–65° (65–68°) (J. r. 16, 493; Bl. 35, 498; B. 27, 1228). — I, 161.
3) β -[Chlormethyl]propen (Isobutenylchlorid). Sd. 72–75° (J. r. 16, 495). — I, 161.
4) Chlor-R-Tetramethylen. Sd. 85° (Soc. 65, 964).
- $C_4H_7Cl_3$ 1) $\alpha\alpha\alpha$ -Trichlor- β -Methylpropan. Fl. (Bl. 48, 626). — I, 152.
- C_4H_7Br 1) β -Brom- α -Buten. Sd. 88° (B. 24 [2] 905). — I, 185.
2) β -Brom- β -Buten. Sd. 87–88° (92–93°) (A. 135, 301; 195, 126; 250, 250; B. 29, 2906; C. 1897 [2] 260; 1899 [1] 248). — I, 185.
3) isom. β -Brom- β -Buten. Sd. 83,5–84,5° (C. 1897 [2] 260).
4) α -Brom- β -Methylpropen (Isocrotylbromid). Sd. 91° (Z. 1870, 524; A. 127, 96; 280, 261; B. 27, 1227; C. 1899 [1] 248, 773). — I, 185.
5) Brom-R-Tetramethylen. Sd. 104°₇₆₀ (Soc. 65, 961).
- $C_4H_7Br_3$ 1) $\alpha\beta\beta$ -Tribrombutan. Sd. 112–115°₄₀ (B. 24 [2] 907). — I, 174.
2) $\beta\beta\gamma$ -Tribrombutan. Sd. 204–208° (A. 250, 237). — I, 175.
3) $\alpha\alpha\beta$ -Tribrom- β -Methylpropan. Sd. 205–206° (A. 127, 96; 280, 261; Am. 9, 89; M. 10, 826; B. 27, 1227). — I, 175.
4) $\alpha\beta\gamma$ -Tribrom- β -Methylpropan? Sd. 173–183°₃₉₅ (Am. 9, 88). — I, 175.
5) Tribrombutan. Sd. 213–216° (J. pr. [2] 46, 184).
- C_4H_7J 1) Jodbuten (Crotyljodid). Sd. 131–133° (M. 1, 837). — I, 198.
2) Jod-R-Tetramethylen. Sd. 138° (Soc. 65, 964).
- C_4H_8O C 66,7 — H 11,1 — O 22,2 — M. G. 72.
1) δ -Oxy- α -Buten (Allylcarbinol). Sd. 112–114° (113,5°₁₄₅) (J. r. 24, 350; B. 27, 2436).
2) α -Oxy- β -Buten (Crotylalkohol). Sd. 117–120° (122–123°) (M. 1, 826; C. 1896 [2] 476, 576). — I, 250.
3) γ -Oxy- β -Methylpropen. Sd. 112–113,5° (J. r. 16, 499). — I, 251.
4) Oxy-R-Tetramethylen. Sd. 123° (Soc. 65, 960).

C_4H_8O

- 5) Methyläther d. γ -Oxypropen (Methylallyläther). Sd. 46° (*B.* 5, 455; 8, 1469). — I, 302.
- 6) Aethyläther d. Oxyäthen (Vinyläthyläther). Sd. 35,5° (*A.* 192, 106; *J. pr.* [2] 24, 99; *Bl.* 44, 458). — I, 301.
- 7) Butan- $\alpha\delta$ -Oxyd (Tetramethylenoxyd). Sd. 67° (*J. r.* 24, 350).
- 8) Butan- $\beta\gamma$ -Oxyd (s-Dimethyläthylenoxyd). Sd. 56—57° (*J. r.* 14, 371). — I, 309.
- 9) β -Methylpropan- $\alpha\beta$ -Oxyd (Isobutylenoxyd). Sd. 51—52° (*J. r.* 14, 368). — I, 308.
- 10) β -Ketobutan (Methyläthylketon). Sd. 80,6. + $NaHSO_3$ (*A.* 110, 18; 118, 3; 138, 336; 145, 289; 150, 121; 157, 258; 175, 377; 204, 17; 250, 234; *Z.* 1870, 104; *J. r.* 10, 219; *B.* 8, 412; 9, 1921; 15, 1874; 16, 1581; 25, 3309; *J. pr.* [2] 51, 503). — I, 995.
- 11) Butyral (Keton). Sd. 95°. + $NaHSO_3$ (*A.* 52, 298; 93, 241; *Berz. J.* 26, 798). — I, 996.
- 12) Aldehyd d. Buttersäure. Sd. 73—74°. + $NaHSO_3$ (*A.* 64, 52; 133, 184; 158, 148; 161, 186; 203, 18; 211, 355; *M.* 1, 824; 2, 676; *B.* 17, 2505; 18, 3364; 25, 3308; *C.* 1895 [1] 200). — I, 943.
- 13) Aldehyd d. Isobuttersäure. Sd. 63—64° (61°). + $NaHSO_3$ (*A.* 162, 36; 163, 286; 203, 18; 205, 2; *B.* 5, 609, 1052; 6, 1064, 1255; 10, 1902; 12, 1744; 13, 1572, 1604; *M.* 2, 614, 677; 3, 622; 4, 661; *A. ch.* [6] 2, 32; *Soe.* 45, 476; *J. r.* 16, 494). — I, 946.
- 14) Polyaldehyd d. Isobuttersäure. Fl. (*B.* 12, 1745; 13, 592), siehe auch $(C_4H_8O)_2$ u. $(C_4H_8O)_3$. — I, 947.
C 54,5 — H 9,1 — O 36,4 — M. G. 88.

 $C_4H_8O_2$

- 1) $\gamma\delta$ -Dioxy- α -Buten (Butinglykol; Erythrol). Sd. 196,5° (*B.* 5, 1059; 6, 71; *A. ch.* [6] 7, 213). — I, 268.
- 2) Aethylenäther d. $\alpha\alpha$ -Dioxyäthan. Sd. 82,5°_{765,8} (*A.* 120, 328; *A. ch.* [6] 16, 37, 67; *Bl.* [3] 21, 276). — I, 924.
- 3) Aethylenäther d. $\alpha\beta$ -Dioxyäthan (Dioxyäthylen). Sm. 9°; Sd. 102° (95°) (*A. ch.* [3] 67, 288; [3] 69, 323). — I, 305.
- 4) α -Oxy- β -Ketobutan (Aethylketol). Sd. 155—156°₇₄₁ (*A.* 288, 19).
- 5) β -Oxy- γ -Ketobutan (Dimethylketol; Methylacetylcarbinol). Sd. 141—142° (*B.* 23, 2421; *Bl.* [3] 6, 810; *J. pr.* [2] 49, 405). — I, 268.
- 6) polym. β -Oxy- γ -Ketobutan (Polydimethylketol). Sm. 98° (126—128°) (*B.* 23, 2423). — I, 268.
- 7) Propan- α -Carbonsäure (norm. Buttersäure). Sm. —2 bis +2°; Sd. 162,3° (cor.). Salze meist bekannt; Lit. bedeutend. — I, 421.
- 8) Propan- β -Carbonsäure (Isobuttersäure). Sm. —79°; Sd. 155,5°. Salze meist bekannt; Lit. bedeutend. — I, 424.
- 9) Aldehyd d. β -Oxybuttersäure (Aldol). Sd. 90—105°₃₀ (*J.* 1872, 449; 1873, 473; 1878, 612; 1881, 599; 1885, 192; *Bl.* 42, 146, 286, 1621; *Am.* 5, 190; *M.* 13, 516). — I, 963.
- 10) Aldehyd d. α -Oxyisobuttersäure. Sd. 50—55°₃₁. (Hydrat, Sm. 68 bis 76°) (*J. r.* 19, 444; *J. pr.* [2] 49, 406). — I, 964.
- 11) polym. Aldehyd d. α -Oxyisobuttersäure. Sm. 63—67°; Sd. 142—146°₃₆ (*J. r.* 19, 444). — I, 964.
- 12) Diacetaldehyd (aus Paralldol). Sd. 170—175°₁₀ (*J.* 1883, 953). — I, 916.
- 13) Methylester d. Propionsäure. Sd. 79,9° (*P.* [2] 12, 41; *A.* 210, 110; 218, 313; 223, 78; 233, 263; 234, 343; *M.* 2, 681; *B.* 12, 344; 15, 2463). — I, 420.
- 14) Aethylester d. Essigsäure. Sd. 77°. + $TiCl_4$, + 2 $TiCl_4$ (*J.* 1873, 515); 2 + $MgCl_2$ (*J.* 1866, 1301; 1885, 1159). Lit. bedeutend. — I, 407.
- 15) norm. Propylester d. Ameisensäure. Sd. 81° (*A.* 153, 262; 163, 271; 218, 319; 220, 332; 223, 75; 233, 251; 234, 343; *B.* 15, 2463; 17, 2304; *P.* [2] 12, 4). — I, 396.
- 16) Isopropylester d. Ameisensäure. Sd. 68—71°_{750,9} (*M.* 2, 685). — I, 396.
C 46,2 — H 7,7 — O 46,1 — M. G. 104.

 $C_4H_8O_3$

- 1) 3,4-Dioxytetrahydrofuran (Erythran). Sd. 154—155°₁₆ (*A. ch.* [6] 7, 224). — I, 280.
- 2) Methylenäther d. $\alpha\beta\gamma$ -Trioxypropan. Sd. 193° (197°) (*B.* 27, 1894; *A.* 289, 29; *Bl.* [3] 13, 384).
- 3) α -Oxybuttersäure. Sm. 42° (43—44°); Sd. 225° u. Zers. $Ca + 6H_2O$, Ba , $Zn + 2H_2O$, Ag (*A.* 119, 115; 120, 279; 153, 242; 176, 311; 209,

$C_4H_8O_3$

- 234; 279, 100; *B.* 14, 618; 27, 468; *J. r.* 8, 335; 9, 131; *J. pr.* [2] 32, 331; *M.* 14, 130; *Bl.* [3] 15, 474. — *I.* 560.
- 4) *d*- α -Oxybuttersäure. Brucinsalz (*C.* 1895 [1] 774; *Bl.* [3] 15, 476).
- 5) *l*- α -Oxybuttersäure. Brucinsalz (*C.* 1895 [1] 774; *Bl.* [3] 15, 476).
- 6) β -Oxybuttersäure. Fl. Na, Ca, Cu, Zn, Ag (*A.* 149, 205; 153, 237; *Z.* 1869, 325; *Fr.* 24, 153; *Bl.* 47, 545; *J. pr.* [2] 32, 331; *Il.* 18, 1; *B.* 27, 468). — *I.* 561.
- 7) γ -Oxybuttersäure. Fl. Na, K, Ca, Ba, Zn, Cu, Ag (*A.* 171, 273; 226, 327; *M.* 3, 696; *J. pr.* [2] 25, 61, 66; *J. r.* 13, 479; *Ph. Ch.* 10, 111). — *I.* 562.
- 8) α -Oxyisobuttersäure (Acetonsäure; Butyllaktinsäure). Sm. 79°; Sd. 212°; subl. bei 50°. Ca, Ba, Zn + 2H₂O, Ag. Lit. bedeutend. — *I.* 563.
- 9) α -Oxypropionmethyläthersäure. Na, Ag (*A.* 125, 53; 197, 13; *Soc.* 73, 868). — *I.* 555.
- 10) *l*- α -Oxypropionmethyläthersäure. (*Soc.* 73, 869).
- 11) β -Oxypropionmethyläthersäure. Ca (*Soc.* 59, 474). — *I.* 559.
- 12) Oxyessigäthyläthersäure. Sd. 206–207°. Ca + 2H₂O, Ba, Zn, Cu + 2H₂O (*J.* 1859, 360; 1860, 314; 1861, 445; 1873, 317; *B.* 2, 276; *A.* 129, 41; *M.* 15, 804; *Bl.* [3] 17, 358). — *I.* 549.
- 13) Methylester d. α -Oxypropionsäure. Sd. 144,8° (*A.* 197, 12, 21). — *I.* 554.
- 14) Methylester d. *d*- α -Oxypropionsäure. Sd. 143–145° (*C.* 1895 [1] 1054).
- 15) Methylester d. *l*- α -Oxypropionsäure. Sd. 105,5–106°₇₀₀ (*Soc.* 67, 916).
- 16) Methylester d. Oxyessigmethyläthersäure. Sd. 127° i. D. (134,5°) (*A.* 197, 8, 21; *B.* 17, 486). — *I.* 549.
- 17) Äthylester d. Oxyessigsäure. Sd. 160° + CaCl₂ (*J.* 1861, 446; *A.* 123, 327; 197, 6, 21; *J. pr.* [2] 7, 340; [2] 51, 357; *B.* 3, 705; 28, 3256; *Bl.* 30, 109). — *I.* 548.
- 18) Methyläthylester d. Kohlensäure. Sd. 109,2° (cor.) (104°₇₀₀) (*A.* 79, 91; 205, 245; *J. pr.* [2] 22, 354). — *I.* 542.
- 19) isom.-? Methyläthylester d. Kohlensäure. Sd. 115,5°₇₀₀ (*J. pr.* [2] 22, 355).
- 20) Monopropylester d. Kohlensäure. Sm. –56° bis –50° (*B.* 31, 3001).
- 21) Monacetat d. $\alpha\beta$ -Dioxyäthan. Sd. 182° (*A.* 109, 232; 114, 122; 173, 117; 177, 45). — *I.* 413.
- 22) Monacetat d. Dioxymethanmonomethyläther. Sd. 117–118° (*Bl.* 28, 172; *B.* 10, 492). — *I.* 412.

 $C_4H_8O_4$

- C 40,0 — H 6,7 — O 53,3 — M. G. 120.
- 1) Tetrose (*B.* 25, 2553). — *I.* 1036.
- 2) $\alpha\beta$ -Dioxybuttersäure + H₂O (β -Methylglycerinsäure). Sm. 74–75° (wasserfrei). Ca, Ba + 2H₂O, Ag (*J. pr.* [2] 25, 391; *A.* 234, 208; 268, 10). — *I.* 633.
- 3) isom. $\alpha\beta$ -Dioxybuttersäure (β -Methylisoglycerinsäure). Sm. 45°. K + H₂O, Ba + 2H₂O, Ag (*A.* 266, 376). — *I.* 633.
- 4) $\beta\gamma$ -Dioxybuttersäure (Butylglycerinsäure). Fl. Ca, Ba, Ag (*A. rh.* [5] 17, 104; *B.* 15, 2587; 27, 2438; *A.* 268, 16). — *I.* 633.
- 5) $\alpha\beta$ -Dioxyisobuttersäure (α -Methylglycerinsäure). Sm. 100°. K + 1/2 H₂O (*A.* 234, 218). — *I.* 633.
- 6) isom. Dioxybuttersäure. Fl. Ca, Zn, Ag (*J. r.* 7, 179). — *I.* 633.
- 7) Dihydrodedsäure? K (*J.* 1878, 712).
- 8) Methylester d. $\alpha\beta$ -Dioxypropionsäure. Sd. 119–120°₁ (*Soc.* 63, 513, 1415; 73, 194).
- 9) Monoformiat d. $\alpha\beta\gamma$ -Trioxypentan. Sd. 165° (i. V.) (*B.* 11, 395; *R.* 1, 186; *J. pr.* [2] 25, 144). — *I.* 397.

 $C_4H_8O_5$

- C 35,3 — H 5,9 — O 58,8 — M. G. 136.
- 1) $\alpha\beta\gamma$ -Trioxypentan- α -Carbonsäure (Erythritsäure; Erythroglucinsäure). Ca + 2H₂O, Ba + 1(2)H₂O, Pb, Ag (*A.* 134, 260; *Z.* 1866, 12 Anm.; *B.* 19, 469). — *I.* 737.
- 2) $\alpha\beta\gamma$ -Trioxypentan- β -Carbonsäure (Trioxisobuttersäure). Sm. 116°. Ca + 4H₂O, Pb + H₂O (*B.* 22, 106). — *I.* 737.
- 3) isom. Trioxypentan-?-Carbonsäure (isom. ?-Trioxybuttersäure). Ca + 2H₂O (*B.* 26, 3059).
- 4) isom. Trioxypentan-?-Carbonsäure. Fl. Ca + 4H₂O, Ba + 2H₂O (*B.* 18, 3354; *A.* 244, 292). — *I.* 737.

- $C_4H_5O_2$ 5) Chondronsäure. Ba (B. **25** [2] 473).
 6) Hydroäpfelsäure? $Na_2, Ca + 2\frac{1}{2}H_2O$ (Z. 1866, 712). — **I**, 738.
- $C_4H_5N_2$ 7) Verbindung (Säure) (J. r. **7**, 150).
 C 57,1 — H 9,5 — N 33,3 — M. G. 84.
 1) Diäthylidenhydrazin. Sd. 95—96°₇₆₀ (J. pr. [2] **58**, 325).
 2) 5-Methyl-4,5-Dihydropyrazol. Sd. 180° u. Zers. (73°₅₀). Maleïnsaures Salz (B. **27**, 956; J. pr. [2] **52**, 52; [2] **58**, 327). — **IV**, 489.
 3) 2-Methyl-4,5-Dihydroimidazol (Aethenyläthylendiamin; Lysidin). Sm. 105° (88°); Sd. 195—198°. (HCl, AuCl₃), (2HCl, PtCl₄), (HCl, 3HgCl₂). Bitartrat, Harnsaures Salz (B. **21**, 2333; **27**, 2952; **28**, 3068). — **I**, 1238.
 4) 5-Methyl-4,5-Dihydroimidazol. Fl. (HCl, AuCl₃) (B. **28**, 1179). — **IV**, 489.
 5) Nitril d. α-Amidoisobuttersäure (B. **14**, 1971; **24**, 3283). — **I**, 1466.
 6) Nitril d. Dimethylamidoessigsäure. Sd. 137—138° (A. **279**, 44).
 C 42,8 — H 7,1 — N 50,0 — M. G. 112.
- $C_4H_5N_4$ 1) Aethyldicyandiamid. Sd. über 300° + PtCl₄ (A. **90**, 96). — **I**, 1411.
 C 34,3 — H 5,7 — N 60,0 — M. G. 140.
- $C_4H_5N_6$ 1) 5-Isopropylidenhydrazido-1,2,3,4-Tetrazol. Sm. 181,5° (A. **287**, 237). — **IV**, 1329.
 C 14,3 — H 2,4 — N 83,3 — M. G. 336.
- $C_4H_5N_{10}$ 1) 5,5'-Azo-1,2,3,4-Tetrazol-1,1'-Diazoguanidin (A. **303**, 61).
- $C_4H_5Cl_2$ 1) αα-Dichlorbutan. Sd. 113—115° (B. **25**, 3308).
 2) ββ-Dichlorbutan. Sd. 95—97° (B. **8**, 412). — **I**, 151.
 3) βγ-Dichlorbutan. Sd. 112—114° (J. r. **17**, 509; J. pr. [2] **46**, 186).
 4) αα-Dichlor-β-Methylpropan (Isobutylidenchlorid). Sd. 103—105° (Bl. **35**, 498; **48**, 626; J. pr. [2] **46**, 188). — **I**, 151.
 5) Dichlorbutan (aus Trimethylcarbinol). Sd. 123° (A. **69**, 275; B. **15**, 946; Am. **19**, 249).
- $C_4H_5Br_2$ 1) αβ-Dibrombutan (α-Butylenbromid). Sd. 165,6—166° (A. **152**, 23; **161**, 199; **179**, 331; **283**, 92; B. **24** [2] 905; **26**, 1260). — **I**, 174.
 2) αγ-Dibrombutan. Sd. 174—175° (J. r. **24**, 351, 354; B. **28**, 21; Soc. **65**, 962).
 3) αδ-Dibrombutan (Tetramethylendibromid). Sd. 188—190° (J. pr. [2] **39**, 543; J. r. **24**, 355). — **I**, 174.
 4) ββ-Dibrombutan. Sd. 144—145° (A. **250**, 232). — **I**, 174.
 5) βγ-Dibrombutan (β-Butylenbromid). Sd. 158° (J. r. **10**, 219; A. **144**, 236; J. pr. [2] **46**, 181, 183; B. **25**, 3309; C. **1897** [2] 260). — **I**, 174.
 6) αβ-Dibrom-β-Methylpropan (Isobutylenbromid). Sd. 148—149°₇₆₀ (146 bis 148°; 149—152°) (A. **104**, 249; **162**, 36; **211**, 248; J. r. **10**, 214; B. **14**, 2188; **16**, 802; **25** [2] 501; **26**, 1260; J. pr. [2] **46**, 184; Am. **20**, 152). — **I**, 174.
 7) isom.-γ-Dibrombutan. Sd. 155—162° (A. **126**, 215). — **I**, 174.
- $C_4H_5J_2$ 1) αγ-Dijodbutan. Sd. 115—116° (i. V.) (Bl. **41**, 362). — **I**, 192.
- C_4H_5S 1) Methyläther d. γ-Merktopropen (Methylallylsulfid). Sd. 91—93° (B. **20**, 2925). — **I**, 367.
- $C_4H_5S_2$ 1) Aethylenäther d. αβ-Dimerkaptoäthan (Diäthylendisulfid). Sm. 111 bis 112°; Sd. 199—200°. + HgCl₂, + HgJ₂, + PtCl₄, + 4AgNO₃, + 2AuCl₃ (A. **124**, 112; **126**, 280; **128**, 220; A. Spl. **4**, 88; B. **19**, 697, 3262; **20**, 3263; Soc. **49**, 238). — **I**, 367.
 2) Aethylidenäthylendisulfid. Sd. 172—173° (B. **21**, 1475). — **I**, 239.
- $C_4H_5S_4$ 1) Diäthylentetrasulfid. Sd. 151—152° (B. **20**, 462, 2082; **21**, 1470; **23**, 1084; **25**, 1479). — **I**, 365.
 2) Diäthylidentetrasulfid (B. **20**, 464). — **I**, 940.
- $C_4H_5Se_2$ 1) Aethylendiselenid, siehe $C_4H_5Se_2$.
- $C_4H_5O_2$ 1) Digitin = $(C_4H_5O_2)_x$ (J. 1873, 816). — **III**, 581.
- C_4H_5N C 67,6 — H 12,7 — N 19,7 — M. G. 71.
 1) δ-Amido-α-Buten? Fl. (2HCl, PtCl₄) (B. **29**, 1431).
 2) α-Amido-β-Buten (α-Crotylamin). Sd. 81—85°. (2HCl, PtCl₄) (M. **12**, 416; B. **28**, 3114). — **I**, 1144.
 3) isom.-γ-Amido-γ-Buten. Sd. 75—80°. (2HCl, PtCl₄) (B. **7**, 515; **12**, 992). — **I**, 1144.
 4) γ-Methylamidopropen (Methylallylamin). Sd. 64—66°. (2HCl, PtCl₄) (B. **30**, 619).
 5) Propylimidomethan. Sd. 248—250° (B. **28** [2] 924).

- C₄H₉N** 6) **Amido-R-Tetramethylen.** Sd. 82°. HCl, (2HCl, PtCl₄) (B. 21, 2695; Soc. 65, 959). — I, 1144.
- 7) **Tetrahydropyrrol** (Pyrrolidin). Sd. 87,5—88,5° (2HCl, PtCl₄), (HCl, AuCl₃), (2HJ, CdJ₂), 3HJ + 2BiJ₃ (B. 19, 782; 20, 412, 2215; 21, 291; 24, 3234; G. 15, 483). — IV, 2.
- C₄H₉Cl** 1) **α -Chlorbutan** (Butylchlorid). Sd. 77,96° (cor.) (A. 158, 161; 161, 197; J. pr. [2] 24, 119; J. 1863, 524). — I, 151.
- 2) **β -Chlorbutan** (C. 1898 [2] 888).
- 3) **α -Chlor- β -Methylpropan** (Isobutylchlorid). Sd. 68,5° (A. 162, 17; 163, 275; B. 19, 562; J. pr. [2] 31, 493; Am. 19, 248; C. 1898 [2] 888). — I, 151.
- 4) **β -Chlor- β -Methylpropan** (tert. Butylchlorid). Sd. 51—52° (A. 144, 33; 162, 18; B. 5, 480; 15, 946; J. 1864, 497; 1882, 441; M. 9, 619; J. pr. [2] 31, 493; Bl. 28, 462; A. ch. [5] 28, 549; C. 1898 [2] 888). — I, 151.
- C₄H₉Br** 1) **α -Brombutan** (norm. Butylbromid). Sd. 99,8° (cor.) (A. 158, 161; 161, 198; B. 11, 2244). — I, 174.
- 2) **β -Brombutan**. Sd. 89—90° (Soc. 67, 265).
- 3) **α -Brom- β -Methylpropan** (Isobutylbromid). Sd. 92,3° (A. 93, 114; 162, 16, 34; B. 19, 563; J. pr. [2] 31, 498). — I, 174.
- 4) **β -Brom- β -Methylpropan** (tert. Butylbromid). Sd. 72° (B. 8, 1244; 14, 2396; J. pr. [2] 31, 499; J. 1881, 409). — I, 174.
- C₄H₉J** 1) **α -Jodbutan**. Sd. 129,8° (A. 158, 163; 161, 196; 203, 21; 243, 26; 282, 217; B. 8, 805; M. 2, 648). — I, 193.
- 2) **β -Jodbutan** (sec. Butyljodid). Sd. 117—118° (Bl. 2, 3; A. 150, 96; 152, 23; 282, 219; J. r. 18, 211; B. 28, 23; Soc. 67, 265). — I, 193.
- 3) **α -Jod- β -Methylpropan** (Isobutyljodid). Sd. 120° (cor.) (A. 93, 116; 160, 240; 163, 280; 192, 69; 203, 21; B. 19, 564; J. pr. [2] 31, 503). — I, 193.
- 4) **β -Jod- β -Methylpropan** (Trimethylcarbinoljodid). Sd. 100,3° (A. 144, 5, 22; 220, 163; 276, 136; 282, 220; Soc. 37, 236; Z. 1867, 362; A. ch. [5] 28, 546). — I, 193.
- C₄H₉F** 1) **α -Fluor- β -Methylpropan** (Isobutylfluorid). Gas, bei 16° fl. (J. 1888, 931; B. 18, 2648; Soc. 39, 489). — I, 142.
- C₄H₉O** C 64,9 — H 13,5 — O 21,6 — M. G. 74.
- 1) **α -Oxybutan** (norm. Butylalkohol). Sd. 116,8°. Lit. bedeutend. — I, 230.
- 2) **β -Oxybutan** (sec. Butylalkohol). Sd. 99°₇₃₃. Lit. bedeutend. — I, 230.
- 3) **α -Oxy- β -Methylpropan** (Isobutylalkohol). Sd. 108,4°. Na, 3 + Na, 6 + NaOH, K, Ca, Ba, 3 + CaCl₂, Al, Al₃. Lit. bedeutend. — I, 231.
- 4) **β -Oxy- β -Methylpropan** (Trimethylcarbinol). Sm. 25°; Sd. 82,9° (cor.). Lit. bedeutend. — I, 231.
- 5) **Methyläther d. α -Oxypropan** (Methylpropyläther). Sd. 38,9° (36,6 bis 37,4°₇₃₂) (A. 151, 305; 243, 2; B. 24 [2] 858; 26, 2832). — I, 297.
- 6) **Aethyläther d. Oxyäthan** (Aethyläther). Sm. —117,4°; Sd. 34,97°₇₆₂. Lit. bedeutend. — I, 293.
- 7) **Hydrat d. Aethyläthers** = C₄H₁₀O + 2H₂O (Bl. 30, 505). — I, 294.
- C₄H₁₀O₂** C 53,3 — H 11,1 — O 35,6 — M. G. 90.
- 1) **$\alpha\beta$ -Dioxybutan** (norm. Butylenglykol). Sd. 191—192°₇₄₇ (A. 179, 332; J. r. 7, 323). — I, 262.
- 2) **$\alpha\gamma$ -Dioxybutan** (β -Butylenglykol). Sd. 203,5—204° (A. 162, 310; J. 1873, 474; Bl. 41, 362; B. 28, 22). — I, 262.
- 3) **$\alpha\delta$ -Dioxybutan** (Tetramethylenglykol). Sd. 203—205°₇₅₂ (B. 9, 101). — I, 262.
- 4) **$\beta\gamma$ -Dioxybutan** (Dimethyläthylenglykol). Sd. 183—184° (J. r. 14, 372). — I, 262.
- 5) **$\alpha\beta$ -Dioxy- β -Methylpropan** (Isobutylenglykol). Sd. 176—178° (Bl. 27, 63; B. 9, 448; 16, 397; 21, 1232; Bl. 49, 976). — I, 262.
- 6) **γ -Dioxybutan** (aus Fuselölbuten). Sd. 183—184° (J. 1859, 499). — I, 262.
- 7) **Dimethyläther d. $\alpha\alpha$ -Dioxyäthan** (Dimethylacetal). Sd. 64,4° (A. 126, 62; 132, 241; 218, 44; 220, 104; 223, 74; J. 1864, 485; B. 9, 1930; 15, 1930; 19, 3004; A. ch. [3] 48, 374). — I, 921.
- 8) **Dimethyläther d. $\alpha\beta$ -Dioxyäthan**. Sd. 82—83°₇₁₃ (A. 276, 171).
- 9) **Monäthyläther d. $\alpha\alpha$ -Dioxyäthan** (Aethylidenoxyäthyläther). Sd. 80 bis 90° (50°) (B. 4, 215; 8, 132). — I, 922.
- 10) **Monäthyläther d. $\alpha\beta$ -Dioxyäthan**. Sd. 134°_{711,5} (B. 9, 745; A. ch. [3] 55, 430). — I, 305.

- $C_4H_{10}O_3$** C 45,3 — H 9,4 — O 45,3 — M. G. 106.
 1) $\alpha\beta\gamma$ -Trioxybutan (Butenylglycerin). *Sd.* 172—175°₃₇ (*M.* 1, 832). — *I*, 277.
 2) $\alpha\beta\delta$ -Trioxybutan. *Sd.* 190—191°₁₈ (*B.* 27, 2437).
 3) β -Trioxy- β -Methylpropan (Isobutenylglycerin). *Sd.* 240°₁₈ (*Bl.* 42, 261). — *I*, 278.
 4) $\alpha\alpha$ -Dimethyläther d. $\alpha\alpha\beta$ -Trioxyäthan. *Sd.* 158—159°₇₄₉ (*B.* 30, 3055).
 5) Trimethyläther d. Trioxymethan (Orthoameisensäuretrimethyläther). *Sd.* 101—102° (*B.* 12, 117). — *I*, 311.
 6) $\beta\beta$ -Dioxydiäthyläther (Diäthylenglykol). *Sd.* 250° (*Z.* 1866, 495; *A. ch.* [3] 67, 279; [3] 69, 331). — *I*, 260.
 $C_4H_{10}O_4$ C 39,3 — H 8,2 — O 52,5 — M. G. 122.
 1) $\alpha\beta\gamma\delta$ -Tetraoxybutan (Erythrit, Erythroglucin, Phycit). *Sm.* 112° (126°); *Sd.* 329—331°. Na, K. Lit. bedeutend. — *I*, 272.
 2) isom. Erythrit. *Sm.* 72° (*B.* 26 [2] 932).
 $C_4H_{10}N_2$ C 55,8 — H 11,6 — N 32,6 — M. G. 56.
 1) Hexahydro-1,4-Diazin (Piperazin; Diäthylendiamin). *Sm.* 104°; *Sd.* 145 bis 146° (140°). 2HCl + H₂O, (2HCl, PtCl₄), (2HCl, HgCl₂), (2HCl, 2AuCl₃), 2H₂SO₄, Carbonat, Pikrat, Acetat (*J.* 1853, 468; 1859, 386; *A.* 98, 297; *B.* 21, 758; 23, 326, 3299, 3720; 24, 717; 26, 100, 724; 30, 1585; *J. pr.* [2] 47, 492; [2] 53, 19). — *I*, 1154.
 2) Dimethylendimethyldiamin. (2HCl, PtCl₄) (*B.* 11, 835). — *I*, 1151.
 $C_4H_{10}N_4$ C 42,1 — H 8,8 — N 49,1 — M. G. 114.
 1) $\alpha\delta$ -Diamido- $\alpha\delta$ -Diimidobutan (Succinamidin). 2HCl (*B.* 16, 362). — *I*, 1167.
 2) $\alpha\alpha'$ -Diimidohydrazoäthan (Methylhydrazincarbimin). *Sm.* 197—198° (*J. pr.* [2] 50, 255).
 3) Dimethylbishydrazimethylen. *Sm.* 158° (*J. pr.* [2] 44, 174). — *I*, 1028; IV, 1598.
 $C_4H_{10}N_6$ C 28,2 — H 5,9 — N 65,9 — M. G. 170.
 1) $\alpha\beta$ -Di[Imidoamidomethyl]hydrazonäthan + H₂O (Glyoxalbisamidoguanidin). *Sm.* 265—266° u. Zers. 2HCl, (2HCl, PtCl₄), 2HNO₃, 2HNO₃, H₂SO₄ + 4H₂O, H₂Cr₂O₇ (*A.* 302, 284).
 $C_4H_{10}S$ 1) α -Merkaptobutan (norm. Butylmerkaptan). *Sd.* 97—98° (*A.* 171, 251; 175, 351). — *I*, 350.
 2) β -Merkaptobutan (sec. Butylmerkaptan). *Sd.* 84—85°. Hg (*B.* 7, 1287). — *I*, 350.
 3) α -Merkapto- β -Methylpropan (Isobutylmerkaptan). *Sd.* 88° (*A.* 95, 256; *B.* 15, 2882). — *I*, 350.
 4) β -Merkapto- β -Methylpropan (tert. Butylmerkaptan). *Sd.* 65—67° (*Soe.* 57, 641). — *I*, 350.
 5) Methyläther d. β -Merkaptopropan (Methylisopropylsulfid). *Sd.* 93 bis 95° (*B.* 20, 2923). — *I*, 361.
 6) Aethyläther d. Merkaptoäthan (Diäthylsulfid). *Sd.* 91,9°₇₅₄. + HgCl₂, 2 + SnCl₄, 2 + SnBr₄. Lit. bedeutend. — *I*, 357.
 $C_4H_{10}S_2$ 1) Diäthyldisulfid. *Sd.* 151° (*A.* 11,1; 32, 267; 35, 343; 61, 98; 123, 279; 223, 348; *J.* 1861, 590; *B.* 11, 2206; 15, 125, 2882). — *I*, 358.
 2) Dimethyläther d. $\alpha\beta$ -Dimerkaptoäthan (Dithioäthylenglykoldimethyläther). *Sd.* 183° (*B.* 4, 716). — *I*, 352.
 3) Monäthyläther d. $\alpha\beta$ -Dimerkaptoäthan. *Sd.* 188° (*A.* 240, 311). — *I*, 352.
 $C_4H_{10}S_4$ 1) Diäthyltetrasulfid (*J. pr.* [2] 15, 214). — *I*, 359.
 $C_4H_{10}S_5$ 1) Diäthylpentasulfid (*J. pr.* [2] 15, 216). — *I*, 359.
 $C_4H_{10}As$ 1) Arsendiäthyl. *Sd.* 185—190° (*A.* 89, 319; 92, 365, 369). — *I*, 1512.
 $C_4H_{10}Be$ 1) Berylliumäthyl. *Sd.* 185—188° (*J.* 1873, 520). — *I*, 1521.
 $C_4H_{10}Cd$ 1) Cadmiumäthyl (*J.* 1856, 553; *A.* 261, 62). — *I*, 1524.
 $C_4H_{10}Hg$ 1) Quecksilberäthyl. *Sd.* 159° (*A.* 109, 218; 112, 220; 130, 109, 125; *M.* 1, 716; *Z.* 1866, 376). — *I*, 1525.
 $C_4H_{10}Mg$ 1) Magnesiumäthyl (*A.* 109, 206; 114, 240; 261, 79; 276, 132, 137). — *I*, 1522.
 $C_4H_{10}Se$ 1) Aethylselenid. *Sd.* 108° (*A.* 152, 210; 185, 331; *B.* 26 [2] 288). — *I*, 352.
 $C_4H_{10}Se_2$ 1) Aethyldiselenid. *Sd.* 180° (*A.* 86, 35; 152, 211; 185, 332). — *I*, 352.
 $C_4H_{10}Sn$ 1) Zinndiäthyl, siehe $C_4H_{10}OSn$. — *I*, 1528.
 $C_4H_{10}Te$ 1) Aethyltellurid. *Sd.* 137—138° (*A.* 35, 111; 79, 223; 84, 69; *J.* 1861, 565; *B.* 21, 2045; 28, 1675). — *I*, 353.

- $C_4H_{10}Zn$
 $C_4H_{11}N$
- 1) Zinkdiäthyl. *Sd.* 118°. + $TiCl_4$. Lit. bedeutend. — I, 1522.
 C 65,7 — H 15,1 — N 19,2 — *M. G.* 73.
 - 1) α -Amidobutan (Butylamin). *Sd.* 75,5°₄₀. HCl , (2 HCl , $PtCl_4$), Pikrat (*A.* 158, 172; 162, 3; *B.* 10, 131, 2083; 28, 3119; 30, 504; *M.* 1, 296; *C.* 1898 [1] 702). — I, 1131.
 - 2) β -Amidobutan (sec. Butylamin). *Sd.* 63°. (2 HCl , $PtCl_4$) (*B.* 7, 512, 1289; 26, 132). — I, 1132.
 - 3) α -Amido- β -Methylpropan (Isobutylamin). *Sd.* 68–69°. HCl , (2 HCl , $PtCl_4$), Oxalat. Lit. bedeutend. — I, 1132.
 - 4) β -Amido- β -Methylpropan (tert. Butylamin). *Sd.* 45,2°. HCl , (2 HCl , $PtCl_4$), HJ , HNO_3 , H_2SO_4 (*J. r.* 11, 163; *B.* 7, 513; 26, 133; *A.* 162, 19; 192, 65; *J. pr.* [2] 46, 306; [2] 48, 362; *C.* 1898 [1] 702). — I, 1133.
 - 5) α -Methylamidopropan (Methylpropylamin). *Sd.* 62–64°. HCl , (2 HCl , $PtCl_4$), (HCl , $AuCl_3$) (*B.* 29, 2112).
 - 6) Aethylamidoäthan (Diäthylamin). *Sd.* 55,5°₅₀. Salze meist bekannt. Lit. bedeutend. — I, 1125.
 - 7) Petinin (Isobutylamin?). *Sd.* 70,5° (*A.* 70, 36; 80, 53; 109, 128). — I, 1133.
 C 47,5 — H 10,9 — N 41,6 — *M. G.* 101.
- $C_4H_{11}N_3$
 $C_4H_{11}N_5$
- 1) Tetrylintriamin. *Sd.* 150°. (6 HCl , 3 $PtCl_4$) (*A. Spl.* 3, 373). — I, 1164.
 C 37,2 — H 8,5 — N 54,3 — *M. G.* 129.
 - 1) Aethyldiguanid. HCl , 2 HCl , H_2SO_4 + $1\frac{1}{2}H_2O$, H_2SO_4 + $1\frac{1}{2}H_2O$, (Ni , H_2SO_4), (Cu , H_2SO_4 + H_2O), Pikrat, Dipikrat (*M.* 4, 396; 9, 229). — IV, 1310.
- $C_4H_{11}P$
- 1) Isobutylphosphin. *Sd.* 62° (*B.* 6, 296). — I, 1503.
 - 2) Methylisopropylphosphin. *Sd.* 78–80° (*B.* 6, 299). — I, 1503.
 - 3) Diäthylphosphin. *Sd.* 85°. + CS_2 (*B.* 4, 433). — I, 1500.
 - 4) Dimethyläthylphosphin. *Sd.* 83–85°. HCl (*Soc.* 53, 720). — I, 1502.
- $C_4H_{11}As$
 $C_4H_{11}N_7$
- 1) Arsendimethyläthyl. Fl. (*A.* 122, 219). — I, 1513.
 C 54,6 — H 13,6 — N 31,8 — *M. G.* 88.
 - 1) $\alpha\delta$ -Diamidobutan (Tetramethylendiamin, Putrescin). *Sm.* 23–24°; *Sd.* 158–160°. 2 HCl , (2 HCl , $PtCl_4$), (2 HCl , 2 $AuCl_3$ + 2 H_2O), Pikrat (*A. Spl.* 3, 372; *A.* 228, 229; *B.* 16, 1150; 18, 1925; 19, 780; 22, 1970; 31, 3183; *J. r.* 24, 347; *H.* 13, 573). — I, 1156.
 - 2) $\beta\gamma$ -Diamidobutan (Dimethyläthylendiamin). (2 HCl , 2 $AuCl_3$), Oxalat (*B.* 23, 1358). — I, 1156.
 - 3) $\alpha\beta$ -Di[Methylamido]äthan. *Sd.* 119°. 2 HCl , (2 HCl , $PtCl_4$), (2 HCl , 2 $AuCl_3$ + H_2O), Pikrat (*B.* 28, 3074).
 - 4) s-Diäthylhydrazin. *Sd.* 84–86°₇₅₀. 2 HCl (*B.* 27, 2279).
 - 5) uns-Diäthylhydrazin. *Sd.* 96–99°. (2 HCl , $PtCl_4$), Pikrat (*A.* 169, 308; *B.* 26, 310). — I, 1149.
 C 41,4 — H 10,3 — N 48,3 — *M. G.* 116.
- $C_4H_{12}N_4$
- 1) 1,4-Diamidohexahydro-1,4-Diazin (Piperazyldihydrazin). *Sm.* 100°; *Sd.* 228°. 2 HCl (*B.* 24, 3245). — I, 1167.
 - 2) Tetramethyltetrazon. *Sd.* 130°. Pikrat (*B.* 13, 2173). — I, 1149.
- $C_4H_{12}As_2$
- 1) Dimethylarsen (Kakodyl). *Sd.* 170° (*A.* 37, 1; 42, 14; 46, 1; 122, 199). — I, 1510.
- $C_4H_{12}Pb$
 $C_4H_{12}Sb$
 $C_4H_{12}Si$
 $C_4H_{12}Sn$
 $C_4H_{13}N_5$
- 1) Bleitetramethyl. *Sd.* 110° (*A.* 122, 68; *J.* 1863, 476). — I, 1530.
 - 1) Antimontetramethyl. *Sd.* 86–96° (*J.* 1860, 374). — I, 1515.
 - 1) Siliciumtetramethyl. *Sd.* 30–31° (*A.* 136, 203). — I, 1518.
 - 1) Zinntetramethyl. *Sd.* 78° (*A. Spl.* 8, 77; *A.* 114, 369). — I, 1527.
 C 46,6 — H 12,6 — N 40,8 — *M. G.* 103.
 - 1) s-Diamidodiäthylamin (Diäthylentriamin). *Sd.* 208°. (6 HCl , 2 $PtCl_4$) (*J.* 1861, 514). — I, 1161.
- C_4OCl_6
- 1) Trichloräthenyläther d. Trichloräthen (Perchlorvinyläther). *Sd.* 210° (*A. ch.* [3] 16, 19). — I, 301.
 - 2) α -Chlorid d. Dichlormaleinsäure. *Sd.* 194–214° (*J. pr.* [2] 31, 2, 33). — I, 704.
 - 3) β -Chlorid d. Dichlormaleinsäure. *Sm.* 41°; *Sd.* 209° (*J. pr.* [2] 31, 7, 33). — I, 704.
- C_4OCl_{10}
- 1) Dekachlordiäthyläther. *Sm.* 69° (*A.* 34, 28; *J.* 1855, 606; *A. ch.* [3] 16, 4). — I, 296.
- C_4OBr_4
- 1) Tetrabromfuran. *Sm.* 64–65° (*B.* 16, 1132; 18, 450; *A.* 232, 87; *Am.* 19, 668). — III, 691.

- C_6OBr_8 1) Hexabrom- β -Dihydrofuran. Sm. 122—123° (B. 18, 450). — III, 691.
 C_6OBr_{10} 1) Dekabromäthyläther. Sd. 240—280° (B. 10, 1671). — I, 297.
 $C_6O_2Cl_6$ 1) Pentachloräthylester d. Trichloressigsäure. Sd. 245° u. Zers. (A. ch. [3] 10, 200; [3] 16, 57; [3] 17, 304; B. 16, 57; 17, 304). — I, 471.
 $C_6O_2Br_4$ 1) Dibromid d. $\alpha\beta$ -Dibromäthen- $\alpha\beta$ -Dicarbonsäure. Sm. 58—59° (Am. 16, 207; 19, 669).
 $C_6O_2Si_4$ 1) Siliciumkohlenstoffverbindung (B. 15, 1750).
 $C_6O_2Cl_4$ 1) Anhydrid d. Dichlormaleinsäure. Sm. 119—120° (B. 16, 2396; A. 267, 20). — I, 703.
 $C_6O_2Cl_6$ 1) Anhydrid d. Trichloressigsäure. Sd. 222—224° (B. 10, 698; 14, 590; B. 30, 505; J. 1883, 1032). — I, 472.
 $C_6O_2Br_4$ 1) Anhydrid d. Dibrommaleinsäure. Sm. 117—118° (114—115°) (B. 13, 736; 24, 1347; Am. 19, 670). — I, 705.
 $C_6O_2Cl_6$ 1) Hexachlordimethylester d. Oxalsäure (A. 64, 313). — I, 646.
 C_6O_2Ni 1) Kohlenoxydnickel. Sd. 43°₇₅₁ (Soc. 57, 751; Bl. [3] 7, 431; [3] 19, 442; Ph. Ch. 8, 151; B. 28, 2512). — I, 545.
 C_6NCl_5 1) Pentachlorpyrrol. Sd. 90,5°₁₆ (A. 295, 82). — IV, 65.
 C_6NCl_7 1) 2,2,3,3,4,4-Hexachlor-2,3-Dihydroisopyrrol? (Perchlorpyrrolchlorid). Sm. 70—73°; Sd. 261°₇₅₄ (B. 17, 554; A. 295, 86). — I, 1390.
 $C_6N_2Cl_4$ 1) 2,4,5,6-Tetrachlor-1,3-Diazin. Sm. 67—68° (B. 18, 3445). — IV, 817.
 $C_6N_4Hg_4$ 1) Verbindung (aus d. Oxymercavid d. Aethan) (B. 31, 1908).
 $C_6Cl_{10}S$ 1) Dekachlordiäthylsulfid? (A. 92, 360).
 C_6Cl_8S 1) Tetrachlorthiophen. Sm. 36° (B. 17, 795). — III, 739.
 C_6Cl_6S 1) Oktochlortetrahydrothiophen. Sm. 215° (J. pr. [2] 33, 150). — III, 739.
 $C_6Br_4J_2$ 1) Verbindung (aus Dijodäthylen). Sm. bei 100° (A. 135, 260).
 C_6Br_8S 1) Tetrabromthiophen. Sm. 114°; Sd. 326° (B. 16, 2172; 27, 2838). — III, 740.
 C_6SSi_4 1) Siliciumkohlenstoffverbindung (B. 15, 1750).

C₄-Gruppe mit drei Elementen.

- C_4HOBr_3 1) Tribromfuran. Sd. 96—98°₂₀ (A. 232, 72). — III, 691.
 $C_4HO_2Cl_4$ 1) Chlorid d. Chlorfumarsäure. Sd. 184,5—187,5° (Soc. 53, 696). — I, 700.
 $C_4HO_2Br_3$ 2) Chlorid d. Mucochlorsäure. Sd. 100—101°₁₅ (Am. 19, 641).
 1) Mucobromsäurebromid. Sm. 55—56° (B. 11, 1673; 13, 737; Am. 3, 45). — I, 615.
 2) Bromid d. Brommaleinsäure. Sm. 55—56°; Sd. 124—125°₁₇ (A. 232, 80; Am. 16, 205, 278). — III, 704.
 C_4HO_2Cl 1) Anhydrid d. Chlormaleinsäure. Sm. 34,5°; Sd. 196,8° (194°) (Soc. 53, 703; A. 280, 224; J. pr. [2] 52, 331; Bl. [3] 13, 847). — I, 703.
 C_4HO_2Br 1) Anhydrid d. Brommaleinsäure. Sd. 215° (A. Spl. 1, 368; 2, 88; B. 10, 1884, 1885). — I, 705.
 $C_4HO_2Cl_3$ 1) Pentachlormonoäthylester d. Oxalsäure. NH₄, Na (A. 37, 73). — I, 646.
 C_4HNCl_4 1) 2,3,4,5-Tetrachlorpyrrol. Sm. 110° u. Zers. (B. 16, 2390, 2398; 17, 555, 1743; A. 295, 84). — IV, 65.
 C_4HNJ_4 1) 2,3,4,5-Tetraiodpyrrol (Jodol). Zers. bei 140—150° (B. 15, 2583; 18, 1766; 19, 3027; G. 16, 544). — IV, 65.
 C_4HCl_3S 1) Trichlorthiophen. Sd. 206—207° (B. 19, 650). — III, 739.
 C_4HBr_3S 1) Tribromthiophen. Sm. 29°; Sd. 259—260° (B. 18, 1773; 27, 2837). — III, 740.
 $C_4H_2OCl_4$ 1) Verbindung (aus Dichloressigsäurealdehyd). Sd. 196° (Z. 1869, 394). — I, 928.
 $C_4H_2OCl_6$ 1) Oktochloräthyläther. subl. (B. 8, 1017). — I, 296.
 $C_4H_2OBr_4$ 1) 2,5-Dibromfuran. Sm. 9—10°; Sd. 164—165°₆₄ (B. 18, 448; A. ch. [6] 7, 222). — III, 690.
 2) 3,4-Dibromfuran. Sd. 165—167° (G. 15, 115). — III, 691.
 3) isom. Dibromfuran. a) Sd. 57—62°₂₀. b) Sd. 62—69°₂₀ (A. 232, 70). — III, 691.

- $C_4H_5OBr_6$ 1) $\alpha\alpha\alpha\delta\delta\delta$ -Hexabrom- β -Ketobutan (Hexabrommethyläthylketon). Sm. 89 bis 90° (B. 11, 1712). — I, 995.
2) Hexabromtetrahydrofuran (Dibromfurantribromid). Sm. 110—111° (B. 16, 1132; 18, 449). — III, 691.
3) isom. Hexabromtetrahydrofuran. Sm. 55° (B. 18, 449). — III, 691.
- $C_4H_5OBr_5$ 1) Oktobromäthyläther. Sd. $132-135^\circ_{430-470}$ (B. 10, 1668). — I, 296.
 $C_4H_5O_2N_4$ C 34,8 — H 1,4 — O 23,2 — N 40,6 — M. G. 138.
- $C_4H_5O_2N_6$ 1) Pyrazolonopyrazolon. Zers. bei $125-126^\circ$ (J. pr. [2] 51, 63). — IV, 535.
C 28,9 — H 1,2 — O 19,3 — N 50,6 — M. G. 166.
- $C_4H_5O_2Cl_2$ 1) Asid d. Fumarsäure (J. pr. [2] 52, 453).
2) $\alpha\gamma$ -Lakton d. $\alpha\beta$ -Dichlor- γ -Oxypropen- α -Carbonsäure. Sm. $50-51^\circ$; Sd. $114-115^\circ_{18}$ (Am. 16, 286).
3) Chlorid d. Fumarsäure. Sd. 160° (A. 112, 26; A. Spl. 2, 86; B. 14, 2548; 18, 1947; Soc. 53, 575). — I, 699.
4) Chlorid d. Maleinsäure. Sd. $70-71^\circ_{11}$. Lit. siehe $C_4H_5O_2Cl_2$ Fumarsäurechlorid. — I, 702.
- $C_4H_5O_2Cl_4$ 1) $\alpha\alpha\delta\delta$ -Tetrachlor- $\beta\gamma$ -Diketobutan (s-Tetrachlordiacetyl). Sm. $83-84^\circ$; Sd. $204-206^\circ_{713}$ u. ger. Zers. (A. 249, 93; 254, 87). — I, 1015.
2) Chlorid d. $\alpha\beta$ -Dichlorbernsteinsäure. Sd. $105-106^\circ_{45}$ (J. pr. [2] 46, 394).
- $C_4H_5O_2Cl_6$ 1) $\alpha\beta\beta$ -Trichloräthylester d. Trichloressigsäure. Sd. $226-228^\circ$ (Bl. 48, 715). — I, 471.
2) $\beta\beta\beta$ -Trichloräthylester d. Trichloressigsäure. Sm. $24-26^\circ$; Sd. 236°_{67} u. Zers. (Bl. 48, 710). — I, 471.
- $C_4H_5O_2Br_2$ 1) $\alpha\gamma$ -Lakton d. $\alpha\beta$ -Dioxy- γ -Oxypropen- α -Carbonsäure. Sm. $90-91^\circ$ (88°). Sd. 145°_{18} (Am. 16, 200; A. 232, 89; B. 12, 1203). — I, 615.
2) Verbindung (aus 2,5-Dibromfuran) (B. 18, 448). — III, 690.
- $C_4H_5O_2Br_4$ 1) $\alpha\alpha\delta\delta$ -Tetrabrom- $\beta\gamma$ -Diketobutan (s-Tetrabromdiacetyl). Sm. $95-96^\circ$ (B. 23, 35). — I, 1016.
2) $\alpha\beta\gamma\gamma$ -Tetrabrompropen- α -Carbonsäure (Tetrabromcrotonsäure). Sm. 146° (B. 28, 1885).
- $C_4H_5O_2Br_6$ 1) Pentabromäthylester d. Bromessigsäure. Sd. $195-198^\circ$ (B. 11, 1923). — I, 926.
C 31,2 — H 1,3 — O 31,2 — N 36,3 — M. G. 154.
- $C_4H_5O_2N_4$ 1) Cyanmethazonsäure. Sd. $160-162^\circ_{11}$ (B. 29, 2418). — I, 1456.
- $C_4H_5O_2Cl_2$ 1) Monaldehyd d. Dichlormaleinsäure (Mucochlorsäure). Sm. 125° (B. 12, 655; A. Spl. 3, 280; Am. 3, 166; 9, 160). — I, 615.
2) Anhydrid d. $\alpha\beta$ -Dichlorallobernsteinsäure. Sm. 95° (J. pr. [2] 46, 393; A. 280, 217).
- $C_4H_5O_2Cl_4$ 1) Anhydrid d. Dichloressigsäure. Sd. $214-216^\circ$ u. Zers. (130°_{110}) (J. 1883, 1032). — I, 470.
- $C_4H_5O_2Br_2$ 1) Dibromtetronsäure. Fl. (A. 291, 237).
2) Anhydrid d. Isodibrombernsteinsäure. Sm. 32° (B. 13, 1670; A. 280, 207; J. pr. [2] 52, 292). — I, 660.
3) Monaldehyd d. Dibrommaleinsäure (Mucobromsäure). Sm. 122° (120°). Ba, Ag (A. Spl. 3, 278; Am. 3, 42, 105; A. 165, 293; B. 11, 289, 1671; 13, 734; 28, 1886). — I, 615.
C 33,8 — H 1,4 — O 45,0 — N 16,9 — M. G. 142.
- $C_4H_5O_2N_6$ 1) 2,4,5,6-Tetraketohexahydro-1,3-Diazin + $4H_2O$ (Mesoxalylharnstoff; Alloxan). Zers. bei 170° . + HgO + $7H_2O$, Ag_2 , + NH_4HSO_3 , + $NaHSO_3$, + $1\frac{1}{2}H_2O$, + $KHSO_3$, + H_2O (A. 26, 256; 38, 357; 103, 210; 108, 41; 121, 81; 147, 367; 215, 310; 248, 151; J. 1857, 364; 1858, 308; 1859, 392; 1867, 816; J. pr. [2] 32, 280; A. ch. [5] 2, 372; [6] 28, 300; G. 17, 255, 415; B. 6, 1014). — I, 1398.
- $C_4H_5O_2Cl_2$ 1) Dichlormaleinsäure. Sm. $117-118^\circ$. Ba + $2\frac{1}{2}H_2O$, Ag_2 (B. 16, 2395; 17, 1744; 25, 2230; 26, 510; J. pr. [2] 31, 3, 27; A. 267, 20; 286, 50). — I, 703.
2) Gem. Anhydrid d. Dioxyessigsäure u. Dichloressigsäure. Fl. (B. 14, 586). — I, 631.
- $C_4H_5O_2Cl_4$ 1) Tetrachlordimethylester d. Oxalsäure. Fl. (A. 32, 49). — I, 646.
 $C_4H_5O_2Br_2$ 1) Dibromfumarsäure. Sm. $219-220^\circ$ u. Zers. Ba, Pb, Ag_2 + $\frac{1}{2}H_2O$ (B. 12, 2213; J. pr. [2] 46, 215; A. 246, 59). — I, 700.
2) Dibrommaleinsäure. Sm. $123,3^\circ$. Ba + $2H_2O$, Pb + H_2O , Ag_2 (A. 130, 2; 165, 294; 232, 90; 246, 60, 85; B. 13, 734; 17, 558; 18, 1765;

[2] 46, 215; *Am.* 12, 326; 19, 670; *Bl.* 22, 443).

olid?) (*J.* 1877, 165).

Sm. 192° u. Zers. $\text{Ba} + 3\text{H}_2\text{O}$, Ag , (*B.* 24, 4118).

onsäure. Ag , (*B.* 21, 349). — I, 900.

O 50,6 — N 17,7 — M. G. 158.

2, 5-Diketo-2,5-Dihydropyrrol (Nitrooxypyrrolechinon).

2100). — I, 1390.

ol-3,4-Dicarbonsäure (Furazandicarbonsäure). Sm. 178°

(*B.* 28, 72). — IV, 538.

lorthiophen. Sd. 170° (*B.* 17, 795). — III, 732.

lordiäthylsulfid. Sd. $217-222^{\circ}$ (*A.* 92, 360). — I, 357.

Dibromthiophen (*B.* 16, 1472; 18, 1489; 27, 2835). — III, 740.

thiophen. Sm. $40,5^{\circ}$ (*B.* 17, 1558; *A.* 267, 180). — III, 740.

rid d. Propin- α -Carbonsäure (Ch. d. Tetrolsäure). Fl. (*J. r.* 12,

— I, 531.

lorid d. Oxytetrinsäure (*A. ch.* [5] 20, 477).

3-Bromfuran. Sd. 103° (*G.* 17, 43). — III, 690.

C 49,5 — H 3,1 — O 33,0 — N 14,4 — M. G. 97.

1) Säure (aus Citrazinsäure) (*Soc.* 69, 1451).

2) Imid d. Fumarsäure? (*A.* 75, 294, 295). — I, 1389.

C 38,4 — H 2,4 — O 25,6 — N 33,6 — M. G. 125.

1) Xanthinin. + Ag_2O (*A.* 132, 300; *Bl.* 31, 536). — I, 1376.

C 31,4 — H 1,9 — O 20,9 — N 45,8 — M. G. 153.

1) Stryphninsäure. $\text{Na} + \text{H}_2\text{O}$, $\text{K} + 1\frac{1}{2}\text{H}_2\text{O}$, $\text{Mg} + 6\text{H}_2\text{O}$, $\text{Ca} + 2\text{H}_2\text{O}$,
 $\text{Sr} + 6\text{H}_2\text{O}$, $\text{Ba} + \text{H}_2\text{O}$, Pb , $\text{Pb} + 3\text{H}_2\text{O}$ (*B.* 2, 341). — I, 1340.

2) Azulmoxin (*B.* 4, 949). — I, 1478.

C₄H₃O₂Cl 1) $\alpha\gamma$ -Lakton d. α -Chlor- γ -Oxypropen- α -Carbonsäure. Sm. $52-53^{\circ}$
 (*Am.* 16, 290).

2) $\alpha\gamma$ -Lakton d. β -Chlor- γ -Oxypropen- α -Carbonsäure. Sm. $25-26^{\circ}$;
 Sd. $124-125^{\circ}_{18}$ (*Am.* 16, 288).

C₄H₃O₂Cl₂ 1) Chlorid d. d-Chlorbernsteinsäure. Sd. $91-93^{\circ}_{11}$ (*B.* 28, 1289).

C₄H₃O₂Cl₃ 1) $\beta\beta$ -Dichloräthylester d. Trichloressigsäure. Sd. 230°_{160} (*Bl.* 48, 709).
 — I, 471.

2) $\beta\beta\beta$ -Trichloräthylester d. Dichloressigsäure. Sd. $230-231^{\circ}_{167}$ (*Bl.* 48,
710). — I, 462.

C₄H₃O₂Br 1) $\alpha\gamma$ -Lakton d. α -Brom- γ -Oxypropen- α -Carbonsäure. Sm. 77° (*Am.*
16, 279; *A.* 232, 71). — III, 691.

2) $\alpha\gamma$ -Lakton d. β -Brom- γ -Oxypropen- α -Carbonsäure. Sm. 58° ; Sd.
 140°_{18} (*Am.* 16, 210).

3) Verbindung (aus Brenzschleimsäure). Sm. 84° (*A.* 165, 292). — I, 968;
III, 691.

C₄H₃O₂Br₃ 1) $\alpha\beta\gamma$ -Tribrompropen- α -Carbonsäure (Tribrom- α -Crotonsäure). Sm. 131,5
 bis 132° . Ag (*A.* 268, 107; *B.* 28, 1884). — I, 509.

2) β -Tribrompropen- β -Carbonsäure (Tribrommethakrylsäure) (*A. Spl.* 2,
353). — I, 512.

3) Lakton d. $\alpha\beta\beta$ -Tribrom- γ -Oxybuttersäure. Sm. $63-64^{\circ}$ (*Am.* 16, 212).

C₄H₃O₂Br₄ 1) $\alpha\alpha\beta\beta$ -Tetrabromäthylester d. Bromessigsäure. Sd. $175-177^{\circ}$ (*B.* 11,
1921). — I, 926.

2) Tribromäthylester d. Dibromessigsäure (*B.* 7, 506).

C₄H₃O₂Cl 1) Anhydrid d. i-Chlorbernsteinsäure. Sm. $40-41^{\circ}$; Sd. $125-126^{\circ}_{12}$
 (*B.* 15, 642, 1073; *A.* 254, 158). — I, 658.

2) Anhydrid d. d-Chlorbernsteinsäure. Sm. 80° ; Sd. 138°_{20} (*B.* 28,
1289; *C.* 1898 [2] 917).

3) isom. Anhydrid d. d-Chlorbernsteinsäure. Fl. (*C.* 1898 [2] 917).

C₄H₃O₂Cl₃ 1) Gem. Anhydrid d. Essigsäure u. Trichloressigsäure. Sd. 182° u.
 Zers. (*J.* 1883, 1033). — I, 472.

2) Trichloräthylidenester d. Oxyessigsäure. Sm. $41-42^{\circ}$ (*A.* 193, 36).
 — I, 933.

C₄H₃O₂Br 1) Bromtetronsäure. Sm. 183° u. Zers. Ag (*A.* 291, 231, 238).

- $C_4H_3O_3Br$ 2) Säure + H_2O (aus Pyromekonsäure). Sm. 109° (J. pr. [2] 23, 441). — I, 616.
3) Anhydrid d. Brombernsteinsäure. Sm. $30-31^\circ$; Sd. 137°_{11} (B. 15, 643; A. 254, 164). — I, 658.
- $C_4H_3O_4N$ C 37,2 — H 2,3 — O 49,6 — N 10,9 — M. G. 129.
1) Oximidotetroneinsäure. Sm. 136° u. Zers. (A. 291, 244).
2) Anhydrid d. Oximidobernsteinsäure. Sm. 105° u. Zers. (B. 24, 1211). — I, 661.
- $C_4H_3O_4N_2$ C 30,6 — H 1,9 — O 40,8 — N 26,7 — M. G. 157.
1) 2-Dinitropyrrol. Sm. 152° . Ba (B. 18, 1461; 19, 1080). — IV, 65.
2) 2-Dinitropyrrol. Sm. 173° u. Zers. (B. 19, 1081). — IV, 65.
3) 2,5-Diketo-4-Nitromethyl-1,5-Dihydroisimidazol (Nitropyruvinureid). Sm. oberhalb 200° u. Zers. Pb, Ag₂ (A. ch. [5] 11, 378). — I, 1345.
4) 5-Nitro-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin (Nitrouracil). K + H_2O , Ca + $6H_2O$, Ba + $5H_2O$, Zn + $3\frac{1}{2}H_2O$, Cu (A. 229, 35; 236, 50; 240, 11). — I, 1346.
5) 5-Oximido-2,4,6-Triketohexahydro-1,3-Diazin + H_2O (Nitrosobarbitursäure; Violursäure). NH_4 , K + $2H_2O$, Mg + $6H_2O$, Ba + $4H_2O$, Pb + $4H_2O$, Ag (A. 127, 200; 130, 140; 131, 292; B. 15, 2849; 16, 1133; G. 17, 258, 259). — I, 1374.
6) 4-Oximido-5-Keto-4,5-Dihydropyrazol-3-Carbonsäure. Sm. 215 bis 219° . Ag₂ (J. pr. [2] 51, 50). — IV, 535.
7) 1,2,3-Triazol-4,5-Dicarbonsäure + $2H_2O$. Sm. 200° u. Zers. Na + $2H_2O$, K + H_2O , Ba + H_2O (B. 26, 546, 2737; A. 291, 341; Am. 20, 390). — IV, 1116.
8) Allantoxansäure. NH_4 , $(NH_4)_2$, K, K₂ + H_2O , Ba + $6(2)H_2O$, Pb, Pb + $1\frac{1}{2}H_2O$, Ag, Ag₂ (A. 167, 39; B. 8, 1292; 18, 982; J. r. 11, 19). — I, 1359.
- $C_4H_3O_4Cl$ 1) Chlorfumarsäure. Sm. 191° . NH_4 , K, Ba + $3H_2O$, Ag₂ (A. 115, 106; 129, 373; 276, 223; J. pr. [2] 31, 28; [2] 46, 393; [2] 52, 307, 321; B. 26, 210; Soc. 53, 695). — I, 699.
2) isom. 2-Chlorfumarsäure. Sm. 178° ; Sd. 190° . K, Pb + $2H_2O$, Ag₂ (B. 15, 2695). — I, 702.
3) Chlormaleinsäure. Sm. $114-115^\circ$ ($106-108^\circ$). Na₂ + $3H_2O$, K, Ca + $4H_2O$, Ba + $2H_2O$, Sr + $4\frac{1}{2}H_2O$, Pb, Ag₂ (Soc. 53, 706, 707; B. 26, 507; 30, 2884; A. 280, 227; J. pr. [2] 52, 307, 331; Am. 19, 666). — I, 702.
4) isom. Chlormaleinsäure. Sm. $171-172^\circ$. K, Ba + $2\frac{1}{2}H_2O$, Pb (A. 142, 139; 155, 217; 223, 183; B. 26, 509). — I, 703.
5) Mucocoxylchorsäure. Sm. $114-115^\circ$. K₂, Ba + $2H_2O$, Ag₂ (Am. 9, 160). — I, 706.
- $C_4H_3O_4Cl_3$ 1) Trichlorbernsteinsäure. Anilinsalz (A. 280, 230).
 $C_4H_3O_4Cl_2$ 1) Trichlormethyldichloroformiat? Sd. $108-109^\circ$ (J. pr. [2] 36, 104, 470). — I, 466.
- $C_4H_3O_4Br$ 1) Bromfumarsäure. Sm. $177-178^\circ$ ($185-186^\circ$). Ba + $3\frac{1}{2}H_2O$, Pb + $2H_2O$, Ag₂ (A. 130, 1; 195, 63; 232, 64; 246, 56; 292, 305; 294, 202; A. Spl. 2, 91; B. 10, 1886; 12, 345; 15, 2697; 21, 267; J. pr. [2] 46, 215; [2] 52, 301, 309). — I, 700.
2) Brommaleinsäure. Sm. $136-138^\circ$ (128°). Na + H_2O , Ca + $2H_2O$, Ba + $2\frac{1}{2}H_2O$, Pb + H_2O , Ag₂ (A. 130, 1; 131, 87; 149, 264; 195, 62; 227, 234; 246, 58; 292, 299; 300, 37, 40; A. Spl. 1, 367; Ph. Ch. 3, 381; Am. 10, 421; 19, 653; B. 10, 1884; 17, 1761; M. 9, 446; Bl. 19, 482; J. pr. [2] 46, 216; [2] 52, 296, 309). — I, 704.
- $C_4H_3O_4Br$ 1) Mucocoxylbromsäure. Sm. $111-112^\circ$. K₂ + H_2O , Ba + $2H_2O$, Ag₂ (Am. 9, 148). — I, 706.
- $C_4H_3O_4Br_3$ 1) $\alpha\alpha\beta$ -Tribrombernsteinsäure. Sm. $136-137^\circ$ (B. 10, 1886; A. 195, 70). — I, 660.
2) Tribrombernsteinsäure (aus Bernsteinsäure) (Bl. 21, 404; A. 195, 76).
- $C_4H_3O_4J$ 1) Jodmaleinsäure? Sm. $182-184^\circ$ u. Zers. K, Pb + $2H_2O$, Ag₂ (B. 15, 2697). — I, 705.
- $C_4H_3O_5N_5$ C 27,7 — H 1,7 — O 46,2 — N 24,3 — M. G. 173.
1) 5-Nitro-2,4,6-Triketohexahydro-1,3-Diazin (Nitrobarbitursäure; Dilitursäure) + $3H_2O$. NH_4 , Na + $2H_2O$, K, K₂, Ca + $4H_2O$, Ba + H_2O .

$\text{Fe} + 8\text{H}_2\text{O}$, $\text{Fe} + 9\text{H}_2\text{O}$, $\text{Cu} + 6\text{H}_2\text{O}$, $\text{Ag} + \text{H}_2\text{O}$, Ag_3 (B. 16, 1134; A. 56, 24; 127, 211; 130, 140; B. 16, 168). — I, 1373.

$\text{C}_4\text{H}_5\text{NS}$
 $\text{C}_4\text{H}_5\text{N}_2\text{Br}_3$

- 1) γ -Rhodanpropin (Propargylrhodanid). Fl. (B. 6, 729). — I, 1279.
- 1) 2,4,5-Tribrom-1-Methylimidazol. Sm. 88–89° (B. 10, 1372; 16, 537). — IV, 501.
- 2) *p*-Tribrom-2-Methylimidazol (Paramethyltribromglyoxalin). Sm. 258° (B. 15, 2707). — IV, 516.

$\text{C}_4\text{H}_5\text{N}_3\text{S}$
 $\text{C}_4\text{H}_5\text{Cl}_8$
 $\text{C}_4\text{H}_5\text{Br}_8$
 $\text{C}_4\text{H}_5\text{J}_8$
 $\text{C}_4\text{H}_5\text{OCl}_2$

- 1) Thiazoltriazol. $\text{HCl} + 2\text{H}_2\text{O}$, $\text{HBr} + 2\text{H}_2\text{O}$ (A. 265, 123). — IV, 504.
- 1) 2[2]-Chlorthiophen. Sd. 130° (B. 17, 794; 26, 2947). — III, 739.
- 1) 2-Bromthiophen. Sd. 149–151° (B. 16, 1472; 27, 2835). — III, 740.
- 1) 2-Jodthiophen. Sd. 182° (B. 17, 1559). — III, 740.
- 1) Aldehyd d. $\alpha\gamma$ -Dichlorpropen- α -Carbonsäure (Aldehyd d. $\alpha\gamma$ -Dichlorcrotonsäure). Sd. 86–87°. + $\text{NaHSO}_3 + 3(4)\text{H}_2\text{O}$ (M. 4, 540). — I, 960.
- 2) Chlorid d. α -Chlorpropen- α -Carbonsäure (Ch. d. α -Chlorcrotonsäure). Sd. 142° (A. 164, 102). — I, 407.
- 3) Chlorid d. β -Chlorpropen- α -Carbonsäure (Ch. d. β -Chlorcrotonsäure). Sm. 94° (B. 29, 1665).
- 4) Chlorid d. isom. β -Chlorpropen- α -Carbonsäure (Ch. d. Chlorisocrotonsäure). Fl. (B. 29, 1665).
- 5) Verbindung (aus Tetrinsäure). Sd. 172–174° (A. ch. [5] 20, 462; Bl. 33, 524; B. 16, 486). — I, 617.

$\text{C}_4\text{H}_5\text{OCl}_2$

- 1) Chlorid d. $\alpha\alpha\beta$ -Trichlorbuttersäure. Sd. 162–166° (B. 3, 787). — I, 475.
- 2) Verbindung (aus Tetrinsäure). Sm. 49° (A. ch. [5] 20, 463; Bl. 33, 524). — I, 617.

$\text{C}_4\text{H}_5\text{OCl}_2$

- 1) $\alpha\beta\beta$ -Trichloräthyläther d. $\alpha\beta\beta$ -Trichlor- α -Oxyäthan (Hexachloräthyläther). Sd. 250° (Z. 1869, 394). — I, 296.

$\text{C}_4\text{H}_5\text{OS}$
 $\text{C}_4\text{H}_5\text{O}_2\text{N}_2$

- 1) ?-Nitro-?-Oxythiophen. Sm. 115–116° (B. 18, 2319). — III, 753.
C 42,9 — H 3,5 — O 28,6 — N 25,0 — M. G. 112.
- 1) 2,5-Diketo-4-Methyl-1,5-Dihydroisimidazol (Pyruvinureid) (A. ch. [5] 11, 377). — I, 1345.
- 2) 3,6-Diketohehexahydro-1,2-Diazin (Hydrazid d. Maleinsäure). Sm. noch nicht bei 250° (J. pr. [2] 51, 391).
- 3) Pyrazol-3-Carbonsäure. Sm. 210–214° (208–210°) u. Zers. (A. 273, 237; 279, 231). — IV, 534.
- 4) Pyrazol-4-Carbonsäure. Sm. 275° u. Zers. (A. 273, 253; 279, 232). — IV, 534.
- 5) Pyrazol-5-Carbonsäure. Sm. 215–216°. Ag (B. 27, 956; J. pr. [2] 52, 46). — IV, 534.
- 6) Aldehyd d. 5-Keto-4,5-Dihydropyrazol-3-Carbonsäure. Fl. (J. pr. [2] 51, 58).
- 7) Nitril d. *i*- $\alpha\beta$ -Dioxybernsteinsäure (N. d. Mesoweinsäure). Sm. 131° u. Zers. (M. 15, 190, 473).
- 8) Amidolisoimid d. Maleinsäure. Sm. 111°. Cu, Ag (J. pr. [2] 51, 389).
- 9) Acetat d. Oximidoessigsäurenitrils. Sm. 46° (B. 25, 912). — I, 1456.
C 34,3 — H 2,8 — O 22,9 — N 40,0 — M. G. 140.

$\text{C}_4\text{H}_5\text{O}_2\text{N}_2$

- 1) Mykomelinsäure + $1\frac{1}{2}\text{H}_2\text{O}$. Ag (A. 26, 314; 103, 118, 215; B. 4, 951). — I, 1340.

$\text{C}_4\text{H}_5\text{O}_2\text{N}_2$

C 28,6 — H 2,4 — O 19,0 — N 50,0 — M. G. 168.

$\text{C}_4\text{H}_5\text{O}_2\text{Cl}_2$

- 1) Azid d. Bernsteinsäure. Sm. bei 30° (unter Wasser) (J. pr. [2] 52, 221).
- 1) $\alpha\beta$ -Dichlor- $\beta\gamma$ -Diketobutan. Sm. 124,5° (C. 1898 [1] 24).
- 2) $\alpha\beta$ -Dichlorpropen- α -Carbonsäure ($\alpha\beta$ -Dichlorcrotonsäure). Sm. 75,5° (B. 9, 1209; 28, 2669). — I, 508.
- 3) isom. $\alpha\beta$ -Dichlorpropen- α -Carbonsäure (isom. $\alpha\beta$ -Dichlorcrotonsäure). Sm. 92° (B. 28, 2669, 2670).
- 4) *p*-Dichlorpropen- β -Carbonsäure (Dichlormethakrylsäure). Sm. 64°; Sd. 215,5°. Na + H_2O , K + $\frac{1}{2}\text{H}_2\text{O}$, Ca + $2\text{H}_2\text{O}$, Pb + H_2O , Cu, Ag (J. pr. [2] 12, 8; J. 1876, 535). — I, 511.
- 5) Chlorid d. Bernsteinsäure. Sd. 190° (A. 87, 293; J. 1859, 280; J. pr. [2] 22, 208; [2] 31, 24; Soc. 53, 563). — I, 657.

$\text{C}_4\text{H}_5\text{O}_2\text{Cl}_2$

- 1) Tetrachlorbuttersäure. Sm. 140° (A. ch. [3] 10, 449, 450). — I, 475.
- 2) β -Chloräthylester d. Trichloressigsäure. Sd. 217°₁₀₀ (Bl. 48, 708). — I, 471.

- $C_4H_4O_2Cl_2$ 3) $\beta\beta$ -Dichloräthylester d. Dichloressigsäure. *Sd.* 223°_{756} (*Bl.* 48, 709). — I, 469.
 4) $\beta\beta\beta$ -Trichloräthylester d. Chloressigsäure. *Sd.* 220°_{767} (*Bl.* 48, 710). — I, 468.
 5) $\alpha\beta\beta\beta$ -Tetrachloräthylester d. Essigsäure (Chloralacetylchlorid). *Sd.* 193° ($188-189^{\circ}$; 185°) (*A.* 171, 67; *Z.* 1870, 345; *Bl.* 48, 716). — I, 933.
- $C_4H_4O_2Br_2$ 1) $\alpha\delta$ -Dibrom- $\beta\gamma$ -Diketobutan (α -Dibromdiacetyl). *Sm.* $116-117^{\circ}$ (*A.* 249, 207). — I, 1016.
 2) *cis*- $\alpha\beta$ -Dibrompropen- α -Carbonsäure ($\alpha\beta$ -Dibromcrotonsäure). *Sm.* 94° ($95-97^{\circ}$). *K*, *Ba* + $3\frac{1}{2}H_2O$, *Ag* (*B.* 14, 1081; 28, 1877, 1883; *J. pr.* [2] 38, 2). — I, 508.
 3) *trans*- $\alpha\beta$ -Dibrompropen- α -Carbonsäure. *Sm.* $119,8-120,4^{\circ}$. *Ba* + $3H_2O$, *Ag* (*A.* 268, 103; *B.* 28, 1877). — I, 508.
 4) β -Dibrompropen- β -Carbonsäure (Dibrommethakrylsäure) (*A. Spl.* 2, 352). — I, 512.
 5) Verbindung (aus Essigsäurebromvinylester) (*A.* 216, 274).
- $C_4H_4O_2Br$ 1) Tetrabrombuttersäure. *Sm.* 115° (*A.* 165, 296). — I, 484.
 2) Tetrabromisobuttersäure (*A. Spl.* 2, 353). — I, 484.
 3) $\alpha\beta\beta$ -Tribromäthylester d. Bromessigsäure. *Fl.* (*B.* 11, 1920). — I, 926.
- $C_4H_4O_2J_2$ 1) $\alpha\beta$ -Dijodpropen- α -Carbonsäure ($\alpha\beta$ -Dijodcrotonsäure). *Sm.* 125° . *Ag_2* (*B.* 26, 843).
- $C_4H_4O_2S$ 1) Anhydrid d. α -Dithiolbernsteinsäure. *Sd.* 130°_{30} (*B.* 2, 521; *A. ch.* [6] 22, 333; *G.* 19, 118). — I, 899.
- $C_4H_4O_2S_2$ 1) Thiophen-2-Sulfinsäure. *Sm.* 67° . *Ba* + $2H_2O$, *Zn* + $3H_2O$, *Ag* (*B.* 17, 800). — III, 741.
- $C_4H_4O_2N_2$ C 37,5 — H 3,1 — O 37,5 — N 21,9 — M. G. 128.
 1) 5-Oxy-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin (Oxyuracil; Iso-barbitursäure). *Ba* + H_2O (*A.* 229, 39; 251, 239). — I, 1347.
 2) 2,4,6-Triketo-hexahydro-1,3-Diazin (Barbitursäure; Malonylharnstoff). NH_4 , *Na*, + $2H_2O$, *K*, *Ba* + $2H_2O$, *Cu* + $3H_2O$, *Pb*, *Ag*, *Ag_2* (*A.* 130, 136; 132, 304; *Bl.* 31, 146; *B.* 12, 378; 14, 1643; 15, 2844; *A. ch.* [6] 28, 293; *J. pr.* [2] 35, 456). — I, 1372.
 3) 2,4,5-Triketo-1-Methyltetrahydroimidazol (Methylparabansäure). *Sm.* 148° . + Harnstoff (*A.* 97, 342; 118, 164; 133, 315; 217, 303; *B.* 9, 1093; 14, 728, 1449; 30, 2609; *M.* 2, 95, 279; 3, 107). — I, 1367.
 4) 4-Oximido-5-Keto-3-Methyl-4,5-Dihydroisoxazol + $\frac{1}{2}H_2O$. *Sm.* $132-133^{\circ}$ u. *Zers.* ($141-142^{\circ}$). *Ba*, *Ag* (*B.* 17, 823; 25, 2157; 28, 2093, 2675; 30, 2421). — I, 495.
 5) 5-Keto-4,5-Dihydropyrazol-3-Carbonsäure. *Zers.* oberh. 250° (bei 260°). NH_4 , *Na*, *Ca*, *Cu* + $2H_2O$, *Ag*, (*J. pr.* [2] 51, 47; *B.* 25, 3442; 26, 1720; *Soc.* 69, 1394). — IV, 534.
 6) 5-Keto-4,5-Dihydropyrazol-4-Carbonsäure (*B.* 27, 1662, 2747; 28, 988; *Soc.* 67, 1011). — IV, 536.
 7) 3-Methyl-1,2,5-Oxidiazol-4-Carbonsäure + H_2O (Methylfurazancarbonsäure). *Sm.* 39° (74° wasserfrei). *Ag* (*B.* 28, 71; *C.* 1898 [1] 1103). — IV, 537.
 8) Methylester d. Nitrosocyanessigsäure. *Sm.* 119° . *Na* + $1\frac{1}{2}H_2O$ (*B.* 24 [2] 595). — I, 1219.
- $C_4H_4O_2N_4$ C 30,8 — H 2,5 — O 30,8 — N 35,9 — M. G. 156.
 1) 5-Diazo-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin (Diazouracil). *K* (*A.* 258, 358; *G.* 24 [2] 368). — I, 1317.
- $C_4H_4O_2Cl$ 2) Oximidomalonylguanidin. NH_4 + H_2O , *Ca* + $4H_2O$ (*B.* 26, 2555).
 1) Anhydrid d. Chloressigsäure. *Sm.* 46° ; *Sd.* $109-111^{\circ}_{10}$ (*B.* 27, 2949).
 2) Gem. Anhydrid d. Essigsäure u. Dichloressigsäure. *Sm.* $174-175^{\circ}$ u. *Zers.* *Sd.* $125-130^{\circ}_{110}$ (*J.* 1883, 1033). — I, 470.
 3) Chlorid d. Diglykolsäure. *Sd.* 116°_{12} (*A.* 273, 64).
- $C_4H_4O_2Cl_2$ 1) $\beta\beta\beta\beta$ -Tetrachlor- α -Oxyisobuttersäure. *Sm.* $69-71^{\circ}$. *K* (*A.* 254, 112). — I, 565.
- $C_4H_4O_2Br$ 1) Anhydrid d. Bromessigsäure. *Sd.* 245° (*A.* 129, 273; *Z.* 1870, 597). — I, 478.
- $C_4H_4O_2S$ 1) Anhydrid d. Thiodiglykolsäure. *Sm.* 102° ; *Sd.* 158°_{10} (*A.* 273, 68). — I, 893.
- $C_4H_4O_2S_2$ 1) Thiophen-2-Sulfonsäure. *Na* + H_2O , *Ca*, *Ba* + $3H_2O$, *Pb* + H_2O , *Ag* + $3H_2O$ (*B.* 16, 2172; 19, 1615; 28, 2386). — III, 741.

- C₄H₃O₃S** 2) Thiophen-3-Sulfonsäure. Ba (B. 17, 1567; 18, 554). — III, 742.
 3) isom. Thiophen-*p*-Disulfonsäure (B. 18, 560). — III, 742.
- C₄H₃O₄N₂** C 33,3 — H 2,8 — O 44,4 — N 19,4 — M. G. 144.
 1) 4-Nitro-5-Keto-3-Methyl-4,5-Dihydroisoxazol. Zers. bei 123°. NH₄, Na + 2H₂O, Ag, Anilinsalz, Phenylhydrazinsalz (B. 28, 2097, 2099, 2681).
 2) 5-Keto-3-Oximidooxymethyl-4,5-Dihydroisoxazol (Oxazolonyhydr-oxamsäure). NH₄ (Sm. 156–160° u. Zers.) (B. 28, 760). — IV, 538.
 3) 2,4,6-Triketo-5-Oxyhexahydro-1,3-Diazin (Tartronylharnstoff; Dialursäure). NH₄, (NH₄)₂, K, K₂, Na₂, Na₄, Ba (A. 26, 276; 113, 53; 127, 11; 130, 133; 182, 70). — I, 1394.
 4) Isodialursäure + 2H₂O (A. 251, 242, 248). — I, 1394.
 5) 4-Oxy-1,2,5-Oxldiazol-3-Methylcarbonsäure (Oxyfurazanessigsäure). Sm. 158° u. Zers. (NH₄)₂, Ca + H₂O, Ag₂ (B. 28, 762). — IV, 538.
 6) 4-Methyl-1,2,3,6-Dioxdiazin-5-Carbonsäure + H₂O. Sm. 92° (wasserfrei). Ag (B. 26, 594; 28, 2680).
 7) Diazobernsteinsäure, nur Ester bekannt (B. 18, 1294; 19, 2460; J. pr. [2] 44, 563. — I, 1496).
 8) Lakton d. αβ-Dioximido-γ-Oxybuttersäure + H₂O. Sm. 178° (wasserfrei) (A. 291, 247).
- C₄H₄O₄N₄** C 27,9 — H 2,3 — O 37,2 — N 32,6 — M. G. 172.
 1) Hydrazioxalyl. NH₄, Ag (J. pr. [2] 52, 224; [2] 58, 233; B. 30, 589).
 2) Nitromalonylguanidin. NH₄ + H₂O (B. 26, 2554).
- C₄H₄O₄Cl₂** 1) αγ-Dichlorbernsteinsäure. Sm. 215° u. Zers. Sr + H₂O, Ca + 2H₂O, Ba, Cd + 3H₂O, Zn + 3H₂O, Cu + 3H₂O, Ag₂ (J. pr. [2] 46, 394; A. 280, 212).
 2) αβ-Dichlorallobernsteinsäure (Isodichlorbernsteinsäure). Sm. 175° u. Zers. (170°). (NH₄)₂ + 2H₂O, Ca + 2½H₂O, Ba + 7H₂O, Sr + 7H₂O, Pb + 3H₂O, Cu + 2½H₂O (J. pr. [2] 46, 392; A. 280, 219).
- C₄H₄O₄Br₂** 1) αβ-Dibrombernsteinsäure. Sm. 255–256° u. Druck. (NH₄)₂, Na₂ + 4H₂O, Ca + 2H₂O, Ag₂ (Bl. 19, 148; 21, 407; B. 10, 1884; 12, 345; 14, 637; 15, 1844; 16, 1131; 18, 676; 21, 1731; 26, 251; 28, 1631; A. 117, 123; 251, 676; 272, 127; 280, 209; 292, 295; 300, 5; A. Spl. 1, 131, 351). — I, 658.
 2) Isodibrombernsteinsäure. Sm. 160°. Ca + 3H₂O (A. Spl. 2, 89; B. 6, 199, 624; 10, 1885; 15, 1499; 16, 1132; A. 272, 127; 280, 207; 292, 295; 300, 5). — I, 660.
 3) Dibrommethan-αα-Dicarbonsäure (Dibromisobernsteinsäure). Sm. 101° Ba + 2H₂O (A. 251, 355). — I, 663.
- C₄H₄O₄S** 1) α-Merkaptoäthen-αβ-Dicarbonsäure (Sulfhydrylmalainsäure). Fl. (M. 18, 83).
- C₄H₄O₄N₂** C 30,0 — H 2,5 — O 50,0 — N 17,5 — M. G. 160.
 1) Harnstoffdiketocarbonsäure (Alloxansäure). Fast sämtliche Salze bekannt (A. 26, 294; 55, 263; 97, 120). — I, 1400.
 2) Isoalloxansäure. (NH₄)₂, K₂, Ba, Ag₂, (NH₄.Ag) (A. ch. [4] 2, 372; [5] 11, 418; Bl. 22, 57). — I, 1401.
 3) α-Formylharnstoff-β-Ketocarbonsäure + 3H₂O (Formyloxalursäure). Sm. 175° (wasserfrei). Ba, Ag (B. 29, 2048).
- C₄H₄O₅S** 1) Thioglyoxylsäure. Sm. 78–82° (A. 126, 143; 198, 212). — I, 828.
- C₄H₄O₆N₂** C 27,3 — H 2,3 — O 54,5 — N 15,9 — M. G. 176.
 1) anti-Dioximidobernsteinsäure + 2H₂O. Zers. bei 145–150°. Ca + 3H₂O, Ag₂ + H₂O (B. 24, 1228; Ph. Ch. 10, 31). — I, 662.
 2) syn-Dioximidobernsteinsäure + 2H₂O. Sm. 90° u. Zers. (+ 4H₂O Sm. 70–75°); (Sm. 145–150° wasserfrei). Ca + 4H₂O, Ag₂ (B. 16, 2985; 24, 1224; Ph. Ch. 10, 31). — I, 662.
- C₄H₄O₆N₄** C 20,7 — H 1,7 — O 41,4 — N 36,2 — M. G. 232.
 1) Acetylendinitroharnstoff (Dinitroglykoloril) (R. 7, 18, 247). — I, 1315.
 2) Isodinitroglykoloril (R. 8, 290). — I, 1315.
- C₄H₄O₆S₂** 1) Thiophen-2,5(?)-Disulfonsäure. Na₂ + 3H₂O, K₂ + H₂O, Ba + 3H₂O, Cu + 4H₂O, Ag₂ (B. 19, 185, 1066). — III, 742.
 2) Thiophen-3,4(?)-Disulfonsäure. Ba + 2½H₂O (B. 18, 555, 1115). — III, 742.
- C₄H₄O₇S** 1) Sulfofumarsäure. Ba₃ + 7H₂O, Ag₃ + 2H₂O (Am. 10, 414). — I, 905.

- $C_4H_4O_{10}N_2$ C 20,0 — H 1,7 — O 66,7 — N 11,6 — M. G. 240.
 1) Nitroweinsäure. NH_4 , Ag + H_2O (B. 10, 1789; J. 1857, 306; A. 82, 362; 221, 245). — I, 796.
 2) Nitrotraubensäure (J. 1857, 306). — I, 801.
- C_4H_4NCl 1) Nitril d. α -Chlorpropen- α -Carbonsäure (Nitril d. α -Chlorcrotonsäure).
 Sd. 136° (A. 164, 104). — I, 1468.
- C_4H_4NBr 1) Nitril d. α -Brompropen- γ -Carbonsäure. Sd. 180° u. Zers. (C. 1897 [2] 182).
- $C_4H_4N_2Cl_2$ 1) Dichloralimid. Sm. 97° (G. 19, 491). — I, 932.
- $C_4H_4N_2S_2$ 1) $\alpha\beta$ -Dirhodanäthan (Aethylenrhodanid). Sm. 90° (A. 100, 230; 153, 313; J. 1855, 609; J. pr. [2] 26, 379). — I, 1279.
 2) Aethylenisodithiocyansäure. Sm. 149—150° (G. 20, 179). — I, 1284.
- $C_4H_4N_2Se$ 1) Aethylenselenocyanid. Sm. 138° (128°) (B. 7, 1280; 23, 1092). — I, 1289.
- $C_4H_4N_2Cl_2$ 1) Cyanurmethylamidodichlorid. Sm. 161° (B. 32, 700).
- $C_4H_4N_2Cl_2$ 1) 4,6-Diamido-2-Trichlormethyl-1,3,5-Triazin. Sm. 235—236°. $HCl + 2H_2O$ (J. pr. [2] 33, 82). — I, 1456.
- $C_4H_4N_2Br_2$ 1) 4,6-Diamido-2-Tribrommethyl-1,3,5-Triazin (J. pr. [2] 50, 105).
- $C_4H_4N_2S_2$ 1) Disulfid d. 2-Merkapto-1,3,4-Triazol. Sm. 222° (B. 29, 2485). — IV, 1102.
- $C_4H_4Cl_2S$ 1) Hexachlordiäthylsulfid. Sd. 189—192° (A. 92, 359). — I, 357.
- $C_4H_4Cl_2S_2$ 1) Hexachlordiäthylsulfid (A. 116, 240). — I, 359.
- C_4H_5ON C 57,8 — H 6,0 — O 19,3 — N 16,9 — M. G. 83.
 1) 3-Methylisoxazol. Sd. 118° (B. 25, 1787).
 2) 5-Methylisoxazol. Sd. 122° (B. 25, 1787).
 3) Isocyansäureallyläther. Sd. 82° (A. 102, 297). — I, 1265.
 4) Nitril d. α -Ketopropan- α -Carbonsäure (Nitril d. Propionylameisensäure). Sd. 108—110° (B. 13, 2121). — I, 1474.
 5) Nitril d. β -Ketopropan- α -Carbonsäure (Nitril d. Acetyllessigsäure; Cyanaceton). Sd. 120—125° (B. 15, 2679; 25, 1787; J. pr. [2] 39, 238; A. 231, 247). — I, 993.
 6) polym. Cyanaceton. Sm. 166°. HJ (B. 4, 518; J. pr. [2] 1, 141).
 7) Nitril d. γ -Oxypropen- γ -Carbonsäure (Nitril d. Aethenyloxyessigsäure). Fl. (R. 4, 223). — I, 1473.
 8) Nitril d. Epihydrincarbonsäure (Epicyanhydrin). Sm. 162° (J. pr. [2] 1, 98; [2] 7, 297).
 9) Aldehyd d. β -Cyanpropionsäure. Sd. 77° (A. ch. [6] 16, 182). — I, 943.
 10) Verbindung (aus Nitroäthan). Sd. 150—160° u. Zers. (A. 243, 124). — I, 206.
 11) Verbindung (aus Acetessigsäureäthylester). Zers. bei 280° (A. 213, 174). — I, 593.
- $C_4H_5ON_2$ C 43,2 — H 4,5 — O 14,4 — N 37,8 — M. G. 111.
 1) Amid d. Pyrazol-1-Carbonsäure (1-Pyrazolharnstoff). Sm. 136,5° (B. 28, 716). — IV, 498.
- $C_4H_5ON_2$ C 34,5 — H 3,6 — O 11,5 — N 50,4 — M. G. 139.
 1) Pseudoxanthin (Bl. 48, 19). — III, 883.
 2) Azulminsäure (B. 4, 949). — I, 1478.
- C_4H_5OCl 1) Aldehyd d. α -Chlorpropen- α -Carbonsäure (A. d. α -Chlorakrylsäure). Sd. 147—148° (A. 179, 31; B. 8, 1322; M. 4, 351). — I, 960.
 2) Chlorid d. Propen- α -Carbonsäure. Sd. 123—128° (B. 5, 331; C. 1898, [2] 663).
- $C_4H_5OCl_2$ 1) Aethyläther d. Trichloroxyäthen (Trichlervinyläthyläther). Sd. 154,8° (154—156°) (J. 1864, 316; 1872, 303, 304; 1886, 1174; B. 11, 446). — I, 301.
 2) Aldehyd d. $\alpha\alpha\beta$ -Trichlorbuttersäure. Sd. 164—165°₇₅₀. Hydrat + H_2O . Sm. 78° (A. 179, 26, 38; B. 3, 386; 12, 562; J. 1880, 700; M. 4, 533). — I, 944.
 3) Aldehyd d. $\alpha\alpha\gamma$ -Trichlorbuttersäure. Fl. (M. 4, 551; 5, 253). — I, 945.
 4) Chlorid d. $\alpha\beta$ -Dichlorbuttersäure. Sd. 163,3—164,3°₇₅₀ (M. 7, 363). — I, 475.
- $C_4H_5OCl_3$ 1) Aethyläther d. $\alpha\alpha\beta\beta\beta$ -Pentachlor- α -Oxyäthan (Pentachloräthyläther). Sd. 190—210° u. Zers. (B. 4, 217; 11, 446). — I, 296.
 2) β -Chloräthyläther d. $\alpha\beta\beta\beta$ -Tetrachlor- α -Oxyäthan. Sd. 235° (B. 7, 763). — I, 296.

- C₄H₅OBr** 1) Methyläther d. α -Brom- γ -Oxypropin. Sd. 125—126°₄₀ (Bl. [3] 13, 632; C. 1897 [2] 182).
- C₄H₅OBr₂** 1) Methyläther d. $\alpha\alpha\beta$ -Tribrom- γ -Oxypropen. Sm. —11°; Sd. 120°₂₅ (C. 1897 [2] 182).
- C₄H₅OJ** 1) Methyläther d. α -Jod- γ -Oxypropin. Sm. 24°; Sd. 74°₂₀ (C. 1897 [2] 182).
2) Methyläther d. β -Jod- γ -Oxypropin (Methyljodpropargyläther) (A. 135, 288). — I, 303.
- C₄H₅O₂N** C 48,5 — H 5,0 — O 32,3 — N 14,1 — M. G. 99.
1) 5-Keto-3-Methyl-4,5-Dihydroisoxazol. Sm. 169—170° u. Zers. (Salze siehe A. 296, 51) (B. 24, 497; 27, 1174; A. 296, 46). — I, 494.
2) α -Cyanpropionsäure (B. 21, 3162; J. pr. [2] 38, 342). — I, 1219.
3) β -Cyanpropionsäure + 1½ H₂O. K + 5 H₂O, Ca + 2 H₂O, Mg + 3 H₂O, Ba + 3 H₂O, Pb + 5 H₂O, Ag + ¼ H₂O (Phil. Mag. 1879 [5] 7, 356). — I, 1219.
4) α -Isocyanpropionsäure (Bl. 42, 266). — I, 1220.
5) Aethylester d. Cyanameisensäure. Sd. 115—116° (J. pr. [2] 10, 197; A. 184, 12; 287, 277; Bl. 46, 62). — I, 1217.
6) Aethylester d. Paracyanameisensäure. Sm. 165° (J. pr. [2] 10, 208). — I, 1217.
7) Imid d. Aethan- $\alpha\beta$ -Dicarbonsäure + H₂O (Succinimid). Sm. 125 bis 126°; Sd. 287—288°. Salze meist bek. (A. 16, 215; 49, 198; 82, 234; 134, 150; 162, 166; 182, 93; 215, 200; A. Spl. 7, 118; Z. 1869, 174; Ph. Ch. 8, 54; J. r. 17, 277; B. 13, 1047; 26, 986; 27 [2] 557; 28, 2353; Bl. [3] 4, 229; [3] 9, 692; G. 25 [2] 523; Am. 18, 336). — I, 1379.
8) Nitril d. Acetoxylessigsäure. Sd. 175° (Bl. 46, 62). — I, 1469.
C 37,8 — H 3,9 — O 25,2 — N 33,1 — M. G. 127.
1) Cyanacetylarnstoff. Sm. 200—210° u. Zers. (B. 12, 466). — I, 1303.
2) 4-Nitro-5-Methylpyrazol. Sm. 134°; Sd. 325°₄₆ (A. 279, 228). — IV, 515.
3) 4-Oximido-5-Keto-3-Methyl-4,5-Dihdropyrazol. Sm. 194°. Ag (J. pr. [2] 50, 512; B. 27, 790). — IV, 506.
4) 5-Amido-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin (Amidouracil) (A. 229, 38; 236, 43; 239, 193; 240, 6). — I, 1347.
5) 3,5-Dioxy-6-Methyl-1,2,4-Triazin. Sm. 206—209° (A. 303, 82).
6) 4,6-Dioxy-2-Methyl-1,3,5-Triazin + H₂O. Zers. bei 200°. Ag₂ (J. pr. [2] 49, 97).
7) 2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydro-1,3,5-Triazin (Acetoguanamid). Ag, HCl, (2 HCl, PtCl₄) (B. 9, 234; A. 288, 318; G. 25 [2] 442; C. 1897 [2] 897). — IV, 1120.
8) Malonylguanidin + H₂O. Ba + 8 H₂O, Guanidinesalz (B. 26, 2554; Am. 9, 219; J. pr. [2] 49, 36).
9) Amid d. 5-Keto-4,5-Dihdropyrazol-3-Carbonsäure. Sm. 219° u. Zers. (J. pr. [2] 51, 55). — IV, 535.
10) Amid d. 3-Methyl-1,2,5-Oxdiazol-4-Carbonsäure (A. d. Methylfuran-carbonsäure). Sm. 124° (C. 1898 [1] 1103).
- C₄H₅O₂Cl** 1) α -Chlorpropen- α -Carbonsäure (α -Chlorcrotonsäure). Sm. 99,2° (97,5°); Sd. 212°. NH₄, Na, K, Ca, Ba, Pb + H₂O, Cu, Ag (A. 158, 51; 164, 93; 173, 302; 219, 372; 234, 200; 248, 293; Ph. Ch. 3, 244; B. 10, 1530; 12, 2338; 15, 218; J. pr. [2] 46, 238). — I, 507.
2) α -Chlorisocrotonsäure (α -Chlorallocrotonsäure). Sm. 66,2—66,5°. K, Ba + 3½ H₂O, Pb + H₂O (A. 248, 288; Am. 9, 283; Ph. Ch. 3, 245; J. pr. [2] 46, 238, 254). — I, 510.
3) β -Chlorpropen- α -Carbonsäure (β -Chlorcrotonsäure). Sm. 94—94,5; Sd. 206—211°. Na + ½ H₂O, Ba, Cu + H₂O (A. 219, 370; 259, 359; J. r. 24, 508; Z. 1871, 240; B. 12, 2337; 28, 2667; 29, 1645; Ph. Ch. 3, 245; J. pr. [2] 46, 254; [2] 52, 327). — I, 508.
4) β -Chlorisocrotonsäure. Sm. 59,5°; Sd. 194,8°. Salze meist bekannt (Z. 1869, 270; Am. 9, 284; A. 219, 363; 268, 13; J. r. 24, 508; J. pr. [2] 52, 327; B. 14, 1089; 15, 218; 28, 2666; 29, 1645; Ph. Ch. 3, 244). — I, 509.
5) β -Chlorpropen- β -Carbonsäure (Chlormethakrylsäure). Sm. 59°. K + H₂O, Ca + 3 H₂O, Ba + 4 H₂O, Pb + H₂O, Ag (J. 1873, 583; 1876, 534; J. pr. [2] 12, 20, 375; [2] 46, 386). — I, 511.
6) Allylester d. Chlorameisensäure. Sd. 180°₁₁₇ (A. 302, 262).

- $C_4H_5O_2Cl$
- 1) $\alpha\alpha\beta$ -Trichlorbuttersäure. Sm. 60° (58°); Sd. 236—238°. NH_4 , Ca, Pb + $2H_2O$, Ag (A. 182, 181; 213, 374; B. 3, 389, 785; 12, 2337; 28, 2662; H. 6, 494; Ph. Ch. 3, 194). — I, 475.
 - 2) $\alpha\alpha\gamma$ -Trichlorbuttersäure. Sm. 73—75° (M. 4, 551; 5, 256). — I, 475.
 - 3) $\alpha\beta\beta$ -Trichlorbuttersäure. Sm. 51,5—52° (B. 28, 2665, 2667).
 - 4) $\alpha\beta\beta$ -Trichlorisobuttersäure. Sm. 50°. NH_4 , Ba, Pb (J. pr. [2] 12, 1). — I, 476.
 - 5) $\alpha\beta\beta$ -Trichloräthylester d. Essigsäure. Sd. 185° (250—280° u. Zers.?) (Bl. 48, 714; B. 10, 1999). — I, 408.
 - 6) $\beta\beta\beta$ -Trichloräthylester d. Essigsäure. Sd. 167° u. Zers. (169—171°) (A. 210, 68; Bl. 48, 710; C. 1899 [1] 777). — I, 408.
 - 7) $\beta\beta$ -Dichloräthylester d. Chloressigsäure. Sd. 215° (Bl. 48, 708). — I, 468.
 - 8) β -Chloräthylester d. Dichloressigsäure. Sd. 209—212°₁₆₇ (Bl. 48, 708). — I, 469.
 - 9) Äthylester d. Trichloressigsäure. Sd. 164° (60—61°₁₁) (A. 191, 58; 203, 22; 210, 69; 220, 108; 253, 125; A. ch. [6] 6, 249; Ph. Ch. 1, 379; B. 14, 590; Am. 14, 372). — I, 471.
 - 10) $\beta\gamma$ -Dichlorpropylester d. Chlorameisensäure. Sd. 185—187° (J. pr. [2] 44, 22). — I, 467.
 - 11) $\beta\beta$ -Dichlorisopropylester d. Chlorameisensäure. Sd. 185—187° (J. pr. [2] 44, 20). — I, 467.
 - 12) Chlorid d. Dichloroxyessigäthyläthersäure? Sd. 140° (C. 1899 [1] 587).
- $C_4H_5O_2Br$
- 1) α -Brompropen- α -Carbonsäure (α -Bromcrotonsäure). Sm. 106,5° (107 bis 109°). K, Ba + $2H_2O$, Ag (Am. 2, 15; 9, 281; B. 14, 617; 15, 49; 23, 1927; A. 248, 321; J. pr. [2] 38, 1; [2] 46, 241). — I, 508.
 - 2) β -Brompropen- α -Carbonsäure (β -Bromcrotonsäure). Sm. 94,5—95°. K, Ba + H_2O , Ag (J. pr. [2] 35, 257; Am. 9, 277; A. 268, 109). — I, 508.
 - 3) α -Brompropen- β -Carbonsäure (Brommethakrylsäure). Sm. 65° (62 bis 63°); Sd. 228—230°. NH_4 , Ca + $3H_2O$, (Cu, $Cu(OH)_2$), Ag (A. Spl. 2, 99, 348; A. 171, 181; 203, 351; 206, 6; J. pr. [2] 25, 375, 383). — I, 511.
 - 4) γ -Brompropen- β -Carbonsäure (Isobrommethakrylsäure). Sm. 65—66°. Ca + $2H_2O$ (A. 206, 12, 22). — I, 511.
 - 5) α -Brompropen- γ -Carbonsäure. Sm. 58—59° (Bl. [3] 15, 390; C. 1897 [1] 224; 1897 [2] 182).
 - 6) α -Bromisocrotonsäure (α -Bromallocrotonsäure). Sm. 92°. K, Ca + $3H_2O$, Ba + $3\frac{1}{2}H_2O$, Ag (J. pr. [2] 25, 388, 394; [2] 46, 241; A. 248, 336). — I, 510.
 - 7) Acetat d. β -Brom- α -Oxyäthen (β -Bromvinylester d. Essigsäure). Fl. (A. 216, 273). — I, 411.
- $C_4H_5O_2Br_3$
- 1) $\alpha\alpha\beta$ (P)-Tribrombuttersäure. Sm. 115,5—116°. Ba + H_2O (Am. 2, 16; B. 28, 2662; J. pr. [2] 38, 1). — I, 483.
 - 2) Tribromisobuttersäure (A. Spl. 2, 350). — I, 484.
 - 3) $\alpha\beta$ -Dibromäthylester d. Bromessigsäure. Fl. (B. 11, 1920). — I, 926.
 - 4) Äthylester d. Tribromessigsäure. Sd. 225° (A. 129, 56; Am. 14, 374; J. pr. [2] 50, 97). — I, 479.
- $C_4H_5O_2N$
- 5) Aldehydbromal. Sd. 175° (A. 167, 87). — I, 294.
C 41,7 — H 4,3 — O 41,7 — N 12,2 — M. G. 115.
 - 1) Succinylhydroxylamin. NH_4 (G. 25 [2] 32).
 - 2) Anhydroasparaginsäure. Ba + $6H_2O$, Ag, Ag_2 (B. 12, 2118).
 - 3) α -Cyan- α -Oxypropionsäure (α -Cyanmilchsäure). K + C_2H_5O (B. 14, 87; 19, 2963). — I, 1221.
 - 4) Monamid d. Fumarsäure (Fumaraminsäure). Sm. 217° u. Zers. Ba + $6H_2O$, Ag, Ag_2 (B. 12, 2118; J. pr. [2] 38, 481; Am. 6, 420). — I, 1388.
 - 5) Monamid d. Maleinsäure (Maleinaminsäure). Sm. 152—153° (A. 259, 138). — I, 1389.
 - 6) Imid d. Dimethyläther- $\alpha\beta$ -Dicarbonsäure (I. d. Diglykolsäure). Sm. 142°. Ag (A. 128, 135; J. 1863, 362). — I, 1342.
 - 7) Verbindung (aus Äthylschwefels. Kali u. äpfels. Ammoniak) (J. 1850, 416; 1857, 309). — I, 1389.

- $C_4H_5O_3N_3$ C 33,5 — H 3,5 — O 33,6 — N 29,4 — M. G. 143.
 1) 1-Acetyl-3,5-Diketotetrahydro-1,2,4-Triazol (Acetylurazol). Sm. 221,5° (C. 1898 [1] 39).
 2) 5-Amido-2,4,6-Triketohexahydro-1,3-Diazin (Amidobarbitursäure; Murexan; Uramil) (A. 26, 310; 107, 183; 127, 223; M. 16, 729; B. 14, 1060; 31, 1974; A. ch. [6] 28, 307). — I, 1374.
 3) Methylecyanursäure + H_2O . Sm. 285—286° (B. 30, 2615).
 4) Verbindung (aus Glyoxal). Sm. 176° u. Zers. HCl , (2 HCl , $PtCl_4$) (B. 28 [2] 620; G. 25 [2] 215).
- $C_4H_5O_3N_3$ C 28,1 — H 2,9 — O 28,1 — N 40,9 — M. G. 171.
 1) Azurilsäure. Zers. über 275° (A. 288, 168).
- $C_4H_5O_3Cl$ 1) Gem. Anhydrid d. Essigsäure u. Chloressigsäure. Sd. 168—170° u. Zers. (J. 1883, 1032). — I, 469.
 2) Chlorid d. Oxalsäuremonäthylester. Sd. 135—136° (B. 4, 599; 19, 2159; G. 21, 301; 27 [1] 27; A. 254, 27). — I, 583.
- $C_4H_5O_3Cl_3$ 1) γγγ-Trichlor-β-Oxybuttersäure. Sm. 118,5° (M. 12, 557). — I, 562.
 2) βββ-Trichlor-α-Oxyisobuttersäure. Fl. (B. 8, 1339). — I, 564.
 3) Oxyessig-βββ-Trichloräthyläthersäure. Sm. 69,5°. Ag_2 (B. 14, 153). — I, 549.
 4) Methylester d. βββ-Trichlor-α-Oxypropionsäure. Sd. 98—100°₁₂ (A. 253, 125). — I, 556.
- $C_4H_5O_3N$ C 36,6 — H 3,8 — O 48,8 — N 10,7 — M. G. 131.
 1) Amidomaleinsäure. Sm. 180—182°. Ag_2 (B. 14, 153). — I, 1214.
 2) Acetylmonamid d. Oxalsäure (Acetyloxaminsäure). Sm. 54° (B. 5, 667; 8, 104; J. pr. [2] 9, 299). — I, 1364.
- $C_4H_5O_3N_3$ C 30,2 — H 3,1 — O 40,2 — N 26,4 — M. G. 159.
 1) 1-Nitro-2,4-Diketo-3-Methyltetrahydroimidazol (Nitro-α-Methylhydantoin). Sm. 168° u. Zers. (R. 8, 289). — I, 1310.
 2) 5-Nitro-2,4-Diketo-5-Methyltetrahydroimidazol (Nitrolaktylharnstoff). Sm. 148° u. Zers. (R. 7, 13). — I, 1311.
 3) Oxonsäure. $NH_4 + H_2O$, $Na + \frac{1}{2}(2\frac{1}{2})H_2O$, K , $K_2 + 1\frac{1}{2}H_2O$, Ba , Ag_2 (A. 175, 230; B. 10, 546; 27 [2] 887; H. 20, 340). — I, 1339.
 4) α-Oximidoisodialursäure. Zers. bei 100° (A. 251, 244). — I, 1395.
 5) β-Oximidoisodialursäure (A. 251, 246). — I, 1395.
- $C_4H_5O_3Cl$ 1) α-Chloräthan-αα-Dicarbonsäure (Methylchlormalonsäure). K_2 (A. 279, 164).
 2) i-α-Chloräthan-αβ-Dicarbonsäure (i-Chlorbernsteinsäure). Sm. 151,5 bis 152° (153—154°) (B. 15, 642, 1074; 29, 1699). — I, 657.
 3) d-Chlorbernsteinsäure. Sm. 174° u. Zers. (176°) (B. 26, 215; 28, 215; 29, 1699; 30, 3148).
 4) l-Chlorbernsteinsäure. Sm. 174° u. Zers. (176°). Ag_2 (Soc. 67, 492, 494; B. 29, 134, 1699; 30, 3149).
- $C_4H_5O_3Br$ 1) α-Bromäthan-αα-Dicarbonsäure (α-Bromisobernsteinsäure). Sm. 118 bis 119° (130—140° u. Zers.). $Ba + H_2O$ (J. pr. [2] 1, 27; A. 251, 352; 273, 40; J. r. 21, 559). — I, 663.
 2) i-α-Bromäthan-αβ-Dicarbonsäure (i-Brombernsteinsäure). Sm. 159° (160°) (A. 117, 125; 129, 8 Anm.; 130, 23; 188, 89; 242, 145; 273, 36; B. 14, 637; 15, 643; 26, 2218; 29, 1698; J. r. 9, 277; 23, 339; G. 17, 172). — I, 658.
 3) l-Brombernsteinsäure. Sm. 173° (B. 28, 2770; 29, 134, 1699; C. 1898 [2] 917).
- $C_4H_5O_3J$ 1) α-Jodäthan-αβ-Dicarbonsäure (Jodbernsteinsäure). Pb_2O (B. 19, 600; 30, 201). — I, 660.
- $C_4H_5O_3N$ C 32,6 — H 3,4 — O 54,4 — N 9,5 — M. G. 147.
 1) anti-Oximidobernsteinsäure. Sm. 126° u. Zers. $Ca + 4H_2O$, Ag_2 (A. 229, 65; Ph. Ch. 10, 21). — I, 660.
 2) syn-Oximidobernsteinsäure. Sm. 88° (B. 24, 1206; Ph. Ch. 10, 22). — I, 661.
 3) Oximidoessigacetsäure (Carboxylmethyläther d. Oximidoessigsäure). Zers. bei 181°. (NH_4)₂, $Ba + H_2O$, Ag_2 (A. 289, 298).
 4) Oxaminessigsäure. Ag_2 (B. 30, 582).
- $C_4H_5O_3N_2$ C 23,6 — H 2,5 — O 39,4 — N 34,5 — M. G. 203.
 1) Allansäure + H_2O . Zers. bei 210—220°. NH_4 , $Pb + 2H_2O$, $Pb(OH)_2$, Ag (A. 159, 353). — I, 1359.

- $C_4H_5O_5Br$ 1) **β -Brom- α -Oxyäthan- $\alpha\beta$ -Dicarbonsäure** (Bromäpfelsäure). Na, Pb (A. Spl. **1**, 361; A. **300**, 31). — **I**, 745.
- $C_4H_5NCl_4$ 1) **$\alpha\beta\beta\beta$ -Tetrachlor- α -Aethylimidoäthan** (Trichloracetäthylimidechlorid) (A. **214**, 226). — **I**, 1241.
- $C_4H_5NBr_2$ 1) Nitril d. **$\alpha\beta$ -Dibrombuttersäure**. Fl. (Am. **11**, 91). — **I**, 1465.
- C_4H_5NS 1) Allylsenfö. Sd. $150,7^\circ$ (cor.) + Ag_2SO_4 . Lit. bedeutend. — **I**, 1283.
2) **γ -Rhodanpropen** (Allylrhodanid). Sd. $180-181^\circ$ (B. **39**, 526). — **I**, 1279.
3) **Amidothiophen**. Fl. HCl, (2HCl, $SnCl_4$) (B. **18**, 1491, 2316). — **III**, 741.
4) **2-Methylthiazol**. Sd. $127,5-128^\circ$. (2HCl, $PtCl_4$), Pikrat (A. **250**, 271). — **IV**, 68.
5) **4-Methylthiazol**. Sd. $133-134^\circ$. (2HCl, $PtCl_4$), (HCl, $HgCl_2$), Pikrat (A. **249**, 24; **250**, 277). — **IV**, 68.
- $C_4H_5NS_2$ 1) **2-Merkapto-4-Methylthiazol**. Sm. $89-90^\circ$ (G. **23** [1] 579). — **IV**, 68.
2) **Propargylamidodithioameisensäure**. Sm. 115° (B. **24**, 3041). — **I**, 1262.
- C_4H_5NSe 1) **Allylselencyanid**. Fl. (A. **109**, 125). — **I**, 1289.
- $C_4H_5N_2Cl$ 1) **β -Chlor-1-Methylimidazol** (Chloroxalmethylin). Sd. $204-205^\circ$. HCl + H_2O , (2HCl, $PtCl_4$), HJ, HNO_3 + $AgNO_3$, $C_4H_5O_4$ (A. **184**, 53; **214**, 307). — **IV**, 501.
2) Nitril d. **β -Chlorimidobuttersäure?** (Chlordiacetonitril). Sm. 120° (J. pr. [2] **52**, 85).
3) Nitril d. **Aethylimidochloroessigsäure**. Sd. 126° (A. **287**, 302).
- $C_4H_5N_2Br$ 1) **β -Brom-5-Methylpyrazol**. Sm. 67° . HBr (A. **279**, 227). — **IV**, 515.
2) Nitril d. **β -Bromimidobuttersäure** (Bromdiacetonitril). Sm. 123° (J. pr. [2] **52**, 86).
- $C_4H_5N_3S_2$ 1) **Verbindung** (aus Aethyldithiourazol). Sm. 198° (B. **28**, 953).
2) **Chrysean** (B. **7**, 903). — **I**, 1288.
- $C_4H_5N_3Cl_2$ 1) **Dichloracetoguanidin** (B. **9**, 237). — **IV**, 1317.
2) **isom. Dichloracetoguanidin**. (2HCl, $PtCl_4$), + $AgNO_3$ (B. **9**, 238). — **IV**, 1317.
- $C_4H_5ON_2$ C 49,0 — H 6,1 — O 16,3 — N 28,6 — M. G. 98.
1) **Akroleinharnstoff** (B. **15**, 1159, 1393). — **I**, 1314.
2) **5-Keto-3-Methyl-4,5-Dihydropyrazol**. Sm. $215-216^\circ$ (219°). HCl (J. pr. [2] **39**, 52; [2] **50**, 510; [2] **51**, 59; A. **283**, 30; B. **25**, 778; **27**, 790; **29**, 253). — **IV**, 506.
3) **1-Nitroso- β -Dihydropyrrol**. Sm. $37-38^\circ$ (B. **16**, 1543). — **IV**, 48.
4) **5-Imido-3-Methyl-4,5-Dihydroisoxazol**. Sm. 84° . HCl (J. pr. [2] **47**, 121).
5) **3,4-Dimethyl-1,2,5-Oxiazol** (Dimethylfurazan). Sd. 156°_{74} (B. **28**, 70; Ph. Ch. **22**, 389). — **IV**, 518.
6) **3-Keto-2,3,4,5-Tetrahydro-1,2-Diazin**. Sd. $169,5-171^\circ$. Ag (B. **26**, 2064; J. pr. [2] **51**, 140). — **IV**, 507.
7) **Diäthenylazoxim** (B. **17**, 2750). — **I**, 1484.
8) **Amid d. α -Cyanpropionsäure**. Sm. 81° ; Sd. 267° u. Zers. (J. **1889**, 638). — **I**, 1245.
9) **Amid d. β -Cyanpropionsäure**. Zers. bei $210-220^\circ$ (B. **16**, 360; **22** [2] 297). — **I**, 1245, 1479.
10) Nitril d. **β -Oximidobuttersäure** (Oxim d. Acetessigsäurenitril). Sm. 96° (J. pr. [2] **47**, 121).
11) Nitril d. **α -Nitrosoisobuttersäure**. Sm. 53° u. Zers. (B. **31**, 1879).
12) Nitril d. **Imidooxyessigäthyläthersäure** (Cyanimidokohlensäureäthylester). Sd. $50-51^\circ_{50}$ (A. **287**, 274, 276).
- $C_4H_5ON_3$ 1) **Episarkin** = $(C_4H_5ON_3)_x$ (J. pr. [2] **47**, 563; H. **24**, 389). — **III**, 969.
- $C_4H_5ON_4$ C 38,1 — H 4,7 — O 12,7 — N 44,4 — M. G. 126.
1) **4-Imido-2-Keto-6-Methyl-1,2,3,4-Tetrahydro-1,3,5-Triazin** (Acetoguanid). HCl, H_2SO_4 + $3H_2O$, Pikrat, Carbonat, NaOH + H_2O , KOH + $\frac{1}{2}H_2O$, Ag, + $AgNO_3$ (B. **9**, 233; C. **1897** [1] 472; G. **27** [1] 222). — **IV**, 1242.
2) Nitril d. **α -Semicarbazonpropionsäure**. Sm. 215° u. Zers. (A. **303**, 85). C 31,2 — H 3,9 — O 10,4 — N 54,5 — M. G. 154.
3) **Formamelamin** (B. **7**, 1632). — **I**, 1445.
- $C_4H_5OCl_2$ 1) **Aethyläther d. $\alpha\beta$ -Dichlor- α -Oxyäthen** ($\alpha\beta$ -Dichlorvinyläthyläther). Sd. $128,2^\circ$ (cor.) (J. pr. [2] **7**, 113; B. **7**, 81). — **I**, 301.
2) **Aethyläther d. $\beta\beta$ -Dichlor- α -Oxyäthen** ($\beta\beta$ -Dichlorvinyläthyläther). Sd. 145° (J. **1886**, 1174). — **I**, 301.

- C₄H₆OCl₂** 3) $\gamma\gamma$ -Dichlor- β -Ketobutan (Methyl- α -Dichloräthylketon). *Sd.* 113—114°₇₅₀ (*J. pr.* [2] 51, 549).
 4) β -Dichlor- β -Ketobutan. *Sd.* 165° (*Bl.* [3] 6, 408, 807; *J. pr.* [2] 51, 554). — I, 995.
 5) Aldehyd d. $\alpha\alpha$ -Dichlorbuttersäure. *Sd.* 108—112°₁₅ (*J. pr.* [2] 51, 543).
 6) Aldehyd d. $\alpha\beta$ -Dichlorisobuttersäure. *Sd.* 123° (*Bl.* [3] 15, 21).
 7) Chlorid d. α -Chlorbuttersäure. *Sd.* 129—132° (*A.* 153, 241). — I, 474.
 8) Chlorid d. γ -Chlorbuttersäure. *Sd.* 173—174° (*Bl.* 45, 341). — I, 474.
 9) Verbindung (aus fl. Acetonchloroform). *Sd.* 151° (*J. pr.* [2] 37, 371). — I, 979.
- C₄H₆OCl₄** 1) Aethyläther d. $\alpha\beta\beta\beta$ -Tetrachlor- α -Oxyäthan (Tetrachloräthyläther). *Sd.* 189,7° (*B.* 4, 101, 217, 435; *J.* 1872, 303; 1886, 1174; *Z.* 1871, 679; *A.* 32, 29; 157, 244). — I, 296.
- C₄H₆OBr₂** 1) 3,4-Dibromtetrahydrofuran. *Sd.* 95°₂₀ (*A. ch.* [6] 7, 219). — III, 690.
 2) Methyläther d. $\alpha\beta$ -Dibrom- γ -Oxypropen. *Sd.* 175—177°₇₄₅ (*Bl.* [3] 13, 631; *C.* 1897 [1] 182).
 3) Aethyläther d. $\beta\beta$ -Dibrom- α -Oxyäthen (Dibromvinyläthyläther). *Sd.* 170—172°₇₄₇ (*J. r.* 17, 173; *A.* 298, 334). — I, 301.
 4) Aldehyd d. $\alpha\beta$ -Dibrombuttersäure. *Fl.* (*M.* 1, 822). — I, 959.
 5) Bromid d. α -Brombuttersäure. *Sd.* 172—174° (*J. r.* 13, 88). — I, 483.
 6) Bromid d. α -Bromisobuttersäure. *Sd.* 162—164° (*J. r.* 13, 86). — I, 484.
- C₄H₆OBr₄** 1) Methyläther d. $\beta\beta\gamma\gamma$ -Tetrabrom- α -Oxypropan. *Sd.* 140—145°₂₀ (*Bl.* [3] 13, 632; *C.* 1897 [2] 182).
 2) Tetrabromdiäthyläther. *Fl.* (*B.* 10, 1672). — I, 296.
- C₄H₆OS₂** 1) Verbindung (aus Tetrachloräthyläther). *Sm.* 120—123° (*A.* 32, 32). — I, 296.
- C₄H₆O₂N₂** C 42,1 — H 5,2 — O 28,1 — N 24,6 — M. G. 114.
 1) 2-Oximido-5-Ketotetrahydropyrrol (Succinimidoxim). *Sm.* 197° u. Zers. *HCl* (*B.* 24, 3427). — I, 1486.
 2) 2,4-Diketo-1-Methyltetrahydroimidazol (Methylhydantoïn). *Sm.* 156° *Ag* (*A.* 137, 291; 215, 287; *B.* 6, 1278; 7, 119; 9, 1091; 15, 2111; *H.* 5, 257; *M.* 8, 586). — I, 1310.
 3) 2,4-Diketo-3-Methyltetrahydroimidazol (Methylhydantoïn). *Sm.* 182° (*R.* 8, 289; *B.* 25 [2] 327). — I, 1310.
 4) 2,4-Diketo-5-Methyltetrahydroimidazol + H₂O (Methylhydantoïn; Laktylharnstoff). *Sm.* 145° (140°) wasserfrei. *Ag* (*B.* 6, 1113; *A.* 169, 125). — I, 1311.
 5) 2,4-Diketo-hexahydro-1,3-Diazin (β -Laktylharnstoff). *Sm.* 272° (275°). *Ag* (*Am.* 15, 221, 517; *M.* 17, 174, 182; *R.* 15, 104). — I, 1380.
 6) 2,5-Diketo-hexahydro-1,4-Diazin (Glycinanhydrid). *Sm.* 275° u. Zers. (2HCl, PtCl₄ + 3H₂O), H₂SO₄, Ag₂ (*A.* 60, 21; *J. pr.* [2] 37, 173; *B.* 16, 755). — I, 1184.
 7) Dimethylglyoximhyperoxyd. *Sd.* 222—223°₇₂₆ (*B.* 23, 3499; *G.* 25 [2] 266). — I, 971.
 8) Acetylamidomethylcarbonimid? (*J. pr.* [2] 52, 444).
 9) Methylester d. α -Diazopropionsäure. *Sd.* 53—55°₁₅ (*J. pr.* [2] 44, 559). — I, 1494.
 10) Aethylester d. Diazoessigsäure. *Sd.* 140—141°₇₂₀ u. Zers. *Na* (*J. pr.* [2] 38, 401; *B.* 31, 2492). — I, 1492.
 11) Aethylester d. Cyanamidoameisensäure (Aethylester d. Cyanamidokohlensäure). *Fl.* (*Na*, *Sm.* 241°), (*K*, *Sm.* 199°), *Cu*, *Ag*, 2HCl (*J. pr.* [2] 16, 153; [2] 18, 429). — I, 1438.
 12) Nitril d. γ -Nitrobuttersäure. *Sd.* 236° (*C.* 1898 [2] 887).
 13) Nitril d. α -Nitroisobuttersäure. *Sm.* 35°; *Sd.* 97°₄₅ (*B.* 31, 1879).
 14) Amid d. Fumarsäure. *Sm.* 265° u. Zers. + HgO (*A.* 38, 275; 280, 189; *J.* 1852, 527; *B.* 19, 2461; 25, 643; *J. pr.* [2] 38, 478; *G.* 17, 172). — I, 1389.
 15) Aethylenamid d. Oxalsäure (*B.* 5, 247). — I, 1366.
 16) Cyanamid d. α -Oxypropionsäure (Laktocyanamid). *Sm.* 212° *Ag* (*J. pr.* [2] 17, 34). — I, 1439.
 17) Imid d. Amidoäthan- $\alpha\beta$ -Dicarbonsäure (Amidosuccinimid). *Zers.* bei 250° (275°) (*G.* 17, 173, 228; 18, 473; *B.* 29, 2069). — I, 1381.
C 33,8 — H 4,2 — O 22,5 — N 39,4 — M. G. 142.
- C₄H₆O₂N₄** 1) Nitrosokreatinin (siehe auch C₄H₆O₂N₄) (*C.* 1898 [1] 38).

- $C_4H_6O_2N_2$ 2) Acetylenharnstoff (Glykoloril). Ag_2 (A. 134, 221; 189, 157; B. 10, 1923; 11, 1784; 17, 1999; 19, 2479; G. 23 [1] 395). — I, 1314.
 3) Amidomalonylguanidin. $HCl + H_2O$, H_2SO_4 (B. 26, 2556).
 4) 5-Hydrazido-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin (Hydrazinuracil). HCl (A. 258, 359). — I, 1347.
 5) Hydrazid d. 5-Keto-4,5-Dihydropyrazol-3-Carbonsäure. Sm. 238 bis 239° (J. pr. [2] 51, 56; B. 26, 1720). — IV, 535.
 $C_4H_6O_2N_6$ C 28,2 — H 3,5 — O 18,8 — N 49,4 — M. G. 170.
 1) Hydrazid d. 4-Hydrazon-5-Keto-4,5-Dihydropyrazol-3-Carbonsäure. Sm. noch nicht bei 250° (J. pr. [2] 51, 57). — IV, 535.
 $C_4H_6O_2Cl_2$ 1) $\alpha\beta$ -Dichlorbuttersäure. Sm. 78° (72–73°); Sd. 212–216° u. Zers. $Ba + 3H_2O$, Zn, Ag (M. 7, 360; A. 234, 201; 266, 372; J. pr. [2] 46, 260). — I, 474.
 2) isom. β - $\alpha\beta$ -Dichlorbuttersäure. Sm. 62,5–63°; Sd. 124,5°₁₀ (A. 248, 283; Am. 9, 282; J. pr. [2] 46, 255, 259). — I, 475.
 3) Iso- $\alpha\beta$ -Dichlorbuttersäure (A. 248, 301, 339). — I, 475.
 4) isom. Dichlorbuttersäure (A. ch. [3] 10, 448; A. 119, 120). — I, 475.
 5) Methylester d. $\alpha\alpha$ -Dichlorpropionsäure. Sd. 144–146° (B. 9, 1878). — I, 473.
 6) $\alpha\beta$ -Dichloräthylester d. Essigsäure. Sd. 160–165° (M. 3, 453). — I, 928.
 7) $\beta\beta$ -Dichloräthylester d. Essigsäure. Sd. 166–168° (Bl. 47, 959). — I, 408.
 8) isom. Dichloräthylester d. Essigsäure? Sd. 146–148° (B. 9, 1611). — I, 928.
 9) β -Chloräthylester d. Chloressigsäure. Sd. 197–198° (B. 11, 1959; Bl. 42, 260). — I, 468.
 10) Aethylester d. Dichloressigsäure. Sd. 156°_{28,2} (B. 10, 1528, 2123; 11, 496, 1043; 14, 1066; 26, 2757; A. 203, 22; 220, 108; Ph. Ch. 1, 378; Am. 14, 371). — I, 469.
 11) $\beta\beta$ -Dichlorisopropylester d. Ameisensäure. Sd. 152°₂₅ (J. pr. [2] 34, 28). — I, 396.
 $C_4H_6O_2Cl_4$ 1) β -Chloräthyläther d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan (Chloräthylen-glykolechlorhydrin) (B. 7, 763). — I, 933.
 $C_4H_6O_2Br_2$ 1) Dibrombutinglykol (aus Erythritanhydrid) (B. 20, 3234).
 2) $\gamma\gamma$ -Dibrom- α -Oxy- β -Ketobutan (Dibromäthylketol). Sm. 85° (A. 291, 243).
 3) $\alpha\alpha$ -Dibrombuttersäure. Sd. 140° (A. Spl. 2, 76; J. 1861, 458; B. 14, 1318; 15, 49; A. 239, 276). — I, 483.
 4) $\alpha\beta$ -Dibrombuttersäure. Sm. 87° (87–90°) (A. 137, 234; 139, 69; Am. 2, 12; 11, 92; J. 1881, 705; B. 14, 1318; 15, 49; J. pr. [2] 25, 385, 397; [2] 46, 257, 262; [2] 52, 291). — I, 483.
 5) $\alpha\beta$ -Dibromallobuttersäure. Sm. 58–59° (J. pr. [2] 46, 262).
 6) isom. $\alpha\beta$ -Dibrombuttersäure. Fl. (A. 248, 319). — I, 483.
 7) $\alpha\beta$ -Dibromisobuttersäure. Sm. 48° (J. pr. [2] 25, 373; [2] 51, 553). — I, 484.
 8) Methylester d. $\alpha\alpha$ -Dibrompropionsäure. Sd. 175–179° (A. 171, 323). — I, 480.
 9) Methylester d. $\alpha\beta$ -Dibrompropionsäure. Sd. 205,8° (A. 167, 229; 221, 85). — I, 481.
 10) $\beta\beta$ -Dibromäthylester d. Essigsäure. Sd. 193–195° (B. 9, 51). — I, 408.
 11) α -Bromäthylester d. Bromessigsäure. Sd. 130–135°_{350–370} (B. 10, 1996; 11, 1916). — I, 925.
 12) β -Bromäthylester d. Bromessigsäure. Sd. 230–240° u. Zers. (147 bis 148°₅₀) (B. 9, 557; A. 280, 198). — I, 478.
 13) Aethylester d. Dibromessigsäure. Sd. 192° (194°) (J. r. 7, 263; B. 4, 369; A. 129, 56; Am. 14, 373). — I, 479.
 $C_4H_6O_2J_2$ 1) Dijodisobuttersäure. Sm. 127° (B. 22, 108). — I, 491.
 2) Aethylester d. Dijodessigsäure (A. 117, 354; J. pr. [2] 38, 433). — I, 490.
 $C_4H_6O_2S$ 1) Anhydrid d. Aethanthiolcarbonsäure (A. d. Thiolessigsäure). Sd. 157° u. ger. Zers. (120°) (J. 1859, 354; A. 90, 212; 123, 283; B. 24, 3551; G. 27 [1] 322). — I, 875.
 2) Aethylester d. Thioglyoxylsäure. Sd. 61°₃₀ (Bl. [3] 15, 135).
 $C_4H_6O_2S_2$ 1) Aethan- $\alpha\beta$ -di[thiolcarbonsäure] (s-Dithiolbernsteinsäure). Nur Salze bek. K₂ (B. 2, 520). — I, 898.

- C₄H₆O₂S 2) Acetyldisulfid. Sm. 20° (A. 123, 278; B. 3, 297; J. pr. [2] 17, 465). — I, 875.
- C₄H₆O₂S,
C₄H₆O₂N₂ 1) Methylendioxy-sulfocarbonat. Fl. (J. 1847/48, 674). — I, 884.
C 36,9 — H 4,6 — O 36,9 — N 21,6 — M. G. 130.
- C₄H₆O₂N₂ 1) α -Amid d. α -Amidoäthen- $\alpha\beta$ -Dicarbonsäure. K (Bl. [3] 17, 61).
2) Diamid d. Ketoäthan- $\alpha\beta$ -Dicarbonsäure (Diamid d. Oxalessigsäure). Sm. 180° u. Zers. K, Cu (Bl. [3] 11, 97, 98).
3) Verbindung (aus Maleinsäure) (J. pr. [2] 51, 393).
C 30,4 — H 3,8 — O 30,4 — N 35,4 — M. G. 158.
- C₄H₆O₂N₂ 1) Allantoïn (Glyoxyldiureid). Lit. bedeutend. — I, 1357.
- C₄H₆O₂Cl₂ 1) $\beta\beta$ -Dichlor- α -Oxyisobuttersäure. Sm. 91–92° (Bl. 36, 20; B. 11, 2223). — I, 564.
2) $\beta\beta$ -Dichlor- α -Oxyisobuttersäure. Sm. 82–83°. Ba, Ag (B. 8, 1334). — I, 564.
3) Methylester d. Dichloroxyessigmethyläthersäure. Sd. 179–181° (A. 254, 18). — I, 551.
C 32,9 — H 4,1 — O 43,8 — N 19,2 — M. G. 146.
- C₄H₆O₂N₂ 1) syn- $\alpha\beta$ -Dioximidobuttersäure + 2H₂O. Ba + 2½ H₂O, Ag + H₂O (B. 17, 821; 25, 2152; 28, 2679). — I, 495.
2) anti- $\alpha\beta$ -Dioximidobuttersäure (B. 25, 2159). — I, 495.
3) Oxalylamidamidoessigsäure (Oxamidoessigsäure). Sm. 224–228° u. Zers. K + 1½ H₂O, Ag (B. 30, 581).
4) Acetoxylidamid d. Oxalsäure. Sm. 172–174° (178° u. Zers.) (A. 289, 316; R. 15, 149).
C 27,6 — H 3,4 — O 36,8 — N 32,2 — M. G. 174.
- C₄H₆O₂N₂ 1) Oxalylidiureid (Bl. 32, 120). — I, 1369.
- C₄H₆O₂S 1) Merkaptobernsteinsäure (Thioäpfelsäure). Sm. 149–150°. Ba, Pb, Ag, (A. 129, 6; 280, 244; M. 16, 792). — I, 899.
2) Thiodiglykolsäure. Sm. 129°. K, K₂, Ca, Ba, Ba + 5H₂O, Zn + H₂O, Pb, Cu + H₂O, Ag, (Z. 1865, 77; 1866, 184; B. 12, 1390; 17, 2818; 27, 3059; J. pr. [2] 13, 472; Ph. Ch. 3, 187; A. 253, 200). — I, 892.
- C₄H₆O₂S 1) Dithiodiglykolsäure. Sm. 100°. K + H₂O, K₂ + 1½ H₂O, Ba + 4H₂O, Ag (B. 14, 409; 19, 114; Ph. Ch. 3, 188). — I, 892.
- C₄H₆O₂Se 1) Selendiglykolsäure. (NH₄)₂ Cu (B. 8, 773; J. 1877, 694). — I, 906.
- C₄H₆O₂N₂ C 29,6 — H 3,7 — O 49,4 — N 17,3 — M. G. 162.
1) $\gamma\gamma$ -Dinitro- β -Ketobutan. Fl. (G. 27 [1] 279).
2) Allophanylglykolsäure. Sm. 192° u. Zers. Cu, Ag (B. 22, 1577). — I, 1308.
3) Nitrosimidodiessigsäure (Nitrosodiglykolamidsäure). Ca + H₂O, Ba, Ag, (A. 138, 303). — I, 1191.
4) Aethylester d. Oximidonitroessigsäure. Sm. 69° (B. 28, 1215).
1) Schweflig-Essigsäureanhydrid (B. 7, 826). — I, 463.
C 23,3 — H 2,9 — O 46,6 — N 27,2 — M. G. 206.
- C₄H₆O₂S 1) Di[Methylnitramid] d. Oxalsäure. Sm. 124° (R. 2, 96; 4, 197; B. 29, 961 Anm.). — I, 1365.
- C₄H₆O₂S 1) Sulfondiessigsäure. Sm. 182°. Ba + 5H₂O (B. 17, 2819; 18, 3241). — I, 893.
- C₄H₆O₂S 1) Aethan- $\alpha\beta$ -Dicarbonsäure- α -Sulfonsäure (Sulfobernsteinsäure). (NH₄)₂ + H₂O, K, K₂ + 2H₂O, K₂ + H₂O, Ba₃ + 3H₂O, Pb₃ + 2H₂O, (Pb₃ + PbO), (Pb₃ + 2PbO), Ag, (A. 38, 285; 129, 9; 131, 167; 157, 20; M. 16, 795). — I, 904.
- C₄H₆O₁₂N₄ C 15,9 — H 2,0 — O 63,6 — N 18,5 — M. G. 302.
1) Tetranitrat d. $\alpha\beta\gamma\delta$ -Tetraoxybutan (Nitroerythrit?). Sm. 61° (A. 70, 226; 130, 302). — I, 327.
- C₄H₆NCI 1) Nitril d. α -Chlorbuttersäure. Sd. 142–143°₇₆₀ (C. 1898 [2] 22).
2) Nitril d. β -Chlorbuttersäure. Sd. 175–176°₇₆₀ (C. 1898 [2] 22).
3) Nitril d. γ -Chlorbuttersäure. Sd. 195–197° (B. 23, 1771, 2491; C. 1898 [2] 22, 662). — I, 1465.
- C₄H₆NCI₂ 1) Trichlorbutylidenimid. Sm. 164–165° (B. 11, 1491, 2167). — I, 944.
2) $\alpha\beta\beta$ -Trichlor- α -Aethylimidoäthan (Dichloracetäthylimidechlorid). Sm. 161 bis 164° (B. 13, 517; A. 214, 224). — I, 1240.
- C₄H₆NBr 1) Nitril d. γ -Brombuttersäure. Sd. 205° u. ger. Zers. (B. 22, 3336). — I, 1465.

- C₄H₆N₂S**
- 1) 2-Merkapto-1-Methylimidazol. Sm. 141—142°; Sd. 280° u. Zers. Ag, 2 + PtCl₄, + AuCl₃ (B. 22, 1355). — IV, 505.
 - 2) 2-Merkapto-4-[oder 5-]Methylimidazol. Sm. 242—245° (B. 26, 2203; 27, 1040). — IV, 518.
 - 3) Methyläther d. 2-Merkaptoimidazol. Sm. 139°; Sd. 251—252°. Ag, (2HCl, PtCl₄), Pikrat (B. 25, 2360). — IV, 503.
 - 4) 5-Amido-2-Methylthiazol. HCl (M. 16, 744).
 - 5) 2-Amido-4-Methylthiazol (Sulfoeyanpropimin). Sm. 42°; Sd. 231 bis 232° u. ger. Zers. HCl, (2HCl, PtCl₄), HNO₃, H₂SO₄ + 2H₂O, CHNS (B. 16, 345; A. 249, 21, 37; 261, 33; M. 16, 743). — IV, 518.
 - 6) 2-Amido-5-Methylthiazol. Sm. 94—95°. (2HCl, PtCl₄) (A. 259, 242). — IV, 520.
 - 7) 2-Methylimido-2,3-Dihydrothiazol. HCl (A. 265, 113). — IV, 504.
 - 8) 2-Imido-3-Methyl-2,3-Dihydrothiazol. Fl. HJ (A. 265, 112). — IV, 504.
- C₄H₆N₂S₃**
- 1) 5-Methylimido-3-Thiocarbonyl-4-Methyl-3,5-Dihydro-1,2,4-Dithiazol. Sm. 86°. HCl, HBr, HNO₃, H₂SO₄ (A. 285, 174).
 - 2) 3,5-Di[Methylimido]-1,2,4-R-Dimethylentrisulfid. Sm. 120° (A. 285, 179).
- C₄H₆N₂Se**
- 1) 2-Amido-4-Methylselenazol. Sm. 79—80°. HCl, (2HCl, PtCl₄) (A. 250, 305). — IV, 520.
- C₄H₆N₂S**
- 1) 5-Allylamido-1,2,3,4-Thiotriazol. Sm. 54° (B. 29, 2495). — IV, 1232.
- C₄H₆N₂Cl**
- 1) Cyanuramidomethylamidochlorid + $\frac{1}{2}$ H₂O (B. 32, 697).
- C₄H₆Cl₂Br₂**
- 1) Dichlordibrombutan. Sm. über 100° (Am. 5, 113).
- C₄H₆Cl₃Br**
- 1) *aaa*-Trichlor- γ -Brom- β -Methylpropan. Fest. Sd. 185—190° (J. pr. [2] 39, 284). — I, 176.
- C₄H₆Cl₄S**
- 1) s-Tetrachlordiäthylsulfid. Sd. 167—172° (A. 92, 358, 359). — I, 357.
- C₄H₆Cl₄S₂**
- 1) Tetrachlordiäthylsulfid. Fl. (A. 116, 237, 242). — I, 359.
- C₄H₆Br₆S**
- 1) s-Tetrabromdiäthylsulfiddibromid. Sd. 195° u. Zers. (A. 241, 144). — I, 366.
- C₄H₇ON**
- C 56,5 — H 8,2 — O 18,8 — N 16,5 — M. G. 85.
- 1) 2-Ketotetrahydropyrrol (Pyrrolidon). Sm. 245°; Hydrat + H₂O (Sm. 35°) (B. 22, 3338). — I, 1198.
 - 2) 2-Methyl-4,5-Dihydrooxazol. Sd. 109,5—110,5°₁₃₇. (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 22, 2221; 23, 2502; 25, 2387; 30, 2496). — I, 1239.
 - 3) α -Oximido- β -Butan (Crotonaldoxim). Sm. 119—120° (M. 12, 411; Bl. [3] 6, 796; B. 25, 1920). — I, 970.
 - 4) Cyansäureisopropyläther. Sd. 67° (B. 15, 756). — I, 1265.
 - 5) Nitril d. Oxyisobuttersäure (Blausäureaceton). Sd. 120° (A. 164, 257; B. 14, 1971). — I, 979.
 - 6) Nitril d. γ -Oxybuttersäure (Trimethylencyanhydrin). Sd. 240—250° (M. 3, 699).
 - 7) Nitril d. Oxyessigäthyläthersäure. Sd. 134—135°₇₆₀ (B. 6, 260; Bl. 30, 109). — I, 1169.
 - 8) Amid d. Propen- α -Carbonsäure (A. d. Crotonsäure). Sm. 149—152° (B. 17, 2008). — I, 1249.
 - 9) isom. Amid d. Crotonsäure. Fl. (B. 18, 483). — I, 1249.
 - 10) Methylamid d. Akrylsäure. Sd. 126—129°₃₀ (Bl. [3] 9, 420).
 - 11) Allylamid d. Ameisensäure. Sd. 109°₁₅ (B. 28, 1666).
- C₄H₇ON₃**
- C 42,5 — H 6,2 — O 14,1 — N 37,2 — M. G. 113.
- 1) 2-Imido-5-Keto-3-Methyltetrahydroimidazol (Kreatinin). Salze meist bek. Lit. bedeutend. — I, 1189.
 - 2) Isokreatinin. Zers. bei 230—240°. HCl, (2HCl, PtCl₄ + 2H₂O), H₂SO₄, Oxalat, + CdCl₂, + ZnCl₂ (H. 24, 2).
 - 3) Alakreatinin + H₂O. + ZnCl₂ (A. 167, 83; B. 6, 1371). — I, 1195.
 - 4) Aethylleukazon. Sm. 158—158,5°. Ba, H₂SO₄ + AgNO₃ (A. 214, 341). — I, 207.
 - 5) Cyanamid d. Aethylamidoameisensäure. Na, Cu + 5H₂O, Ag (B. 19, 449; 25, 820). — I, 1442.
 - 6) Nitril d. Harnstoffäthyl- α -Carbonsäure (N. d. Lakturaminsäure). Sm. 106° (R. 7, 15). — I, 1311.
- C₄H₇OCl**
- 1) β -Chlor- α -Oxy- β -Buten² (Chlorcrotylalkohol). Sd. 158,3°_{742,5} (i. D.) (A. 213, 376). — I, 251.

- C₄H₇OCl**
- 2) Aethyläther d. α -Chlor- α -Oxäthen (α -Chlorvinyläthyläther). Sd. 122 bis 123° (Z. 1871, 128). — I, 301.
 - 3) Aethyläther d. β -Chlor- α -Oxyäthen (β -Chlorvinyläthyläther). Sd. 123°. $3 + \text{H}_2\text{O}$ (J. 1886, 1173). — I, 301.
 - 4) β -Chlor- β -Butanoxyd (Chlorbutylenoxyd). Sd. 125,5° (M. 6, 352). — I, 278.
 - 5) γ -Chlor- β -Ketobutan (Methyl- α -Chloräthylketon). Sd. 115° (Bl. [3] 6, 408, 807). — I, 295.
 - 6) Aldehyd d. β -Chlor-norm. Buttersäure. Sm. 96—97° (A. 162, 100). — I, 944.
 - 7) Aldehyd d. α -Chlorisobuttersäure. Sd. 90—91° (B. 25 [2] 666; Bl. [3] 7, 641; [3] 11, 688). — I, 949.
 - 8) polym. Aldehyd d. α -Chlorisobuttersäure. Sm. 107°; subl. bei 110° (B. 25 [2] 666). — I, 949.
 - 9) Chlorid d. norm. Buttersäure. Sd. 100—101,5° (A. 161, 179; 203, 19; A. ch. [5] 26, 468). — I, 452.
 - 10) Chlorid d. Isobuttersäure. Sd. 92° (A. 203, 20; Z. 1866, 501). — I, 452.
- C₄H₇OCl₃**
- 1) $\beta\beta\gamma$ -Trichlor- α -Oxybutan (Trichlorbutylalkohol). Sm. 60—61° (61,5 bis 62°); Sd. 199—200° (120°₄₅) (B. 14, 2759; 15, 1021; A. 213, 372; 223, 166; H. 6, 493). — I, 247.
 - 2) $\alpha\alpha\alpha$ -Trichlor- β -Oxy- β -Methylpropan + 1 $\frac{1}{2}$ H₂O (Acetonchloroform). Sm. 96—97°; Sd. 167° (B. 14, 245; 15, 2305; 16, 1585; J. pr. [2] 37, 364; C. 1898 [2] 277). — I, 979.
 - 3) isom. Acetonchloroform? Fl. Sd. 170° (J. pr. [2] 37, 362; C. 1898 [2] 277). — I, 978.
 - 4) Aethyläther d. $\alpha\beta\beta$ -Trichlor- α -Oxyäthan (Trichlordiäthyläther). Sd. 157° u. Zers. (102—103°₁₀₀) (B. 4, 217; J. 1886, 1173; A. 279, 303). — I, 296.
- C₄H₇OBr**
- 5) isom. Trichlordiäthyläther. Sd. 167—168° (J. 1876, 475). — I, 296.
 - 1) β -Brom- α -Oxy- β -Buten (Bromcrotylalkohol) (M. 1, 825).
 - 2) Methyläther d. α -Brom- γ -Oxypropen. Sd. 127° (C. 1897 [1] 224).
 - 3) Methyläther d. β -Brom- γ -Oxypropen (Methyl- β -Bromallyläther). Sd. 115—116° (B. 5, 455; C. 1897 [2] 181). — I, 302.
 - 4) Aethyläther d. β -Brom- α -Oxyäthen (β -Bromvinyläthyläther). Sd. 145° (A. 276, 229).
 - 5) Aldehyd d. β -Brombuttersäure. Sd. 235° (B. 25 [2] 501). — I, 945.
 - 6) Aldehyd d. α -Bromisobuttersäure. Fl. (A. 211, 352). — I, 949.
 - 7) isom. Aldehyd d. α -Bromisobuttersäure? Sd. 197° u. Zers. (B. 25 [2] 501). — I, 949.
 - 8) Paraldehyd d. α -Bromisobuttersäure = (C₄H₇OBr)_x. Sm. 128—129° (A. 211, 353). — I, 949.
 - 9) Bromid d. norm. Buttersäure. Sd. 128° (J. 1857, 344 Anm.). — I, 460.
 - 10) Bromid d. Isobuttersäure. Sd. 116—118° (J. r. 13, 81). — I, 460.
- C₄H₇OBr₃**
- 1) Methyläther d. $\beta\beta\gamma$ -Tribrom- α -Oxypropan. Sd. 118—119°₃₅ (Bl. [3] 13, 630; C. 1897 [2] 182).
 - 2) Acetombromoform. Sd. 167° (B. 14, 2458).
- C₄H₇OJ**
- 1) Aldehyd d. Jodisobuttersäure. Fl. (A. ch. [6] 16, 160). — I, 949.
 - 2) Jodid d. norm. Buttersäure. Sd. 146—148° (A. 104, 111; J. 1857, 344). — I, 461.
- C₄H₇OF**
C₄H₇O₂N
- 1) Fluorid d. Buttersäure. Sd. 65° (Bl. [3] 15, 757).
C 47,5 — H 6,9 — O 31,7 — N 13,8 — M. G. 101.
 - 1) β -Nitrobuten. Sd. 154—158°. Na (A. 193, 366; M. 2, 286). — I, 212.
 - 2) γ -Oximido- β -Ketobutan (Isonitrosomethyläthylketon). Sm. 74°; Sd. 185 bis 186° (B. 11, 322; 12, 2290; 13, 1116; 15, 1874; 16, 177, 836; 22, 559; 25, 1720; 28, 1518). — I, 295.
 - 3) Methyläther d. α -Oximido- β -Ketopropan (Methyläther d. Isonitrosoacetone). Sd. 115—116° (unc.) (B. 16, 833). — I, 292.
 - 4) Acetat d. Oximidoäthan. Fl. (Soc. 65, 215).
 - 5) Allylester d. Amidoameisensäure. Sm. 21,5—22°; Sd. 203—204° (B. 21, 1288; A. 302, 271). — I, 1254.
 - 6) Amid d. α -Ketopropan- α -Carbonsäure (Amid d. Propionylameisensäure). Sm. 116—117° (B. 13, 2121). — I, 1348.

- C₄H₇O₂N** 7) Imid d. Essigsäure (Diacetamid). Sm. 77,5—78°; Sd. 222,5—223,5° Na (Z. 1869, 127; A. 103, 328; B. 3, 487; 14, 2732; 23, 2395; 26, 2836). — I, 1239.
- C₄H₇O₂N₂** 8) Verbindung (aus Acetessigsäureäthylester u. NH₃) (A. 213, 174).
C 37,2 — H 5,4 — O 24,8 — N 32,6 — M. G. 129.
1) 2,5-Dioximidotetrahydropyrrol + 2H₂O (Succinenimidodioxim). Sm. 207°. Ag₂ (B. 22, 2964; 24, 3430). — I, 1486.
2) 3,5-Diketo-1,2-Dimethyltetrahydro-1,2,4-Triazol (Dimethylurazol). Sm. 167° (C. 1898 [1] 39).
3) 3,5-Dioxy-6-Methyl-1,2-Dihydro-1,2,4-Triazin. Sm. 214° (A. 303, 81).
4) 4,6-Diketo-2-Methylhexahydro-1,3,5-Triazin (Trigensäure; Aethylidenbiuret). Ag (A. 59, 296; M. 2, 398). — I, 1308.
5) Amid d. Imidobernsteinsäure. Sm. 175—176° (B. 25, 648).
6) Amid d. Amidofumarsäure. Sm. 122° (B. 14, 152; Soc. 53, 703). — I, 1389.
7) Amid d. Amidomaleinsäure. Sm. 190—195° u. Zers. (Bl. [3] 11, 96, 482; [3] 17, 60).
- C₄H₇O₂Cl** 1) Methylenäther d. γ -Chlor- $\alpha\beta$ -Dioxypropan. Sd. 150° (126°₇₅₀) (Bl. [3] 13, 384; [3] 21, 276).
2) α -Chlorbuttersäure (A. 153, 241). — I, 474.
3) β -Chlorbuttersäure. Sm. 98—99°; Sd. 200—210° (Z. 1868, 621; A. 203, 28; B. 10, 1749; 11, 348; 12, 2056; 17, 2008; J. r. 11, 252). — I, 474.
4) γ -Chlorbuttersäure. Sm. 10—10,5° (Bl. 45, 341). — I, 474.
5) α -Chlorisobuttersäure (Bl. 26, 24; B. 11, 1693). — I, 475.
6) Methylester d. i- α -Chlorpropionsäure. Sd. 132,5° (132—134°₇₆₀) (B. 12, 344; 28, 1293; A. 208, 342). — I, 472.
7) Methylester d. d- α -Chlorpropionsäure. Sd. 132—134°₇₆₀ (B. 28, 1293; 31, 1419).
8) Methylester d. l- α -Chlorpropionsäure. Sd. 78,5—80°₁₃₀ (Soc. 67, 919).
9) Methylester d. β -Chlorpropionsäure. Sd. 156° (148°) (J. pr. [2] 31, 127; Bl. [3] 9, 415). — I, 472.
10) Aethylester d. Chloressigsäure. Sd. 143,5° (144—146°) (J. 1878, 686; A. 102, 109; 188, 218; 203, 209; 220, 108; B. 15, 518; M. 2, 696; Am. 14, 371). — I, 468.
11) α -Chloräthylester d. Essigsäure. Sd. 121,5°₇₄₆ u. ger. Zers. (A. 102, 94; 109, 156; B. 10, 1999; R. 1, 246). — I, 925.
12) β -Chloräthylester d. Essigsäure. Sd. 145° (A. 112, 148; 113, 116; 114, 126; 138, 326; A. ch. [3] 67, 260; B. 6, 1024; 7, 70; 16, 1218; 25, 2387). — I, 408.
13) norm. Propylester d. Chlorameisensäure. Sd. 115,2° (A. 205, 229; B. 6, 1101). — I, 467.
14) Isopropylester d. Chlorameisensäure. Sd. 103°₇₂₁ (94—96°) (G. 17, 168; A. 302, 269). — I, 467.
15) Chlorid d. Oxyessigäthyläthersäure. Sd. 127—128° (B. 2, 276). — I, 549.
16) Unterchlorig-Buttersäureanhydrid (J. 1862, 248). — I, 463.
- C₄H₇O₂Cl₂** 1) Dimethyläther d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan. Sd. 183,2° (G. 16, 332). — I, 921.
2) Monäthyläther d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan (Chloraläthylalkoholat). Sm. 46°; Sd. 115° (J. 1869, 504; Z. 1870, 352; A. ch. [5] 12, 536; [5] 20, 521; [5] 27, 389; B. 3, 444, 407, 409; A. 157, 244; G. 26 [2] 476). — I, 933.
- C₄H₇O₂Br** 1) α -Brombuttersäure. Sd. 212—217° u. Zers. Na + $\frac{1}{2}$ H₂O, Pb, (Pb, 2PbO) (A. 119, 115, 123; 120, 283; 165, 93; 171, 249; 279, 100; J. r. 9, 129; J. 1861, 457; Bl. 48, 3; [3] 2, 139; [3] 7, 366; B. 26, 264). — I, 483.
2) β -Brombuttersäure (A. 174, 325). — I, 483.
3) γ -Brombuttersäure. Sm. 32—33° (33—35°) (Bl. 46, 65; Soc. 67, 118). — I, 483.
4) α -Bromisobuttersäure. Sm. 48°; Sd. 198—200°. Na + $\frac{1}{2}$ H₂O (A. 153, 229; 200, 68; 279, 109; B. 10, 448; 26, 264; M. 2, 562; J. pr. [2] 33, 105). — I, 484.
5) β -Bromisobuttersäure. Sm. 22° (A. 200, 65 Anm.). — I, 484.
6) Methylester d. α -Brompropionsäure. Sd. 140—150° (A. 280, 251).

- C₄H₇O₂Br** 7) **Methylester d. d- α -Brompropionsäure.** Sd. 93—96°_{130–135} (Soc. 67, 920).
 8) **Aethylester d. Bromessigsäure.** Sd. 159° (Z. 1866, 724; B. 14, 606; A. 108, 110; 129, 55; Am. 14, 372). — I, 478.
 9) **α -Bromäthylester d. Essigsäure.** Sd. 135—145° u. Zers. (A. 176, 18; J. r. 7, 129). — I, 925.
 10) **β -Bromäthylester d. Essigsäure.** Sd. 161—163° (A. 173, 121). — I, 408.
 11) **Verbindung (aus d. $\alpha\alpha$ -Dioxyäthanäthylenäther).** Sd. 145—150° (A. ch. [6] 16, 67). — I, 924.
- C₄H₇O₂Br₃** 1) **Monäthyläther d. $\beta\beta\beta$ -Tribrom- $\alpha\alpha$ -Dioxyäthan (Bromal-Alkoholat).** Sm. 44° (B. 4, 367). — I, 935.
- C₄H₇O₂J** 1) **β -Jodbuttersäure.** Sm. 110° (J. pr. [2] 40, 96; J. 1881, 705; A. 174, 324; B. 9, 1194). — I, 491.
 2) **γ -Jodbuttersäure.** Sm. 40—41° (Bl. 46, 65). — I, 491.
 3) **Jodisobuttersäure.** Sm. 36° (A. 188, 58). — I, 491.
 4) **Methylester d. β -Jodpropionsäure.** Sd. 188° (J. pr. [2] 31, 128). — I, 490.
 5) **Aethylester d. Jodessigsäure.** Sd. 178—180° (A. 112, 127; 298, 351; J. 1878, 685; B. 5, 479; 13, 489; 14, 607). — I, 490.
 6) **β -Jodäthylester d. Essigsäure.** (A. 113, 123). — I, 408.
 C 41,0 — H 6,0 — O 41,0 — N 12,0 — M. G. 117.
- C₄H₇O₂N** 1) **α -Oximidobuttersäure.** Sm. 151° u. Zers. (154°). Ag (B. 15, 1057; 26, 1550; A. 289, 297). — I, 494.
 2) **β -Oximidobuttersäure.** Ba + 2H₂O (B. 24, 498). — I, 494.
 3) **Methylester d. α -Oximidopropionsäure.** Sm. 69° (Bl. [3] 11, 299).
 4) **Aethylester d. Oximidoessigsäure.** Fl. Zers. bei 100° (B. 15, 1154; 16, 67; 25, 716). — I, 492.
 5) **Acetylamidoessigsäure (Acetursäure).** Sm. 206°. NH₃ + H₂O, Ba + 5H₂O, Cu + 4½H₂O, Tl + 2H₂O, Ag (Z. 1868, 79; A. 133, 105; B. 16, 757; 17, 1664; R. 6, 141; Ph. Ch. 3, 190). — I, 1188.
 6) **Methylester d. Acetylamidoameisensäure.** Sm. 93° (R. 9, 140). — I, 1256.
 7) **N-Acetat d. α -Oximido- α -Oxyäthan (Diacethydroxamsäure).** Sm. 89° (B. 25, 703; Soc. 65, 214). — I, 1244.
 8) **Monamid d. Aethan- $\alpha\beta$ -Dicarbonsäure (Succinaminsäure).** K, Mg + 3(6)H₂O, Ca, Ba, Cd + H₂O, Zn, Pb, Mn + 5H₂O, Cu, Ag (A. 134, 136; 162, 175; 215, 201; 260, 114; B. 23, 3285). — I, 1377.
 9) **Monamid d. Oxalsäuremonäthylester (Aethylester d. Oxaminsäure; Oxamäthan).** Sm. 114—115° (J. pr. [2] 10, 196; [2] 12, 434). — I, 1362.
 10) **Methylmonamid d. Oxalsäuremonomethylester (Methylester d. Methyl-oxaminsäure).** Sm. 85° (R. 8, 306). — I, 1362.
 11) **Dimethylmonamid d. Oxalsäure (Dimethyloxaminsäure).** Sm. 130° u. Zers. Ca (A. ch. [5] 23, 315; R. 13, 335). — I, 1362.
 12) **Aethylmonamid d. Oxalsäure (Aethyloxaminsäure).** Sm. 120°; subl. Ca + 2(4)H₂O, Ba + 2H₂O (A. ch. [3] 30, 443; [5] 23, 349; A. 127, 43, 49; 184, 58). — I, 1363.
- C₄H₇O₂N₂** 13) **Verbindung + ½H₂O.** 2 + CuO (C. r. 92, 458).
 C 33,1 — H 4,8 — O 33,1 — N 29,0 — M. G. 145.
 1) **Acetylbiuret (Acetylamid d. Harnstoffcarbonsäure).** Sm. 193—193,5°. + NaOH, + KOH, + C₂H₅ONa (A. 291, 377; G. 26 [2] 536; 27 [2] 421).
 2) **Amid d. $\alpha\beta$ -Dioximidobuttersäure.** Sm. 183° u. Zers. (C. 1898 [1] 1102).
- C₄H₇O₂Cl** 3) **Amid d. Oximidoessigacetsäure.** Sm. 214° u. Zers. (A. 289, 302).
 1) **β -Chlor- α -Oxybuttersäure.** Sm. 85—86°. Ca + H₂O, Zn + 2H₂O (A. 234, 205; J. r. 21, 395). — I, 561.
 2) **isom. β -Chlor- α -Oxybuttersäure.** Sm. 125°. Ca + 4H₂O, Zn (A. 266, 368). — I, 561.
 3) **α -Chlor- β -Oxybuttersäure.** Sm. 62—63°. Ca, Zn, Ag (B. 15, 49, 50; 16, 1270; A. 234, 198). — I, 562.
 4) **isom. Chlor- β -Oxybuttersäure.** Sm. 80,5°. Na, K + 1½H₂O, Ag (A. 266, 361). — I, 562.
 5) **β -Chloroxyisobuttersäure.** Sm. 106—107°; Sd. 230—235°. Ca + 2H₂O, Zn (A. 234, 210; B. 5, 866; J. r. 21, 396). — I, 564.
 6) **Chloroxybuttersäure (unbek. Const.).** Fl. (B. 12, 24). — I, 565.

- $C_4H_5O_2Cl$** 7) Methylester d. β -Chlor- α -Oxypropionsäure. Sd. 185—187° (A. [206](#), [347](#)). — [I](#), [556](#).
- $C_4H_5O_2Br$** 1) γ -Brom- α -Oxybuttersäure. Sm. 100—102°. Ba, Ag (J. r. [7](#), [179](#)). — [I](#), [561](#).
- 2) α -Brom- β -Oxybuttersäure. Sm. 90°. Ca (B. [15](#), [49](#); J. pr. [2](#) [25](#), [389](#); A. [234](#), [207](#)). — [I](#), [562](#).
- 3) β -Brom- α -Oxyisobuttersäure. Sm. 100—101° (J. pr. [2](#) [25](#), [376](#); A. [234](#), [215](#)). — [I](#), [565](#).
- $C_4H_7O_4N$** C [36,1](#) — H [5,2](#) — O [48,1](#) — N [10,5](#) — M. G. [133](#).
- 1) α -Amidoäthan- $\alpha\alpha$ -Dicarbonsäure (d-Amidoisobernsteinsäure). Salze meist bek. (G. [17](#), [429](#)). — [I](#), [1213](#).
- 2) α -Amidoäthan- $\alpha\beta$ -Dicarbonsäure (α -Asparaginsäure) (B. [19](#), [1694](#); [30](#), [294](#)). — [I](#), [1211](#).
- 3) isom. d-Amidobernsteinsäure. Sm. 148°. NH_4 (B. [30](#), [2795](#)).
- 4) α -Amidoäthan- $\alpha\beta$ -Dicarbonsäure (l-Amidobernsteinsäure; l-Asparaginsäure). Salze meist bek. Lit. bedeutend. — [I](#), [1210](#).
- 5) i-Asparaginsäure (Asparacemsäure). Sm. 270—271°. Na_2 , Pb, Cu + $4H_2O$, Ag, HCl. Lit. bedeutend. — [I](#), [1210](#).
- 6) Diglykolamidsäure (Imidodiessigsäure). NH_4 , Ba, Pb, Cu + $2H_2O$, Zn, Ag, HCl, HNO_3 , H_2SO_4 (A. [122](#), [257](#); [124](#), [297](#); [136](#), [213](#); [156](#), [51](#); [145](#), [49](#); [149](#), [88](#); [278](#), [231](#); J. pr. [2](#) [49](#), [484](#); B. [27](#) [2](#) [235](#)). — [I](#), [1191](#).
- 7) β -Oximido- β -Oxyäthan- α -Carbonsäure (Succinylhydroxamsäure). Ba, Ba + $4H_2O$ (G. [25](#) [2](#) [27](#), [265](#)).
- 8) Dimethylester d. Imidodiameisensäure (D. d. Imidodicarbonsäure). Sm. 134° (R. [8](#), [294](#); [9](#), [141](#)). — [I](#), [1256](#).
- 9) Aethylester d. Nitroessigsäure. Sd. 151—152° (C. r. [88](#), [974](#); Bl. [31](#), [536](#); B. [15](#), [1604](#)). — [I](#), [497](#).
- 10) Monamid d. α -Oxyäthan- $\alpha\alpha$ -Dicarbonsäure (Methyltartronaminsäure). Fl. Zn + xH_2O (B. [14](#), [88](#)). — [I](#), [1395](#).
- 11) Monamid d. α -Oxyäthan- $\alpha\beta$ -Dicarbonsäure (Malaminsäure). Sm. 146° (J. pr. [2](#) [38](#), [480](#)). — [I](#), [1395](#).
- 12) Monamid d. Dimethyläther- $\alpha\beta$ -Dicarbonsäure (Diglykolaminsäure). Sm. 135°. Ba + H_2O (A. [128](#), [140](#)). — [I](#), [1342](#).
- 13) α -Nitrit- β -Acetat d. $\alpha\beta$ -Dioxyäthan. Sd. 130° u. Zers. (G. [24](#) [2](#) [24](#)). C [25,4](#) — H [3,7](#) — O [33,9](#) — N [37,0](#) — M. G. [189](#).
- $C_4H_7O_4N_5$** 1) Cyanursaurer Harnstoff (P. [19](#), [11](#); A. [68](#), [326](#); [132](#), [220](#)).
- 2) Imid d. Harnstoffcarbonsäure (I. d. Allophansäure). Sm. 186° (A. [303](#), [106](#)).
- $C_4H_7O_6N$** C [32,2](#) — H [4,7](#) — O [53,7](#) — N [9,4](#) — M. G. [149](#).
- 1) Methylester d. Salpeter- α -Oxypropionsäure. Sd. 85—87°₈₅ (G. [21](#) [2](#) [359](#)). — [I](#), [555](#).
- 2) Aethylester d. Salpeteroxyessigsäure. Sd. 180—182°₇₅ (A. ch. [4](#) [28](#), [424](#)). — [I](#), [550](#).
- 3) Aethylenglykolacetonitrat (Acetat d. $\alpha\beta$ -Dioxyäthannitrat). Fl. (A. ch. [4](#) [27](#), [259](#)). — [I](#), [413](#).
- 4) Monamid d. $\alpha\beta$ -Dioxyäthan- $\alpha\beta$ -Dicarbonsäure (Tartraminsäure). Fl. Ca + $6H_2O$, Ba + $8H_2O$, Pb, (A. [80](#), [303](#); [130](#), [202](#); J. [1853](#), [416](#)). — [I](#), [1404](#).
- C_4H_7NBr** 1) Dibromtetrahydropyrrol. ($2HCl$, $PtCl_4$ + $2H_2O$) (G. [15](#), [482](#)). — [IV](#), [48](#).
- C_4H_7NS** 1) Propylsenföl. Sd. 152,7°₇₄₃ (B. [23](#), [282](#)). — [I](#), [1282](#).
- 2) Isopropylsenföl. Sd. 137—137,5° (B. [15](#), [1290](#); M. [3](#), [168](#)). — [I](#), [1282](#).
- 3) α -Rhodanpropan (norm. Propylrhodanid). Sd. 163° (Z. [1870](#), [576](#)). — [I](#), [1278](#).
- 4) β -Rhodanpropan (Isopropylrhodanid). Sd. 152—153° (149—151°) (B. [2](#), [496](#); A. [178](#), [83](#)). — [I](#), [1278](#).
- 5) 2-Methyl-4,5-Dihydrothiazol. Sm. 144,5—145°. Pikrat (B. [24](#), [1117](#); [26](#), [1083](#); [29](#), [2610](#)). — [I](#), [1173](#).
- $C_4H_7NS_2$** 1) 2-Merkapto-5,6-Dihydro-1,3-Pentthiazol. Sm. 132° (B. [23](#), [92](#)). — [I](#), [1174](#).
- 2) 2-Merkapto-5-Methyl-4,5-Dihydrothiazol. Sm. 95—97° (82°) (B. [23](#), [967](#); [29](#), [2749](#); [31](#), [2838](#)). — [I](#), [1176](#).
- 3) Methyläther d. 2-Merkapto-4,5-Dihydrothiazol. Sd. 216—217° (B. [22](#), [1153](#)). — [I](#), [1262](#).

- C₄H₇NS₂** 4) Imidomethylenäther d. $\alpha\beta$ -Dimerkaptopropan. HCl, (2HCl, SnCl₂) (A. 262, 80). — I, 1280.
5) Methylimidomethylenäther d. $\alpha\beta$ -Dimerkaptoäthan. HJ (A. 262, 70). — I, 1279.
6) Allylamidodithioameisensäure. Nur Salze bekannt. NH₄, Na, K, Ba + 4H₂O, Pb (A. 52, 35; 92, 60). — I, 1262.
- C₄H₇NSe** 1) 2-Methyl-4,5-Dihydroselenazol. Sd. 160—162°₁₅₂. Pikrat (B. 25, 3049). — IV, 48.
- C₄H₇N₂S** 1) 2-Merkapto-1-Aethyl-1,3,4-Triazol. Sm. 96—97°. Na, Ag (B. 29, 2487). — IV, 1102.
2) 2-Hydrazon-3-Methyl-2,3-Dihydrothiazol. Fl. HCl (A. 265, 118). — IV, 505.
3) 2-Imido-3,5-Dimethyl-2,3-Dihydro-1,3,4-Thiodiazol. Fl. HCl, HJ (B. 29, 2516). — IV, 1106.
4) 2-Methylimido-3-Methyl-2,3-Dihydro-1,3,4-Thiodiazol. Fl. HJ (B. 27, 624). — IV, 1102.
5) 2-Methylimido-5-Methyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 112°. HCl (B. 27, 624). — IV, 1106.
6) 2-Aethylimido-2,3-Dihydro-1,3,4-Thiodiazol. HCl (B. 29, 2487). — IV, 1102.
7) Cyanamid d. Aethylamidothioameisensäure. Na (B. 19, 450).
8) Methylcyanamid d. Methylamidothioameisensäure. Sm. 194—195° u. Zers. (B. 23, 1658). — I, 1442.
- C₄H₇N₂S₂** 1) 3,5-Dithiocarbonyl-4-Aethyltetrahydro-1,2,4-Triazol (Aethyldithio-urazol). Sm. 140°. Ag (B. 27, 1774; 28, 951).
2) 3,5-Dithiocarbonyl-1,2-Dimethyltetrahydro-1,2,4-Triazol. Fl. (J.pr. [2] 44, 506). — I, 1319.
- C₄H₇N₂S** 1) Methylester d. Diamidothiocyanursäure (M. d. Thioammelin). Sm. 268°. (2HCl, PtCl₄) (B. 18, 2757). — I, 1448.
- C₄H₇BrS** 1) Methyläther d. ?-Brom- γ -Merkaptopropen (Methylbromallylsulfid). Fl. (B. 20, 2925). — I, 367.
- C₄H₇ON₂** C 48,0 — H 8,0 — O 16,0 — N 28,0 — M. G. 100.
1) Allylharnstoff. Sm. 85°. HNO₃ (A. 102, 299; Z. 1869, 261; M. 5, 36; C. 1898 [2] 767). — I, 1300.
2) γ -Methylnitrosamidopropen (Methylallylnitrosamin). Sd. 170—174° (B. 30, 619).
3) 2-Imido-5-Methyltetrahydrooxazol (Propylenpseudoharnstoff). (2HCl, PtCl₄), Pikrat (B. 22, 2990). — I, 1300.
4) 2-Amido-5,6-Dihydropentoxazol? (Trimethylenpseudoharnstoff). HBr, Pikrat (B. 23, 95). — I, 1301.
5) 1-Nitrosotetrahydropyrrol. Sd. 214° u. ger. Zers. (B. 21, 292). — IV, 2.
6) 2-Ketohexahydro-1,3-Diazin (Trimethylenharnstoff). Sm. 260° (A. 232, 224). — I, 1301.
7) Nitril d. α -Amidoxyl-norm. Buttersäure. Sm. 86—87° (B. 26, 1548).
8) Nitril d. α -Amidoxylisobuttersäure. Sm. 98,5° (B. 25, 2070; 26, 1552; 29, 62). — I, 1022.
C 37,5 — H 6,2 — O 12,5 — N 43,7 — M. G. 128.
- C₄H₇ON₂** 1) Nitril d. α -Semicarbazidopropionsäure. Sm. 131° (A. 303, 79).
- C₄H₇OCl₂** 1) $\alpha\alpha$ -Dichlor- β -Oxy- β -Methylpropan (Dichlortrimethylcarbinol). Sd. 143,5° (J. 1881, 388). — I, 246.
2) ?-Dichloroxybutan. Sd. 105—107°₁₀ (M. 6, 354). — I, 278.
3) Chlormethyläther d. γ -Chlor- α -Oxypropan. Fl. (B. 28 [2] 851).
4) Aethyläther d. $\alpha\beta$ -Dichlor- α -Oxyäthan (α -Dichloräthyläther). Sd. 140 bis 145° (A. 32, 15; 111, 122; 134, 176; 146, 215; 164, 197; 178, 14; 226, 263; 279, 303; B. 4, 216; M. 5, 491). — I, 295.
5) α -Chloräthyläther d. α -Chlor- α -Oxyäthan ($\alpha\alpha'$ -Dichloräthyläther). Sd. 116—117° (A. 106, 337; 175, 46; 178, 43; 218, 16). — I, 225.
- C₄H₇OBr₂** 1) $\beta\gamma$ -Dibrom- α -Oxybutan (Dibrombutylalkohol). Fl. (M. 1, 825). — I, 247.
2) $\gamma\delta$ -Dibrom- α -Oxybutan. Sd. 131—141°₁₀ (B. 27, 2437).
3) Methyläther d. $\beta\gamma$ -Dibrom- α -Oxypropan. Sd. 185° (B. 5, 455). — I, 297.
4) Aethyläther d. $\alpha\beta$ -Dibrom- α -Oxyäthan (Dibromäthyläther). Fl. (A. 192, 111). — I, 296.

- C₃H₇OS**
- 1) Propan- α -Thiolkarbonsäure (Thiolbuttersäure). *Sd.* 130°. Pb (A. 109, 280). — I, 876.
 - 2) Methylester d. Aethanthiolkarbonsäure (Methylester d. Thiolpropionsäure). *Sd.* 119—120° (B. 20, 2922). — I, 876.
 - 3) Aethylester d. Methanthiolkarbonsäure (Ae. d. Thioessigsäure). *Sd.* 116° (A. 176, 182; B. 12, 1062; J. pr. [2] 17, 461; Z. 1868, 642). — I, 875.
 - 4) Verbindung (aus Essigsäurealdehyd u. H₂S). *Sm.* 60—61°; *Sd.* 166—168° (B. 11, 1023; 19, 1831). — I, 939.
- C₄H₉OS₂**
- 1) Oxydithioameisenpropyläthersäure (Propylxanthogensäure). *Fl.* (G. 17, 79). — I, 885.
 - 2) Methylester d. Oxydithioameisenäthyläthersäure (Methylester d. Aethylxanthogensäure). *Sd.* 184° (J. pr. [2] 8, 116; J. 1850, 470; 1851, 513; G. 17, 76). — I, 884.
 - 3) Aethylester d. Oxydithioameisenmethyläthersäure (Aethylester d. Methylxanthogensäure). *Sd.* 184° (J. pr. [2] 8, 115). — I, 884.
- C₄H₉OS₃**
- 1) Verbindung (aus Trioxymethylen u. H₂S). *Sm.* 80—103° (B. 23, 65). — I, 913.
- C₄H₉O₂N₂**
- C 41,4 — H 6,9 — O 27,6 — N 24,1 — M. G. 116.
- 1) α -Acetylmethylharnstoff. *Sm.* 180° (B. 14, 2725; 15, 409; J. 1882, 365; Soc. 73, 364). — I, 1303.
 - 2) γ -Methylnitramidopropen. *Sd.* 95—96°₁₈ (R. 15, 198).
 - 3) $\alpha\delta$ -Dioximidobutan (Succinaldehyddioxim; Pyrrolhydroxylamin). *Sm.* 173° (B. 17, 534; 22, 1969; 23, 1788). — I, 971.
 - 4) $\beta\gamma$ -Dioximidobutan (Dimethylglyoxim). *Subl.* bei 215° (B. 16, 179; A. 283, 244; J. pr. [2] 51, 550). — I, 971.
 - 5) isom. $\beta\gamma$ -Dioximidobutan (Diacetyldioxim). *Sm.* 234,5° (237°) (B. 16, 180; A. 249, 204; 288, 27; Bl. [3] 6, 830; J. pr [2] 51, 503; G. 25 [2] 268). — I, 1033.
 - 6) Aethylenäther d. Imidooxymethan (Formimidoäthylenäther). 2HCl (B. 16, 1653). — I, 1488.
 - 7) 2-Imido-5-Oxymethyltetrahydrooxazol (Oxypseudoallylharnstoff). (2HCl, PtCl₄), (HCl, AuCl₃) (C. 1898 [2] 767).
 - 8) 4-Nitrosomorpholin. *Sm.* 29°; *Sd.* 224—224,5°₄₇ (A. 301, 6).
 - 9) Lakton d. $\gamma\gamma$ -Diamido- γ -Oxypropan- α -Carbonsäure (uns. Succinamid). *Sm.* bei 90°. Ag (A. ch. [6] 22, 324). — I, 1382.
 - 10) Methylester d. Hydrazipropionsäure. *Sm.* 82° (J. pr. [2] 44, 557). — I, 587.
 - 11) Amid d. α -Oximido-norm. Buttersäure. *Sm.* 133—135° (B. 26, 1550).
 - 12) Amid d. Acetylamidoessigsäure. *Sm.* 137° (B. 17, 1674). — I, 1242.
 - 13) Amid d. Aethan- $\alpha\alpha$ -Dicarbonsäure (Amid d. Methylmalonsäure). *Sm.* 207—208° (R. 8, 288; Soc. 63, 878). — I, 1384.
 - 14) Amid d. Aethan- $\alpha\beta$ -Dicarbonsäure (A. d. Bernsteinsäure). *Sm.* 242 bis 243° (245°). Hg + 1 $\frac{1}{2}$ H₂O (A. 49, 196; 162, 173; 280, 185; B. 16, 362; 28, 754; J. 1885, 1333; M. 17, 174). — I, 1381.
 - 15) α -Dimethylamid d. Oxalsäure. *Sm.* 217° (212°; 209—210°) (A. ch. [3] 30, 443; [5] 23, 306; A. 184, 70; 215, 296; B. 12, 1611; 14, 895; 17, 291; M. 2, 132; 3, 107). — I, 1365.
 - 16) uns-Dimethylamid d. Oxalsäure. *Sm.* 104° (R. 13, 336).
 - 17) Monäthylamid d. Oxalsäure. *Sd.* 202—203° (A. 184, 65; B. 14, 741). — I, 1365.
 - 18) Aethylenamid d. Ameisensäure (Diformyldiamidoäthan) (B. 5, 247). — I, 1236.
 - 19) Verbindung (aus Methylnitraminkalium u. Allyljodid). *Sd.* 51—52°_{18—20} (R. 15, 207).
- C₄H₉O₂N₂**
- C 33,3 — H 5,5 — O 22,2 — N 38,9 — M. G. 141.
- 1) α -Nitrosokreatinin. *Sm.* 210° u. Zers. HCl, (2HCl, PtCl₄), HNO₃ (A. 97, 342; 133, 306; C. 1898 [1] 38). — I, 1190.
 - 2) β -Nitrosokreatinin. *Sm.* 195°. HCl, (2HCl, PtCl₄) (A. 133, 310). — I, 1190.
 - 3) α, α' -Dioximidoazoäthan? (Aethylazaurolsäure). *Sm.* 142° u. Zers. (A. 175, 111; 181, 14; 214, 332; B. 14, 1455; 31, 2874). — I, 206.
 - 4) 1,4-Dinitrosohexahydro-1,4-Diazin (1,4-Dinitrosopiperazin). *Sm.* 158° (156—158°) (B. 24, 2401; 26, 725). — I, 1154.

- $C_4H_8O_2N_4$ 5) Methylester d. Imidoamidomethylhydrazonessigsäure (M. d. Amidoguanidinglyoxylsäure). Sm. 187—188° u. Zers. $HCl + \frac{1}{2}H_2O$ (A. 302, 282).
 6) Amid d. α -Semicarbazonpropionsäure. Sm. 230° u. Zers. (A. 303, 86).
 7) Hydrazid d. Fumarsäure. Sm. 220° u. Zers. (J. pr. [2] 52, 451).
 8) Anhydroverbindung (aus d. Hydrazid d. Oxyessigsäure) (Glykolhydrazid-anhydrid). Sm. 205—206°. $HCl + H_2O$ (J. pr. [2] 51, 369).
- $C_4H_8O_2Cl_2$ 1) $\alpha\delta$ -Dichlor- $\beta\gamma$ -Dioxybutan? (Erythritdichlorhydrin). Sm. 126,5°; Sd. 152°₁₀ (J. r. 13, 171; B. 17, 1092; A. ch. [4] 2, 385; [6] 7, 228). — I, 263.
 2) Monäthyläther d. $\beta\beta$ -Dichlor- $\alpha\alpha$ -Dioxyäthan. Fl. (A. 279, 309).
- $C_4H_8O_2Br_2$ 1) $\gamma\delta$ -Dibrom- $\alpha\beta$ -Dioxybutan. Sm. 81—82° (Bl. [3] 3, 418; B. 26 [2] 931). — I, 263.
 2) $\alpha\delta$ -Dibrom- $\beta\gamma$ -Dioxybutan (Erythritdibromhydrin). Sm. 132° (135°) (Z. 1871, 348; Bl. [3] 3, 419; B. 26 [2] 931). — I, 263.
 3) Äthylenoxydbromid. Sm. 65°; Sd. 95° (A. ch. [3] 69, 321). — I, 305.
- $C_4H_8O_2S$ 1) α -Merkapto-norm. Buttersäure (Bl. 30, 507). — I, 896.
 2) α -Merkaptoisobuttersäure. Fl. (J. pr. [2] 33, 109). — I, 896.
 3) Merkaptoessigäthyläthersäure (Äthylthioglykolsäure). Fl. K, Mg + $3H_2O$, Ca, Ba, Zn + $2H_2O$, Cd + $2H_2O$, Co + $2H_2O$, Ni + $2H_2O$, Cu + $2H_2$, Ag + H_2O (Bl. 23, 444). — I, 897.
 4) Methylester d. Merkaptoessigmethyläthersäure. Sd. 162—164° (B. 25, 2452).
 5) Äthylester d. Merkaptoessigsäure. + HgCl, Hg (A. 136, 211; 146, 150; 187, 124). — I, 892.
 6) Anhydrid d. Dimethylthetin (J. 1878, 683). — I, 876.
- $C_4H_8O_2S_2$ 1) Diäthylendisulfidoxyd (A. 125, 123; 126, 291). — I, 365.
 $C_4H_8O_2Hg$ 1) Quecksilberäthylacetat. Sm. 178° (Z. 1870, 25). — I, 1526.
 $C_4H_8O_2N_2$ C 36,4 — H 6,0 — O 36,4 — N 21,2 — M. G. 132.
 1) α -Nitroso- α -Nitrobutan (norm. Butylnitrolsäure). Fl. (B. 10, 2084). — I, 210.
 2) β -Nitroso- β -Nitrobutan (Pseudobutylnitrol). Sm. 58° (A. 180, 135; B. 21, 508). — I, 210.
 3) α -Nitroso- α -Nitro- β -Methylpropan (Isobutylnitrolsäure). Fl. (A. 175, 147). — I, 210.
 4) β -Harnstoffpropionsäure. Sm. 170—171°. K (Am. 15, 515).
 5) Harnstoffäthyl- α -Carbonsäure (Lakturaminsäure). Sm. 155°. Ba + H_2O , Pb + $2H_2O$, Cu, Ag (A. 165, 99; 169, 128). — I, 1311.
 6) α -Methylharnstoff- α -Methylcarbonsäure (Methylhydantoinsäure). Ba, Cu (B. 7, 34, 117). — I, 1309.
 7) Methylester d. Äthylnitrosamidoameisensäure. Fl. (B. 9, 140). — I, 1254.
 8) Äthylester d. Methylnitrosamidoameisensäure. Sd. 70°₂₇ (B. 9, 139; B. 28, 856). — I, 1254.
 9) Äthylester d. Harnstoffcarbonsäure (Äthylester d. Allophansäure). Sm. 190—191° (P. 20, 396; J. 1873, 749; A. 82, 256; 134, 117; 135, 231; 147, 155; 192, 243; 291, 372; 303, 106; B. 4, 265; 11, 834; 19, 2344; 26, 2172; Am. 19, 342; G. 26 [2] 538). — I, 1306.
 10) Monamid d. α -Amidoäthan- $\alpha\alpha$ -Dicarbonsäure (α -Amidoisosuccinaminsäure). Cu (G. 17, 440). — I, 1384.
 11) α -Amid d. α -Amidoäthan- $\alpha\beta$ -Dicarbonsäure + H_2O (inact. α -Asparagin). Zers. bei 212—213°. HCl , Cu + $2H_2O$ (G. 17, 229; 18, 463, 474; B. 29, 2070 Anm.). — I, 1379.
 12) Monamid d. Amidoäthan- $\alpha\beta$ -Dicarbonsäure (Rechts-Asparagin) (G. 17, 126, 182; 18, 477; Soc. 69, 1022). — I, 1379.
 13) Monamid d. Amidoäthan- $\alpha\beta$ -Dicarbonsäure + H_2O (Links-Asparagin; Amidosuccinaminsäure). Sm. 226—227° u. Druck. Lit. bedeutend. — I, 1377.
 14) act. β -Asparagin (B. 29, 2069).
 15) Diamid d. α -Oxyäthan- $\alpha\beta$ -Dicarbonsäure (D. d. Aepfelsäure) (J. 1853, 411). — I, 1395.
 16) Amid d. Aepfelsäure (aus Crassulaceen). Sm. 174—178° (B. 31, 1436).
 17) Diamid d. Dimethyläther- $\alpha\beta$ -Dicarbonsäure (D. d. Diglykolsäure) (A. 144, 104). — I, 1342.
- $C_4H_8O_2Cl_2$ 1) Propargylmethyläther + $2HClO$ (C. r. 93, 388).
 $C_4H_8O_2S$ 1) Anhydrid d. $\alpha\beta\beta$ -Dioxydiäthylsulfon. Sm. 130° (B. 26, 1138).

- C₄H₉O₂S** 1) Oxydithioameisendioxypropyläthersäure (Glycerin-xanthogensäure). Na, Na + C₂H₅O, Cu₂ (M. 2, 372). — I, 886.
C 32,4 — H 5,4 — O 43,2 — N 18,9 — M. G. 148.
- C₄H₉O₂N** 1) αα-Dinitrobutan. Sd. 197° u. Zers. K, Ag (B. 10, 2085; J. 1883, 1079; siehe auch J. 1882, 454; J. pr. [2] 51, 508; G. 28 [2] 264). — I, 210.
2) ββ-Dinitrobutan. Sd. 199° (cor.) (B. 9, 701; 15, 2324; A. 280, 286). — I, 210.
3) αα-Dinitro-β-Methylpropan (Dinitroisobutan). K, Ag + ½ H₂O (B. 10, 2087). — I, 210.
4) isom. Dinitrobutan (J. pr. [2] 25, 272).
5) isom.β-Dinitrobutan (Isobutylennitrit). Sm. 95–96° (M. 2, 287; B. 14, 1621). — I, 210.
6) Dinitrit d. αβ-Dioxy-β-Methylpropen. Sd. 128° u. Zers. (G. 24 [2] 24).
7) α-Isonitramido-norm. Buttersäure. NH₄, Ba, Pb (B. 28, 1793).
8) α-Isonitramidoisobuttersäure. Sm. 94–95°. NH₄, K₂, Pb + H₂O, Ag₂ (A. 300, 69).
9) α-Methylisonitramidopropionsäure. Na (A. 300, 132).
10) N-Aethylisonitramidoessigsäure. K (A. 300, 131).
11) αβ-Diamidoäthan-αβ-Dicarbonsäure (Mesodiamidobernsteinsäure). subl.; Zers. über 200° (B. 14, 1817; 20, 247; 26, 1984). — I, 1212.
12) isom. αβ-Diamidoäthan-αβ-Dicarbonsäure + H₂O (racem. Diamidobernsteinsäure). Cu (B. 26, 1987).
13) isom. Diamidobernsteinsäure. Sm. 151° (unc.). Pb, Cu, Ag₂ (B. 14, 627; 15, 1849).
14) Methylester d. N-Methylisonitramidoessigsäure. Sm. 35° (A. 300, 129).
15) Aethylester d. Amidoameisensäure. Sm. 147–149° (A. 244, 42). — I, 1254.
16) Aethylester d. Nitramidoessigsäure. Sm. 24–25°. NH₄ (B. 29, 1683).
17) β-Oxyäthylester d. Harnstoffcarbonsäure (Glykolester d. Allophan-säure). Sm. 160° (A. 114, 159). — I, 1306.
18) Amid d. αβ-Dioxyäthan-αβ-Dicarbonsäure (A. d. Rechtsweinsäure). Hg (A. 80, 303; 130, 202; J. 1853, 416). — I, 1404.
19) Amid d. Linkswinsäure (J. 1853, 416). — I, 1404.
20) Verbindung (aus Maleinsäure). Sm. 250° (J. pr. [2] 51, 393).
C 27,3 — H 4,5 — O 36,4 — N 31,8 — M. G. 176.
- C₄H₉O₂N** 1) Allantoinsäure. NH₄, Na + H₂O, K, Ba + 2H₂O, Pb + H₂O, Ag (A. 67, 233; 159, 362; J. r. 11, 13). — I, 1358.
- C₄H₉O₂N** C 23,5 — H 3,9 — O 31,4 — N 41,2 — M. G. 204.
1) Oxalendiuramidoxim. Sm. 191–192° (B. 22, 2952). — I, 1485.
2) Di[β-Methyl-β-Nitrosohydrazid] d. Oxalsäure. Sm. 147° u. Zers. (A. 253, 14). — I, 1371.
C 20,7 — H 3,4 — O 27,6 — N 48,3 — M. G. 232.
- C₄H₉O₂N** 1) Tetranitrosotetramethylentetramin. Sm. 105° (Bl. [3] 15, 1202).
- C₄H₉O₂S** 1) Erythritsulfid. Sm. 111,5°; Sd. 160°₁₀₀ (A. ch. [6] 7, 230).
2) Aethylsulfonessigsäure. Na, K, Ba, Cu + 2H₂O (Bl. 23, 447). — I, 891.
3) Aldehyd d. Propan-α-Carbonsäure-β-Sulfonsäure (Butyraldehyd-sulfonsäure) (M. 12, 546). — I, 946.
- C₄H₉O₂S** 1) Diäthylendisulfidoxid (Diäthylendisulfon). Zers. bei 330° (A. 125, 124; J. pr. [2] 36, 448; B. 26, 1132). — I, 365.
2) β-Lakton d. β-Oxyäthylsulfonäthylensulfinsäure. Sm. 220–222° (B. 26, 1135; 27, 3045).
3) polym. β-Lakton d. β-Oxyäthylsulfonäthylensulfinsäure. Sm. 220 bis 222° (B. 27, 3043).
- C₄H₉O₂N** C 29,3 — H 4,9 — O 48,8 — N 17,0 — M. G. 164.
1) Nitrat d. β-Nitro-α-Oxybutan. Fl. (C. 1898 [1] 193).
- C₄H₉O₂S** 1) Propan-α-Carbonsäure-α-Sulfonsäure (α-Sulfobuttersäure). Fl. Ca + 2H₂O, Ba + 2H₂O, Zn + 5H₂O, Pb + 2H₂O, Cu + 4H₂O, Ag₂ (A. 176, 1; R. 7, 27). — I, 903.
2) Propan-α-Carbonsäure-β-Sulfonsäure. Ca, Ba + H₂O, Pb (A. 176, 10; M. 12, 546). — I, 903.
3) isom.β-Propan-α-Carbonsäure-β-Sulfonsäure. Ba + 2H₂O, Pb (B. 18, 483). — I, 903.
4) Propan-β-Carbonsäure-β-Sulfonsäure (α-Sulfoisobuttersäure). Na₂ + ½ H₂O, Ba + 4H₂O (M. 8, 413). — I, 903.

- $C_3H_7O_2S$ 5) isom. Propan- β -Carbonsäure- β -Sulfonsäure (isom. Sulfoisobuttersäure). Ba + 2H₂O (*M.* 8, 414). — I, 903.
6) C-Aethylester d. Methancarbonsäuresulfonsäure (Ae. d. Sulfoessigsäure). Fl. Ag (*A.* 52, 283). — I, 901.
- $C_3H_7O_2S_2$ 1) β -Lakton d. β -Oxyäthylsulfonäthylensulfonsäure. Sm. 255–256° (*B.* 26, 1136; 27, 3044).
2) polym. β -Lakton d. β -Oxyäthylsulfonäthylensulfonsäure (*B.* 27, 3045).
3) C-Aethylester d. Methanunterschwefligesäure-Carbonsäure (Ae. d. Acetunterschwefligen Säure). Na (*G.* 22 [1] 424). — I, 902.
- $C_4H_8N_2Cl_2$ 1) 1,4-Dichlorhexahydro-1,4-Diazin (1,4-Dichlorpiperazin). Sm. 71° (*B.* 24, 3244). — I, 1154.
- $C_4H_8N_2J_2$ 1) $\alpha\alpha\delta\delta$ -Tetrajod- $\alpha\delta$ -Diamidobutan (Bernsteinsäureamidjodid) (*B.* 25, 2542). — I, 1479.
- $C_4H_8N_2S$ 1) Allylthioharnstoff (Thiosinamin). Sm. 78,4° (74°). 2HCl, (2HCl, PtCl₄), 3 + Cu₂Cl₂, 2 + Hg(CN)₂, + HgCl₂, + AgNO₃, + 2 AgNO₃ (*Berz. J.* 21, 360; *A.* 10, 326; 52, 9; *J.* 1854, 599; 1855, 656; 1856, 586; *Z.* 1869, 258; *B.* 21, 1288; *J. pr.* [2] 50, 444; *B.* 29 [2] 37; *C.* 1896 [1] 303). — I, 1321.
2) 2-Amido-5-Methyl-4,5-Dihydrothiazol (Propylenpseudothioharnstoff). Fl. (2HCl, PtCl₄), Pikrat (*B.* 22, 2985; 23, 965). — I, 1324.
3) 2-Methylimidotetrahydrothiazol. Sm. 90° (*B.* 22, 1148). — I, 1324.
4) 2-Imido-3-Methyltetrahydrothiazol. Fl. HJ. Sm. 159–160° (*B.* 22, 1146). — I, 1324.
5) 2-Thiocarbonylhexahydro-1,3-Diazin (Trimethylenthioharnstoff). Sm. 198° (207°). 2 + Cu₂Cl₂, 2 + 3HgCl₂, 2 + Hg(CN)₂, 3 + AgCl, + AgNO₃, 2 + PtCl₄, 2 + AuCl (*A.* 228, 233; *C.* 1897 [2] 195). — I, 1325.
6) 2-Imidotetrahydro-1,3-Thiazin. Fl. HBr, Pikrat (*B.* 23, 93). — I, 1325.
7) Verbindung (aus Thioharnstoff). HCl, HBr, Pikrat (*Soc.* 57, 299). — I, 1322.
- $C_4H_8N_2S_2$ 1) s-Dimethylamid d. Dithiooxalsäure. Sm. 140° (*A.* 262, 360). — I, 1370.
- $C_4H_8N_2S_3$ 1) Dimethylthiocarbamindisulfid. Sm. 109° u. Zers. (*A.* 285, 177).
- $C_4H_8N_2Se$ 1) 2-Imido-5-Methyltetrahydroselenazol (2HCl, PtCl₄) (*B.* 23, 1005). — I, 1331.
2) 2-Imidotetrahydro-1,3-Pentselenazol. HBr (*B.* 23, 1005). — I, 1332.
- $C_4H_8N_2S_4$ 1) 5-Methylimido-3-Thiocarbonyl-4-Methyltetrahydro-1,2,4-Triazol (Methylimidomethylthiourazol) Sm. 177° (*B.* 27, 1775).
- $C_4H_8Cl_2S$ 1) β -Chloräthyläther d. β -Chlor- α -Merkaptoäthan. Sd. 217° u. Zers. (*B.* 19, 3260). — I, 358.
- $C_4H_8Cl_2S_2$ 1) $\beta\beta$ -Dichlordiäthylendisulfid (*A.* 119, 91; 121, 109). — I, 359.
- $C_4H_8Cl_2S_3$ 1) Diäthylendisulfidtetrachlorid (*A.* 126, 289).
- $C_4H_8Br_2S$ 1) Diäthylensulfobromid (*A. Spl.* 4, 104). — I, 365.
- $C_4H_8Br_2S_2$ 1) Diäthylendisulfidtribromid. Sm. 96° u. Zers. (*A.* 126, 287). — I, 364.
- $C_4H_8Br_2S_3$ 1) Diäthylentetrasulfidtribromid (*B.* 21, 1472). — I, 365.
- $C_4H_8J_2S_2$ 1) Diäthylendisulfidtetrajodid. Sm. 132–133° (*A.* 126, 289). — I, 364.
- C_4H_8ON C 55,2 — H 10,3 — O 18,4 — N 16,1 — M. G. 87.
1) Aethyläther d. α -Imido- α -Oxyäthan (Acetimidoäthyläther). Sd. 92 bis 95°. HCl (PINNER, Imidoäther, 1892, S. 27). — I, 1489.
2) γ -Amido- β -Ketobutan (Methyl- α -Amidoäthylketon). HCl, (2HCl, PtCl₄, + 2H₂O) (*B.* 12, 2291; 13, 1116; 28, 2036; *Bl.* [3] 6, 818). — I, 996.
3) α -Oximidobutan (Oxim d. norm. Buttersäurealdehyd). Sd. 152°₇₁₅ (*B.* 26, 1552).
4) β -Oximidobutan (Oxim d. Methyläthylketon). Sd. 152–153° (*B.* 15, 2779; 24, 4021; 26, 1433). — I, 1030.
5) α -Oximido- β -Methylpropan (Oxim d. Isobuttersäurealdehyd). Sd. 139° (*B.* 15, 2784; 25, 1915; 26, 1432). — I, 969.
6) N-Methylacetoxim. (HJ, J₂) (*Soc.* 71, 578).
7) Morpholin (3,4,5,6-Tetrahydro-1,4-Oxazin). Sd. 128°₇₈₀. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat, Pikrolonat (*B.* 22, 2084; 30, 918; *A.* 301, 1).
8) Aldehyd d. Dimethylamidoessigsäure. (2HCl, PtCl₄), Pikrat (*B.* 30, 1514).
9) Amid d. Buttersäure. Sm. 115°; Sd. 216° (*A.* 52, 294; *J.* 1856, 516; *B.* 15, 982; 31, 2348; *J. pr.* [2] 52, 60). — I, 1246.
10) Amid d. Isobuttersäure. Sm. 128–129°; Sd. 216–220° (*B.* 5, 672; 15, 982; 31, 2348; *A.* 180, 340; *J. pr.* [2] 52, 60). — I, 1246.

- C₄H₉ON** 11) Dimethylamid d. Essigsäure. *Sd.* 165,5°₇₈₄. HCl. (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃ + 5H₂O) (*R.* 2, 232; 8, 234; *Bl.* [3] 9, 691; *C.* 1897 [2] 409). — *I.* 1238.
- 12) Aethylamid d. Essigsäure. *Sd.* 205° (*A.* 76, 334; 88, 315; *J.* 1854, 566). — *I.* 1238.
- C₄H₉ON₃** 13) Isopropylamid d. Ameisensäure. *Sd.* 220° (*A.* 149, 158). — *I.* 1236.
C 41,7 — H 7,8 — O 13,9 — N 36,5 — M. G. 115.
- 1) Isopropylidenamidoharnstoff (Aceton-Semicarbazone). *Sm.* 186–187° u. Zers. HCl, (HCl, CuCl), HNO₃, (HNO₃, Cu), H₂SO₄, Pikrat, 2 + ZnCl₂ (*B.* 27, 32; *A.* 283, 19; 288, 312).
- C₄H₉OCl** 1) β-Chlor-α-Oxy-β-Methylpropan (α-Chlorisobutylalkohol). *Sd.* 137° (*A.* 144, 26; *B.* 9, 1034; *Ph. Ch.* 7, 338). — *I.* 246.
- 2) Methyläther d. γ-Chlor-α-Oxypropan. *Sd.* 116–118° (*Soc.* 65, 597).
- 3) Chlormethyläther d. α-Oxypropan. *Sd.* 112,5° (*Bl.* [3] 11, 881).
- 4) Aethyläther d. α-Chlor-α-Oxyäthan (Chloräthyläther). *Sd.* 85–90° (97–98°?) (*A.* 108, 227; 218, 36, 39; 279, 301; *B.* 4, 215). — *I.* 295.
- 5) Aethyläther d. β-Chlor-α-Oxyäthan. *Sd.* 107–108° (*Bl.* 44, 459). — *I.* 295.
- C₄H₉OBr** 1) Aethyläther d. α-Brom-α-Oxyäthan (α-Bromäthyläther). *Sd.* 105° (*J.* 1885, 1163). — *I.* 296.
- 2) Aethyläther d. β-Brom-α-Oxyäthan. *Sd.* 127–128°₇₈₅ (*J.* 1885, 1163). — *I.* 296.
- C₄H₉OJ** 1) Aethyläther d. β-Jod-α-Oxyäthan (Jodäthyläther). *Sd.* 154–155° (*B.* 7, 1173; 9, 746; *Bl.* 44, 458). — *I.* 297.
- C₄H₉O₂N** C 46,6 — H 8,7 — O 31,1 — N 13,6 — M. G. 103.
- 1) α-Nitrobutan. *Sd.* 151–152° (cor.) (*B.* 10, 2083; *M.* 2, 656). — *I.* 209.
- 2) β-Nitrobutan. *Sd.* 140° (138–139°₇₄₇) (*A.* 180, 134; *J. r.* 20, 133; 21, 49; *J. pr.* [2] 48, 357, 373; *B.* 26, 131). — *I.* 209.
- 3) α-Nitro-β-Methylpropan. *Sd.* 158–159°₇₈₅ (*A.* 175, 142; *M.* 2, 657; *C.* 1898 [1] 439). — *I.* 209.
- 4) β-Nitro-β-Methylpropan. *Sm.* 24°; *Sd.* 126–126,5°₇₄₈ (*A.* 180, 155; *B.* 24, 974; *J. pr.* [2] 48, 359). — *I.* 209.
- 5) β-Imido-α-β-Dioxy-β-Methylpropan (Oxyisobutyrimidohydrin). *Sm.* 173° (*C.* 1898 [2] 527).
- 6) Nitrit d. α-Oxybutan (Salpetrigsäure-norm. Butylester). *Sd.* 75° (*G.* 18, 434). — *I.* 322.
- 7) Nitrit d. β-Oxybutan (Salpetrigsäure-sec. Butylester). *Sd.* 68° (*G.* 18, 435). — *I.* 322.
- 8) Nitrit d. α-Oxy-β-Methylpropan (Salpetrigsäureisobutylester). *Sd.* 67° (66–67°) (*Z.* 1869, 433; *M.* 2, 658; *Soc.* 55, 686; *J.* 1883, 853; 1888, 1411). — *I.* 322.
- 9) Nitrit d. β-Oxy-β-Methylpropan (Salpetrigsäuretrimethylcarbinolester). *Sd.* 76–78° (62,8–63,2°) (*A.* 180, 159; *G.* 15, 358). — *I.* 322.
- 10) α-Amidobuttersäure. HCl, HNO₃, Cu, (Pb, Pb[OH]₂), Ag (*A. Spl.* 2, 71, 73; *A.* 198, 65). — *I.* 1197.
- 11) β-Amidobuttersäure. *Sm.* 184°. (2HCl, PtCl₄) (*B.* 13, 312; *M.* 17, 186). — *I.* 1198.
- 12) γ-Amidobuttersäure. Cu + 4H₂O (*Bl.* 50, 102). — *I.* 1198.
- 13) γ-Amidobuttersäure (Piperidinsäure). *Sm.* 183–184° u. Zers. HCl, (2HCl, PtCl₄) (*B.* 16, 644; 22, 3338; 23, 1772; 24, 2450). — *I.* 1198.
- 14) α-Amidoisobuttersäure. subl. bei 220° (280°). HCl + 2H₂O, H₂SO₄ + 2H₂O, Mg, Ba + 3H₂O, Cu, Ag (*A.* 164, 271; 192, 344; 198, 49; *B.* 14, 1972; 24, 3283; *J.* 1881, 705; *M.* 17, 241; *Bl.* [3] 7, 102). — *I.* 1198.
- 15) α-Methylamidopropionsäure. *Sm.* 260° u. Zers. HCl, (2HCl, PtCl₄), HNO₃ (*J. pr.* [2] 12, 244). — *I.* 1195.
- 16) Dimethylamidoessigsäure. Cu + 3H₂O (*A.* 279, 44).
- 17) Aethylamidoessigsäure. *Sm.* oberh. 160° u. Zers. HCl, (2HCl, PtCl₄ + 6H₂O), (2HCl, HgCl₂ + 1H₂O), Cu + 4H₂O, + 2HgCl₂ (*A.* 129, 33; 132, 1). — *I.* 1187.
- 18) Methylester d. α-Amidopropionsäure. HCl (*Sm.* 157°) (*J. pr.* [2] 44, 560). — *I.* 1194.
- 19) Methylester d. β-Amidopropionsäure. HCl (*Am.* 15, 509).
- 20) Methylester d. Aethylamidoameisensäure. *Sd.* 165°_{799,8} (*R.* 7, 355). — *I.* 1254.

Nylamidoameisensäure. Sd. 131° (B. 8, 299). —

Oxyessigsäure. HCl, HJ, HNO₃ (A. 127, 104; 177, 122; J. 37, 166; [2] 38, 399; B. 16, 753; 27, 60; 29,

Methylamidoameisensäure. Sd. 170° (J. pr. [2] 21, — I, 1254.

Amid d. Amidoameisensäure. Sm. 60° (53°); Sd. 194 bis 196° (J. 1873, 748; A. 302, 268). — I, 1253.

Amid d. Amidoameisensäure. Sm. 92—93° (36—37°); Sd. 166; A. 302, 269). — I, 1253.

Acetessigäthyläthersäure (A. d. Aethylglykolsäure). Sm. unter 13° (A. 129, 42; Bl. 30, 108; J. 1882, 362). — I, 1342.

Amid d. Oxyessigsäure. Sd. 250° (A. 129, 29). — I, 1341.

H 6,9 — O 24,4 — N 32,0 — M. G. 131.

Propionsäure (Alakreatin) (A. 167, 83; B. 6, 535, 1371). —

Amid d. Propionsäure. HCl + H₂O (B. 8, 1267; 9, 1902). — I, 1197.

Amid d. Propionsäure. HCl + H₂O (Methylguanidinessigsäure). HCl, H₂SO₄, HNO₃, Ag, CdCl₂, + CdCl₂ + 2H₂O. Lit. bedeutend. — I, 1188.

Amid d. Propionsäure. HCl + H₂O (Guanidokohlensäureäthylester). Sm. 100° (98°) (115° wasserfrei). (2HCl, PtCl₄), H₂SO₄, HNO₃ (B. 7, 1589; J. pr. 17, 238; [2] 49, 30). — I, 1257.

Amid d. Harnstoffäthyl-α-Carbonsäure (A. d. Lakturaminsäure). Sm. 100° (R. 7, 14). — I, 1311.

Amid d. Diglykolamidsäure. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (A. 148, 177). — I, 1242.

Amid d. α-Amidoäthan-αα-Dicarbonsäure (A. d. α-Amidoäthylidenbernsteinsäure). Zers. bei 290—291°. HCl, HNO₃, H₂SO₄ + 2H₂O (G. 17, 126). — I, 1385.

Amid d. αβ-Imidoäthan-αβ-Dicarbonsäure (Diamid d. Imidobernsteinsäure). Sm. 175—176° (B. 25, 648). — I, 1382.

Hydrazid d. Acetylamoessigsäure. Sm. 115° (J. pr. [2] 52, 442).

C 30,2 — H 5,7 — O 20,1 — N 44,0 — M. G. 159.

Aethylester d. Amidoimidomethyltriazencarbonsäure. Sm. 162° (HCl + H₂O (A. 305, 77).

C 25,7 — H 4,8 — O 17,1 — N 52,4 — M. G. 187.

Biuretdicyanamid. HNO₃ (J. pr. [2] 27, 157; M. 10, 98). — I, 1308.

α-Chlor-βγ-Dioxybutan? (Chlorbutylenglykol). Sd. 134—136°₂₅ (M. 6, 348). — I, 277.

β-Chloräthyläther d. β-Chlor-αα-Dioxyäthan (Chloraldehyd-Alkoholat). Sd. 93—95° (A. 164, 219; 226, 270; 279, 305; B. 4, 216). — I, 228.

α-Aethyläther d. α-Chlor-αβ-Dioxyäthan (Oxychloräthyläther). Sd. 151—152° (A. 164, 219; B. 4, 217). — I, 296.

β-Chloräthyläther d. αβ-Dioxyäthan (Diäthylenglykolchlorhydrin). Sd. 180—185° (A. ch. [3] 67, 290; [3] 69, 339). — I, 260.

β-Bromäthyläther d. αβ-Dioxyäthan (Diäthylenglykolbromhydrin). Sd. 205° (A. ch. [3] 67, 286). — I, 261.

C 40,3 — H 7,5 — O 40,3 — N 11,8 — M. G. 119.

β-Nitro-α-Oxybutan. Sd. 127—130°₃₅. Na (C. 1898 [1] 193).

α-Nitro-β-Oxybutan. Sd. 123—125°₃₅ (Bl. [3] 15, 1223).

γ-Nitro-β-Oxybutan. Sd. 112—113°₃₅ (Bl. [3] 15, 1224).

β-Nitro-α-Oxy-β-Methylpropan. Sm. 82° (Bl. [3] 13, 1002).

Nitrat d. α-Oxybutan. Sd. 136° (G. 20, 374). — I, 324.

Nitrat d. β-Oxybutan. Sd. 124° (G. 20, 375). — I, 324.

Nitrat d. α-Oxy-β-Methylpropan. Sd. 123° (Z. 1869, 433; B. 23, 2181; Soc. 55, 684). — I, 324.

β-Amido-α-Oxybuttersäure? NH₄ (A. 234, 207). — I, 1209.

β-Amido-α-Oxyisobuttersäure? NH₄ (A. 234, 217). — I, 1209.

α-Oxamidobuttersäure (α-Amidoxyl-norm. Buttersäure). Zers. bei 166 bis 167° (B. 26, 1549).

α-Oxamidoisobuttersäure (α-Amidoxylisobuttersäure). Sm. 168° u. Zers. (B. 29, 62).

isom. α-Oxamidoisobuttersäure. Sm. 195—196° u. Zers. (A. 300, 75).

- C₄H₉O₃N** 13) α -Hydroxylaminobuttersäure. Sm. 156° u. Zers. HCl (B. 29, 2658).
 14) α -Hydroxylaminisobuttersäure. Sm. 137°. HCl, HNO₃, H₂SO₄ (B. 28, 1378).
 15) Aethylester d. Oxymethylamidoameisensäure. Sm. 189° (J. pr. [2] 52, 226).
 16) Aethylester d. Methoxylamidoameisensäure. Sd. 186—188° (Am. 20, 41).
- C₄H₉O₃N₂** C 32,6 — H 6,1 — O 32,6 — N 28,6 — M. G. 147.
 1) α -Semicarbazidopropionsäure. Sm. 166—168° u. Zers. (A. 303, 84).
 2) Amid d. α -Methylisonitramidopropionsäure. Sm. 150° (A. 300, 132).
- C₄H₉O₃Cl** 1) δ -Chlor- $\alpha\beta\gamma$ -Trioxybutan (Erythritchlorhydrin). Sm. 65—66° (A. ch. [6] 7, 227). — III, 278.
- C₄H₉O₄N** C 35,6 — H 6,6 — O 47,4 — N 10,4 — M. G. 135.
 1) β -Nitro- $\alpha\gamma$ -Dioxy- β -Methylpropan. Sm. 139—140° (Bl. [3] 13, 1002; C. 1897 [1] 741; 1897 [2] 179).
 2) Base (aus Kreatinin) (A. 133, 314).
- C₄H₉O₅N** C 31,8 — H 5,9 — O 53,0 — N 9,3 — M. G. 151.
 1) β -Nitro- $\alpha\gamma$ -Dioxy- β -Oxymethylpropan. Sm. 158—159° (B. [3] 13, 1001).
- C₄H₉O₅P** 1) Isopropylphosphinecarbonsäure. Ba₃, Ag₃ (B. 18, 906). — I, 1508.
- C₄H₉O₅P** 1) Diacetylphosphorsäure. Fl. Ca + 2H₂O, Pb (A. 131, 171). — I, 463.
- C₄H₉NCl₂** 1) Isobutyldichloramin. Sd. 37°, (Bl. [3] 7, 543). — I, 1132.
- C₄H₉NBr₂** 1) $\beta\gamma$ -Dibrom- α -Methylamidopropan (Methyl- $\beta\gamma$ -Dibrompropylamin). (2HCl, PtCl₄), (HCl, AuCl₃), HBr (B. 30, 619).
 2) Di[β -Bromäthyl]amin. Fl. (2HCl, PtCl₄), HBr, (3HJ, 2BiJ₃), Pikrat (B. 30, 810).
- C₄H₉NS** 1) Trimethylsulfincyanid. + AgCN (Bl. 49, 680; [3] 3, 167). — I, 356.
- C₄H₉NBS** 1) Methylthioformaldin. Sm. 65°; Sd. 185° u. Zers. HCl (B. 19, 2346; Bl. [3] 15, 890). — I, 914.
 2) Dimethyläther d. Methylimidodimerkaptomethan. Sd. 192°. (2HCl, PtCl₄), HJ (Bl. [3] 15, 894).
 3) Trimethylamin + Schwefelkohlenstoff. Sm. 125°. HCl, H₃PO₄ (Bl. 33, 13; A. 267, 261). — I, 1120.
 4) Isopropylester d. Amidodithioameisensäure. Sm. 97° (A. 178, 82). — I, 1261.
- C₄H₉N₂S** 1) α -Amido- β -Allylthioharnstoff. Sm. 98—99° (B. 27, 625).
- C₄H₉N₂S₂** 1) Aethylamid d. Thioharnstoffthiocarbonsäure (α -Aethyldithiobiuret). Sm. 157° u. Zers. (B. 25, 733). — I, 1326.
- C₄H₉ClS** 1) Aethyläther d. β -Chlor- α -Merkaptoäthan. Sd. 157° (A. 240, 310; B. 19, 1729). — I, 358.
- C₄H₉Br₂Bi** 1) Wismuthisobutyldibromid. Sm. 124° (B. 21, 2040). — I, 1517.
- C₄H₉S₂P** 1) Trimethylphosphin + Schwefelkohlenstoff (A. Spl. 1, 59). — I, 1499.
- C₄H₁₀ON₂** C 47,1 — H 9,8 — O 15,7 — N 27,4 — M. G. 102.
 1) γ -Amido- γ -Imido- β -Oxy- β -Methylpropan (Oxyisobutyramidin). HCl (B. 17, 2009). — I, 1160.
 2) Aethyläther d. α -Imido- β -Amido- α -Oxyäthan (Glycinimidoäthyläther). 2HCl (B. 31, 2490).
 3) Propylharnstoff. Sm. 107° (Bl. [3] 9, 102). — I, 1299.
 4) s-Methyläthylharnstoff. Sm. 52—53°; Sd. 266—268° (Wünz, Répert. chimie pure (1862) 4, 199). — I, 1299.
 5) isom. Methyläthylharnstoff. Sm. 75° (J. pr. [2] 22, 360). — I, 1299.
 6) isom. Methyläthylharnstoff. Sm. 105° (J. pr. [2] 22, 359). — I, 1299.
 7) Trimethylharnstoff. Sm. 75,5°; Sd. 232,5°_{164,5} (B. 3, 226). — I, 1298.
 8) α -Methylnitrosamidopropan (Methylpropylnitrosamin). Sd. 175—176° (B. 29, 2115).
 9) Diäthylnitrosamin. Sd. 176,9° (A. 128, 152; J. 1871, 695; B. 10, 978; R. 2, 95; 5, 249; C. 1898 [2] 888). — I, 1126.
 10) Amid d. β -Amido-norm. Buttersäure. Fl. HCl, (2HCl, PtCl₄) (B. 13, 312). — I, 1246.
- C₄H₁₀ON₃** 11) Verbindung (aus Harn). Sm. 270° (Bl. [3] 17, 495).
 C 30,4 — H 6,3 — O 10,1 — N 53,2 — M. G. 158.
 1) Amidoimidomethyltriazencarbonsäureimidoäthyläther. 2HCl (A. 305, 76).
- C₄H₁₀OBr₂** 1) Diäthylätherbromid. Sm. 22° (A. 167, 86).

- C₄H₁₀OS** 1) Oxyd d. Diäthylsulfid (Aethylsulfoxyd). HNO₃ (A. 144, 155; J. pr. [2] 17, 473; B. 15, 447). — I, 357.
2) β -Aethyläther d. β -Merkapto- α -Oxyäthan. Sd. 184° (A. 240, 310). — I, 351.
- C₄H₁₀OSi** 1) Siliciumdiäthyloxyd. Sd. über 360° (A. 146, 311). — I, 1519.
- C₄H₁₀OSn** 1) Zinnäthyloxyd (A. 84, 320; 85, 320; 114, 354; 122, 48; 123, 365). — I, 1528.
- C₄H₁₀OTe** 1) Tellurdiäthyloxyd (J. 1861, 565). — I, 383.
- C₄H₁₀O₂N₂** C 40,7 — H 8,5 — O 27,1 — N 23,7 — M. G. 118.
1) α -Nitramidobutan. Fl. K, Ba, Ag (R. 14, 27; 17, 290).
2) β -Nitramidobutan. Fl. Na, K, Ba, Ag (R. 14, 30).
3) α -Nitramido- β -Methylpropan. Sm. 32,2°. Na, K, Ag (R. 14, 32).
4) α -Methylnitramidopropan (Methylpropylnitramin). Sd. 208—210°₇₈₀ (R. 13, 328).
5) β -Methylnitramidopropan. Sd. 60—61°₄₀ (R. 13, 329).
6) Iso-Propylmethylnitramin. Sd. 51°₁₈ (R. 17, 283, 293).
7) Aethylnitramidoäthan (Diäthylnitroamin). Sd. 206,5°₇₈₇ (R. 6, 149; 16, 396). — I, 1126.
8) Isodiäthylnitramin. Sd. 46—50°₁₈ (R. 16, 399; 17, 292).
9) α -Oxy- α -Isopropylharnstoff. Sm. 104—106° u. Zers. (B. 30, 1892).
10) 2,5-Dioxyhexahydro-1,4-Diazin (Dioxypiperazin). Sm. 83°. 2HCl, (2HCl, PtCl₄ + H₂O), 2HBr (B. 27, 169).
11) α -Hydrazidobuttersäure. Sm. 208° (B. 29, 674).
12) α -Hydrazidoisobuttersäure. Sm. 237° u. Zers. HCl, HNO₃, H₂SO₄ (A. 290, 17).
13) Aethylester d. Hydrazidoessigsäure. Fl. HCl (B. 31, 165).
14) Diäthylester d. Untersalpetrigen Säure (Diazoäthoxan). Fl. (B. 11, 1631; 15, 1007). — I, 323.
15) Amid d. α -Oxamidoisobuttersäure (Amid d. α -Amidoxyisobuttersäure). Sm. 114° u. Zers. HCl (Sm. 210° u. Zers.) (B. 26, 1552; 29, 63).
C₄H₁₀O₂N₄ C 32,9 — H 6,8 — O 21,9 — N 38,4 — M. G. 146.
1) $\alpha\beta$ -Di[Methylnitrosamido]äthan. Sm. 60—61° (B. 28, 3076).
2) $\alpha\delta$ -Diamido- $\alpha\delta$ -Dioximidobutan (Succinendiamidoxim). Sm. 188° u. Zers. 2H₃PO₄, 2Pikrat (B. 22, 2958; R. 13, 86). — I, 1486.
3) Aethylendiarnstoff. Sm. 192°. (2HCl, PtCl₄), (HCl, AuCl₃) (A. 119, 349). — I, 1301.
4) Amid d. $\alpha\beta$ -Diamidoäthan- $\alpha\beta$ -Dicarbonsäure (Amid d. Diamidobernsteinsäure). Sm. 160° (B. 14, 626). — I, 1382.
5) Amid d. α -Semicarbasidopropionsäure. Sm. 99—106° (142° wasserfrei) (A. 303, 81).
6) Dihydrazid d. Aethan- $\alpha\beta$ -Dicarbonsäure. Sm. 167°. 2HCl (J. pr. [2] 51, 190, 364).
7) Di[Methylhydrazid] d. Oxalsäure. Sm. 221—221,5° (A. 253, 13). — I, 1371.
C₄H₁₀O₂N₂ C 23,8 — H 5,0 — O 15,8 — N 55,4 — M. G. 202.
1) Cyansemicarbasid. 2HNO₃ (A. 295, 161). — IV, 1329.
C₄H₁₀O₂S 1) Di[β -Oxyäthyl]sulfid. Fl. (A. 124, 263; B. 19, 3259). — I, 351.
2) Diäthylsulfon. Sm. 70°; Sd. 248° (A. 132, 88; 284, 300; B. 12, 846; 15, 446; 17, 2823; J. pr. [2] 31, 347). — I, 358.
3) β -Methylpropan- α -Sulfonsäure (Isobutylsulfonsäure). Fl. Zn (B. 10, 942). — I, 368.
C₄H₁₀O₂S₂ 1) Aethylester d. Aethanthiolsulfonsäure. Sd. 130—140° u. Zers. (A. 35, 346; Z. 1868, 641; B. 11, 2073; 15, 122). — I, 374.
2) Diäthylester d. Thionschwefligen Säure. Sd. 71—72°₂₈ (B. 28, 450).
C₄H₁₀O₂Sn 1) Zinntrimethylformiat (A. 114, 379). — I, 1527.
C₄H₁₀O₂S 1) Butan- α -Sulfonsäure. Na, Ca + 2H₂O, Ba + H₂O, Pb, Cu + 5H₂O (A. 171, 253; 175, 344). — I, 373.
2) β -Methylpropan- α -Sulfonsäure. Fl. Ba, Ag (B. 5, 978). — I, 373.
3) Aethylester d. Aethansulfonsäure. Sd. 213,4° (cor.) (A. 173, 7; B. 15, 2884; J. 1870, 726). — I, 371.
4) Diäthylester d. schwefligen Säure. Sd. 161,3° (J. pr. [2] 2, 279; A. 110, 221; 143, 75; 223, 279; 224, 223; B. 7, 1074; 31, 406). — I, 330.
5) β -Oxydiäthylsulfon. Fl. (J. pr. [2] 36, 443). — I, 351.
6) Dimethylthetin (J. 1878, 681, 684). — I, 876.

- $C_4H_{10}O_3S_2$ 1) Isobutylunterschweifelsäure. Na + H_2O (B. 15, 1938). — I, 329.
 $C_4H_{10}O_3Se$ 1) Diäthylester d. Selenigensäure. Sd. 183—185° u. Zers. (A. 241, 158). — I, 336.
- $C_4H_{10}O_3Si$ 1) Diäthylkieselsäure. Sd. 360° (A. 57, 338); polym. Form siehe $C_{16}H_{40}O_{15}Si_4$. — I, 346.
- $C_4H_{10}O_4N_4$ C 27,0 — H 5,6 — O 36,0 — N 31,4 — M. G. 178.
 1) $\alpha\delta$ -Di[Nitramido]butan (Tetramethylendinitramin). Sm. 163° (R. 9, 97). — I, 1156.
 2) $\alpha\beta$ -Di[Methylnitramido]äthan (Aethylendimethyldinitrodiamin). Sm. 137° (R. 7, 346). — I, 1154.
 3) Dimethyläther d. $\alpha\alpha$ -Diisonitramidoäthan. Sm. 75° (A. 300, 121).
 4) Dihydrazid d. Weinsäure. Sm. 182,5—183° (B. 26, 2058).
- $C_4H_{10}O_4S$ 1) norm. Butylschwefelsäure. Ba + H_2O (A. 165, 116). — I, 333.
 2) Isobutylschwefelsäure. NH_4 , K, Ca, Ba + $2H_2O$ (A. 85, 198; 93, 122; B. 11, 1506; 25, 475; Ph. Ch. 1, 76, 81). — I, 333.
 3) α -Oxybutan- γ -Sulfonsäure. Na (M. 12, 553). — I, 381.
 4) α -Aethoxyläthan- β -Sulfonsäure. Na + $\frac{1}{2}H_2O$, Ba + H_2O , Zn + $6H_2O$, Cu + $6H_2O$ (Z. 1867, 700; A. 223, 218). — I, 372.
 5) Aethylester d. α -Oxyäthan- β -Sulfonsäure (J. r. 14, 95). — I, 379.
 6) Diäthylester d. Schwefelsäure. Sm. — 24,5°; Sd. 208° u. Zers. (A. 66, 117; 75, 46; 162, 382; 223, 208; B. 11, 514; 13, 1699; Bl. 34, 26; J. r. 14, 95; J. pr. [2] 13, 159; [2] 19, 257). — I, 332.
- $C_4H_{10}O_4S_2$ 1) $\alpha\alpha$ -Di[Methylsulfon]äthan (Aethylidendimethylsulfon). Sm. 122° (H. 14, 56). — I, 332.
 2) $\alpha\beta$ -Di[Methylsulfon]äthan (Dimethyläthylensulfon). Sm. 190° (J. pr. [2] 36, 445). — I, 352.
- $C_4H_{10}O_5S_4$ 1) Verbindung (aus Aethanthiosulfonsäure) (B. 24, 1156).
 $C_4H_{10}O_5N_2$ C 28,9 — H 6,0 — O 48,2 — N 16,9 — M. G. 166.
 1) β -Hydroxynitrosamido- $\alpha\gamma$ -Dioxy- β -Oxymethylpropan. Sm. 147° u. Zers. Pb (B. 30, 1660).
 2) Dinitroäthanalkoholat. Fl. K, Ag (B. 32, 637).
 C 24,7 — H 5,1 — O 41,2 — N 28,9 — M. G. 194.
- $C_4H_{10}O_5N_4$ 1) Verbindung (aus Guanidincarbonsäureazid). Sm. 187° (A. 303, 113).
- $C_4H_{10}O_5S$ 1) Verbindung (Z. 1867, 567).
- $C_4H_{10}O_5S_2$ 1) β -Oxyäthylsulfonäthylensulfonsäure. Fl. Ba, Cu (B. 26, 1133).
 C 22,9 — H 4,7 — O 45,7 — N 26,7 — M. G. 210.
- $C_4H_{10}O_5N_2$ 1) Oxalsaurer Harnstoff (J. 1865, 376).
- $C_4H_{10}O_6S_2$ 1) Butan- $\beta\beta$ -Disulfonsäure (Methyläthylmethandisulfonsäure). Na_2 + $3H_2O$, Ba + $2\frac{1}{2}H_2O$, Cu + $5H_2O$, Ag. — I, 376.
 2) β -Methylpropan- $\alpha\beta$ -Disulfonsäure. Fl. Ba (B. 23, 1089). — I, 377.
 3) β -Oxyäthylsulfonäthylensulfonsäure. Fl. K, Ba, Ag (B. 26, 1136).
 4) Dimethylester d. Aethan- $\alpha\alpha$ -Disulfonsäure. — I, 376.
- $C_4H_{10}O_6S_3$ 1) Dimethyldimethylendisulfon. Sm. 184—185° (B. 23, 1872). — I, 238.
 $C_4H_{10}O_6S_4$ 1) α -Oxybutan- $\alpha\gamma$ -Disulfonsäure. Ba + $3H_2O$ (M. 12, 543). — I, 381.
 2) Diäthyläther- $\beta\beta$ -Disulfonsäure (Diäthionsäure). (NH_4), K, Ba + H_2O (B. 7, 391; 12, 1604; 14, 65; Am. 20, 689). — I, 380.
 3) Säure (aus d. NH_4 -Salz d. α -Oxyäthan- β -Sulfonsäure). NH_4 (B. 12, 1606). — I, 380.
- $C_4H_{10}O_8S_2$ 1) ?-Dioxybutan-?-Disulfonsäure. Na_2 + H_2O (B. 20, 3237). — I, 381.
 $C_4H_{10}O_{10}S_4$ 1) Erythrittetraschwefelsäure. K_4 + $4H_2O$, Ba + $4H_2O$ (J. pr. [2] 20, 71). — I, 335.
- $C_4H_{10}NCl$ 1) β -Chlor- α -Amidobutan. ($2HCl$, $PtCl_4$), Pikrat (B. 28, 3113).
 2) γ -Chlor- α -Amidobutan. Fl. HCl , ($2HCl$, $PtCl_4$), Pikrat (B. 28, 3120; 29, 1427).
 3) δ -Chlor- α -Amidobutan ($2HCl$, $PtCl_4$) (B. 24, 3232). — I, 1131.
 4) Isobutylechloramin. Fl. (Bl. [3] 7, 543). — I, 1132.
 5) Diäthylechloramin (B. 25, 3623).
- $C_4H_{10}NBr$ 1) β -Brom- α -Amidobutan. Pikrat (B. 28, 3115).
 2) δ -Brom- α -Amidobutan. Pikrat (B. 25, 3044). — I, 1131.
- $C_4H_{10}N_2S$ 1) norm. Propylthioharnstoff. Sm. 110° (B. 23, 2831). — I, 1320.
 2) Isopropylthioharnstoff. Sm. 157° (B. 15, 1290; M. 3, 168). — I, 1321.
 3) α -Methyläthylthioharnstoff. Sm. 54° (B. 1, 27). — I, 1320.
 4) Dimethylamidomethylimidomerkaptomethan. Sm. 87—88° (Soc. 67, 557).

- $C_4H_{10}N_2S$ 1) Aethylendithioharnstoff (Aethylenester d. Imidoamidothioameisensäure). 2HCl, 2HBr (*M.* 4, 142; *A.* 261, 4). — *I*, 1324.
2) Rhodanwasserstoff-Aethylendiamin. Sm. 145° (*B.* 5, 245).
- $C_4H_{10}ClTi$ 1) Thalliumäthylchlorid (*A.* 176, 264; *B.* 3, 10). — *I*, 1527.
- $C_4H_{10}Cl_2Se$ 1) Diäthylselenidechlorid (*A.* 152, 213). — *I*, 382.
- $C_4H_{10}Cl_2Si$ 1) Siliciumdiäthylchlorid. Sd. 128—130° (*A.* 146, 310). — *I*, 1519.
- $C_4H_{10}Cl_2Sn$ 1) Zinndiäthylchlorid. Sm. 85°; Sd. 220°. + 2NH₃, + 2Pyridin (*A.* 114, 356; *C.* 1898 [2] 282). — *I*, 1528.
- $C_4H_{10}Cl_2Te$ 1) Diäthyltellurchlorid (*J.* 1861, 565). — *I*, 383.
- $C_4H_{10}Cl_2As$ 1) Arsendiäthyltrichlorid. + 2HgO (*A.* 92, 369). — *I*, 1512.
- $C_4H_{10}BrBi$ 1) Diäthylwismuthbromid (*B.* 20, 1521). — *I*, 1517.
- $C_4H_{10}Br_2S$ 1) Diäthylsulfdibromid (*A.* 152, 214; *H.* 20, 271). — *I*, 357.
- $C_4H_{10}Br_2Sn$ 1) Zinndiäthylbromid. Sd. 232—233°. + 2Pyridin (*A.* 114, 357; *C.* 1898 [2] 282). — *I*, 1528.
- $C_4H_{10}JAs$ 1) Arsendiäthyljodid. Sd. 228—232° (*A.* 92, 365). — *I*, 1512.
- $C_4H_{10}JTi$ 1) Thalliumäthyljodid (*A.* 176, 269). — *I*, 1527.
- $C_4H_{10}J_2S$ 1) Diäthylsulfdijodid. Fl. (*A.* 152, 215; *H.* 20, 272). — *I*, 357.
- $C_4H_{10}J_2Sn$ 1) Zinndiäthyljodid. Sm. 44,5°; Sd. 245°. + 2NH₃, + 2Pyridin (*A.* 85, 335; *C.* 1898 [2] 282). — *I*, 1528.
- $C_4H_{10}J_2S$ 1) Trimethylsulfinjodid + Jodoform. Sm. 162° (*C.* 1898 [2] 524).
- $C_4H_{10}SHg_2$ 1) Quecksilberäthylmerkaptid. Sm. 82° (77°) (*A.* 92, 380; *B.* 15, 125, 339). — *I*, 1526.
- $C_4H_{10}S_2Zn$ 1) Zinkäthylmerkaptid (*B.* 15, 126).
- $C_4H_{11}ON$ C 54,0 — H 12,3 — O 18,0 — N 15,7 — M. G. 89.
1) β -Aethylamido- α -Oxyäthan (β -Oxydiäthylamin). Sd. 167—169°₇₆₁. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (*B.* 31, 1073).
2) β -Dimethylamido- α -Oxyäthan (Dimethyl- β -Amidoäthylalkohol). Sd. 130 bis 134° (128—130°). (2HCl, PtCl₄), (HCl, AuCl₃) (*B.* 14, 2408; 22, 2092; 30, 1388; 32, 749). — *I*, 1171.
3) Propylamidooxymethan. Fl. (*B.* 28 [2] 852).
4) α -Aethoxyläthylamin. Sd. 83°. HCl, (2HCl, PtCl₄), H₂SO₄, Dioxalat (*A.* 252, 237; *Am.* 20, 47). — *I*, 1139.
5) β -Aethoxyläthylamin (Diäthylhydroxylamin?). HCl, (2HCl, PtCl₄), H₃PO₄, H₂SO₄, Oxalat, Dioxalat (*A. Spl.* 6, 238). — *I*, 1140.
6) norm. Butyraldehydammoniak + 3½ H₂O (5 H₂O). Sm. 30—31° (*A.* 64, 53; 211, 356). — *I*, 943.
- $C_4H_{11}OB$ 1) Diäthylborsäure (*J.* 1876, 469). — *I*, 1518.
- $C_4H_{11}OTl$ 1) Thalliumäthoxydhydrat. Salze siehe (*A.* 176, 264; *B.* 3, 10). — *I*, 1527.
- $C_4H_{11}O_2N$ C 45,7 — H 10,5 — O 30,5 — N 13,3 — M. G. 105.
1) β -Amido- $\alpha\gamma$ -Dioxy- β -Methylpropan. Sm. 60—95°; Sd. 154°₁₆₅. HCl, H₂SO₄, Oxalat (*B.* 30, 2067).
2) γ -Methylamido- $\alpha\beta$ -Dioxypropan. Sd. 239—241°₇₄₈. Pikrolonat (*B.* 32, 754).
3) Di[β -Oxyäthyl]amin. Sm. 28°; Sd. 270°₇₄₈. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HNO₃, Pikrat, Pikrolonat (*A.* 121, 227; *B.* 30, 812, 915, 1492). — *I*, 1172.
4) Aldolammoniak (*J.* 1873, 474). — *I*, 964.
- $C_4H_{11}O_2N_2$ C 36,1 — H 8,3 — O 24,0 — N 31,6 — M. G. 133.
1) Glykolmethylguanidin. HCl, (2HCl, PtCl₄), Ag₂O (*B.* 4, 880).
- $C_4H_{11}O_2P$ 1) Diäthylphosphinsäure. Fl. Ba, Ag (*B.* 5, 110; 31, 3058). — *I*, 1500.
- $C_4H_{11}O_2As$ 1) Arsendiäthylsäure. Sm. 190° (*A.* 92, 365). — *I*, 1512.
- $C_4H_{11}O_2B$ 1) Boräthylverbindung (*J.* 1876, 479). — *I*, 1518.
- $C_4H_{11}O_2N$ C 39,7 — H 9,1 — O 39,7 — N 11,5 — M. G. 121.
1) β -Oxamido- $\alpha\gamma$ -Dioxy- β -Methylpropan. Sm. 122—123°. Oxalat, Pikrat (*B.* 30, 2058).
2) β -Amido- $\alpha\gamma$ -Dioxy- β -Oxymethylpropan. Sm. 167—168°. HCl, HJ, H₂SO₄, Oxalat (*B.* 30, 2062).
- $C_4H_{11}O_2N_2$ C 32,2 — H 7,4 — O 32,2 — N 28,2 — M. G. 149.
1) Glykolylmethylguanidin. HCl, (2HCl, PtCl₄), Ag₂O (*B.* 4, 880). — *I*, 1191.
- $C_4H_{11}O_2P$ 1) Isobutylphosphinsäure. Sm. 100°. Ag₂ (*B.* 6, 304). — *I*, 1503.
- $C_4H_{11}O_2P$ 1) Diäthylester d. Phosphorigen Säure. Sd. 184—185° (*See.* 57, 634; *B.* 30, 1005). — *I*, 337.

- $C_4H_{11}O_4N$ C 35,0 — H 8,8 — O 46,7 — N 10,2 — M. G. 137.
 1) β -Hydroxylamido- $\alpha\gamma$ -Dioxy- β -Oxymethylpropan. Sm. 140°. Oxalat, Pikrat (B. 30, 1658).
- $C_4H_{11}O_4P$ 1) α -Oxyisobutylphosphinsäure. Sm. 168 — 169°. Ba (M. 5, 641) — I, 1503.
 2) Diäthylester d. Phosphorsäure. Ca, Pb (A. 69, 187; A. Spl. 6, 264; Bl. [3] 19, 733). — I, 340.
 3) Dimethyläthylester d. Phosphorsäure. Sd. 203,3°. (A. 221, 90; 262, 214). — I, 341.
- $C_4H_{11}O_5P_2$ 1) Diäthylpyrophosphorige Säure. Zn (Z. 1867, 266).
 $C_4H_{11}NJ_2$ 1) Jodmethyltrimethylammoniumjodid (J. 1859, 376). — I, 1121.
 $C_4H_{11}N_2S$ 1) α -Methylamido- β -Aethylthioharnstoff. Sm. 84°. (2HCl, PtCl₄) (B. 29, 2920).
- $C_4H_{11}ClS$ 1) Dimethyläthylsulfinchlorid. + HgCl₂, + 2 HgCl₂, + 6 HgCl₂, + AuCl₃, 2 + PtCl₄ (A. 243, 212; 252, 246; B. 31, 2285). — I, 360.
- $C_4H_{11}JS$ 1) Dimethyläthylsulfinjodid. Sm. 108—110° u. Zers. + CdJ₂, 2 + CdJ₂, + HgJ₂ (A. 243, 212; 252, 246; Bl. [3] 2, 162; B. 25 [2] 641; G. 24 [2] 70). — I, 360.
- $C_4H_{11}S_2P$ 1) Diäthylthiophosphinsäure. Fl. NH₄, Ag (B. 25, 2441). — I, 1500.
 $C_4H_{11}S_3P$ 1) Diäthylperthiophosphorsäure. K (J. 1861, 583; A. 119, 294). — I, 341.
 $C_4H_{11}ON_2$ C 46,2 — H 11,5 — O 15,4 — N 26,9 — M. G. 104.
 1) α -Amidoäthyläther d. α -Amido- α -Oxyäthan (Diamidoäthyläther). 2 HCl (A. ch. [5] 25, 224). — I, 297.
 2) Verbindung (aus salzs. Vinylamin). Pikrat (B. 21, 1053). — I, 1140.
- $C_4H_{11}OAs_2$ 1) Kakodyloxyd. Sd. 120° (A. 37, 12, 57; 42, 14; 46, 1; 92, 364; Berv. J. 21, 500). — I, 1510.
- $C_4H_{11}OWo$ 1) Wolframtetramethyloxyd (J. 1856, 373; A. 122, 70). — I, 1530.
 $C_4H_{11}O_2N_4$ C 32,4 — H 8,1 — O 21,6 — N 37,8 — M. G. 148.
 1) Guanidinsarkosin. HCl (B. 7, 1151). — I, 1186.
- $C_4H_{11}O_4N_2$ C 31,5 — H 7,9 — O 42,1 — N 18,4 — M. G. 152.
 1) Methylaminoxalat (A. 193, 80).
- $C_4H_{11}O_4N_3$ C 23,1 — H 5,8 — O 30,7 — N 40,4 — M. G. 208.
 1) Säure (aus Isodinitroglykoloril) (R. 8, 290). — I, 1315.
- $C_4H_{11}O_4Si$ 1) Kieselsäuretetramethylester. Sd. 120—122° (A. ch. [4] 9, 36; G. 27 [2] 443; Ph. Ch. 25, 357). — I, 346.
- $C_4H_{11}O_6P_2$ 1) Monoisobutylester d. Unterphosphorsäure. Ba + 5 H₂O (A. 232, 14). — I, 339.
 2) Tetramethylester d. Unterphosphorsäure. Fl. (A. 232, 13). — I, 339.
- $C_4H_{12}NCl$ 1) Tetramethylammoniumchlorid. + HgCl₂, 2 + HgCl₂, 2 + CuCl₂, 2 + PtCl₄, + AuCl₃ (Soc. 53, 627; J. 1883, 619; A. ch. [5] 23, 332). — I, 1121.
- $C_4H_{12}NBr$ 1) Tetramethylammoniumbromid (B. 14, 1812; 31, 2684; Soc. 53, 625; A. 268, 152). — I, 1121.
- $C_4H_{12}NJ$ 1) Tetramethylammoniumjodid. Lit. bedeutend. — I, 1120.
 $C_4H_{12}NJ_3$ 1) Tetramethylammoniumtrijodid (A. 99, 1). — I, 1121.
 $C_4H_{12}NJ_5$ 1) Tetramethylammoniumpentajodid. Sm. 130° (A. 240, 68, 92). — I, 1121.
 $C_4H_{12}NJ_7$ 1) Tetramethylammoniumheptajodid. Sm. 110° (A. 240, 68, 85). — I, 1121.
- $C_4H_{12}NF$ 1) Tetramethylammoniumfluorid (Soc. 53, 627). — I, 1121.
- $C_4H_{12}N_2S$ 1) Di[β -Amidoäthyl]sulfid (Thioäthylamin). Sd. 231—233°. 2 HCl, (2 HCl, PtCl₄), Pikrat (B. 24, 1114, 3100; 30, 2497). — I, 1172.
 2) Di[Dimethylamin]sulfid. Fl. (A. 290, 181).
- $C_4H_{12}N_2S_2$ 1) Di[β -Amidoäthyl]disulfid (Diamidoäthylsulfid). 2 HCl (Sm. 203°); Pikrat (B. 24, 1123, 2132; 31, 2837). — I, 1173.
 2) Di[Dimethylamin]disulfid. Sd. 170—180° u. Zers. (B. 28, 166).
- $C_4H_{12}N_2Se_2$ 1) Di[β -Amidoäthyl]diselenid. 2 HCl, Pikrat (B. 24, 2135). — I, 383.
- $C_4H_{12}ClP$ 1) Tetramethylphosphoniumchlorid. + AuCl₃, 2 + PtCl₄ (Soc. 53, 638; B. 4, 209; A. 104, 31). — I, 1499.
- $C_4H_{12}ClSb$ 1) Tetramethylantimoniumchlorid. 2 + PtCl₄ (A. 84, 59). — I, 1514.
- $C_4H_{12}BrSb$ 1) Tetramethylantimoniumbromid (A. 84, 58). — I, 1514.
- $C_4H_{12}JP$ 1) Tetramethylphosphoniumjodid (A. 104, 31; B. 4, 209; 30, 1089). — I, 1499.
- $C_4H_{12}JAs$ 1) Tetramethylarsoniumjodid. + J₂, + AsJ₃, 2 + ZnJ₂, 2 + CdJ₂ (A. 92, 361; 116, 364; 122, 199). — I, 1512.

- $C_4H_{12}JSb$ 1) Tetramethylantimoniumjodid (A. 84, 54). — I, 1514.
 $C_4H_{12}J, Wo$ 1) Wolframtetramethyljodid. Sm. 110° (J. 1856, 373; A. 122, 70). — I, 1530.
 $C_4H_{12}J, As$ 1) Tetramethylarsoniumtrijodid (A. 116, 364). — I, 1512.
 $C_4H_{12}SAs_3$ 1) Kakodylsulfid. + 3CuS (A. 37, 16). — I, 1511.
 $C_4H_{12}S_2As_2$ 1) Kakodyldisulfid. Sm. 50° (A. 46, 16). — I, 1511.
 $C_4H_{12}S_3Sb_2$ 1) Antimondimethylsulfid. Sm. unter 100° (J. 1861, 571). — I, 1514.
 $C_4H_{12}ON$ 1) Tetramethylammoniumhydrat. Salze siehe diese. Lit. bedeutend. — I, 1121.
 $C_4H_{12}OP$ 1) Tetramethylphosphoniumhydrat. Salze siehe (A. 104, 31; B. 4, 209; Soc. 53, 638). — I, 1499.
 $C_4H_{12}OAs$ 1) Tetramethylarsoniumhydrat, siehe Jodid $C_4H_{12}JAs$. — I, 1512.
 $C_4H_{12}OSb$ 1) Tetramethylantimoniumhydrat. Salze siehe (A. 84, 50). — I, 1514.
 $C_4H_{12}O_2N$ 1) Oxymethyltrimethylammoniumhydrat (J. 1859, 377). — I, 1170.
 $C_4H_{12}N_2Cl$ 1) Dimethyläthylazoniumchlorid. 2 + PtCl₄ (B. 13, 2172). — I, 1148.
 $C_4H_{12}O_2S_2$ 1) Säure (aus Äthylenrhodanid). Na₄ (A. 153, 325). — I, 1280.
 $C_4H_{12}O_2Si$ 1) Siliciumdiäthyläther. Sd. 155,8° (A. 164, 307).
 C_4OCl_2Br 1) Trichlorbromfuran. Sm. 75—76°. — III, 691.
 $C_4OCl_2Br_4$ 1) Hexachlortetrabromäthyläther? Sm. 96° (A. ch. [3] 16, 25). — I, 301.
 $C_4O_2Cl_2J_2$ 1) Chlorid d. Dijodfumarsäure. Sm. 49° (B. 26, 847).
 C_4O_2ClBr 1) Anhydrid d. Chlorbrommaleinsäure. Sm. 113°; Sd. 203° (B. 29 [2] 186).
 $C_4O_2N_2Br_2$ 1) 3,4-Dibrom-2,5-Dinitrofuran. Sm. 151—152°. + C₆H₆ (Am. 10, 391). — III, 691.
 $C_4O_2Br_2S_2$ 1) Anhydrid d. 2,5-Dibromthiophen-3,4-Disulfonsäure. Sm. oberh. 200° (B. 17, 1569). — III, 743.
 $C_4N_2S_2Si$ 1) Rhodansilicium. Sm. 142°; Sd. bei 300° (A. ch. [5] 11, 343). — I, 1521.

C₄-Gruppe mit vier Elementen.

- C_4HONCl_4 1) 3,4,5,5-Tetrachlor-2-Keto-2,5-Dihydropyrrol (Dichlormaleïnimidchlorid). Sm. 147—148° (A. 295, 79).
 $C_4HO_2NCl_2$ 1) Mucochlorsäureoximanhydrid. Sm. 76—77° (Am. 19, 657).
 2) Imid d. Dichlormaleinsäure. Sm. 179° (Ag, NH₃) (B. 16, 2393; Am. 18, 334). — I, 1390.
 $C_4HO_2NCl_4$ 1) Perchloreyanpropionsäure. Sm. 200°. NH₄ (A. ch. [3] 16, 72). — I, 1219.
 $C_4HO_2NBr_2$ 1) Mucobromsäureoximanhydrid. Sm. 117—118° (125°) (Am. 16, 299; B. 32, 536).
 2) Imid d. Dibrommaleinsäure. Sm. 225° (218°). Ag (J. 1877, 706; 1882, 368; B. 17, 556, 1745; 20, 2598; Am. 16, 301; 18, 335). — I, 1390.
 C_4HO_2ClBr 1) $\alpha\gamma$ -Lakton d. α [?]-Chlor- β -[?]-Brom- γ -Oxypropen- α -Carbonsäure. Sm. 36° (Am. 16, 285).
 $C_4HO_2Br_3S_2$ 1) 2,3,5-Tribromthiophen-4-Sulfonsäure. Ba + H₂O (B. 18, 1775). — III, 743.
 $C_4HO_2N_2Br_2$ 1) 3,4-Dibrom-2,5-Dinitropyrrol + H₂O. Sm. 169° u. Zers. (B. 20, 2597, 2600). — IV, 65.
 $C_4H_2ON_2Cl_4$ 1) Amid d. Perchloreyanpropionsäure. Sm. 86—87° (A. ch. [3] 16, 72). — I, 1219.
 $C_4H_2ON_2Br_2$ 1) 4,5-Dibrom-3-Keto-2,3-Dihydro-1,2-Diazin. Sm. 224°. Ba + 1½ H₂O (B. 32, 535).
 $C_4H_2OCl_4Br_2$ 1) Verbindung (aus Dichloressigsäurealdehyd). Sm. 60° (Z. 1869, 393). — I, 928.
 $C_4H_2O_2NCl$ 1) Oximanhydrid d. α [oder β]-Chlor- γ -Oximidopropen- α -Carbonsäure (O. d. Chlormaleinsäurealldoxim). Sm. 58° (Am. 19, 666).
 2) Imid d. Chlormaleinsäure. Sm. 131° (B. 16, 2394; 17, 553). — I, 1390.
 $C_4H_2O_2NBr$ 1) Oximanhydrid d. α [oder β]-Brom- γ -Oximidopropen- α -Carbonsäure (O. d. Brommaleinsäurealldoxim). Sm. 82—83° (Am. 19, 657).
 2) Imid d. Brommaleinsäure. Sm. 150,5° (J. 1877, 706; B. 17, 557; Am. 19, 658). — I, 1390.
 $C_4H_2O_2NBr_3$ 1) Amid d. $\alpha\alpha\gamma\gamma\gamma$ -Pentabrom- β -Ketopropan- α -Carbonsäure (A. d. Tribromacetyldibromessigsäure). Sm. 148° (B. 19, 2698). — I, 1348.

- $C_4H_2O_2NJ_3$ 1) Verbindung (aus Acetylen) (A. 135, 261).
 $C_4H_2O_2N_2Cl_2$ 1) Verbindung (aus Chloralhydrat) (B. 8, 1328; 9, 1255). — I, 1266.
 $C_4H_2O_2N_2Br_2$ 1) 2,5-Diketo-4-Dibrommethyl-2,5-Dihydroimidazol (Dibrompyruvinureid). Zers. über 280° (A. 239, 187). — I, 1345.
 $C_4H_2O_2N_3Cl_3$ 1) 4,6-Dioxy-2-Trichlormethyl-1,3,5-Triazin. Sm. 152–153° (J. pr. 2 46, 145). — I, 1456.
 $C_4H_2O_2ClIJ$ 1) $\alpha\gamma$ -Lakton d. β -Chlor- α -Jod- γ -Oxypropen- α -Carbonsäure. Sm. 108 bis 109° (Am. 16, 288).
 $C_4H_2O_2Cl_3Br_2$ 1) Chlorid d. $\alpha\beta$ -Dibrombernsteinsäure. Sd. 218–220° u. Zers. (A. Spl. 2, 86; A. 117, 130). — I, 652.
 $C_4H_2O_2BrJ$ 1) $\alpha\gamma$ -Lakton d. β -Brom- α -Jod- γ -Oxypropen- α -Carbonsäure. Sm. 119 bis 120° (Am. 16, 209).
 $C_4H_2O_2NCl_5$ 1) Pentachloräthylester d. Oxaminsäure. Sm. 134° (A. 37, 69, 71; 56, 284). — I, 1362.
 $C_4H_2O_2N_2Cl_2$ 1) 5,5-Dichlor-2,4,6-Triketohexahydro-1,3-Diazin (Dichlorbarbitursäure) (A. 236, 64). — I, 1373.
 $C_4H_2O_2N_2Br_2$ 1) 5,5-Dibrom-2,4,6-Triketohexahydro-1,3-Diazin (Dibrombarbitursäure) (A. 127, 229; 130, 131; 236, 62; B. 16, 1057). — I, 1373.
 $C_4H_2O_2ClBr$ 1) Chlormucobromsäure. Sm. 122–123°. — I, 616.
 $C_4H_2O_2Br_2S_2$ 1) Anhydrid d. s-Chlorbrombernsteinsäure. Sm. 78° (B. 30, 2887).
 $C_4H_2O_2Br_2S_2$ 1) 2,5-Dibromthiophen-3-Sulfonsäure. Pb + $5\frac{1}{2}H_2O$ (B. 17, 1566). — III, 743.
 $C_4H_2O_2Br_2S_2$ 2) 2-Dibromthiophen-2-Sulfonsäure. Ba (B. 27, 2837). — III, 743.
 $C_4H_2O_2Br_2S_2$ 3) isom. Dibromthiophensulfonsäure. Ba (B. 27, 2837). — III, 743.
 $C_4H_2O_2N_2S$ 1) Dinitrothiophen (α -Modif.). Sm. 52°; Sd. 290° + Anthracen (B. 17, 2649, 2780; 18, 532, 1778). — III, 741.
 $C_4H_2O_2ClBr$ 2) isom. Dinitrothiophen. Sm. 75–76° (B. 17, 2649; 18, 530). — III, 741.
 $C_4H_2O_2ClBr$ 1) Chlorbrommaleinsäure. Ba + $2H_2O$ (B. 29 [2] 186).
 $C_4H_2O_2Cl_2S_2$ 1) Chlorid d. Thiophen-2,5[?]-Disulfonsäure. Sm. 77–77,5° (B. 19, 189). — III, 742.
 $C_4H_2O_2Cl_2S_2$ 2) Chlorid d. Thiophen-3,4[?]-Disulfonsäure. Sm. 148–149° u. Zers. (B. 18, 555). — III, 742.
 $C_4H_2O_2Br_2S$ 1) 2,5-Dibromfuran-3-Sulfonsäure. K, Ba + H_2O (Am. 10, 413). — III, 692.
 $C_4H_2O_2Br_2S_2$ 1) 2,5-Dibromthiophen-3,4-Disulfonsäure. $(NH_4)_2$ + H_2O , Na₂ + $3H_2O$, Ba + H_2O , Pb (B. 17, 1569; 18, 557, 3030). — III, 743.
 $C_4H_4ONCl_4$ 1) Nitril d. $\beta\beta\beta\beta$ -Tetrachlor- α -Oxyisobuttersäure. Sm. 112–114° (A. 252, 340, 341). — I, 1471.
 $C_4H_3O_2NCl_2$ 1) Amid d. Mucochlorsäure. Sm. bei 166° (Am. 16, 305).
 $C_4H_3O_2NBr_2$ 1) Amid d. Mucobromsäure. Sm. bei 270° (Am. 16, 302).
 $C_4H_3O_2NS$ 2) Imid d. Dibrombernsteinsäure. Sm. 225° (J. 1877, 706).
 $C_4H_3O_2NS$ 1) 2[?]-Nitrothiophen. Sm. 44°; Sd. 224–225° (B. 17, 2648, 2779; 1885, 1194). — III, 740.
 $C_4H_3O_2N_2Cl$ 1) Imid d. Chloramidomaleinsäure. Sm. 220° (B. 22, 2492). — I, 1391.
 $C_4H_3O_2N_2Cl_3$ 1) Trichlorakrylylharnstoff. Sm. 165° (A. 297, 318).
 $C_4H_3O_2N_2Cl_3$ 2) Blausäurecyansäurechloral. Sm. 80° (B. 8, 1176; 9, 1253). — I, 1266.
 $C_4H_3O_2N_2Br_2$ 1) Dibrommalonylguanidin (B. 26, 2554).
 $C_4H_3O_2ClS_2$ 1) Chlorid d. Thiophen-2-Sulfonsäure. Sd. oberh. 200° u. Zers. (B. 16, 2173; 17, 798). — III, 742.
 $C_4H_3O_2ClS_2$ 2) Chlorid d. Thiophen-3-Sulfonsäure. Sm. 43° (B. 17, 1568). — III, 742.
 $C_4H_3O_2NCl_2$ 1) Mucochlorsäureoxim. Sm. bei 90° (Am. 16, 304).
 $C_4H_3O_2NCl_2$ 2) Monamid d. Dichlormaleinsäure + H_2O . Sm. 175° u. Zers. Ag₂ (B. 22, 2493). — I, 1390.
 $C_4H_3O_2NBr_2$ 1) Mucobromsäureoxim. Sm. bei 90° (Am. 16, 298).
 $C_4H_3O_2N_2Br$ 1) 5-Brom-2,4,6-Triketohexahydro-1,3-Diazin (Brombarbitursäure). NH_4 , Zn + $6(8)H_2O$ (A. 130, 134; B. 12, 2309). — I, 1373.
 $C_4H_3O_2N_2Br_3$ 1) Amidoformylamid d. $\beta\beta\beta$ -Tribrom- α -Ketoäthan- α -Carbonsäure (Tribrompyruvin). Sm. 247° u. Zers. (A. 239, 189). — I, 1345.
 $C_4H_3O_2ClS$ 1) Chlorthiophensulfonsäure. Ba + $2H_2O$ (B. 26, 2948; 28, 2386). — III, 743.
 $C_4H_3O_2BrS_2$ 1) 2-Bromthiophen-2-Sulfonsäure. Ba (B. 27, 2836). — III, 743.
 $C_4H_3O_2NCl_2$ 1) Verbindung (aus Chloralhydrat). Sm. 154° (B. 8, 1328; 9, 1255). — I, 1266.

- $C_6H_5O_2NS_2$ 1) Nitrothiophensulfonsäure. K, Ca, Ba, Ag (B. 18, 534). — III, 744.
- $C_6H_5O_2JS_2$ 1) 2-Jodthiophen-2-Disulfonsäure (B. 18, 559). — III, 743.
- $C_6H_5O_2N_2Br_2$ 1) Verbindung (aus Tetrabrombutan). Fl. (Bl. 48, 56).
- $C_6H_5Cl_2SP$ 1) Thiophendichlorphosphin. Sd. 218° (B. 25, 1514). — IV, 1681.
- $C_6H_5ONCl_2$ 1) Anhydrid d. Chloralacetamid. Sm. 207° (B. 24, 1803). — I, 1244.
- $C_6H_5ON_2Cl_2$ 1) Oxyditrichloräthylidendiamin. Sm. 151° (A. ch. [6] 26, 21, 62). — I, 932.
- $C_6H_5ON_2Br_2$ 1) 4,4-Dibrom-5-Keto-3-Methyl-4,5-Dihydropyrazol. Sm. 182° (J. pr. [2] 52, 37). — IV, 506.
- $C_6H_5ON_2S_2$ 1) 2-[oder 4]Acetyl-3,5-Dithiocarbonyltetrahydro-1,2,4-Thiodiazol (Acetylisopersulfocycansäure). Cu (B. 6, 902; Bl. 25, 525). — I, 1287.
- $C_6H_5OClBr_2$ 1) Aldehyd d. Chlortribrombuttersäure. Fl. + H_2O (Sm. 78°) (B. 8, 1324). — I, 945.
- $C_6H_5OCl_2Br_2$ 1) Aldehyd d. $\alpha\gamma$ -Dichlor- $\alpha\beta$ -Dibrombuttersäure. Fl. + H_2O (Sm. 72°) (M. 4, 549). — I, 945.
- 2) Verbindung (aus Tetrinsäure). Sm. 66° (A. ch. [5] 20, 464; Bl. 33, 524). — I, 617.
- $C_6H_5O_2NCl$ 1) 4-Chlor-5-Keto-3-Methyl-4,5-Dihydroisoxazol. Sm. 86–87° (B. 30, 1160).
- 2) Chlorimid d. Aethan- $\alpha\beta$ -Dicarbonsäure (Chlorimid d. Bernsteinsäure). Sm. 148° (B. 19, 2273; 25, 3618). — I, 1380.
- $C_6H_5O_2NCl_2$ 1) Amid d. $\alpha\gamma\gamma$ -Trichlorpropan- $\alpha\beta$ -Oxyd- β -Carbonsäure. Sm. 127° (A. 254, 96, 110, 374). — I, 1348.
- $C_6H_5O_2NCl_3$ 1) $\beta\beta\beta$ -Trichlor- α -Dichloracetyl-amido- α -Oxyäthan (Chloraldichloressigsäureamid). Sm. 105° (J. 1879, 552). — I, 1244.
- $C_6H_5O_2NBr$ 1) Imid d. Bromäthan- $\alpha\beta$ -Dicarbonsäure (f. d. Brombernsteinsäure). Fl. (A. 252, 158). — I, 1380.
- 2) Bromimid d. Aethan- $\alpha\beta$ -Dicarbonsäure (Bromimid d. Bernsteinsäure). Sm. 173–175° (172,5–178,5°) u. Zers. (B. 26, 425; Am. 15, 215). — I, 1380.
- $C_6H_5O_2NJ$ 1) Jodimid d. Aethan- $\alpha\beta$ -Dicarbonsäure (Jodimid d. Bernsteinsäure). Zers. bei 100° (A. Spl. 7, 119; B. 26, 985). — I, 1380.
- $C_6H_5O_2N_2Br_2$ 1) Bromamid d. Fumarsäure. Sm. 163–166°. Ag₂ (R. 16, 54).
- $C_6H_5O_2N_2J_2$ 1) Amid d. Dijodfumarsäure. Zers. bei 210° (B. 26, 847). — I, 1389.
- $C_6H_5O_2N_2S$ 1) 2-Thiocarbonyl-4,5-Diketo-1-Methyltetrahydroimidazol (Methylthioparabansäure). Sm. 105° (M. 2, 277; B. 14, 1448). — I, 1370.
- 2) 2-Thiocarbonyl-4,6-Diketo-hexahydro-1,3-Diazin (Thiobartitursäure). Sm. 235°. Na (J. pr. [2] 35, 456; [2] 49, 38). — I, 1375.
- 3) 2-Amidothiazol-5-Carbonsäure + 2 H_2O (Sulfuvinursäure). Sm. 244 bis 245°. Ca, Mg, Zn, HCl, HBr, HNO_3 + H_2O (J. pr. [2] 25, 74; B. 27 [2] 882). — IV, 537.
- $C_6H_5O_2ClBr_2$ 1) Chlortribrombuttersäure. Sm. 140° (B. 8, 1324). — I, 484.
- $C_6H_5O_2Cl_2S$ 1) Dichlorid d. Thiodiglykolsäure. Fl. (A. 273, 69). — I, 893.
- $C_6H_5O_2Cl_3S$ 1) Chloralsulfhydrat. Sm. 127–128° u. Zers. (B. 5, 154; 7, 80, 211). — I, 931.
- $C_6H_5O_2NCl$ 1) α -[oder β]Chlor- γ -Oximidopropen- α -Carbonsäure (Chlormaleinsäurealdoxim). Sm. 150° u. Zers. (Am. 19, 665).
- $C_6H_5O_2NBr$ 1) α -[oder β]-Brom- γ -Oximidopropen- α -Carbonsäure (Brommaleinsäurealdoxim). Sm. 143° u. Zers. Ba + 4 H_2O , Pb, Ag (Am. 19, 651).
- $C_6H_5O_2NBr_2$ 1) $\alpha\alpha\beta$ -[oder $\alpha\beta\beta$]Tribrom- γ -Oximidobuttersäure (Tribrombernsteinsäurealdoxim). Sm. 133–150° u. Zers. (Am. 19, 661).
- $C_6H_5O_2N_2Br_2$ 1) 5,5-Dibrom-6-Oxy-2,4-Diketo-hexahydro-1,3-Diazin? (Hydrodibrommalonylharnstoff) (A. ch. [5] 11, 413). — I, 1384.
- $C_6H_5O_2N_2S$ 1) Thiodialursäure + $1\frac{1}{2}H_2O$. K + H_2O , Ag (B. 4, 723; 16, 1060). — I, 1339.
- $C_6H_5O_2N_2Br$ 1) Bromamidobarbitursäure (Bromuramyl) (B. 14, 1060; M. 16, 730). — I, 1375.
- $C_6H_5O_2N_2Br_3$ 1) 2-Oxy-4,6-Diketo-2-Tribrommethylhexahydro-1,3,5-Triazin (Tribromacetoguanamidin) (B. 9, 236). — IV, 1120.
- $C_6H_5O_2NBr$ 1) Verbindung (aus Dibrompyrroldicarbonsäuredimethylester). Sm. 168 bis 171° u. Zers. (B. 20, 2602). — IV, 91.
- $C_6H_5O_2N_2S_2$ 1) Amid d. Nitrothiophensulfonsäure. Sm. 172–173° (B. 18, 536). — III, 744.

- $C_4H_4O_2ClBr$ 1) *fum. s-Chlorbrombernsteinsäure*. Sm. 235—237° u. Zers. (B. 30, 2884).
2) *mal. s-Chlorbrombernsteinsäure*. Sm. 165° u. Zers. (B. 30, 2885).
3) *Chlorbrombernsteinsäure*. Zers. bei 170° (Am. 19, 659).
- $C_4H_4O_2N_2Br$ 1) *5-Brom-5-Nitro-6-Oxy-2,4-Diketo-hexahydro-1,3-Diazin* (Brom-nitrooxyuracil) (A. 240, 11). — I, 1347.
- C_4H_4NCIS 1) α -Chlorallylsenfö. Sd. 185° (B. 5, 188). — I, 1283.
2) β -Chlor- γ -Rhodanpropen (β -Chlorallylrhodanid). Sd. 180—181° (Bl. 39, 526). — I, 1279.
- C_4H_4NBrS 1) *Bromallylsenfö.* Sd. bei 200° (B. 5, 188). — I, 1283.
- $C_4H_4ONCl_2$ 1) $\beta\gamma$ -Dichlor- α -Oximido- β -Buten (Dichlorerotonoxim). Sm. 158° u. Zers. (G. 21 [2] 8). — I, 969.
2) *Nitril d. $\beta\beta$ -Dichlor- α -Oxyisobuttersäure* (Dichloracetonhydrocyanid). Fl. (B. 8, 1333; J. 1871, 531). — I, 1471.
3) *Nitril d. Dichloroxyessigäthyläthersäure*. Sd. 160—161,5°. + PtCl, (A. 229, 171). — I, 1470.
4) *polym. Nitril d. Dichloroxyessigäthyläthersäure*. Sm. 171° u. Zers. (A. 229, 171). — I, 1470.
5) *Propionitril + Chlorkohlenoxyd*. Fl. (A. 106, 286). — I, 1463.
- $C_4H_4ONJ_2$ 1) *Amid d. $\alpha\beta$ -Dijodpropen- α -Carbonsäure* (Amid d. $\alpha\beta$ -Dijoderoton-säure). Sm. 175—176° u. Zers. (B. 26, 844). — I, 1250.
- C_4H_4ONS 1) γ -Rhodanpropan- $\alpha\beta$ -Oxyd. Fl. (C. 1898 [2] 857).
2) α -Rhodan- β -Ketopropan (Rhodanaceton). Fl. (B. 16, 349; 20, 3127; 25, 2607, 2621, 3282, 3648). — I, 993.
3) *2-Oxy-4-Methylthiazol*. Sm. 105—106° (B. 20, 3127; 25, 2619, 3648; G. 23 [2] 443; A. 249, 23; 259, 297). — IV, 519.
- $C_4H_4ONS_2$ 1) *2-Thiocarbonyl-4-Nitroso-5-Methyltetrahydrothiazol*. Sm. 123° (B. 19, 125). — I, 1229.
- $C_4H_4ONS_2Se$ 1) α -Selenocyan- β -Ketopropan (Selenocyanaceton). Fl. (A. 250, 296). — I, 995.
- $C_4H_4ON_2S$ 1) *2-Methylimido-3-Nitroso-2,3-Dihydrothiazol*. Sm. 140° u. Zers. (A. 265, 119). — IV, 504.
2) *2-Nitrosimido-3-Methyl-2,3-Dihydrothiazol*. Sm. 161° u. Zers. (A. 265, 116). — IV, 504.
3) *3-Acetyl-2-Imido-2,3-Dihydro-1,3,4-Thiodiazol*. Sm. 268° (B. 29, 2515). — IV, 1102.
- $C_4H_4ON_2S_2$ 1) *2-Acetyl-3,5-Dithiocarbonyltetrahydro-1,2,4-Triazol* (Acetyldithio-urazol). Sm. bei 300° u. Zers. (B. 28, 950).
- $C_4H_4OCl_2Br_2$ 1) *Aldehyd d. α -Chlor- $\alpha\beta$ -Dibrombuttersäure*. Fl. + H₂O (B. 8, 1322). — I, 945.
- $C_4H_4OCl_2Br_2$ 1) *Aethyläther d. $\alpha\beta\beta$ -Trichlor- $\alpha\beta$ -Dibrom- α -Oxyäthan*. Sm. 17° (B. 11, 446). — I, 297.
- $C_4H_4O_2NCl_4$ 1) *Amid d. $\beta\beta\beta\beta$ -Tetrachlor- α -Oxyisobuttersäure*. Sm. 156° (A. 254, 110). — I, 1343.
- $C_4H_4O_2NBr_2$ 1) *Imid d. Bromessigsäure*. Sm. 98° (A. 133, 141; 142, 69). — I, 1456.
- $C_4H_4O_2NJ_2$ 1) *Amid d. $\alpha\beta$ -Dijodakrylsäure*. Sm. 175—176° u. Zers. (B. 26, 844).
- $C_4H_4O_2NS$ 1) *2,4-Diketotetrahydropentthiazol*. Sm. 159° (B. 24, 3851). — I, 1260.
2) *2,4-Diketo-3-Methyltetrahydrothiazol*. Fl. (A. 249, 28). — I, 1229.
3) *2,4-Diketo-5-Methyltetrahydrothiazol* (Soc. 63, 820).
4) *Aethylester d. Rhodanameisensäure*. Fl. (Soc. 69, 326, 335).
5) *Imid d. Dimethylsulfid- $\alpha\beta$ -Dicarbonsäure* (l. d. Thiodiglykolsäure). Sm. 128°. Ag (Z. 1866, 182). — I, 1342.
- $C_4H_4O_2NS_2$ 1) *Amid d. Thiophen-2-Sulfonsäure*. Sm. 142°. Ag (B. 16, 2173; 17, 799). — III, 742.
2) *Amid d. Thiophen-3-Sulfonsäure*. Sm. 148° (B. 17, 1568). — III, 742.
- $C_4H_4O_2N_2Cl_2$ 1) *$\alpha\alpha\alpha$ -Trichlor- $\beta\beta$ -Di[Formylamido]äthan* (Chloraldiformamid). Sm. 216—217° (A. ch. [6] 27, 321). — I, 1236.
- $C_4H_4O_2N_2Br$ 1) *Amid d. Brommaleinsäure*. Sm. 168—175° (J. 1877, 706). — I, 1391.
- $C_4H_4O_2N_2Br_2$ 1) *Amidoformylamid d. $\beta\beta$ -Dibrom- α -Amidoäthen- α -Carbonsäure* (Dibrompyruvinamid). Sm. 170—180° u. Zers. (A. 239, 191). — I, 1345.
- $C_4H_4O_2N_2S$ 1) *2-Nitrosimido-4-Keto-3-Methyltetrahydrothiazol?* (M. 6, 842). — I, 1328.
2) *5-Amido-6-Merkapto-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin* (Thiouramil). Sm. noch nicht bei 300°. NH₄, Na + H₂O, K + H₂O (A. 288, 159; M. 16, 727).

- $C_4H_5O_2ClBr_2$ 1) Chlordibrombuttersäure. Sm. 92°. Pb, Ag (A. 164, 105). — I, 484.
2) Aethylester d. Chlordibromessigsäure. Sd. 203° (200°) (B. 15, 604; Bl. [3] 15, 1135). — I, 479.
- $C_4H_5O_2Cl_2Br$ 1) Aethylester d. Dichlorbromessigsäure. Sd. 188—189° (B. 15, 603). — I, 479.
- $C_4H_5O_2Cl_2P$ 1) Dihydroxylechloralalphosphin + $\frac{1}{2}H_2O$. Sm. 117—119° (Bl. 46, 338). — I, 932.
- $C_4H_5O_2Br_2F$ 1) Aethylester d. Fluordibromessigsäure. Sd. 173°₇₆₀ (C. 1897 [2] 1019; 1898 [2] 703).
- $C_4H_5O_2SP$ 1) Thiophenphosphinige Säure. Sm. 70° (B. 25, 1516). — IV, 1682.
- $C_4H_5O_2NBr_2$ 1) Monamid d. $\alpha\beta(?)$ -Dibromäthan- $\alpha\beta$ -Dicarbonsäure (Dibromsuccinaminsäure). Nur NH_4 -Salz bekannt (B. 15, 1846). — I, 1377.
2) Monamid d. ?-Dibromäthan- $\alpha\beta$ -Dicarbonsäure (Dibromsuccinaminsäure) (Am. 6, 421). — I, 1377.
- $C_4H_5O_2N_2Cl$ 1) Monacetat d. α -Chlor- $\alpha\beta$ -Dioximidoäthan (M. d. Chlorantiglyoxim). Sm. 163° (B. 25, 711). — I, 971.
- $C_4H_5O_2N_2Cl_2$ 1) 2-Oxy-4,6-Diketo-2-Dichlormethylhexahydro-1,3,5-Triazin (Dichloracetoguanamidin) (B. 9, 236). — IV, 1120.
- $C_4H_5O_2SP$ 1) Thiophenphosphinsäure. Sm. 159°. Ag₂ (B. 25, 1516). — IV, 1682.
- $C_4H_5O_2N_2S$ 1) Thionursäure + $1\frac{1}{2}H_2O$ (Sulfaminbarbitursäure). NH_4 , $(NH_4)_2$ + H_2O , Na, Na₂ + $5\frac{1}{2}H_2O$, K, K₂ + H_2O , Ca, Pb + H_2O (A. 26, 268; 127, 210; A. ch. [6] 28, 311). — I, 1375.
- C_4H_5NCIJ 1) Pyrrolchlorojodid (B. 18, 1622).
- $C_4H_5NBr_2S$ 1) $\beta\gamma$ -Dibrompropylsenfö. Fl. (Soc. 61, 546). — I, 1282.
- C_4H_5ONCl 1) Nitril d. γ -Chlor- β -Oxybuttersäure. Sd. 140°₁₅₋₂₀ (110—111°₂) (Bl. [3] 21, 111).
2) Nitril d. β -Chlor- α -Oxyisobuttersäure. Fl. (B. 5, 865). — I, 1471.
3) Nitril d. ?-Chloroxybuttersäure. Fl. (B. 12, 24). — I, 1471.
4) Amid d. α -Chlorpropen- α -Carbonsäure (Amid d. α -Chlorcrotonsäure). Sm. 107° (112°); Sd. 230—240° (B. 11, 1488; A. 164, 103). — I, 1249.
5) Amid d. β -Chlorpropen- α -Carbonsäure (A. d. β -Chlorcrotonsäure). Sm. 99—100° (B. 29, 1667).
6) Amid d. isom. β -Chlorpropen- α -Carbonsäure (A. d. Chlorisocrotonsäure). Sm. 109—110° (B. 29, 1666).
7) Salzs. Isocyanensäureäthyläther. Sd. 95° (A. 109, 107; Bl. 6, 435).
- $C_4H_5ONCl_2$ 1) $\beta\beta\gamma$ -Trichlor- α -Oximidobutan (Butyrylchloraloxim). Sm. 65° (G. 21 [2] 8). — I, 969.
2) Amid d. $\alpha\alpha\beta$ -Trichlorbuttersäure. Sm. 96° (B. 3, 788). — I, 1246.
3) Dimethylamid d. Trichloressigsäure. Sd. 230—233° (R. 6, 235). — I, 1241.
4) Aethylamid d. Trichloressigsäure. Sm. 74°; Sd. 229—230° (B. 13, 517; A. 214, 225). — I, 1241.
5) Verbindung (aus Hexachloraceton und Dimethylamin). Sm. 104° (A. ch. [6] 9, 217). — I, 1241.
- $C_4H_5ON_2S$ 1) α -Rhodan- β -Oxidopropan. Sm. 135° (A. 249, 19). — I, 1029.
2) 5-Keto-2-Thiocarbonyl-1-Methyltetrahydroimidazol (Methylthiohydantoïn). Sm. 161° (B. 24, 3285). — I, 1328.
3) 2-Imido-4-Keto-3-Methyltetrahydrothiazol? (M. 6, 840). — I, 1328.
4) 2-Imido-4-Keto-5-Methyltetrahydrothiazol. Sm. 205—206° u. Zers. (Soc. 63, 819). — I, 1329.
- $C_4H_5ON_2S_2$ 1) 3-Thiocarbonyl-5-Keto-2,4-Dimethyltetrahydro-1,2,4-Thiodiazol. Sm. 108°. HCl, (HCl, AuCl₃), HBr (A. 285, 166).
- $C_4H_5ON_2S$ 1) 3-Nitroso-2-Methylimido-5-Methyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 56° (B. 27, 625). — IV, 1106.
- $C_4H_5ON_2S_2$ 1) Scharlachsäure (B. 28 [2] 612).
2) 1-[oder 2-]Nitroso-3,5-Dithiocarbonyl-4-Aethyltetrahydro-1,2,4-Triazol. Sm. 118—120° (B. 28, 952).
- C_4H_5OClBr 1) Chlorid d. α -Brombuttersäure. Sd. 150—152° (Bl. [3] 15, 1102).
2) Chlorid d. α -Bromisobuttersäure. Sd. 135—145°₂₀₋₂₅ (Bl. [3] 17, 78).
3) Verbindung (aus Dichlorbutylen). Sm. 115—120° (Am. 5, 113).
- $C_4H_5OCl_2S$ 1) Aethylester d. Dichlormethanthiolecarbonsäure (Ae. d. Dichlorthiolessigsäure). Sd. 177—178° (B. 14, 1507). — I, 875.
2) Verbindung (aus Tetrachlordiäthyläther). Sm. 70—72° (A. 32, 31). — I, 296.

- $C_4H_5O_2NCl$ 1) Epichlorhydrincyanat. Sm. 106° (Bl. 11, 2136). — I, 307.
- $C_4H_5O_2NCl_2$ 2) Verbindung (aus d. Monamid d. Oxalsäuremonäthylester) (A. 184, 10).
- $C_4H_5O_2NCl_3$ 1) $\beta\beta\beta$ -Trichlor- α -Acetylamido- α -Oxyäthan (Chloralelessigsäureamid). Sm. 156° (A. 157, 245; B. 5, 255; 10, 168; 24, 1803). — I, 1244.
- $C_4H_5O_2NBr_2$ 1) $\beta\beta\beta$ -Tribrom- α -Acetylamido- α -Oxyäthan (Bromalelessigsäureamid). Sm. 160° (B. 10, 1786). — I, 1244.
- $C_4H_5O_2N_2Cl$ 1) α -Chloracetylchlormethylharnstoff. Sm. 180° (B. 18, 2735). — I, 1303.
- $C_4H_5O_2N_2Br$ 1) Di[Bromamid] d. Bernsteinsäure (R. 15, 103).
- $C_4H_5O_2N_2ClBr$ 1) Aethylester d. Chlorbromessigsäure. Sd. 160—163° (B. 8, 1174).
- 2) β -Chloräthylester d. Bromessigsäure. Sd. 213—215° u. Zers. (Bl. 42, 260). — I, 478.
- $C_4H_5O_2ClJ$ 1) β -Chloräthylester d. Jodessigsäure. Fl. (Bl. 42, 260). — I, 490.
- $C_4H_5O_2Cl_2S_2$ 1) Zweifach gechlortes Diäthylendisulfiddioxyd (A. 126, 291).
- $C_4H_5O_2BrF$ 1) Aethylester d. Bromfluoreessigsäure. Sd. 150° (C. 1899 [1] 588).
- $C_4H_5O_2S_2As$ 1) Verbindung (aus Thiolessigsäure). Fl. (G. 27 [2] 158).
- $C_4H_5O_2NCl$ 1) Aethylester d. Chloroximidoessigsäure. Sm. 80° (A. 222 50; B. 15, 1154; 16, 67; 28, 1217). — I, 493.
- $C_4H_5O_2NBr$ 1) Monamid d. 1-Brombernsteinsäure. Sm. 146° (B. 28, 2770).
- $C_4H_5O_2N_2S$ 1) 5-Methylpyrazol- β -Sulfonsäure. Sm. 257—258° u. Zers. Ba (A. 279, 230). — IV, 515.
- $C_4H_5O_2NBr$ 1) Bromamidobernsteinsäure. Sm. 140°. Ag, (B. 15, 1851). — I, 1213.
- 2) Acetat d. β -Brom- β -Nitro- α -Oxyäthan. Sd. 138—142°_{so} (C. 1899 [1] 179).
- $C_4H_5O_2N_2S_2$ 1) Amid d. Thiophen-2,5[P]-Disulfonsäure. Sm. 211,5° (B. 19, 190). — III, 742.
- 2) Amid d. Thiophen-3,4[P]-Disulfonsäure. Sm. oberh. 280° u. Zers. (B. 18, 556). — III, 742.
- 3) Amid d. isom. Thiophen- β -Disulfonsäure. Sm. 142° (B. 18, 561). — III, 742.
- $C_4H_5O_2N_2Cl_2$ 1) Dinitrat d. $\alpha\delta$ -Dichlor- $\beta\gamma$ -Dioxybutan? Sm. 60° (Z. 1871, 349). — I, 327.
- $C_4H_5O_2N_2Br_2$ 1) Dinitrat d. $\alpha\delta$ -Dibrom- $\beta\gamma$ -Dioxybutan. Sm. 75° (Z. 1871, 348). — I, 327.
- $C_4H_5O_2Br_2S_2$ 1) Tetrabrommethyltrimethylentrisulfon. Sm. 190° u. Zers. (B. 23, 1873). — I, 938.
- $C_4H_5N_2Br_2S_2$ 1) Bromderivat d. 5-Methylimido-3-Thiocarbonyl-4-Methyl-3,5-Dihydro-1,2,4-Dithiazol (A. 285, 177).
- $C_4H_7ONCl_2$ 1) Aethylamid d. Dichloreessigsäure. Sm. 57°; Sd. 225—227° (B. 13, 517; A. 214, 223). — I, 1240.
- 2) Verbindung (aus Tetrachloräthyläther). Sm. 45° (B. 10, 880). — I, 1266.
- $C_4H_7ONBr_2$ 1) Amid d. $\alpha\beta$ -Dibrombuttersäure. Sm. 150—151° (Am. 11, 91; 12, 405). — I, 1246.
- $C_4H_7ONS_2$ 1) $\beta\gamma$ -Imidomethylenäther d. $\beta\gamma$ -Dimerkapto- α -Oxypropan. HCl (C. 1898 [2] 857).
- $C_4H_7ON_2Cl_2$ 1) Trichloracetyldiamidoäthan. Sm. 200° (A. ch. [6] 9, 218). — I, 1241.
- $C_4H_7ON_2Br$ 1) 2-Imido-5-Brommethyltetrahydrooxazol (Brompropylenharnstoff). Sm. 120° (118°). HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HBr, Pikrat (M. 5, 40; C. 1898 [2] 767). — I, 1302.
- $C_4H_7ON_2J$ 1) 2-Imido-5-Jodmethyltetrahydrooxazol (Jodpseudoallylharnstoff). Sm. 104—106° u. Zers. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HBr, Pikrat (C. 1898 [2] 767).
- $C_4H_7ON_2S$ 1) 1-Amido-2-Thiocarbonyl-4-Keto-3-Methyltetrahydroimidazol (Methylthioamidohydantoïn). Sm. 120° (B. 31, 169).
- $C_4H_7OClBr_2$ 1) β -Chlor- $\beta\gamma$ -Dibrom- α -Oxybutan (Chlordibrombutylalkohol) (A. 213, 377). — I, 251.
- 2) Aethyläther d. β -Chlor- $\alpha\beta$ -Dibrom- α -Oxyäthan. Sd. 170—180° u. Zers. (J. 1886, 1173). — I, 297.
- $C_4H_7OCl_2S$ 1) Aethylester d. Chlormethanthiolcarbonsäure (Ac. d. Chlorthiolessigsäure). Sd. 166—167° (B. 14, 1508). — I, 875.
- $C_4H_7OCl_2S_2$ 1) Aethyläther d. $\beta\beta\beta$ -Trichlor- α -Merkapto- α -Oxyäthan (Chloralmerkaptan) (B. 3, 445). — I, 933.
- $C_4H_7OCl_2S_2$ 1) Chloraldimerkaptoäthan (Chloraldithioglykol). Sm. 116° (B. 21, 1476). — I, 939.

- $C_4H_7OCl_3Zn$ 1) Zinkäthylverbindung d. Trichloräthylalkohol (A. 210, 65).
- $C_4H_7O_2NCl_2$ 1) Aethylester d. Dichloramidoessigsäure (A. 184, 10). — I, 1362.
2) $\beta\gamma$ -Dichlorpropylester d. Amidoameisensäure. Sm. 75° (J. pr. [2] 44, 22). — I, 1253.
3) $\beta\beta'$ -Dichlorisopropylester d. Amidoameisensäure. Sm. 80° (J. pr. [2] 44, 20). — I, 1253.
- $C_4H_7O_2NBr_2$ 1) $\alpha\alpha$ -Dibrom- α -Nitrobutan. Sd. 203—204° (cor.) (B. 10, 2085). — I, 210.
2) isom. Dibromnitrobutan (Nitrobutylenbromid). Fl. (A. 193, 378). — I, 212.
3) $\alpha\alpha$ -Dibrom- α -Nitro- β -Methylpropan. Sd. 180—185° (A. 175, 149).
- $C_4H_7O_2NS$ 1) Aethylester d. Thiooxaminsäure. Sm. 63° (J. pr. [2] 9, 133). — I, 1364.
- $C_4H_7O_2N_2S$ 1) 7-Nitro-2-Amido-5-Methyl-4,5-Dihydrothiazol. Sm. 166° u. Zers. (B. 31, 2836).
- $C_4H_7O_2N_4Cl_2$ 1) Trichloräthylidendiarnstoff (B. 10, 1069; 20, 1064). — I, 1313.
- $C_4H_7O_2N_4Br$ 1) Verbindung (aus Kreatinin) (A. 133, 313).
- $C_4H_7O_2ClBr_2$ 1) Monäthyläther d. β -Chlor- $\beta\beta$ -Dibrom- $\alpha\alpha$ -Dioxyäthan. Sm. 46° (B. 15, 601). — I, 236.
- $C_4H_7O_2Cl_2Br$ 1) Monäthyläther d. $\beta\beta$ -Dichlor- β -Brom- $\alpha\alpha$ -Dioxyäthan. Sm. 43° (B. 15, 600). — I, 236.
- $C_4H_7O_2Cl_2S$ 1) Verbindung (aus Chloralsulfhydrat). Sm. 96—97° (B. 9, 1267). — I, 231.
- $C_4H_7O_3NS$ 1) Monamid d. Dimethylsulfid- $\alpha\beta$ -Dicarbonsäure (Thiodiglykolaminsäure). Sm. 125°. Ca + H_2O , Ba + H_2O , Ag (Z. 1866, 183). — I, 1342.
2) Amidoformyl- β -Merkaptopropionsäure. Sm. 147.5°. Ca + $3H_2O$, Ba + $2H_2O$, Ag₂ (B. 24, 3849). — I, 1259.
3) Methylester d. Amidoformylmerkaptocessigsäure. Sm. 75—80° (B. 10, 1351). — I, 1259.
- $C_4H_7O_3NS_2$ 1) Senfölsulfonsäure. K (A. 154, 59). — I, 1283.
- $C_4H_7O_3NS_2$ 1) Säure (aus Sinigrin). Ag₂ + $2NH_3$ (B. 30, 2323; C. 1898 [1] 512).
- $C_4H_7O_4N_2Br$ 1) α -Brom- $\alpha\alpha$ -Dinitrobutan. Fl. (B. 10, 2086). — I, 210.
2) α -Brom- $\alpha\alpha$ -Dinitro- β -Methylpropan. Sm. 38° (B. 10, 2088). — I, 210.
- $C_4H_7O_4N_4Br$ 1) Verbindung (aus Amidouracilcarbonsäure). Zers. bei 160° (A. 251, 248). — I, 1353.
- $C_4H_7N_2ClS$ 1) Chlorallylthioharnstoff. Sm. 90—91° (B. 5, 188; 15, 3085, 3086). — I, 1322.
2) Verbindung (aus 5-Allylamido-1,2,3,4-Thiotriazol). (2HCl, PtCl₄) (B. 29, 2496). — IV, 1232.
- $C_4H_7N_2BrS$ 1) Bromallylthioharnstoff. Sm. 110—111° (B. 5, 188; C. 1896 [1] 475). — I, 1322.
2) 5-Brom-2-Imido-3,4,5,6-Tetrahydro-1,3-Thiazin. Fl. HCl, HBr, HJ, Pikrat (Z. 1867, 42; C. 1896 [1] 474; Soc. 69, 19, 851). — I, 1322.
- $C_4H_7N_2JS$ 1) 5-Jod-2-Imido-3,4,5,6-Tetrahydro-1,3-Thiazin. Fl. HJ, Pikrat (Z. 1869, 258; C. 1896 [1] 474; Soc. 69, 26). — I, 1322.
- C_4H_7ONCl 1) β -Chloräthyläther d. α -Imido- α -Oxyäthan (Acetimido- β -Chloräthyläther). HCl, Pikrat; Sm. 106—107° (B. 25, 2387). — I, 1489.
2) β -Methylpropennitrosylechlorid. Sd. 120—130° u. Zers. (Soc. 63, 481—482; 65, 324).
- C_4H_7ONCl 1) Aethylchloramid d. Essigsäure. Fl. (Bl. 30, 106). — I, 1238.
2) Amid d. Chloräthylessigsäure (Bl. 30, 106).
- $C_4H_7ONCl_2$ 1) Butyrylchloral + Ammoniak. Sm. 62° (B. 10, 1783). — I, 241.
2) Chloral + Aethylamin (B. 5, 247).
- C_4H_7ONBr 1) Amid d. α -Brombuttersäure. Sm. 112° (B. 30, 2313).
2) Amid d. α -Bromisobuttersäure. Sm. 147° (148°) (B. 24, 1044; 30, 2314). — I, 1246.
3) Bromamid d. Isobuttersäure. Sm. 92° (B. 15, 755). — I, 1246.
- $C_4H_7ON_2Br_2$ 1) $\beta\gamma$ -Dibrompropylharnstoff. Sm. 111.5° (109°) (B. 24, 3038, 4253; M. 5, 38; C. 1898 [2] 767). — I, 1299.
- $C_4H_7ON_2S$ 1) α -Oxy- β -Allylthioharnstoff. Sm. bei 120° (A. 298, 121).
- $C_4H_7ON_2S_2$ 1) Monoäthylamid d. Thiooxalsäure (J. pr. [2] 9, 140). — I, 1369.
2) Aethylester d. Thioharnstoffthiolcarbonsäure (Ae. d. Dithioallophansäure). Sm. 170—175° u. Zers. (J. pr. [2] 16, 361). — I, 1326.

- C_4H_9OClJ 1) Methyläther d. $\beta\gamma$ -Chlorjod- α -Oxypropan. *Sd.* 195—196° (*B.* 8, 1469). — *I.* 298.
2) Methyläther d. α -Chlor- γ -Jod- β -Oxypropan? *Sd.* 200° u. *Zers.* (*B.* 21, 2971). — *I.* 298.
- $C_4H_9O_2NCl$ 1) α -Chlor- β -Nitrobutan. *Sd.* 190°₇₆₀ (*C.* 1898 [1] 193).
2) α -Chlor- α -Nitro- β -Methylpropan. *Sd.* 151—152°₇₅₀ (*C.* 1898 [1] 439).
3) Verbindung (aus Acetamid) (*B.* 8, 832; 9, 1135). — *I.* 1239.
- $C_4H_9O_2NBr$ 1) α -Brom- α -Nitrobutan. *Sd.* 180—181° (*cor.*) (*B.* 10, 2085). — *I.* 210.
2) α -Brom- α -Nitro- β -Methylpropan. *Sd.* 173—175° (*cor.*) (*A.* 175, 148; *B.* 10, 2087; 26, 135; *J. pr.* [2] 48, 370, 374). — *I.* 210.
- $C_4H_9O_2NJ$ 1) Jodgorgosäure (*H.* 23, 31).
 $C_4H_9O_2N_2Br_2$ 1) $\beta\gamma$ -Dibrom- α -Methylnitramidopropan. *Sm.* 23° (*R.* 15, 206).
2) Bromid d. Verbindung $C_4H_9O_2N_2$ (aus Methylnitraminkalium). *Fl.* (*R.* 15, 209).
3) isom. Bromid d. $C_4H_9O_2N_2$. *Sm.* 65° (*R.* 15, 210).
- $C_4H_9O_2N_2S$ 1) Imidocarbamin- β -Merkaptopropionsäure. *Sm.* 175—176° (*M.* 6, 832). — *I.* 1329.
2) Aethylester d. Thioharnstoffcarbonsäure. *Sm.* 139—140°. *HCl* (*Soc.* 69, 331; *B.* 7, 896; 21, 402). — *I.* 1326).
3) Aethylester d. Harnstoffthiolcarbonsäure (Ac. d. Thiolallophansäure). *Sm.* 180° u. *Zers.* (*J. pr.* [2] 7, 477). — *I.* 1308.
4) Diamid d. Dimethylsulfid- $\alpha\beta$ -Dicarbonsäure (D. d. Thiodiglykolsäure) (*Z.* 1865, 74). — *I.* 1342.
- $C_4H_9O_2N_2S_2$ 1) Amid d. Dithioglykolsäure. *Sm.* 155° (*B.* 14, 411).
 $C_4H_9O_2N_2Se$ 1) Amid d. Selendiglykolsäure (*B.* 8, 773). — *I.* 906.
 $C_4H_9O_2N_2Zn$ 1) Verbindung (*J.* 1857, 419).
 $C_4H_9O_2N_2Cl_2$ 1) Verbindung (aus Harnstoff u. Trichlormilchsäure) (*B.* 11, 728).
 $C_4H_9O_2N_2S$ 1) Harnstoff + Thiohydantoïn. *HCl* (*B.* 13, 790). — *I.* 1328.
 $C_4H_9O_2N_2S$ 1) Verbindung (aus d. Amid d. Hydrazo- α -Carbonsäure- β -Thiocarbonsäure). *Sm.* 204—205°. *HCl* (*B.* 29, 2509).
- $C_4H_9O_3NCl$ 1) β -Chlor- β -Nitro- α -Oxybutan. *Sd.* 145—150°₇₆₀ (*C.* 1898 [1] 194).
 $C_4H_9O_3NBr$ 1) β -Brom- β -Nitro- $\alpha\gamma$ -Dioxybutan. *Sm.* 94—96° (*C.* 1899 [1] 179).
 $C_4H_9O_3N_2S$ 1) α -Acetylamido-Aethenylsulfaminsäure (*B.* 26, 2835).
2) Amid d. Sulfodiessigsäure. *Zers.* bei 200° (*B.* 17, 2821). — *I.* 1243.
- $C_4H_9O_3Br_2S$ 1) Di[β -Bromäthylester] d. Schwefelsäure. *Fl.* (*B.* 15, 1369). — *I.* 333.
 $C_4H_9O_3S_2As_2$ 1) Verbindung (aus Thiolessigsäure) (*G.* 27 [2] 161).
 $C_4H_9O_3N_2S$ 1) C-Aethylester d. Hydrazimethylen-C-Carbonsäure-N-Sulfonsäure. *K* (*B.* 28, 1848). — *IV.* 487.
- $C_4H_9O_{11}N_2S_4$ 1) Diäthylidenhydrasin- $\beta\beta\beta\beta$ -Tetrasulfonsäure (Acetalazintetrasulfonsäure). $Ba_2 + 6H_2O$ (*A.* 303, 126).
- $C_4H_9N_2Br_2S$ 1) Allylthioharnstoffbromid. *Sm.* 146—147° (139°). $2 + PtCl_4 + AuCl_3$, *Pikrat* (*Z.* 1867, 42; *C.* 1896 [1] 474; 1896 [2] 26; *Soc.* 69, 19). — *I.* 1322.
- $C_4H_9N_2J_2S$ 1) Allylthioharnstoffjodid. *Sm.* 90° u. *Zers.* (130,5°; 132,5—133,5°). *Pikrat* (*Z.* 1869, 258; *C.* 1896 [1] 474; *Soc.* 69, 25). — *I.* 1322.
- C_4H_9ONS 1) Thionylisobutylamin. *Sd.* 116° (*A.* 274, 191).
2) Amid d. Merkaptocessigäthyläthersäure. *Sm.* 44° (*Bl.* 23, 445). — *I.* 1342.
- $C_4H_9ON_3S$ 1) β -Formylamido- α -Aethylthioharnstoff. *Sm.* 163—164° (*B.* 29, 2486).
2) Aethylamid d. Thioharnstoffcarbonsäure (α -Aethylthiobiuret). *Sm.* 184° u. *Zers.* (*B.* 25, 751). — *I.* 1326.
- $C_4H_9OCl_2P$ 1) Dichlorid d. Isobutylphosphorigensäure. *Sd.* 154—156° (157°) (*A.* 139, 347; *C.* 1897 [2] 333). — *I.* 338.
- $C_4H_9O_2ClS$ 1) Chlordiäthylsulfon (*B.* 15, 446).
2) Dimethylthetinchlorid. $+ 2HgCl_2 + 6HgCl_2 + 2 + PtCl_4$ (*J.* 1878, 682; *B.* 31, 2289). — *I.* 876.
3) Chlorid d. β -Methylpropan- α -Sulfonsäure. *Sd.* 189—191° (*B.* 10, 942). — *I.* 373.
- $C_4H_9O_2BrS$ 1) Dimethylthetinbromid. $2 + PtBr_4$ (*J.* 1878, 681). — *I.* 876.
 $C_4H_9O_2J_2S$ 1) Dimethylthetinperjodid (*J.* 1878, 682). — *I.* 876.
 $C_4H_9O_3N_2P$ 1) Hydurinphosphorsäure. *HCl*, *HJ* + H_2O (*B.* 31, 2546).
 $C_4H_9O_3ClS$ 1) Chlorid d. Isobutylschwefelsäure. *Fl.* (*J. pr.* [2] 15, 34). — *I.* 333.
 $C_4H_9O_3NS$ 1) α -Oximidobutan- γ -Sulfonsäure (Butyraldoximsulfonsäure). *Ba* (*M.* 12, 550). — *I.* 969.

- $C_4H_9N_2ClS$ 1) Chlormethylat d. Aethylenthioharnstoff. Sm. 92°. $2 + PtCl_4$, $+ AuCl_3$ (C. 1897 [2] 194).
 $C_4H_9N_2JS$ 1) Jodmethylat d. Aethylenthioharnstoff. Sm. 145° (C. 1897 [2] 194).
 $C_4H_{10}ON_2S$ 1) β -Oxy- α -Methyl- β -Aethylthioharnstoff. Sm. 114—116° (u. 122°) (A. 298, 128).
 2) Thionyl-diäthylhydrazin. Sd. 73°₉₀ (B. 26, 310). — I, 1150.
 $C_4H_{10}OF_3B$ 1) Verbindung (aus Fluorbor u. Aethyläther). Sd. 123° (B. 28 [2] 780).
 $C_4H_{10}O_2ClP$ 1) Chlorid d. Diäthylphosphorigen Säure. Fl. (A. Spl. 6, 264). — I, 337.
 $C_4H_{10}O_2Cl_2Si$ 1) Dichlorid d. Diäthylkieselsäure. Sd. 136—138°. (A. ch. [4] 9, 14). — I, 346.
 $C_4H_{10}O_2FB$ 1) Borfluordiäthylin. Sd. 78° (B. 28 [2] 780).
 $C_4H_{10}O_2N_2Cl$ 1) Verbindung (aus Cholin). $2 + PtCl_4$ (J. 1876, 804).
 $C_4H_{10}O_2ClP$ 1) Chlorid d. Diäthylphosphorsäure (A. Spl. 6, 264). — I, 340.
 $C_4H_{10}O_2BrP$ 1) Bromid d. Diäthylphosphorsäure (A. Spl. 6, 269). — I, 340.
 $C_4H_{10}O_4N_2S$ 1) β -Sulfopropylharnstoff (β -Methyltaurocarbaminsäure). (B. 22, 2987; 29 [2] 684). — I, 1305.
 2) Aethylnitramid d. Aethansulfonsäure. Sm. 19—20° (R. 5, 277). — I, 1233.
 $C_4H_{10}NCl_2P$ 1) Diäthylamidodichlorphosphin. Sd. 189° (B. 29, 711).
 $C_4H_{10}NCl_2B$ 1) Diäthylamidodichlorborin. Sd. 140—144° (B. 29, 715).
 $C_4H_{10}NCl_3Si$ 1) Diäthylamidotrichlorsilicin. Sd. 104°₉₀ (B. 29, 714).
 $C_4H_{11}ON_2Cl$ 1) $\alpha\alpha$ -Dimethyl- α -Acetaldehydhydrazoniumchlorid. $2 + PtCl_4$ (B. 27, 2208).
 $C_4H_{11}OClSn$ 1) Zinndiäthylchlorid (A. 123, 365). — I, 1528.
 $C_4H_{11}O_2NS$ 1) Isobutylthionaminsäure. Isobutylaminsalz (A. 274, 193).
 2) Dimethylamid d. Aethansulfonsäure. Sd. 240°_{749.5} (R. 5, 277). — I, 1233.
 3) Aethylamid d. Aethansulfonsäure. Sd. 272—273°_{769.5} (R. 5, 277). — I, 1233.
 $C_4H_{11}O_2S_2P$ 1) Diäthylidithiophosphorsäure (A. 112, 197). — I, 341.
 $C_4H_{11}O_3NS$ 1) α -Amidobutan- β -Sulfonsäure. Zers. bei 285° (B. 28, 3116).
 2) α -Methylamidopropan- β -Sulfonsäure (N-Dimethyltaurin). Sm. 220 bis 223° (B. 22, 2989). — I, 1182.
 3) γ -Methylamidopropan- α -Sulfonsäure. Sm. 210—212° u. Zers. (B. 26, 1080).
 4) β -Aethylamidoäthan- α -Sulfonsäure. Sm. 147° (J. pr. [2] 31, 414). — I, 1179.
 5) β -Dimethylamidoäthan- α -Sulfonsäure $+ H_2O$ (Dimethyltaurin). Zers. bei 270—280° (J. pr. [2] 31, 416). — I, 1179.
 6) Diäthylsulfaminsäure. Ba $+ 2H_2O$ (B. 16, 1266). — I, 1178.
 7) Aethylester d. Dimethylsulfaminsäure. Fl. (B. 15, 1614; A. 222, 132). — I, 1177.
 $C_4H_{11}O_3N_2S$ 1) Methyltaurocyamin $+ H_2O$ (J. pr. [2] 18, 73). — I, 1180.
 $C_4H_{11}O_3SP$ 1) Diäthylthiophosphorsäure (A. 112, 197). — I, 341.
 $C_4H_{11}O_6N_2S$ 1) C-Aethylester d. Amidoimidomethyltriazancarbonsäuresulfonsäure. Sm. 180° (A. 305, 86).
 $C_4H_{11}O_6NS_2$ 1) Disäthionimidsäure. NH_4 , Ba (B. 7, 117). — I, 1180.
 $C_4H_{12}ONCl$ 1) Oxymethyltrimethylammoniumchlorid. $2 + PtCl_4$ (J. 1859, 377). — I, 1170.
 $C_4H_{11}NClJ$ 1) Jodmethyltrimethylammoniumchlorid. $2 + PtCl_4$ (J. 1859, 377).
 $C_4H_{12}ONJ$ 1) Jodtetramethylammoniumhydrat (J. 1859, 377). — I, 1122.
 $C_4H_{12}ON_2S$ 1) Di[β -Amidoäthyl]sulfoxyd. $2HCl$, Pikrat (B. 24, 1115, 3101). — I, 1173.
 $C_4H_{12}O_2N_2S$ 1) Di[β -Amidoäthyl]sulfon. Fl. $2HCl$, ($2HCl, PtCl_4$), Pikrat (B. 24, 3103). — I, 1173.
 2) Dimethylamid d. Dimethylsulfaminsäure. Sm. 73° (B. 14, 722, 1811; R. 3, 420; A. 222, 119). — I, 1178.
 $C_4H_{12}O_3N_2J$ 1) Verbindung (aus Methyljodid u. Formaldoxim) (Soc. 71, 575; 73, 360).
 $C_4H_{12}O_4Cl_2Se_2$ 1) Verbindung (aus Aethyldiselenid), oder $C_2H_7O_2ClSe$ (A. 152, 219).
 $C_4H_{12}NCl_2J$ 1) Tetramethylammoniumdichloridjodid. Sm. 226—330° (216—220°) u. Zers. (A. 240, 124; Soc. 49, 849). — I, 1121.
 $C_4H_{12}NBr_2J$ 1) Tetramethylammoniumdibromidjodid. Sm. 190° (Soc. 49, 848). — I, 1121.

- $C_4H_3N_4JS_2$ 1) Verbindung (aus Thioharnstoff und Aethyljodid) (B. 8, 41). — I, 1319.
 $C_4H_6O_{12}N_6S_4$ 1) Verbindung (aus Acetalazintetrasulfonsäure). Zers. bei 200° (A. 303, 127).
 $C_4O_2NCl_3S$ 1) Trichlornitrothiophen. Sm. 86° . (B. 19, 652). — III, 741.
 $C_4O_2NBr_3S$ 1) Tribromnitrothiophen. Sm. 106° (B. 18, 3028). — III, 741.
 $C_4O_2ClBr_3S_2$ 1) Chlorid d. 2,3,5-Tribromthiophen-4-Sulfonsäure. Sm. 126° (B. 18, 3027). — III, 743.
 $C_4O_4N_2Br_2S$ 1) Dibromdinitrothiophen. Sm. 134° (B. 17, 2047; 18, 3029). — III, 741.
 $C_4O_4Cl_2Br_2S_2$ 1) Chlorid d. 2,5-Dibromthiophen-3,4-Disulfonsäure. Sm. 219 bis 220° (B. 18, 556, 3030). — III, 743.

C_4 -Gruppe mit fünf Elementen.

- $C_4HO_2ClBr_2S_2$ 1) Chlorid d. 2,5-Dibromthiophen-3-Sulfonsäure. Sm. 32— 33° . (B. 18, 3030). — III, 743.
 $C_4H_2O_4NBr_3S_2$ 1) Amid d. 2,3,5-Tribromthiophen-4-Sulfonsäure (B. 18, 3028). — III, 743.
 $C_4H_2O_2NJS$ 1) Jodnitrothiophen. Sm. 74° (B. 17, 2073). — III, 741.
 $C_4H_2O_4NClS_2$ 1) Chlorid d. Nitrothiophensulfonsäure. Fl. (B. 18, 535). — III, 744.
 $C_4H_2O_4ClBrS$ 1) 2-Chlor-5-Bromfuran-3[oder 4]-Sulfonsäure. K, Ca + $2H_2O$, Ba + H_2O , Pb + H_2O (Am. 15, 156). — III, 692.
 $C_4H_3OCl_2SP$ 1) Dichlorid d. Thiophenphosphinsäure. Sd. 258— 260° (B. 25, 1516). — IV, 1681.
 $C_4H_3O_2NBr_2S_2$ 1) Amid d. 2,5-Dibromthiophen-3-Sulfonsäure. Sm. 146,5— 147° (B. 18, 553). — III, 743.
 $C_4H_4O_4N_2Br_2S_2$ 1) Amid d. 2,5-Dibromthiophen-3,4-Disulfonsäure. Sm. oberh. 270° (B. 18, 557). — III, 743.
 $C_4H_5O_2ClBrF$ 1) Aethylester d. Chlorbromfluoreessigsäure. Sd. 150° (Bl. [3] 15, 1135).
 $C_4H_5ONCl_2P$ 1) Verbindung (aus Dichloressigsäureäthylamid). Sd. 140 — 150° (B. 13, 517; A. 214, 224). — I, 1240.
 $C_4H_5ON_2Br_2S$ 1) Bromid d. 2-Imido-4-Keto-5-Methyltetrahydrothiazol (β -Methylthiohydantoïnbromid). Sm. 176 — 177° . HBr (M. 18, 91).
 $C_4H_5ON_2Br_2S_2$ 1) Verbindung (aus Methylsenföl). Sm. 158° (A. 285, 166).
 $C_4H_6O_2ClS_2As$ 1) Verbindung (aus Thiolessigsäure). Fl (G. 27 [2] 154).
 $C_4H_6O_3NCl_2P$ 1) Verbindung (aus Dichloramidoessigsäureäthylester). Sm. 128 — 130° (A. 184, 17). — I, 1362.
 $C_4H_6O_4N_4Cl_2S_2$ 1) Thioharnstofftrichlormethylsulfinyl. Sm. 124— 125° (Soc. 51, 666). — I, 1319.
 $C_4H_8N_2ClBrS$ 1) Allylthioharnstoffchlorobromid. Sm. 129 — 130° . 2 + $PtCl_4$, + $AuCl_3$ (Z. 1867, 43; C. 1896 [1] 474). — I, 1322.
 $C_4H_8N_2ClJS$ 1) Allylthioharnstoffchlorojodid. Sm. 132— 133° (Z. 1869, 259; C. 1896 [1] 474). — I, 1322.
 $C_4H_8ON_2BrS$ 1) Allylthioharnstoffoxybromid (Z. 1867, 44). — I, 1322.
 $C_4H_{10}ONCl_2P$ 1) Diäthylamid d. Phosphorsäuredichlorid. Sd. 100°_{15} (B. 29, 712).
 $C_4H_{10}O_2NClS$ 1) Chlorid d. Diäthylsulfaminsäure. Sd. 208° (B. 15, 1612; A. 222, 134). — I, 1178.
 $C_4H_{10}O_2N_2S_2As_2$ 1) Verbindung (aus Thiolessigsäure) (G. 27 [2] 160).
 $C_4H_{10}O_4N_4S_2Fe_2$ 1) Aethylnitrosoeisen-sulfid. Sm. 78° (B. 15, 2609; C. 1895 [2] 435; 1896 [1] 794).
 $C_4H_{10}NCl_2SP$ 1) Diäthylamid d. Thiophosphorsäuredichlorid. Sd. 100°_{15} (B. 29, 713).

C_4 -Gruppe mit sechs Elementen.

- $C_4H_8O_4N_2ClBrS$ 1) β -Chlorbrommethyltaurocarbaminsäure. Sm. 210° (B. 29 [2] 684; C. 1896 [1] 475).

C₅-Gruppe mit einem Element.**C₅H₈**

C 90,9 — H 9,1 — M. G. 66.

- 1) **R-Penten** (Cyklopentadien). *Sd.* 41°₇₆₀ (cor.) (*A.* 232, 348; *B.* 24 [2] 556; 29, 552; *G.* 26 [2] 381). — *I.* 138.
- 2) **Valylen** ($\beta\delta$ -Pentenin oder β -Methyl- $\alpha\gamma$ -Butenin). *Sd.* 50°. *Cu*₂, *Ag* (*A.* 135, 372). — *I.* 138.
- 3) **Pirylen**. *Sd.* 60° (*B.* 15, 1024). — *I.* 138.
- 4) **Kohlenwasserstoff** (aus Tropin) = (C₅H₈)_x (*B.* 14, 231).

C₅H₁₀

C 88,2 — H 11,8 — M. G. 68.

- 1) **Dihydro-R-Penten** (R-Pentamethylen). *Sd.* 45° (*A.* 275, 331).
 - 2) **Aethenyl-R-Trimethylen** (Vinyl-R-Trimethylen). *Sd.* 40° (*J. pr.* [2] 54, 97).
 - 3) **Aethyliden-R-Trimethylen**. *Sd.* 37,5°₇₅₀ (*J. pr.* [2] 54, 104).
 - 4) **α -Pentin** (Propylacetylen). *Sd.* 48—49° (*Z.* 1869, 124; *B.* 8, 411; *J. r.* 19, 554). — *I.* 131.
 - 5) **β -Pentin** (Valerylen; Methyläthylacetylen). *Sd.* 55,5—56° (44—46°) (*A.* 131, 238; 132, 117; 143, 372; *A. Spl.* 4, 147; *J. r.* 9, 378; *Bl.* 14, 1543; 33, 24; *J. pr.* [2] 37, 387). — *I.* 132.
 - 6) **δ -Methyl- α -Butin** (Isopropylacetylen). *Sd.* 28—29°₇₅₁. *Na*, *Ag* (*B.* 8, 407; 10, 707; *J. r.* 9, 222; 10, 342; 11, 125; 19, 558; *A. ch.* [6] 15, 286). — *I.* 131.
 - 7) **$\alpha\delta$ -Pentadien** (Piperylen). *Sd.* 42° (*B.* 14, 469, 665; 15, 424; 25 [2] 377; *G.* 16, 391). — *I.* 132.
 - 8) **γ -Methyl- $\alpha\beta$ -Butadien** (uns-Dimethylallylen). *Sd.* 40,5—41,5° (40°) (*J. pr.* [2] 37, 392; [2] 53, 149, 272; *J. r.* 19, 365; 27, 362). — *I.* 131.
 - 9) **β -Methyl- $\alpha\gamma$ -Butadien** (Isopren). *Sd.* 37—38° (34—35°; 45°) (*J.* 1860, 495; 1879, 577; 1882, 405; *Bl.* 24, 112; *A.* 238, 88; *Soc.* 45, 413; 49, 619; 67, 258; *J. pr.* [2] 55, 1, 4; [2] 57, 131; *B.* 30, 1990; *C.* 1899 [1] 589). — *I.* 132.
 - 10) **Valerylen** = (C₅H₈)_x (*A.* 143, 372).
 - 11) **Valerylen** = (C₅H₈)_x (*Bl.* 33, 24).
 - 12) **Kohlenwasserstoff** (aus Colophonium). *Sd.* 103—104° (*B.* 13, 1605).
 - 13) **Kohlenwasserstoff** (aus Colophonium) = (C₅H₈)_x. *Sd.* 245—247° (*B.* 13, 1605).
 - 14) **Kohlenwasserstoff** (aus Leuchtgas). *Sd.* 50° (*J. pr.* [1] 18, 165). — *I.* 132.
- C₅H₁₀**
C 85,7 — H 14,3 — M. G. 70.
- 1) **α -Penten** (norm. Amylen; Propyläthylen). *Sd.* 39—40° (*A.* 123, 204; 127, 55; 148, 131; 161, 269; 165, 7; 197, 253; *J. r.* 9, 192; *B.* 25 [2] 377). — *I.* 116.
 - 2) **β -Penten** (α -Methyläthyläthylen). *Sd.* 36°₇₄₀ (*A.* 124, 245; 175, 373; 179, 302; 200, 30; *B.* 25 [2] 377, 571). — *I.* 116.
 - 3) **β -Methyl- α -Buten** (uns-Methyläthyläthylen). *Sd.* 31—32° (34°) (*Bl.* 25, 546; *A.* 190, 354; *J. r.* 20, 74; *B.* 25 [2] 571; *Bl.* [3] 7, 576; *C.* 1899 [1] 775). — *I.* 116.
 - 4) **γ -Methyl- α -Buten** (Isopropyläthylen). *Sd.* 21,1—21,3° (18,5—19,5°). + 2ZnCl₂ (*A.* 179, 340; 190, 358; *B.* 10, 1904; 21, 1233; 25 [2] 571; *J. pr.* [2] 48, 473; *J. r.* 9, 198; 25, 354). — *I.* 116.
 - 5) **β -Methyl- β -Buten** (Trimethyläthylen). *Sd.* 36,8°₇₅₃. + (KCl, PtCl₂ + H₂O), + ZnCl₂, + 2ZnCl₂ (*A.* 74, 41; 169, 206; 186, 245, 253; 190, 365; *A. ch.* [3] 12, 320; *Z.* 1871, 275; *B.* 8, 1240; 12, 1584; 24, 216; 25, 547; 26 [2] 854; *C.* 1898 [2] 472; *J. r.* 14, 379; 17, 294; 25, 357; 27, 55; *J. pr.* [2] 48, 475; *Bl.* [3] 7, 577; [3] 19, 495; *Soc.* 67, 256). — *I.* 117.
 - 6) **R-Pentamethylen**. *Sd.* 50,2—50,7° (35°?) (*J. r.* 21, 344; *A.* 275, 327; *B.* 30, 975; *Soc.* 73, 907). — *I.* 117.
 - 7) **Methyl-R-Tetramethylen**. *Sd.* 39—42° (*Soc.* 53, 201). — *I.* 117.
 - 8) **1,1-Dimethyl-R-Trimethylen**. *Sd.* 21° (*J. pr.* [2] 58, 458).
 - 9) **Penten** (aus Amylbromid) (*B.* 14, 623).
 - 10) **Penten** (aus Erdpech) (2 isom. Form.?) (*Bl.* 17, 3; 18, 166). — *I.* 117.
 - 11) **Penten** (aus Fischthran). *Sd.* 34,5—35,6° (*Z.* 1868, 229). — *I.* 117.
 - 12) **Penten** (aus Harzöl). *Sd.* 35—40° (*A. ch.* [6] 1, 227). — *I.* 117.

- C_5H_{10} 13) Penten (aus Isoamylchlorid). Sd. 28–30° (A. 148, 349). — I, 117.
 14) Penten (aus Paraffin). Sd. 35–37° (A. 165, 7). — I, 117.
 C_5H_{12} C 83,3 — H 16,7 — M. G. 72.
 1) norm. Pentan. Sd. 36–36,5° (A. 125, 105, 107; A. ch. [6] 1, 225; [6] 12, 233; Z. 1865, 668; 1868, 229; B. 14, 1620; 16, 590; Am. 8, 7; J. pr. [2] 31, 488; G. 17, 19; Soc. 71, 445, 446). — I, 102.
 2) β -Methylbutan (sec. Pentan). Sd. 30,5–31,5° (A. 74, 53; 220, 87, 152; 266, 287; J. 1860, 405; Z. 1865, 668; Soc. 71, 445; 73, 907). — I, 102.
 3) $\beta\beta$ -Dimethylpropan (Tetramethylmethan). Sd. 9,5° (Z. 1870, 520; 1871, 257). — I, 102.
 C_5O_4 1) Verbindung (aus Kohlenoxyd) (A. 169, 271). — I, 545.
 C_5Cl_8 1) Oktochlor-2,3-Dihydro-R-Penten. Sm. 41°; Sd. 283° (B. 23, 2215). — I, 146.
 2) Oktochlorpentin (Perchlormekylen). Sm. 39°; Sd. 270° u. Zers. (J. pr. [2] 27, 294). — I, 164.
 C_5S_8 1) Pentakohlensulfid (Z. 1870, 666). — I, 881.

C_5 -Gruppe mit zwei Elementen.

- $C_5H_2O_5$ C 42,3 — H 1,4 — O 56,3 — M. G. 142.
 1) α -Keto- $\alpha\beta$ -Propadien- $\gamma\gamma$ -Dicarbonsäure? + 3H₂O (Krokonsäure). Na + xH₂O, K, K₂ + 2H₂O, Ca + 3H₂O, Ba + 1½H₂O, Pb + 2H₂O, Cu + 3H₂O, Ag₂ (A. 11, 183; 37, 58; 118, 117; J. pr. [1] 12, 230; B. 18, 510, 1842; 19, 294; 20, 2118). — I, 778.
 2) Säure (aus Krokonsäure) (B. 19, 297). — I, 778.
 $C_5H_2Cl_6$ 1) Verbindung (aus *ass*-Trichlor- $\gamma\delta$ -Diketo- α -Penten). Fl. (B. 23, 3784). — I, 1021.
 $C_5H_3N_3$ C 57,1 — H 2,9 — N 40,0 — M. G. 105.
 1) Nitril d. Aethan- $\alpha\alpha\alpha$ -Tricarbonsäure. Sm. 93,5°; subl. (B. 32, 647).
 2) Nitril d. Aethan- $\alpha\alpha\beta$ -Tricarbonsäure (Tricyanäthan). + 3AgCN, + 3Hg(CN)₂ (J. r. 9, 282).
 C_5H_4O C 75,0 — H 5,0 — O 20,0 — M. G. 80.
 1) Polyfurfurol = (C₅H₄O)_x. Sm. 98° (A. 134, 611).
 2) Verbindung (aus Benzoylessigsäureäthylester) = (C₅H₄O)_x. Sm. 102° (Soc. 47, 254).
 $C_5H_4O_2$ C 62,5 — H 4,2 — O 33,3 — M. G. 96.
 1) 1,2-Pyron (Cumalin). Sm. 5°; Sd. 206–209° u. Zers. (A. 264, 305). — I, 616.
 2) 1,4-Pyron (Pyrokoman). Sm. 32,5°; Sd. 210–215° (A. 127, 165; J. 1884, 1174; M. 5, 363; G. 21, 309). — III, 111.
 3) Fuscusol. Sd. 171–172° (A. 74, 284).
 4) Aldehyd d. Furan-2-Carbonsäure (Furfurol). Sd. 161°. + NaHSO₃, + Ammoniumpickramat. Lit. bedeutend. — III, 720.
 5) Furoin, siehe C₁₀H₈O₄.
 $C_5H_4O_3$ C 53,6 — H 3,6 — O 42,8 — M. G. 112.
 1) Furan-2-Carbonsäure (Brenzschleimsäure; Pyroschleimsäure). Sm. 132,6 bis 134,3°; subl. bei 100°. Na, K, Ca, Ba, Pb + H₂O, Cu + 3H₂O, Ag. Lit. bedeutend. — III, 697.
 2) Isobrenzschleimsäure. Sm. 82°. Pb + H₂O (A. 165, 298).
 3) β -Brenzschleimsäure. Sm. 130°. Ag (J. 1871, 594).
 4) Pyromekonsäure. Sm. 117°; Sd. 227–228°. Salze meist bek. (A. 5, 102; 84, 32; 188, 31; J. pr. [2] 19, 181; Ph. Ch. 3, 399; B. 17, 2087; G. 24 [2] 78). — I, 626.
 5) Anhydrid d. Itakonsäure. Sm. 68°; Sd. 139–140°₃₀ (B. 13, 1539, 1542, 1844; 14, 2788; Ph. Ch. 10, 419; J. 1881, 732). — I, 707.
 6) Anhydrid d. Citrakonsäure. Sm. 7°; Sd. 213–214° (i. D.) (B. 13, 1542; 14, 1636, 2788; 31, 2724; Soc. 53, 577; A. 188, 64; 248, 199). — I, 709.
 7) Anhydrid d. Propen- $\alpha\gamma$ -Dicarbonsäure (Anhydrid d. cis-Glutakonsäure). Sm. 87° (B. 23, 703; 27, 882). — I, 713.
 8) Anhydrid d. mal. R-Trimethylen-1,2-Dicarbonsäure. Sm. 59° (B. 17, 1187; 23, 705). — I, 712.

- C₃H₄O₂** C 46,9 — H 3,1 — O 50,0 — M. G. 128.
 1) Propin- $\alpha\gamma$ -Dicarbonsäure (Glutinsäure). Sm. 145—146° u. Zers. Pb (B. 20, 148). — I, 730.
 2) Akonsäure. Sm. 164°. Na + 3H₂O, Ba, Zn + 8H₂O, Cu + 4H₂O, Ag (A. 171, 153, 182; 188, 102; 216, 91; A. Spl. 1, 347; J. 1873, 584; B. 27, 3188, 3440; 31, 2722). — I, 729.
 3) Säure (aus Bromcitronensäure) (Bl. 32, 388). — I, 730.
- C₃H₄O₃** C 41,7 — H 2,8 — O 55,5 — M. G. 144.
 1) α -Ketopropen- $\gamma\gamma$ -Dicarbonsäure? (Hydrokrokonsäure). K₂, Ba + 2H₂O, Pb (A. 124, 36; B. 19, 297; 20, 1619). — I, 773.
 2) isom. Hydrokrokonsäure (B. 19, 297). — I, 773.
- C₃H₄N₂** C 65,2 — H 4,3 — N 30,4 — M. G. 92.
 1) Tetrocyanamid, siehe C₁₅H₁₂N₈ (B. 16, 65). — IV, 67.
- C₃H₄N₄** C 50,0 — H 3,3 — N 46,7 — M. G. 120.
 1) Purin. Sm. 211—212° (216—217°). HNO₃, Pikrat (B. 31, 2564; 32, 493).
- C₃H₅N** C 76,0 — H 6,3 — N 17,7 — M. G. 79.
 1) Pyridin. Sd. 115°. + 3H₂O (Sd. 92—93° B. 16, 2977) (Salze siehe A. 105, 336; B. 16, 531, 1264; 21, 1578; Bl. [3] 5, 843). Lit. bedeutend. — IV, 104.
- C₃H₅N₅** C 44,4 — H 3,7 — N 51,9 — M. G. 135.
 1) 6-Amidopurin + 3H₂O (Adenin; Imidohypoxanthin). Sm. 360—365° u. Zers. Salze meist bekannt. Lit. bedeutend. — IV, 1318.
- C₃H₆O** C 73,2 — H 7,3 — O 19,5 — M. G. 82.
 1) 2-Keto-2,3-Dihydro-R-Penten. Fl. (B. 27, 1541).
- C₃H₆O₂** 2) 2-Methylfuran (Sylvan). Sd. 63—63,5° (65°) (B. 13, 880; 31, 37). — III, 692.
 C 61,2 — H 6,1 — O 32,7 — M. G. 98.
 1) 2-Oxymethylfuran (Furfuralkohol). Sd. 168—170° (J. 1860, 269; A. Spl. 3, 275; A. 165, 280, 300; 239, 374; 261, 254; 272, 292; B. 10, 375; G. 24 [1] 253). — III, 696.
 2) 1,2-Diketo-R-Pentamethylen. Sm. 55°; Sd. 105°₂₀ (B. 30, 1471).
 3) ?-Butadien-?-Carbonsäure. Sm. 102—103°. Ca + H₂O, Ba (B. 26, 2110; 28, 1646).
 4) α -Butin- α -Carbonsäure. Na, Ag (C. 1897 [1] 1012).
 5) 1-Methyl-R-Trimethylen-2-Carbonsäure? Pb (B. 26, 761).
 6) Pentinsäure = (C₃H₄O₂)_n. Sm. 206° (B. 15, 293 Anm.). — I, 531.
 7) Lakton d. β -Oxy- α -Buten- δ -Carbonsäure (β -Anhydrid d. β -Acetylpropionsäure). Sd. 83—84°₂₅ (A. 229, 50; 256, 322). — I, 599.
 8) Lakton d. β -Oxy- β -Buten- δ -Carbonsäure (α -Anhydrid d. β -Acetylpropionsäure). Sm. 18—18,5°; Sd. 167° u. ger. Zers. (A. 229, 50; 256, 322). — I, 599.
 9) Querlakton (A. 263, 117). — III, 589.
 10) Aethylester d. Propargylsäure. Sd. 117—119° (B. 15, 2701; 18, 677). — I, 529.
 11) Propargylester d. Essigsäure (Acetat d. γ -Oxypropin). Sd. 124—125° (B. 6, 729; A. 200, 218; 235, 78). — I, 412.
- C₃H₆O₃** C 52,6 — H 5,3 — O 42,1 — M. G. 114.
 1) Tetrinsäure (α -Methyltetrinsäure?). Sm. 189°; Sd. 292° u. Zers. NH₄, Na + 3H₂O, Mg + 5H₂O, Ca + H₂O, Ba + H₂O, Zn + $\frac{1}{2}$ H₂O, Cu, Ag (A. ch. [5] 20, 433, 451; [6] 7, 199; Bl. 33, 520; B. 16, 486, 1870, 1939; 26, 2220; 31, 2726; Am. 13, 314; 17, 779; J. r. 17 [2] 35; A. 288, 1, 16). — I, 616.
 2) γ -Keto- α -Buten- α -Carbonsäure (β -Acetyllakrylsäure). Sm. 125° (123 bis 124°). Ca, Zn, Ag (B. 23, 452; 25, 2206; 26, 555; A. 264, 246; Am. 15, 172). — I, 617.
 3) Säure (aus Glykuronsäure). Sm. 197° (H. 11, 408).
 4) Anhydrid d. Propan- $\alpha\beta$ -Dicarbonsäure (A. d. Brenzweinsäure). Sm. 31,5—32° (36°); Sd. 247,4° (244,9°) (A. 66, 77; 182, 329; B. 11, 1352; 29, 1193; Soc. 53, 564; G. 26 [2] 483). — I, 664.
 5) Anhydrid d. Propan- $\alpha\gamma$ -Dicarbonsäure (Anhydrid d. norm. Brenzweinsäure). Sm. 56—57°; Sd. 282—287° u. Zers. (J. r. 9, 283; B. 22, 817; Ph. Ch. 10, 419). — I, 667.
- C₃H₆O₄** C 46,2 — H 4,6 — O 49,2 — M. G. 130.
 1) 2,4-Dioxy-1,3-Diketo-R-Pentamethylen. Ba + 3H₂O (B. 20, 2792). — I, 1021.

- C₅H₆O₄**
- 2) Propen- $\alpha\alpha$ -Dicarbonsäure? (Crotakonsäure). Sm. 119°. NH₄, K + 2H₂O, K₂ + H₂O, Pb, Ag₂ (A. 191, 74). — I, 713.
 - 3) Propen- $\alpha\beta$ -Dicarbonsäure (Itakonsäure). Sm. 161° u. ger. Zers. Salze meist bek. Lit. bedeutend. — I, 707.
 - 4) isom. Propen- $\alpha\beta$ -Dicarbonsäure (Citrakonsäure). Sm. 80° (91° u. Zers.). Salze meist bek. Lit. bedeutend. — I, 708.
 - 5) isom. Propen- $\alpha\beta$ -Dicarbonsäure (Mesakonsäure). Sm. 202°. Salze meist bek. Lit. bedeutend. — I, 710.
 - 6) Propen- $\alpha\gamma$ -Dicarbonsäure (Glutakonsäure). Sm. 132° (137—138°). Ba, Zn, Ag₂ (B. 15, 2843; 22, 1421; 24, 3256; 27, 3061; A. 222, 253; 264, 301; J. pr. [2] 54, 364, 373; [2] 58, 407). — I, 713.
 - 7) cis-Propen- $\alpha\gamma$ -Dicarbonsäure (cis-Glutakonsäure). Sm. 138° (B. 23, 703; 27, 881). — I, 713.
 - 8) R-Trimethylen-1,1-Dicarbonsäure (Aethylenmalonsäure; Vinakonsäure). Sm. 140°. Ba, Ba + 4H₂O, Pb, Cu + H₂O, Ag, Ag₂ (B. 17, 54; 19, 1051; 23, 704; A. 227, 13; Soc. 47, 807; 51, 849; J. 1885, 1392; J. pr. [2] 45, 478). — I, 711.
 - 9) mal. [cis-]R-Trimethylen-1,2-Dicarbonsäure. Sm. 139°. Ca (B. 17, 1187; 23, 705; A. 256, 197; 284, 216; J. pr. [2] 45, 477, 483). — I, 712.
 - 10) fumaroide [trans-]R-Trimethylen-1,2-Dicarbonsäure. Sm. 175°. Ca + 4½H₂O, Ag₂ (B. 23, 703; 27, 1891; A. 284, 212, 218). — I, 712.
 - 11) Lakton d. γ -Oxypropan- $\alpha\alpha$ -Dicarbonsäure (L. d. γ -Oxyäthylmalonsäure). Fl. Ba (A. 227, 19). — I, 747.
 - 12) $\alpha\gamma$ -Lakton d. γ -Oxypropan- $\alpha\beta$ -Dicarbonsäure (L. d. Itamalsäure; Parakonsäure). Sm. 57—58° (55°). Na, Ca + 3H₂O, Ag (Z. 1867, 651; J. 1866, 404; B. 31, 2723; A. 216, 85). — I, 748.
 - 13) Lakton d. α -Oxypropan- $\alpha\gamma$ -Dicarbonsäure (L. d. α -Oxyglutarsäure). Sm. 49—50°. Ba (A. 260, 129). — I, 746.
 - 14) α -Aldehyd d. α -Ketopropan- $\alpha\gamma$ -Dicarbonsäure (Glyoxylpropionsäure). Fl. (A. 260, 91). — I, 691.
- C₅H₆O₅**
- C 41,1 — H 4,1 — O 54,8 — M. G. 146.
- 1) β -Ketopropan- $\alpha\gamma$ -Dicarbonsäure (Acetondicarbonsäure). Sm. 135° u. Zers. (B. 17, 2543; 24 [2] 38; 26, 3058; A. 261, 157; G. 21, 295; 22 [2] 31). — I, 763.
 - 2) Propan- $\alpha\beta$ -Oxyd- $\alpha\gamma$ -Dicarbonsäure + H₂O? (Oxycittrakonsäure). NH₄, (HH₄)₂, K, Sr + 4H₂O, Ba + 4H₂O, Pb + 4½H₂O, Ag₂ + H₂O (J. pr. [2] 10, 79; [2] 11, 430; A. 227, 238; B. 27 [2] 510). — I, 762.
 - 3) α -Oxy- α -Propen- $\beta\gamma$ -Dicarbonsäure? (Oxyitakonsäure). Ba, Ag₂ (A. 171, 174; J. pr. [2] 11, 450, 461). — I, 762.
 - 4) Anhydrid d. Säure C₅H₆O₆ (B. 25 [2] 724). — I, 1084.
 - 5) $\alpha\gamma$ -Lakton d. $\beta\gamma$ -Dioxypropan- $\alpha\beta$ -Dicarbonsäure (Oxyparakonsäure). Sm. 104°. Ca + 2H₂O, Ba (J. pr. [2] 11, 457; A. 305, 45). — I, 763.
- C₅H₆O₆**
- C 37,0 — H 3,7 — O 59,3 — M. G. 162.
- 1) Aethan- $\alpha\alpha\beta$ -Tricarbonsäure. Sm. 150°. Na₃, K₃, Ca₃, Ba₃ + H₂O, Zn₃, Ag₃ (B. 12, 752, 2112; 13, 2162; 27, 798; A. 214, 40, 71; A. ch. [6] 18, 284; Ph. Ch. 10, 571). — I, 807.
 - 2) Weinmethylenäthersäure + ½H₂O? Sm. 138—140° (A. 292, 54; 299, 335).
 - 3) Lakton [oder Anhydrid] d. i- $\alpha\beta\gamma$ -Trioxypropan- $\alpha\gamma$ -Dicarbonsäure (L. d. i-Trioxylglutarsäure). Sm. 170—171° u. Zers. (B. 24, 4223). — I, 832.
- C₅H₆O₈**
- C 30,9 — H 3,1 — O 66,0 — M. G. 194.
- 1) $\alpha\beta$ -Dioxyäthan- $\alpha\alpha\beta$ -Tricarbonsäure (Desoxalsäure). Na₃, K₃, K₃, Ca₃ + 2H₂O, Ba₃, Pb₃ + H₂O, Ag₃ (J. 1861, 601; J. pr. [2] 20, 146). — I, 857.
- C₅H₆N₂**
- C 63,8 — H 6,4 — N 29,8 — M. G. 94.
- 1) 2-Amidopyridin. Sm. 56°; Sd. 204° (210°). HCl, (2HCl, PtCl₄ + H₂O), HNO₃, H₂SO₄, Pikrat (B. 26, 2189; 27, 840, 1320; A. 288, 263; M. 15, 173). — IV, 818.
 - 2) 3-Amidopyridin. Sm. 65°; Sd. 250°. 2HCl, (2HCl, PtCl₄), (4HCl, PtCl₄), (HCl, AuCl₃) (A. 288, 263; M. 16, 54, 707; 17, 521; B. 31, 2494). — IV, 818.
 - 3) 4-Amidopyridin. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (M. 16, 718). — IV, 819.

- C₅H₅N₂**
- 4) **2-Methyl-1,4-Diazin** (Methylpyrazin). *Sd.* 136—137° (135°). (2HCl, PtCl₂), (HCl, AuCl₃), Pikrat, + 2HgCl₂, + AuCl₃ (*J. pr.* [2] **49**, 397; [2] **51**, 463; [2] **54**, 490; *Ph. Ch.* **22**, 389). — **IV**, 820.
 - 5) **Nitril d. Propan- $\alpha\alpha$ -Dicarbonsäure** (N. d. Aethylmalonsäure). *Sd.* 206° (*J.* **1889**, 640). — **I**, 1479.
 - 6) **Nitril d. Propan- $\alpha\beta$ -Dicarbonsäure** (N. d. Brenzweinsäure). *Sd.* 255 bis 263° (252—254°) (*A.* **121**, 160; **182**, 327; *B.* **12**, 2054; **28**, 2953). — **I**, 1479.
 - 7) **Nitril d. Propan- $\alpha\gamma$ -Dicarbonsäure** (N. d. norm. Brenzweinsäure). *Sd.* 285—287,5° (*Bl.* **43**, 618; *A. ch.* [6] **17**, 135; *B.* **22**, 817; *Soc.* **55**, 702). — **I**, 1479.
 - 8) **Nitril d. Propan- $\beta\beta$ -Dicarbonsäure**. *Sm.* 31—32°; *Sd.* 169,5° (*G.* **28**, [2] 224; *Am.* **18**, 733).
- C₅H₅Cl₂**
- 1) **$\beta\delta$ -Dichlor- $\alpha\delta$ -Pentadiën**. *Sd.* 145° (*A. ch.* [6] **12**, 221). — **I**, 164.
- C₅H₅Cl₃**
- 1) **1,2,3,4-Tetrachlor-R-Pentamethylen**. *Sd.* 103°₂₆ (*B.* **29**, 555).
- C₅H₅Cl₄**
- 1) **Hexachlorpentan** (aus Isoamylsulfid) (*B.* **48**, 627). — **I**, 154.
- C₅H₅Br₂**
- 1) **2,3-Dibrom-2,3-Dihydro-R-Penten**. *Sm.* 45—46° (*B.* **29**, 555).
- C₅H₅Br₄**
- 1) **1,2,3,4-Tetrabrom-R-Pentamethylen**. *Fl.* (*B.* **29**, 556).
- C₅H₅Br₆**
- 1) **Hexabrompentan** (aus Valerylen) (*A.* **135**, 376).
- C₅H₅S**
- 1) **2-Methylthiophen**. *Sd.* 112—113°. HgCl (*B.* **17**, 1562; **18**, 3009; **19**, 556; *A.* **267**, 180). — **III**, 744.
 - 2) **3-Methylthiophen** (Thiotolen). *Fl.* HgCl (*B.* **16**, 2970; **17**, 788, 2853; **18**, 455; *A.* **267**, 182). — **III**, 744.
- C₅H₆S₂**
- 1) **Methyläther d. 2-Merkaptothiophen**. *Sd.* 186° (*B.* **20**, 1757). — **III**, 753.
- C₅H₆S₃**
- 1) **Trithioisovaleraldehyd**. *Sm.* 94,5° (*B.* **17**, 2654; *G.* **16**, 426). — **I**, 953.
- C₅H₇O₂**
- 1) **Spergulin** = (C₅H₇O₂)_x (*J.* **1878**, 960). — **III**, 649.
- C₅H₇N**
- C 74,1 — H 8,6 — N 17,3 — M. G. 81.
- 1) **1-Methylpyrrol**. *Sd.* 112—113° (114—115°_{747,5}) (*B.* **10**, 1866; **17**, 2951; **22**, 656). — **IV**, 66.
 - 2) **2-Methylpyrrol** (α -Homopyrrol). *Sd.* 147—148°₇₅₀ (*B.* **13**, 76; **14**, 1054; **19**, 1408; **31**, 44; *M.* **1**, 293, 628; *G.* **22** [2] 272). — **IV**, 68.
 - 3) **3-Methylpyrrol** (β -Homopyrrol). *Sd.* 142—143°_{749,7} (*B.* **13**, 76; **14**, 1054; **19**, 1408; *M.* **1**, 293, 628). — **IV**, 69.
 - 4) **Dihydropyridin?** (*B.* **15**, 1181).
 - 5) **Nitril d. α -Buten- α -Carbonsäure**. *Sd.* 140°₇₆₂ (*C.* **1899** [1] 194).
 - 6) **Nitril d. α - oder β -Buten- α -Carbonsäure**. *Sd.* 147—150° (*M.* **18**, 735).
 - 7) **Nitril d. α -Buten- δ -Carbonsäure**. *Sd.* 140°₇₆₀ (*C.* **1898** [2] 663).
 - 8) **Nitril d. β -Buten- β -Carbonsäure**. *Sd.* 124—125°₇₆₇ (*C.* **1899** [1] 194).
 - 9) **Nitril d. β -Methylpropen- α -Carbonsäure**. *Sd.* 140—142°₇₆₀ (*C.* **1898** [2] 662).
 - 10) **Nitril d. R-Tetramethylencarbonsäure**. *Sd.* 150° (*B.* **21**, 2696). — **I**, 1468.
 - 11) **Verbindung** (aus Salpetrigsäureisoamylester) (*Z.* **1866**, 569, 570).
C 55,0 — H 6,4 — N 38,5 — M. G. 109.
- C₅H₇N₂**
- 1) **Nitril d. Methylimidodihessigsäure**. *Sd.* 145—150° (*A.* **279**, 42).
- C₅H₇Cl**
- 1) **2-[oder 3]Chlor-2,3-Dihydro-R-Penten**. *Sd.* 50°₄₀ (*B.* **29**, 554).
- C₅H₇Cl₂**
- 1) **Trichlorpenten**. *Sd.* 200° (*J.* **1860**, 405). — **I**, 162.
 - 2) **1,2,4-Trichlor-R-Pentamethylen**. *Sd.* 195—197° (*B.* **29**, 555).
- C₅H₇Cl₃**
- 1) **$\gamma\gamma\delta\delta\delta$ -Pentachlor- β -Methylbutan**. *Sd.* 235—240° (*Bl.* **48**, 627). — **I**, 154.
- C₅H₇Br**
- 1) **Bromvalerylen**. *Sd.* 125—130° u. Zers. Cu₂ (*A.* **135**, 373). — **I**, 187.
- C₅H₇Br₂**
- 1) **Pentabrompentan** (aus Valerylen) (*A.* **132**, 120). — **I**, 132.
 - 2) **isom. Pentabrompentan** (aus Valerylen) (*A.* **132**, 121). — **I**, 132.
- C₅H₇J**
- 1) **α -Jod- γ -Methyl- α -Butin** (Jodisopropylacetylen). *Sd.* 140° (*J. r.* **9**, 225). — **I**, 200.
- C₅H₈O**
- C 71,4 — H 9,5 — O 19,1 — M. G. 84.
- 1) **5-Methyl-2,3-Dihydrofuran?** (Inn. Anhydrid d. α -Oxy- β -Ketopentan). *Sd.* 72—75° (*B.* **22**, 1199). — **I**, 268.
 - 2) **Aethyläther d. γ -Oxypropin** (Aethylpropargyläther). *Sd.* 80°. Cu, Ag, Ag + AgCl, Ag + AgNO₃ (*A.* **135**, 284; **138**, 196; **158**, 230, 237; **200**, 218; **236**, 78; *B.* **5**, 274; **10**, 1903; **18**, 2271; *A. Spl.* **6**, 373). — **I**, 303.
 - 3) **β -Penten- β -Oxyd** (Methyldehydropentenon). *Sd.* 82° (*Soc.* **59**, 880). — **I**, 311.

C_5H_8O

- 4) **R-Ketopentamethylen** (Adipinketon). Sd. 130—130,5° (B. 8, 1257; 15, 594; 29, 1840, 2963; 31, 1885; A. 275, 312, 318; J. pr. [2] 58, 93). — I, 1007.
- 5) **δ -Keto- β -Penten** (Aethylidenaceton). Sd. 122° (B. 25, 3166; J. r. 26 [1] 17). — I, 1007.
- 6) **γ -Keto- β -Methyl- α -Buten**. Sd. 98—102° (A. 262, 345). — I, 1007.
- 7) **Acetyl-R-Trimethylen**. Sd. 112—113°₇₂₀ (B. 17, 1441; 22, 1207; Soc. 59, 875; C. 1898 [2] 475). — I, 1007.
- 8) **Aldehyd d. β -Buten- β -Carbonsäure** (Aldehyd d. Tiglinsäure; Guajol). Sd. 115,8°_{725,2} (A. 89, 347; 106, 379; Bl. 14, 932; M. 3, 118; 7, 54; 9, 1056). — I, 960.

 $C_5H_8O_2$

- 9) **Aldehyd d. R-Tetramethylen-carbonsäure**. Sm. 115—117° (Soc. 51, 238). — I, 960.
- 10) **Verbindung** (aus Methyltropidiniodid). Sd. 202—207° (A. 217, 136). C 60,0 — H 8,0 — O 32,0 — M. G. 100.
- 1) **$\beta\gamma$ -Diketopentan** (Acetylpropionyl). Sd. 108° (B. 21, 1412; 24, 3956; J. pr. [2] 50, 140; Bl. [3] 21, 16). — I, 1016.
- 2) **$\beta\delta$ -Diketopentan** (Acetylaceton; α -Acetyl- β -Oxypropylen). Sd. 136°₇₄₄. Na, Al, Cu, Be, Th (B. 22, 1011; 28 [2] 10; 30, 958; Soc. 61, 841; 69, 2; Bl. [3] 1, 345; [3] 7, 778; [3] 15, 348; J. pr. [2] 48, 491; [2] 50, 140; A. 277, 68, 168; 291, 50; A. ch. [6] 12, 207; Am. 17, 436). — I, 1016.
- 3) **Digitalin** oder $C_{45}H_{76}O_{14}$. Sm. 217° u. Zers. (J. 1875, 840; B. 25 [2] 680; 31, 2461). — III, 581.
- 4) **α -Buten- α -Carbonsäure** (Propylidenessigsäure). Sm. 9,5—10,5°; Sd. 200 bis 201°. Ca + 3H₂O, Ba + 3½H₂O, Cu, Ag (A. 218, 166; 283, 69, 85; B. 22, 494; 24, 2601; 26, 915, 2081, 2117; Soc. 75, 166). — I, 515.
- 5) **α -Buten- β -Carbonsäure** (α -Aethylakrylsäure). Sd. 181,5—182°. Ca (J. r. 23, 185; 25, 309; J. pr. [2] 51, 541).
- 6) **α -Buten- γ -Carbonsäure** (Angelikasäure). Sm. 45—45,5°; Sd. 185°. Ca + 2H₂O, Ba + 4½H₂O, Pb, Ag. Lit. bedeutend. — I, 512.
- 7) **α -Buten- δ -Carbonsäure** (Allylessigsäure). Sd. 182° (187—189°). K, Ca + 2H₂O, Ba + 2H₂O, Ag (A. 187, 39; 204, 170; 208, 92; 268, 32; 283, 80; 294, 133 Anm.; B. 11, 1360; 15, 629; 26, 2081; Bl. 29, 228; Soc. 49, 211). — I, 514.
- 8) **β -Buten- α -Carbonsäure** (β -Aethylidenpropionsäure). Sd. 193—194°. Ca + H₂O, Ba, Cd + H₂O, Ag (B. 24, 2602; 26, 915, 2081, 2115; 27, 3364; A. 255, 27; 283, 66, 96; G. 23 [2] 313). — I, 515.
- 9) **β -Buten- β -Carbonsäure** (Tiglinsäure). Sm. 64,5°; Sd. 198,5° (194—196°). K, Ca + 3H₂O, Ba + 4H₂O, Ag. Lit. bedeutend. — I, 513.
- 10) **β -Methylpropen- α -Carbonsäure** (β -Dimethylakrylsäure). Sm. 69—69,2°; Sd. 195°. Na, Ca + 4H₂O, Ba + 2H₂O, Zn + 4H₂O, Cd + 2H₂O, Pb + H₂O, Cu + 2H₂O, Ag (A. 106, 65; 197, 74; 200, 261; 280, 254; J. r. 11, 31; 19, 431; A. ch. [5] 19, 428; Bl. [3] 5, 848; J. 1880, 810; J. pr. [2] 34, 479; B. 27, 1226; 29 [2] 660; 30, 484; Soc. 69, 1469; 75, 164). — I, 514.
- 11) **R-Tetramethylen-carbonsäure** (Trimethylenessigsäure). Sd. 191°₇₂₀. Ca + 5H₂O, Ag (Soc. 51, 8, 11, 229; 61, 40, 705). — I, 515.
- 12) **1-Methyl-R-Trimethylen-2-Carbonsäure**. Sd. 190—191°₇₄₅. Ca + 1½H₂O, Ba + 2H₂O, Ag (A. 294, 131).
- 13) **Lakton d. γ -Oxyvaleriansäure**. Sd. 206—207° (A. 208, 96, 104; 216, 57; 226, 343; 283, 78; 294, 130; B. 15, 629; 26, 921). — I, 566.
- 14) **Lakton d. δ -Oxyvaleriansäure**. Sd. bei 230° (B. 26, 2575).
- 15) **Lakton d. γ -Oxy- α -Methylbuttersäure** (α -Methylbutyrolakton). Sd. 201° (202—203°) (B. 16, 2624; 28, 10; 29, 1193; A. 294, 109; C. 1895 [1] 825; Soc. 69, 173). — I, 567.
- 16) **Lakton d. α -Oxy- β -Methylbuttersäure** (L. d. α -Oxyisovaleriansäure). Sm. 136° (A. 193, 113). — I, 568.
- 17) **Aldehyd d. β -Ketobutan- α -Carbonsäure** (A. d. Propionylessigsäure). Nur Na-Verbindung bekannt (B. 21, 1148).
- 18) **Aldehyd d. β -Ketobutan- δ -Carbonsäure** (Lävulinaldehyd). Sd. 186 bis 188° u. ger. Zers. (B. 31, 43).
- 19) **Aldehyd d. α -Keto- β -Methylpropan- α -Carbonsäure**. Sm. 95° (B. 30, 861).

$C_3H_5O_2$

- 20) Methylester d. Propen- α -Carbonsäure (M. d. α -Crotonsäure). Sd. 120,7° (B. 12, 344). — I, 507.
- 21) Aethylester d. Aethencarbonsäure (Ae. d. Akrylsäure). Sd. 101 bis 102° (98,5°) (A. 167, 248; 221, 80; 294, 317). — I, 501.
- 22) Allylester d. Essigsäure. Sd. 103–104°₃₄ (A. 98, 361; 102, 295; 200, 179; 220, 109; M. 2, 663; A. ch. [3] 48, 292; [6] 8, 132; Ph. Ch. 1, 386). — I, 411.
- 23) Formiat d. α -Oxy- β -Buten. Sd. 112° (C. 1896 [2] 576).
- 24) Verbindung (aus Oxy- α -Methylglutarsäure). Sd. 222–226°₅₆ (M. 11, 514; B. 26, 2576). — I, 751.
- 25) Verbindung (aus Ledumcampher). Sm. 101°; Sd. 174° (J. 1876, 909); siehe auch $C_{25}H_{48}O$ u. $C_{25}H_{44}O_2$. C 51,7 — H 6,9 — O 41,4 — M. G. 116.

 $C_3H_5O_3$

- 1) Hydroxypentinsäure. Sm. 94–95°. Ag (A. ch. [5] 20, 488).
- 2) α -Oxy- β -Buten- α -Carbonsäure (Angelaktinsäure; Propenylglykolsäure). Fl. Ca + $3H_2O$, Ba, Zn + $2\frac{1}{2}H_2O$, Ag (Bl. 42, 159; B. 29, 2583; A. 299, 371). — I, 601.
- 3) trans- β -Oxypropenmethyläther- α -Carbonsäure (β -Oxyisocrotonmethyläthersäure). Sm. 128,5° (129–130° u. Zers.) (A. 219, 334; B. 15, 218; 28, 1628). — I, 582.
- 4) γ -Oxypropenmethyläther- β -Carbonsäure (Oxymethakrylmethyläthersäure). Sd. 235–240° (A. 246, 104). — I, 588.
- 5) α -Oxyäthenäthyläther- α -Carbonsäure (α -Oxyakryläthyläthersäure). Sm. 110° (B. 23, 1108, 1109). — I, 584.
- 6) α -Ketobutan- α -Carbonsäure (Butyrylameisensäure). Sd. 180–185° u. Zers. (Soc. 39, 17; M. 15, 751). — I, 527.
- 7) β -Ketobutan- γ -Carbonsäure (α -Acetylpropionsäure). Fl. Ba (B. 15, 1874). — I, 601.
- 8) β -Ketobutan- δ -Carbonsäure (β -Acetylpropionsäure; Lävulinsäure). Sm. 32,5–33°; Sd. 239°. Na, K, Ca + $2H_2O$, Sr + $2H_2O$, Ba + $2H_2O$, Zn, Cu, Ag. Lit. bedeutend. — I, 528.
- 9) α -Keto- β -Methylpropan- α -Carbonsäure (Isobutyrylameisensäure). Sd. 92–93°₄₀. Ag (Soc. 39, 14; M. 15, 762). — I, 602.
- 10) Butan- $\beta\gamma$ -Oxyd- β -Carbonsäure (Oxytiglinsäure; $\alpha\beta$ -Dimethylglycidsäure). Sm. 62°. K + $\frac{1}{2}H_2O$, Mg, Ca + $2H_2O$, Ba, Ag (A. 234, 228; 257, 127; 266, 378). — I, 613.
- 11) β -Methylpropan- $\alpha\beta$ -Oxyd- α -Carbonsäure ($\beta\beta$ -Dimethylglycidsäure). Fl. K + $\frac{1}{2}H_2O$, Ag (A. 292, 282).
- 12) 1-Oxy-R-Tetramethylen-1-Carbonsäure. Sd. 205–210°₃₀ (Soc. 61, 44). — I, 602.
- 13) Säure (aus Mucolaktensäure) (A. 165, 278). — I, 602.
- 14) γ -Lakton d. $\alpha\gamma$ - oder $\beta\gamma$ -Dioxybutan- α -Carbonsäure. Fl. (A. 299, 45).
- 15) Lakton d. $\gamma\delta$ -Dioxybutan- α -Carbonsäure. Sd. 300–301° (A. 268, 34; 62). — I, 634.
- 16) α -Aldehyd d. Propan- $\alpha\beta$ -Dicarbonsäure (Soc. 75, 19).
- 17) Methylenester d. 1- α -Oxybuttersäure. Sd. 108° (Bl. [3] 15, 496).
- 18) Methylester d. β -Ketopropan- α -Carbonsäure (Methylester d. Acetessigsäure). Sd. 169–170° (cor.). Na, Cu + $2H_2O$ (Z. 1866, 456; J. pr. [2] 50, 140). — I, 591.
- 19) Aethylester d. α -Ketoäthan- α -Carbonsäure (Aethylester d. Brenztraubensäure). Sd. 145–146° u. Zers. (144°) (B. 14, 316; 27, 796; A. 249, 300; 261, 25; Bl. [3] 9, 377; [3] 13, 476). — I, 586.
- 20) Aethylester d. Aethanoxycarbonsäure (Ae. d. Glycidsäure). Sd. 161 bis 163° (B. 21, 2052). — I, 584.
- 21) Aethylester d. β -Oxyäthen- α -Carbonsäure? (Ae. d. β -Oxyakrylsäure) (B. 20, 2931; 25, 1047). — I, 584.
- 22) Aethylidenester d. α -Oxypropionsäure. Sd. 151–151,5° (M. 9, 45). — I, 926.
- 23) Monoformiat d. β -Dioxybuten (Butinglykolmonoformiat). Sd. 190° (B. 5, 1059; 6, 71; A. ch. [6] 7, 215). — I, 327.
- 24) Acetat d. α -Oxy- β -Ketopropan (Acetylcarbinolacetat). Sd. 174–175° (B. 5, 966; 13, 638; 23 [2] 687; Soc. 59, 788). — I, 411.
- 25) Acetat d. γ -Oxypropan- $\alpha\beta$ -Oxyd (Glycidacetat). Sd. 168–169° (Bl. 23, 160; J. pr. [2] 20, 190). — I, 415.

$C_3H_5O_4$

C 45,4 — H 6,1 — O 48,5 — M. G. 132.

- 1) α -Acetoxylpropionsäure (Essigmilchsäure). Sm. 166—167°. Na, Ba + 4H₂O, Zn, Ag (A. 125, 62; B. 22, 2712). — I, 555.
- 2) α -Oxy- γ -Ketobutan- α -Carbonsäure (α -Oxylävlinsäure). Sm. 103—104° (A. 264, 259). — I, 669.
- 3) β -Oxy- γ -Ketobutan- α -Carbonsäure (β -Oxylävlinsäure). Fl. (A. 264, 235). — I, 669.
- 4) Propan- $\alpha\alpha$ -Dicarbonsäure (Aethylmalonsäure; α -Isobrenzweinsäure). Sm. 111,5°. Ca + H₂O, Ba + $\frac{1}{2}$ (1)H₂O, Zn + 2 $\frac{1}{2}$ H₂O, Pb, Cu + 3H₂O, Ag₂ (A. 165, 93; 171, 243; 182, 329; 204, 134; 239, 120; 249, 174; Ph. Ch. 3, 284; Bl. [3] 19, 828; J. pr. [2] 40, 209; B. 27, 1178). — I, 668.
- 5) Propan- $\alpha\beta$ -Dicarbonsäure (Methylbernsteinsäure; Brenzweinsäure). Sm. 112°. Salze meist bekannt. Lit. bedeutend. — I, 663.
- 6) Propan- $\alpha\gamma$ -Dicarbonsäure (norm. Brenzweinsäure; Glutarsäure). Sm. 97,5°; Sd. 302—304°. Salze meist bekannt. Lit. bedeutend. — I, 666.
- 7) Propan- $\beta\beta$ -Dicarbonsäure (Dimethylmalonsäure; β -Isobrenzweinsäure). Sm. 185—186° (192—193°) u. Zers.; subl. bei 120°. Ba + H₂O, Zn + H₂O, Pb + $\frac{1}{2}$ H₂O, Ag₂ (A. 182, 336; 269, 333; 289, 57; B. 14, 1644; 26, 828, 2048; 27, 2093; Soc. 39, 543; 73, 709; J. pr. [2] 40, 208; R. 4, 205; M. 17, 83; Ph. Ch. 3, 285; G. 24 [1] 518; 26 [2] 449). — I, 667.
- 8) Säure (aus Phoronsäure). Sm. 190° (B. 15, 585).
- 9) Dimethylester d. Methandicarbonsäure (D. d. Malonsäure). Sd. 181,5° (B. 7, 1286; Soc. 45, 509; A. 253, 297; J. pr. [2] 50, 140). — I, 650.
- 10) Monäthylester d. Methandicarbonsäure (M. d. Malonsäure). Fl. K (B. 7, 1572; 17, 780; 26 [2] 95; Soc. 61, 711; Bl. [3] 6, 178). — I, 650.
- 11) Methyläthylester d. Oxalsäure. Sd. 173,7° (J. 1850, 469; A. 253, 295). — I, 648.
- 12) Monopropylester d. Oxalsäure. Sd. 118—119°₁₃ (B. 19, 1442). — I, 648.
- 13) Monoisopropylester d. Oxalsäure. Sd. 111°₁₃. K (B. 19, 1442; A. 254, 9). — I, 648.
- 14) Diacetat d. Dioxymethan (Methylendiacetat). Sd. 170° (A. 107, 111; 111, 245; B. 6, 741). — I, 912.
- 15) Holzgummi (Xylan) (A. 64, 388; 248, 143; 249, 243; 260, 290; 271, 55; J. pr. [2] 19, 146; B. 13, 2168; H. 16, 404, 430; 17, 381; C. 1896 [1] 898). — I, 1102.

 $C_3H_5O_5$

C 40,5 — H 5,4 — O 54,1 — M. G. 148.

- 1) α -Oxypropan- $\alpha\alpha$ -Dicarbonsäure + H₂O (Aethyltartronsäure). Sm. 64 bis 70° (115—116° wasserfrei). Ba + 2H₂O, Ag₂ (A. 209, 233; 239, 127; B. 14, 618; M. 14, 124). — I, 747.
- 2) β -Oxypropan- $\alpha\alpha$ -Dicarbonsäure (β -Oxyäthylmalonsäure). Fl. Ag₂ (A. 218, 163). — I, 747.
- 3) γ -Oxypropan- $\alpha\alpha$ -Dicarbonsäure (γ -Oxyäthylmalonsäure). Ba + 1 $\frac{1}{2}$ H₂O, Ag₂ (A. 227, 19; B. 32, 721). — I, 747.
- 4) α -Oxypropan- $\alpha\beta$ -Dicarbonsäure (β -Methyläpfelsäure). Sm. 119—120°. Na₂ + 1 $\frac{1}{2}$ H₂O, Ca + 3H₂O, Ba + 2 $\frac{1}{2}$ H₂O, Zn + 6H₂O, Pb + H₂O, Ag₂ (B. 25, 196, 1484; 31, 2049; J. pr. [2] 46, 294). — I, 749.
- 5) α -Oxypropan- $\alpha\beta$ -Dicarbonsäure (Citramalsäure; α -Methyläpfelsäure; β -Oxybrenzweinsäure). Sm. 119°. K₂, Mg, Ca + 5H₂O, Ca + 2(1 $\frac{1}{2}$)H₂O, Ba + 2H₂O, Zn + 2H₂O, Pb + 3 $\frac{1}{2}$ H₂O, Ag₂ (J. 1878, 721; A. 129, 160; B. 14, 1783; 15, 2318; 31, 2046; Bl. 27, 120; Soc. 37, 6; J. pr. [2] 46, 287). — I, 748.
- 6) α -Oxypropan- $\alpha\beta$ -Dicarbonsäure. Sm. 95°. Brucinsalz (B. 32, 713).
- 7) γ -Oxypropan- $\alpha\beta$ -Dicarbonsäure (Itamalsäure). NH₄, Na₂, Ca + 1(3)H₂O, Pb, Cu, Ag₂ + H₂O (Z. 1867, 648; A. 188, 76; 216, 77; B. 25, 3173; 31, 2724). — I, 747.
- 8) α -Oxypropan- $\alpha\gamma$ -Dicarbonsäure (α -Oxyglutarsäure). Mg + 4H₂O, Ca + $\frac{1}{2}$ H₂O, Zn + 2(3)H₂O, Pb + $\frac{1}{2}$ H₂O, Ag₂ (J. pr. [1] 103, 239; [2] 54, 101; A. 182, 347; 260, 128; B. 15, 1156). — I, 746.
- 9) β -Oxypropan- $\alpha\gamma$ -Dicarbonsäure (β -Oxyglutarsäure). Sm. 95°. Ba, Zn, Cu, Ag₂ (B. 24, 3250; J. pr. [2] 54, 367). — I, 746.
- 10) isom. β -Oxypropan- $\alpha\gamma$ -Dicarbonsäure? (Oxypyroweinsäure). Sm. bei 135°. Ag₂ (A. 133, 76). — I, 747.

$C_3H_5O_3$

- 11) α -Oxyäthanmethyläther- $\alpha\beta$ -Dicarbonsäure (i-Oxybernsteinmethyläthersäure). Sm. 101—103°. Na_2 , K, Ca, Zn + 4 H_2O (Soc. 47, 863, 867; 59, 469; 63, 217; 67, 944, 959). — I, 745.
- 12) α -Oxyäthanmethyläther- $\alpha\beta$ -Dicarbonsäure (d-Oxybernsteinmethyläthersäure). Sm. 89°. NH_4 , $(NH_4)_2$, K, K_2 , Ca, Ba, Ag_2 (Soc. 63, 217; 67, 944, 969).
- 13) α -Oxyäthanmethyläther- $\alpha\beta$ -Dicarbonsäure (l-Oxybernsteinmethyläthersäure). Fl. NH_4 , $(NH_4)_2$, K, K_2 , Ca, Ba, Ag_2 (Soc. 63, 217; 67, 944, 969).
- 14) Oxymethanäthyläther- $\alpha\alpha$ -Dicarbonsäure. Sm. 123—125°. Na_2 , Ba (B. 31, 552).
- 15) Säure (aus Bromcyanbuttersäure). Fl. Ca, Ag_2 (J. r. 7, 143). — I, 750.
- 16) Säure (aus Sulfobrenzweinsäure). Ba, Ag + H_2O (A. 157, 42); identisch mit Itamalsäure? — I, 750.
- 17) Lakton d. d-Arabonsäure. Sm. 97—98° (B. 32, 557).
- 18) Lakton d. l-Arabonsäure (L. d. $\alpha\beta\gamma\delta$ -Tetraoxybutan- α -Carbonsäure). Sm. 95—98° (B. 24, 4219). — I, 784.
- 19) Lakton d. r-Arabonsäure. Sm. 114—115° (B. 32, 558).
- 20) Lakton d. Lyxonsäure. Sm. 113—114° (112°) (B. 29, 582; 30, 3107).
- 21) Lakton d. Ribonsäure. Sm. 72—76° (B. 24, 4216). — I, 784.
- 22) Diformiat d. $\alpha\beta\gamma$ -Trioxypropan. Sd. 163—166°_{20—30} (J. pr. [2] 25, 144; J. 1881, 508; B. 16, 393). — I, 397.

 $C_3H_5O_4$

- C 36,6 — H 4,9 — O 58,5 — M. G. 164.
- 1) $\alpha\beta$ -Dioxypropan- $\alpha\gamma$ -Dicarbonsäure ($\alpha\beta$ -Dioxyglutarsäure). Sm. 155 bis 156°. Ca (B. 18, 2517). — I, 802.
 - 2) $\alpha\gamma$ -Dioxypropan- $\alpha\gamma$ -Dicarbonsäure ($\alpha\gamma$ -Dioxyglutarsäure). Sm. 106°. Ca + 3 H_2O (B. 18, 2516). — I, 802.
 - 3) Itaweinsäure. Ca + $\frac{1}{2}$ H_2O , Ba, Pb + H_2O , Ag_2 (A. Spl. 1, 346; A. 141, 33; 305, 47; J. pr. [2] 11, 453). — I, 802.
 - 4) Citraweinsäure. Ba, Pb, Pb_2 + H_2O (A. 129, 164; J. pr. [2] 10, 88; [2] 11, 432). — I, 802.
 - 5) Säure (aus Stärke) (B. 25 [2] 724).
 - 6) Monomethylester d. d-Weinsäure. Li, Na, K, Ba + H_2O (A. 22, 249; 44, 83; A. ch. [2] 5, 373; Ph. Ch. 8, 474; B. 26 [2] 933). — I, 794.
 - 7) Monomethylester d. Traubensäure. K + $\frac{1}{2}$ H_2O , Ba + 4 H_2O (A. 22, 251). — I, 800.

 $C_3H_5O_7$

- C 33,3 — H 4,5 — O 62,2 — M. G. 180.
- 1) Aposorbinsäure. Sm. 110°. NH_4 , Ca + 4 H_2O , Pb + H_2O , Ag_2 (A. Spl. 2, 243). — I, 831.
 - 2) Cassonsäure. Ba (J. 1859, 548; 1879, 667). — I, 831.
 - 3) d- $\alpha\beta\gamma$ -Trioxypropan- $\alpha\gamma$ -Dicarbonsäure (d-Trioxylglutarsäure). Sm. 127° (B. 32, 558).
 - 4) l- $\alpha\beta\gamma$ -Trioxypropan- $\alpha\gamma$ -Dicarbonsäure (l-Trioxylglutarsäure). Sm. 127°. K_2 , Ca + 3 H_2O , Ba, Pb + H_2O , Ag_2 (B. 21, 3007, 3278; 22, 519, 1698; H. 17, 370). — I, 831.
 - 5) r-Trioxylglutarsäure. Sm. 152° u. Zers. K_2 (B. 32, 558).
 - 6) i- $\alpha\beta\gamma$ -Trioxypropan- $\alpha\gamma$ -Dicarbonsäure (i-Trioxylglutarsäure). Sm. 152° u. Zers. K_2 + 2 H_2O (B. 24, 1842, 4224; 29, 1965; Bl. [3] 7, 395). — I, 831.
 - 7) isom. i- $\alpha\beta\gamma$ -Trioxypropan- $\alpha\gamma$ -Dicarbonsäure (isom. i-Trioxylglutarsäure) (B. 24, 4222). — I, 832.
 - 8) isom. Trioxypropan- $\alpha\gamma$ -Dicarbonsäure? Sm. 125°. Ba (B. 26, 3060).
 - 9) Säure (aus Chondrosin). — IV, 1628.

 $C_3H_5O_9$

- C 28,3 — H 3,8 — O 67,9 — M. G. 212.
- 1) Leukonsäure. K, Ba_3 , Pb_3 , Ag_3 (A. 118, 184; 124, 40; B. 19, 301; 22, 304, 916). — I, 868.

 $C_3H_5N_2$

- C 62,5 — H 8,3 — N 29,2 — M. G. 96.
- 1) 3,5-Dimethylpyrazol. Sm. 107°. Sd. 220°. HCl, (2 HCl, $PtCl_4$ + 2 H_2O), Ag , Pikrat, 2 + $PtCl_2$, 2 + $PtCl_4$, 2 + $AgNO_3$ (A. 279, 237; 302, 294; G. 22 [2] 371; 23 [2] 311; 24 [1] 278; B. 27, 1097; J. pr. [2] 52, 50). — IV, 522.
 - 2) 1-Aethylimidazol (Aethylglyoxalin). Sd. 209—210°. (2 HCl, $PtCl_4$) (B. 10, 1373; 16, 535; M. 17, 307). — IV, 501.

- C₃H₅N₂**
- 3) **2-Aethylimidazol** (Paräthylglyoxalin; Glyoxalpropylin). Sm. 79—80°; Sd. 268°. (2HCl, PtCl₄) (B. 15, 2708; 16, 489, 543; 17, 1290; A. ch. [6] 24, 537). — IV, 524.
 - 4) **1,2-Dimethylimidazol** (Oxalmethyläthylin). Sd. 205—206° (B. 16, 488). — IV, 516.
 - 5) **4,5-Dimethylimidazol**. Sm. 117°. (HCl, AuCl₃), HNO₃ (B. 28, 2039). — IV, 525.
 - 6) **Nitril d. γ-Imidobutan-β-Carbonsäure** (Acetopropiodinitril). Sm. 113° (J. pr. [2] 52, 104).
C 48.4 — H 6.4 — N 45.2 — M. G. 124.
- C₃H₅N₄**
- 1) **6-Amido-2,4-Dimethyl-1,3,5-Triazin**. Sm. 170° (J. pr. [2] 46, 146). — I, 1455.
- C₃H₅Cl₂**
- 1) **γδ-Dichlor-β-Penten** (Methylchlorallylcarbinolchlorid). Sd. 142—144°_{73.5} (A. 223, 160). — I, 162.
 - 2) **Dichlorpenten** (aus Hexylchloral). Sd. 146° (A. 179, 36; B. 10, 1052). — I, 162.
- C₃H₅Cl₄**
- 1) **Tetrachlorpentan**. Sd. 230—240° (240° u. Zers.) (Z. 1866, 380, 667; J. 1860, 405). — I, 153.
 - 2) **Tetrachlorpentan** (aus Isoamylsulfid) (Bl. 48, 627). — I, 154.
- C₃H₅Br₂**
- 1) **1,2-Dibrom-R-Pentamethylen**. Sd. 105—105.5°₄₅ (A. 275, 332).
 - 2) **αβ-Dibromäthyl-R-Trimethylen**. Sd. 185—190° (J. pr. [2] 54, 99).
 - 3) **αβ-Dibrom-α-Penten** (Propylacetylendibromid). Sd. 190° (B. 8, 411). — I, 131.
 - 4) **βγ-Dibrom-β-Penten** (Valerylendibromid). Sd. 166—172° (170—175°) (A. 132, 121; 135, 372). — I, 132.
 - 5) **γδ-Dibrom-β-Methyl-α-Buten?** Sd. 90—94° (C. 1899 [1] 590).
 - 6) **αβ-Dibrom-γ-Methyl-α-Buten** (Isopropylacetylendibromid). Sd. 175° u. Zers. (B. 8, 407). — I, 131.
 - 7) **Dibrompenten** (unbek. Constit.) (A. 133, 85).
- C₃H₅Br₄**
- 1) **ααββ-Tetrabrompentan** (Propylacetylentetrabromid). Sd. 275° (B. 8, 407). — I, 131.
 - 2) **αβδε-Tetrabrompentan?** (Piperylentetrabromid). Sm. 114.5° (B. 14, 665; 15, 424). — I, 132.
 - 3) **ββγγ-Tetrabrompentan** (Valerylentetrabromid). Sd. 275° (B. 8, 412). — I, 132.
 - 4) **αβγδ-Tetrabrom-β-Methylbutan**. Sd. 155—160° (J. 1882, 405; C. 1899 [1] 590). — I, 133.
 - 5) **γγδδ-Tetrabrom-β-Methylbutan** (Isopropylacetylentetrabromid). Sd. 275° (B. 8, 407). — I, 131.
 - 6) **Tetra-Brommethyl methan** (aus Pentaerythrit). Sm. 154—156° (A. 276, 62).
 - 7) **isom. Piperylentetrabromid**. Sd. 115—118°₄ (G. 16, 391). — I, 132.
 - 8) **isom. Tetrabrompentan** (unbek. Const.). Sm. 86—87° (J. r. 25, 668).
- C₃H₈J₂**
- 1) **αβ-Dijod-α-Penten** (Propylacetylendijodid). Sd. 130—133°₂₂ (G. 22 [2] 93).
- C₃H₈J₄**
- 1) **αγ-Dijod-ββ-Dijodmethylpropan**. Sm. 225° (A. 265, 331). — I, 194.
- C₃H₈S₃**
- 1) **Butylenester d. Trithiokohlensäure**. Fl. (A. 126, 296). — I, 889.
- C₃H₉N**
- C 72.3 — H 10.8 — N 16.9 — M. G. 83.
 - 1) **2-Amido-2,3-Dihydro-R-Penten**. Sd. 102—104°. (2HCl, PtCl₄) (B. 29, 557). — IV, 48.
 - 2) **5-Methyl-2,3-Dihydropyrrol**. Sd. 95—97° (50—51°_{116—118}). (2HCl, PtCl₄), (HCl, AuCl₃) (B. 31, 278).
 - 3) **1-Methyl-β-Dihydropyrrol**. Sd. 79—80°. (2HCl, PtCl₄), (HCl, AuCl₃) (G. 15, 489; B. 30, 1790). — IV, 48.
 - 4) **1,2,3,4-Tetrahydropyridin** (Piperidein). Fl. (2HCl, PtCl₄ + C₂H₅O). (HCl, AuCl₃) (B. 25, 2782). — IV, 48.
 - 5) **Nitril d. Butan-α-Carbonsäure** (Butylcyanid). Sd. 140.4°_{73.3} (A. 158, 171). — I, 1466.
 - 6) **Nitril d. Butan-β-Carbonsäure**. Sd. 125° (Bl. 51, 172). — I, 1466.
 - 7) **Nitril d. β-Methylpropan-α-Carbonsäure** (Isobutylcyanid). Sd. 129.3, bis 129.5°_{76.3} (A. 59, 15; 64, 77, 334; 102, 229; 160, 266; Bl. 34, 633; [3] 11, 1067; B. 19, 567). — I, 1466.
 - 8) **Nitril d. β-Methylpropan-β-Carbonsäure**. Sm. 15—16°; Sd. 105 bis 106° (A. 170, 156). — I, 1466.
 - 9) **polym. Nitril d. β-Methylpropan-β-Carbonsäure**. Siehe C₁₀H₁₄N₂. — I, 1466.

- C₅H₉N** 10) **Isobutylisocyanid** (Isobutylcarbylamin). *Sd.* 114—117° (*A.* 152, 221; *A. ch.* [4] 17, 245). — *I.* 1483.
- C₅H₉N₃** *C* 43.2 — *H* 6.5 — *N* 50.0 — *M. G.* 139.
1) **4,6-Diamido-2-Aethyl-1,3,5-Triazin**. *HCl* (*J. pr.* [2] 43, 78). — *IV*, 1317.
- C₅H₉Cl** 1) **β-Chlor-α-Penten** (α-Chlor-α-Propyläthen). *Sd.* 95—97° (*B.* 8, 411). — *I.* 161.
2) **β- oder γ-Chlor-β-Penten** (Valerylenhydrochlorid). *Sd.* 100° (*Z.* 1867, 173). — *I.* 132.
3) **β-Chlormethyl-α-Buten** (α-Aethylallylchlorid). *Sd.* 101—103° (*J. r.* 20, 149). — *I.* 161.
4) **γ-Chlor-β-Methyl-α-Buten**. *Fl.* (*J. r.* 17, 296). — *I.* 161.
5) **α-Chlor-γ-Methyl-α-Buten** (α-Chlor-β-Isopropyläthylen). *Sd.* 85—87° (91—96°) (*B.* 8, 414; *J. r.* 20, 147). — *I.* 161.
6) **γ-Chlor-γ-Methyl-α-Buten** (*J. r.* 24, 513).
7) **γ-Chlor-β-Methyl-β-Buten**. *Sd.* 85—95° (*C.* 1897 [1] 802).
8) **β-Chlor-γ-Methyl-β-Buten**. *Sd.* 94°_{40.8} (*A. ch.* [6] 15, 284). — *I.* 161.
9) **Isoprenhydrochlorid**. *Sd.* 85—91° (*J.* 1879, 577). — *I.* 133.
10) **isom. Chlorpenten** (aus Amylen). *Sd.* 92—93° (90—95°) (*B.* 24, 217; *Z.* 1866, 380). — *I.* 153.
- C₅H₉Cl₃** 1) **δδδ-Trichlor-β-Methylbutan** (Isobutylchloroform). *Fl.* (*Bl.* 48, 627). — *I.* 153.
2) **Trichlorpentan** (aus Amylen). *Sd.* 174—180° (*Z.* 1866, 380, 668; *B.* 24, 218). — *I.* 153.
- C₅H₉Br** 1) **Brom-R-Pentamethylen**. *Sd.* 136—138° (*A.* 275, 324).
2) **β-Brom-α-Penten**. *Sd.* 122—123° (*B.* 8, 413). — *I.* 185.
3) **β- oder γ-Brom-β-Penten** (Valerylenhydrobromid). *Sd.* 115° (*Z.* 1867, 173). — *I.* 132.
4) **α-Brom-β-Methyl-α-Buten**. *Sd.* 117—118°₁₀₇ (*C.* 1899 [1] 775).
5) **γ-Brom-β-Methyl-β-Buten**. *Sd.* 118—120° (*J. r.* 27, 361; *J. pr.* [2] 53, 271).
6) **Isoprenhydrobromid**. *Sd.* 104—108° (*J.* 1879, 577). — *I.* 133.
7) **Brompenten** (aus Dibromhydroäthylcrotonsäure). *Sd.* 110—112° (*A.* 200, 36). — *I.* 185.
8) **Brompenten** (aus Fuselölpenten). *Sd.* 100—110° (*B.* 24, 221). — *I.* 177.
9) **Brompenten** (aus Isovaleriansäurealdehyd). *Sd.* 110—111° (*B.* 8, 407).
10) **Brompenten**. *Sd.* 110—115° (*M.* 4, 81).
- C₅H₉Br₃** 1) **Tribrompentan** (aus Valerylen) (*Z.* 1867, 173). — *I.* 132.
2) **Tribrompentan** (aus Fuselölamylen) (*A.* 120, 167).
3) **Tribrompentan** (aus Fuselöl). *Sd.* 118—119°₂₀ (*B.* 24, 221). — *I.* 177.
4) **Tribrompentan** (aus Isoamylalkohol). *Sd.* 175°₁₀₀ (*M.* 10, 827). — *I.* 177.
- C₅H₉J** 1) **Jod-R-Pentamethylen**. *Sd.* 166—167°₇₅₄ (i. CO₂) (*A.* 275, 325).
2) **α-Jodäthyl-R-Trimethylen**. *Sd.* 57°₃₀ (*J. pr.* [2] 54, 104).
3) **1-Jod-1-Aethyl-R-Trimethylen**. *Sd.* 54°₃₅ (*J. pr.* [2] 54, 106).
4) **Jodpenten** (Valerylenhydrojodid). *Sd.* 140—142° (*Z.* 1867, 173). — *I.* 132.
- C₅H₁₀O** *C* 69.8 — *H* 11.6 — *O* 18.6 — *M. G.* 86.
1) **Oxy-R-Pentamethylen** (Pentamethenylalkohol). *Sd.* 139° (*A.* 275, 322).
2) **γ-Oxy-α-Penten** (Vinyläthylcarbinol). *Sd.* 114—114.5° (*J. r.* 16, 319; *B.* 21, 3349). — *I.* 251.
3) **δ-Oxy-α-Penten** (Methylallylcarbinol). *Sd.* 115—116°₇₂₀ (*B.* 21, 3350, 3351; 27, 2434). — *I.* 251.
4) **β-Oxymethyl-α-Buten** (Aethylallylalkohol). *Sd.* 133—134.5° (*J. r.* 20, 152). — *I.* 251.
5) **δ-Oxy-β- oder γ-Methyl-α-Buten**. *Sd.* 110—115°₂₀ (*B.* 28, 2956).
6) **γ-Oxy-β-Methyl-α-Buten** (Methylisopropenylcarbinol). *Sd.* 115—117° (*J. r.* 17, 296). — *I.* 251.
7) **α-Oxy-β-Methyl-β-Buten** (Tigylalkohol) (*M.* 3, 123). — *I.* 251.
8) **isom. Oxypenten** (Valerylenhydrat). *Sd.* 115—120° (*Z.* 1867, 174). — *I.* 252.
9) **Alkohol** (aus Pentaerythrit). *Sd.* 120—128° (*A.* 276, 67).
10) **prim. Alkohol** (aus Pentamethylen-diamin). *Sd.* 133—136° (*J. r.* 25, 670).
11) **Methyläther d. α-Oxy-β-Methylpropen** (Methylisocrotyläther). *Sd.* 70 bis 74° (*J. r.* 9, 163; *B.* 10, 705). — *I.* 302.

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- 12) Aethyläther d. β -Oxypropen (Aethylisopropenyläther). *Sd.* 62—63° (*J. pr.* [2] 37, 532; [2] 44, 215; *B.* 26, 2732). — *I.* 302.
- 13) Aethyläther d. γ -Oxypropen (Aethylallyläther). *Sd.* 62,5° (*A. ch.* [3] 48, 292; *A.* 102, 290; 200, 177, 178; *J.* 1872, 331; *Z.* 1865, 554; 1866, 573; *J. r.* 22, 29; *B.* 16, 2634; 31, 3072). — *I.* 302.
- 14) Pentan- $\alpha\delta$ -Oxyd (γ -Pentylendioxyd). *Sd.* 77—78°₇₁₆ (*B.* 22, 2571; *Soc.* 51, 837). — *I.* 309.
- 15) Pentan- $\alpha\epsilon$ -Oxyd (Pentamethylenoxyd). *Sd.* 81—82° (*J. r.* 22, 389; 25, 669). — *I.* 309.
- 16) Pentan- $\beta\gamma$ -Oxyd (Methyläthyläthylenoxyd). *Sd.* 80° (*J. r.* 14, 365). — *I.* 309.
- 17) β -Methylbutan- $\beta\gamma$ -Oxyd (Trimethyläthylenoxyd). *Sd.* 75—76° (*J. r.* 14, 361). — *I.* 309.
- 18) β -Methylbutan- $\gamma\delta$ -Oxyd (Isopropyläthylenoxyd). *Sd.* 82° (*J. r.* 14, 364). — *I.* 309.
- 19) isom. Pentanoxyd? *Sd.* 95° (*A.* 115, 91, siehe auch *B.* 16, 396, soll Methylisopropylketon sein?).
- 20) isom. Pentanoxyd (*J.* 1861, 662; *A.* 196, 360).
- 21) β -Ketopentan (Methylpropylketon). *Sd.* 101,7°. + $NaHSO_3$ + $\frac{1}{2}H_2O$ (*A.* 108, 124; 138, 217; 148, 133; 157, 251; 161, 269; 179, 322; 186, 259; *J. pr.* [2] 51, 504; *Z.* 1865, 614; *Soc.* 45, 479; *M.* 4, 35; *B.* 8, 411; 14, 1542; *A. ch.* [6] 12, 248; *J.* 1884, 1048; *Bl.* [3] 3, 511). — *I.* 996.
- 22) γ -Ketopentan (Diäthylketon). *Sd.* 102,7°₆₀₀. + $NaHSO_3$ (*A.* 78, 187; 118, 9; 140, 213; 179, 322; 261, 183; *Z.* 1867, 710; *Bl.* 50, 356; *J.* 1867, 452; 1881, 389; 1884, 206, 1048; *B.* 5, 599; 16, 227; *J. pr.* [2] 50, 140; *M.* 19, 160). — *I.* 997.
- 23) γ -Keto- β -Methylbutan (Methylisopropylketon). *Sd.* 93,5° (95°). + $NaHSO_3$ + $\frac{1}{2}H_2O$ (*A.* 110, 19; 115, 91; 138, 332; 180, 327; 190, 338; 191, 163; 196, 360; *J. r.* 9, 160; 10, 215, 358; 14, 358; 17, 300; *B.* 10, 240; 15, 1875; 16, 2983; *A. ch.* [6] 15, 284; *M.* 13, 648). — *I.* 998.
- 24) Aldehyd d. Butan- α -Carbonsäure (*A.* d. norm. Valeriansäure). *Sd.* 103,4° (102°) (*A.* 159, 70; 224, 18). — *I.* 949.
- 25) Aldehyd d. Butan- β -Carbonsäure (*A.* d. Methyläthylelessigsäure). *Sd.* 90 bis 92° (*B.* 10, 705; *J. r.* 20, 154; *M.* 3, 123; 7, 56). — *I.* 953.
- 26) Aldehyd d. β -Methylpropan- α -Carbonsäure (*A.* d. Isovaleriansäure). *Sd.* 92,5°. + $NaHSO_3$ + $\frac{1}{2}H_2O$. Lit. bedeutend. — *I.* 950.
- 27) polym. Aldehyd d. β -Methylpropan- α -Carbonsäure (polym. Aldehyd d. Isovaleriansäure) = $(C_5H_{10}O)_x$. *Sm.* 83—84° (*B.* 8, 414). — *I.* 950.
- 28) Aldehyd d. β -Methylpropan- β -Carbonsäure (*A.* d. Trimethylelessigsäure). *Sm.* 3°; *Sd.* 74—75° (*B.* 24 [2] 558). — *I.* 954.

 $C_5H_{10}O_2$

- 1) $\alpha\beta$ -Dioxyäthyl-R-Trimethylen. *Sd.* 206—207°₇₅₆ (*J. pr.* [2] 54, 100).
- 2) Aethylenäther d. $\alpha\alpha$ -Dioxypropan. *Sd.* 106°_{753,2} (*A. ch.* [6] 16, 30). — *I.* 941.
- 3) Aethylidenäther d. $\alpha\beta$ -Dioxypropan. *Sd.* 93° (*Bl.* 41, 361). — *I.* 924.
- 4) Aethylidenäther d. $\alpha\gamma$ -Dioxypropan. *Sd.* 110—112° (*A. ch.* [6] 16, 48). — *I.* 924.
- 5) γ -Oxy- β -Ketopentan (α -Acetylpropylalkohol; Methyläthylketol). *Sd.* 152 bis 153° u. Zers. (*B.* 23, 2425). — *I.* 269.
- 6) δ -Oxy- β -Ketopentan. *Sd.* 176—177° (*B.* 25, 3166; *Soc.* 65, 819).
- 7) ϵ -Oxy- β -Ketopentan (γ -Acetylpropylalkohol). *Sd.* 207—208°₇₂₀. + $NaHSO_3$ + $\frac{1}{2}H_2O$ (*B.* 22, 1197). — *I.* 268.
- 8) Aethyläther d. α -Oxy- β -Ketopropan (Acetoläthyläther). *Sd.* 128°. + $NaHSO_3$. 2 + 3($HgCl_2$, HgO) (*J.* 1881, 506; *B.* 21, 2138, 2648; 25, 22; *A.* 269, 22; *G.* 24 [2] 42; *C.* 1897 [1] 407). — *I.* 310.
- 9) Aethyläther d. γ -Oxypropan- $\alpha\beta$ -Oxyd (Aethyläther d. Glycid). *Sd.* 128 bis 129° (*A. ch.* [3] 60, 58; *B.* 5, 450; *G.* 24 [2] 39). — *I.* 314.
- 10) Akroleinalkoholat. *Sd.* 130° u. Zers. (*J.* 1876, 480).
- 11) Butan- α -Carbonsäure (norm. Valeriansäure). *Sm.* — 18 bis — 20° (— 58,5°); *Sd.* 186—186,4° cor. Salze meist bekannt, Lit. bedeutend. — *I.* 426.
- 12) i-Butan- β -Carbonsäure (Methyläthylelessigsäure). *Sd.* 177°. $Ca + 5H_2O$, Ba , $Zn + H_2O$, Mn , Cu , Ag (*A.* 188, 257; 191, 117; 195, 118; 204, 151;

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- 208, 256, 262; 231, 219; *J. r.* 9, 176; *M.* 7, 56; 8, 573; 14, 699; *B.* 14, 2476; 29, 52, 1194, 1814; *J. pr.* [2] 57, 462). — I, 429.
- 13) d-Butan- β -Carbonsäure. *Sd.* 177°. $Ca + 5H_2O$, *Ag* (*R.* 13, 197).
- 14) l-Butan- β -Carbonsäure. *Sd.* 173–174°. $Ca + 1\frac{1}{2}(5)H_2O$, *Ag*, *Brucinsalz* (*B.* 29, 53).
- 15) β -Methylpropan- α -Carbonsäure (Isovaleriansäure; Isopropylessigsäure). *Sm.* –51°; *Sd.* 176,3°. Salze meist bekannt. *Lit.* bedeutend. — I, 426.
- 16) β -Methylpropan- β -Carbonsäure (Trimethylessigsäure). *Sm.* 35,3°; *Sd.* 163,7–163,8°. $Na + H_2O$, *K*, $Mg + 8H_2O$, $Ca + 4H_2O$, $Sr + 5H_2O$, $Ba + 5H_2O$, $Zn + H_2O$, *Pb*, $Cu + H_2O$, *Ag* (*A.* 165, 322; 170, 151; 173, 355; *B.* 6, 146, 826; 23, 1596; *J. r.* 6, 139, 158; *M.* 10, 777; 12, 601; 13, 650; 14, 713; 18, 579). — I, 430.
- 17) Isobutylameisensäure (id. mit Isovaleriansäure?). *Sd.* 171–172°_{732,5}. $Ca + 3H_2O$, *Ba*, $Zn + 2H_2O$, $Mn + 2H_2O$, *Cu*, *Ag* (*A.* 160, 268; 193, 91; 208, 268). — I, 429.
- 18) isom. Valeriansäure (aus Harzöl). *Sd.* 173–175°. $Ca + 5H_2O$, $Ba + H_2O$, $Zn + 3H_2O$, *Pb*, *Ag* (*A. ch.* [6] 1, 253). — I, 429.
- 19) Methylester d. norm. Buttersäure. *Sd.* 102–102,5° (*P.* [2] 12, 41; *A. ch.* [6] 8, 130; *A.* 47, 47; 95, 315; 214, 184; 218, 314; 220, 332; 223, 79; 234, 343; *B.* 11, 1358; 12, 344). — I, 422.
- 20) Methylester d. Isobuttersäure. *Sd.* 92,4° (*A. ch.* [4] 28, 366; *P.* [2] 12, 42; *M.* 2, 682; *A.* 218, 332; 220, 333; 223, 81; 234, 343; *B.* 15, 2463; 31, 1340). — I, 425.
- 21) Aethylester d. Propionsäure. *Sd.* 98,8° (*A.* 94, 322; 95, 316; 160, 219; 163, 291; 218, 317; 220, 110; 223, 78; 234, 343; *P.* [2] 12, 41; *J.* 1882, 64; *Z.* 1871, 36; *M.* 2, 544, 683; *B.* 15, 2463; 28, 2438; *R.* 14, 111, 117). — I, 420.
- 22) norm. Propylester d. Essigsäure. *Sd.* 102° (*A.* 153, 262; 159, 81; 161, 30; 163, 271; 218, 320; 220, 109; 223, 77; 233, 258; 234, 343; *P.* [2] 12, 41; *B.* 15, 2463; *J. pr.* [2] 48, 238; *R.* 14, 109, 115). — I, 408.
- 23) Isopropylester d. Essigsäure. *Sd.* 90–93° (88–91°_{734,3}) (*A.* 124, 327; *M.* 2, 686). — I, 409.
- 24) norm. Butylester d. Ameisensäure. *Sd.* 106,9° (104–105°) (*M.* 2, 692; *A.* 234, 252). — I, 396.
- 25) Isobutylester d. Ameisensäure. *Sd.* 97,9° (98–99°) (*P.* [2] 12, 4; *A.* 163, 281; 218, 324; 220, 106; 223, 76; 234, 309, 403; *B.* 17, 2304). — I, 396.

 $C_2H_5O_3$

- 26) Verbindung (aus Tribrompentan). *Sd.* 98° (*M.* 10, 827). — I, 177.
 C 50,8 — H 8,5 — O 40,7 — *M. G.* 118.
- 1) Aethylidenäther d. $\alpha\beta\gamma$ -Trioxypropan (Acetoglyceral). *Sd.* 184 bis 188° (*A.* 136, 126). — I, 924.
- 2) α -Oxybutan- α -Carbonsäure (α -Oxyvaleriansäure). *Sm.* 28–29° (31°). Ca , $Ba + \frac{1}{2}H_2O$, $Zn + 2H_2O$, *Cd*, *Cu*, *Ag* (*G.* 14, 16; 23 [2] 214; *B.* 17, 2505; *M.* 15, 757). — I, 565.
- 3) β -Oxybutan- α -Carbonsäure (β -Oxyvaleriansäure). *Fl.* $Ca + H_2O$, $Ba + 2\frac{1}{2}H_2O$, *Ag* (*A.* 283, 74, 93; *J. r.* 24, 514).
- 4) γ -Oxybutan- α -Carbonsäure (γ -Oxyvaleriansäure). *Fl.* NH_4 , Ca , Ba , *Ag* (*A.* 208, 96, 104; 216, 56; 227, 101; 255, 25; 256, 151; 283, 78; 294, 130; *B.* 17, 1369; *Ph. Ch.* 10, 120). — I, 566.
- 5) δ -Oxybutan- α -Carbonsäure (δ -Oxyvaleriansäure). *Ag* (*B.* 26, 2576).
- 6) β -Oxybutan- β -Carbonsäure (α -Methyl- α -Oxybuttersäure). *Sm.* 66° (68°). Ba , Zn , *Ag* (*A.* 135, 39; 200, 282; 204, 18; *Z.* 1867, 440; *C.* 1899 [1] 194). — I, 567.
- 7) γ -Oxybutan- β -Carbonsäure (α -Methyl- β -Oxybuttersäure). Na , $Ba + H_2O$, *Ag* (*A.* 188, 229; 200, 269; 250, 244; *J. r.* 9, 133; *B.* 10, 1954). — I, 568.
- 8) δ -Oxybutan- β -Carbonsäure. Ca , Ba , *Ag* (*B.* 16, 2624; 29, 1193; *A.* 294, 110). — I, 565.
- 9) α -Oxy- β -Methylpropan- α -Carbonsäure (α -Oxyisovaleriansäure). *Sm.* 86° (83°). Na , $Mg + 2H_2O$, $Ca + 1\frac{1}{2}(3\frac{1}{2})H_2O$, $Ba + 2H_2O$, Zn , $Cu + H_2O$, *Ag* (*A.* 139, 199; 141, 324; 174, 62; 193, 106; 205, 28; *J. r.* 9, 131; *Z.* 1870, 517; *J.* 1880, 809; *M.* 15, 769; *B.* 30, 863). — I, 568.

C₅H₁₀O₃

- 10) β -Oxy- β -Methylpropan- α -Carbonsäure (β -Oxyisovaleriansäure). Fl. Ca + 12H₂O, Ba, Zn, Cu + H₂O, Ag (A. 185, 163; 200, 273; J. pr. [2] 23, 206; J. r. 8, 374; 11, 410; 22, 47). — I. 567.
- 11) α -Oxypropanmethyläther- α -Carbonsäure (α -Oxybuttermethyläthersäure). Fl. Ba, Zn, Ag (A. ch. [3] 17, 548). — I. 560.
- 12) β -Oxypropanmethyläther- α -Carbonsäure (β -Oxybuttermethyläthersäure). Na (Soc. 59, 476). — I. 561.
- 13) α -Oxypropionäthyläthersäure. Sd. 195—198° u. ger. Zers. Na, K, Ca + 2H₂O, Zn, Ag (A. 114, 206; 118, 325; 208, 340; A. ch. [3] 59, 174; J. r. 12, 454; Ph. Ch. 1, 100, 103; Soc. 73, 863). — I. 555.
- 14) δ - α -Oxypropionäthyläthersäure. Ca + 2H₂O, Ag (Soc. 73, 864).
- 15) β -Oxypropionäthyläthersäure. Ca (Soc. 59, 474; A. 273, 43). — I. 559.
- 16) Oxyessigpropyläthersäure (A. 179, 8). — I. 549.
- 17) Säure (aus β -Chlorisocrotonsäure). Sm. 137.5° u. Zers. (B. 15, 218).
- 18) Säure (aus Oxy- α -Methylglutarsäure) (M. 11, 503). — I. 551.
- 19) Säure (aus Palmitinsäure). Sm. 97° (M. 8, 495). — I. 569.
- 20) Methylester d. α -Oxypropionmethyläthersäure. Sd. 135—138° (A. 125, 53; 208, 343). — I. 555.
- 21) Methylester d. β -Oxypropionmethyläthersäure. Sd. 140—145° (Soc. 59, 474). — I. 559.
- 22) Methylester d. Oxyessigäthyläthersäure. Sd. 148° (A. 197, 8, 21; B. 17, 486). — I. 549.
- 23) Äthylester d. α -Oxypropionsäure. Sd. 154.5 (150°). Ag, + CaCl₂ (A. 91, 355; 125, 57; 148, 227; 197, 12, 21; 208, 335; A. ch. [3] 63, 102; [6] 8, 136). — I. 554.
- 24) Äthylester d. δ - α -Oxypropionsäure. Sd. 152—154° (64—67°₂₂₋₂₃) (Soc. 67, 917; 69, 827; C. 1895 [1] 1054; J. r. 12, 17). — I. 558.
- 25) Äthylester d. Oxyessigmethyläthersäure. Sd. 131° (i. D.) (A. 197, 8, 21; B. 17, 486). — I. 549.
- 26) Propylester d. Oxyessigsäure. Sd. 170.5° (A. 197, 6, 21). — I. 548.
- 27) Diäthylester d. Kohlensäure. Sd. 125.8° (cor.) (127—129°) (A. 95, 325; 203, 23; 205, 247; Z. 1868, 658; J. pr. [2] 22, 353; J. 1868, 117; A. ch. [6] 8, 133; B. 30, 951; Am. 19, 698). — I. 542.
- 28) Methylpropylester d. Kohlensäure. Sd. 130.8° (cor.) (A. 205, 245). — I. 543.
- 29) tert. Monobutylester d. Kohlensäure. Sm. —15° bis —10° (B. 31, 3001).
- 30) Acetat d. Dioxymethanäthyläther. Sd. 130—131° (G. 27 [2] 297).
- 31) Verbindung + 4H₂O (aus Diäthyläther u. CO₂) (B. 31, 3000).

C₅H₁₀O₄

- 1) Methyltetrose (B. 29, 1381).
- 2) $\alpha\gamma$ - oder $\beta\gamma$ -Dioxybutan- α -Carbonsäure. Ca (A. 299, 46).
- 3) $\gamma\delta$ -Dioxybutan- α -Carbonsäure ($\gamma\delta$ -Dioxyvaleriansäure). Ca, Ba, Ag (A. 208, 103; 268, 36, 63). — I. 633.
- 4) $\beta\gamma$ -Dioxybutan- β -Carbonsäure (Dimethylglycerinsäure). Sm. 107°. K, Ag (A. 234, 228; 257, 127; 266, 378). — I. 634.
- 5) Anglicerinsäure. Sm. 110—111°. Cu, Zn (A. 283, 115).
- 6) Tiglicerinsäure. Sm. 88°. Ca, Ba, Zn, Ag (A. 283, 110).
- 7) Äthylester d. $\alpha\beta$ -Dioxypropionsäure. Sd. 230—240° (120—122°₁₄) (B. 4, 706; Soc. 63, 511, 1415; 73, 194). — I. 632.
- 8) Monacetat d. $\alpha\beta\gamma$ -Trioxypropan. Fl. (A. ch. [3] 41, 277; J. pr. [2] 55, 422). — I. 415.

C₅H₁₀O₅

C 40.0 — H 6.7 — O 53.3 — M. G. 150.

- 1) d-Arabinose. Sm. 156—157° (B. 26, 735; 31, 1576; 32, 553).
- 2) l-Arabinose. Sm. 160° (156—157°). Lit. bedeutend. — I. 1036.
- 3) r-Arabinose. Sm. 161—162° (B. 26, 742; 32, 554). — I. 1036.
- 4) Lyxose (B. 29, 584; 30, 3105).
- 5) Ribose. Fl. (B. 24, 4220). — I. 1037.
- 6) Xylose. Sm. 144—145°. Lit. bedeutend. — I. 1037.

C₅H₁₀O₆

C 36.2 — H 6.0 — O 57.8 — M. G. 166.

- 1) l-Arabonsäure ($\alpha\beta\gamma\delta$ -Tetraoxybutan- α -Carbonsäure). Sm. 89°. Ca + 5H₂O, Sr + 5(7/5)H₂O, Ba, Cd (J. pr. [2] 30, 379; [2] 34, 47; A. 260, 310; B. 19, 3031; 20, 346; 21, 3008; 24, 4216; 29, 1862). — I. 784.
- 2) r-Arabonsäure. Ca + 5H₂O (B. 32, 556).

- $C_5H_{10}O_6$ 3) **Lyxonsäure**. Ba, Sr, Chininsalz, Strychninsalz, Brucinsalz (*B.* 29, 581; *Bl.* [3] 15, 592).
- 4) **Ribonsäure**. Ca, Cd (*B.* 24, 4216). — I, 784.
- 5) **Xylonsäure**. Sr + $8\frac{1}{2}H_2O$, Cd + $CdBr_2 + 2H_2O$ (*A.* 260, 308; *Bl.* [3] 5, 557; *B.* 29, 581). — I, 784.
- $C_5H_{10}N_2$ C 61,2 — H 10,2 — N 28,6 — M. G. 98.
- 1) **2-Aethyl-4,5-Dihydroimidazol**. *Sd.* 144—148°₉₃. HCl, (2HCl, $PtCl_4$), (HCl, $AuCl_3$), (HCl, $5HgCl_2$), HBr, Pikrat, harnsaures Salz (*B.* 28, 1173). — IV, 490.
- 2) **1,2-Dimethyl-4,5-Dihydroimidazol**. *Sm.* 90°. (2HCl, $PtCl_4$) (*B.* 27, 2957).
- 3) **2,5-Dimethyl-4,5-Dihydroimidazol**. *Sd.* 125°₂₂ (2HCl, $PtCl_4$), (HCl, $AuCl_3$), HCl, (6 $HgCl_2$), Pikrat (*B.* 21, 2338; 28, 1177). — IV, 490.
- 4) **2-Methyl-1,4,5,6-Tetrahydro-1,3-Diazin** (Aethenyltrimethylendiamin). (HCl, $AuCl_3$), (2HCl, $PtCl_4$) (*B.* 21, 2336). — I, 1238.
- 5) **1,4-Methylenhexahydro-1,4-Diazin** (Methylenpiperazin) (*J. pr.* [2] 53, 22; *B.* 30, 3043).
- 6) **Diäthylecyanamid**. *Sd.* 186° (190°) (*B.* 10, 428; *A.* 90, 95). — I, 1437.
- 7) **Nitril d. α -Amidoisovaleriansäure**. HCl, (2HCl, $PtCl_4$) (*B.* 13, 907; *A.* 205, 10; 211, 349). — I, 948.
- $C_5H_{10}N_6$ C 39,0 — H 6,5 — N 54,5 — M. G. 154.
- 1) **Dimethylmelamin** (*B.* 18, 2768). — I, 1444.
- $C_5H_{10}Cl_2$ 1) $\beta\beta$ -Dichlorpentan. *Fl.* (*B.* 8, 411). — I, 153.
- 2) $\beta\gamma$ -Dichlor- β -Methylbutan (Trimethyläthylenchlorid). *Sd.* 130—135° (*J. r.* 17, 302). — I, 153.
- 3) $\beta\delta$ -Dichlor- β -Methylbutan. *Sd.* 152—154° u. *ger. Zers.* (*J. r.* 24, 513).
- 4) $\gamma\gamma$ -Dichlor- β -Methylbutan (β -Dichlorisopentan). *Fl.* (*Bl.* 48, 25). — I, 153.
- 5) $\gamma\delta$ -Dichlor- β -Methylbutan (Isopropyläthylenchlorid). *Sd.* 143—145° (*J. r.* 20, 144). — I, 153.
- 6) $\delta\delta$ -Dichlor- β -Methylbutan (Isoamylenchlorid). *Sd.* 130° (*A.* 106, 265; *B.* 8, 413; *Bl.* 48, 627). — I, 153.
- 7) **Isoprendihydrochlorid**. *Sd.* 143—145° (*J.* 1879, 577). — I, 133.
- 8) **Valerylendihydrochlorid**. *Sd.* 150—152° (*Z.* 1867, 173). — I, 132.
- 9) **Dichlorpentan** (aus Isoamylchlorid). *Sd.* 155—160° (*A.* 148, 350).
- 10) **Dichlorpentan** (unbek. Constit.). *Sd.* 145° (130—133° (*Z.* 1866, 668; *A.* 121, 115; *B.* 24, 217).
- $C_5H_{10}Br_2$ 1) $\alpha\beta$ -Dibrompentan. *Sd.* 190—191° (*B.* 25 [2] 377).
- 2) $\alpha\delta$ -Dibrompentan. *Sd.* 200—202°₇₁₈ (*B.* 22, 2570; *Soc.* 53, 91). — I, 176.
- 3) $\alpha\epsilon$ -Dibrompentan. *Sd.* 204—206° (208—214°) (*J. pr.* [2] 39, 543; *J. r.* 25, 674). — I, 176.
- 4) $\beta\beta$ -Dibrompentan. *Fl.* (*B.* 8, 413). — I, 176.
- 5) $\beta\gamma$ -Dibrompentan. *Sd.* 178° (*A.* 179, 307; 200, 30; *Z.* 1867, 173). — I, 176.
- 6) $\alpha\beta$ -Dibrom- β -Methylbutan. *Sd.* 172—174° (*J. r.* 27, 360; *C.* 1899 [1] 775).
- 7) $\alpha\delta$ -Dibrom- β -Methylbutan. *Fl.* (*B.* 28, 2957).
- 8) $\beta\gamma$ -Dibrom- β -Methylbutan (Trimethyläthylendibromid). *Sd.* 170—175° u. *Zers.* (*Bl.* 2 [1860] 149; *A. ch.* [3] 55, 458; *J. r.* 10, 215; 27, 55, 358; *J. pr.* [2] 53, 268; *C.* 1898 [2] 472). — I, 177.
- 9) $\beta\delta$ -Dibrom- β -Methylbutan (Isoprendihydrodibromid). *Sd.* 74—75°₁₅ (*J. r.* 27, 392; *J. pr.* [2] 53, 150; [2] 55, 3, 5; *J.* 1879, 577). — I, 133.
- 10) $\gamma\delta$ -Dibrom- β -Methylbutan. *Sd.* 74—76°₂₀ (*M.* 17, 218; *C.* 1898 [2] 472).
- 11) $\delta\delta$ -Dibrom- β -Methylbutan (Isoamylidenbromid). *Sd.* 170—180° (*B.* 8, 406). — I, 176.
- 12) **isom. Dibrompentan** (aus Fuselölamylen). *Sd.* 175° (*A.* 120, 167; *B.* 24, 221).
- 13) **isom. Dibrompentan**. *Sd.* 230° (*B.* 25 [2] 501).
- $C_5H_{10}J_2$ 1) $\beta\delta$ -Dijodpentan. *Sd.* 180—185° u. *Zers.* (*A. ch.* [6] 12, 235). — I, 194.
- $C_5H_{10}S$ 1) **Aethyläther d. β -Merkaptopropen**. *Sd.* 109—110° (*A.* 254, 239). — I, 367.
- 2) **Thiopentan** (Amylensulfid). *Sd.* 200° (*A.* 121, 115). — I, 365.
- 3) **Thiopentan** (Amylensulfid). *Sd.* 130—150°. (+ $HgCl_2$, HgS) (*A.* 138, 169). — I, 366.

- C₅H₁₀S**
- 4) Aldehyd d. Thioisovaleriansäure. Sm. 69° (B. 4, 403). — I, 953.
 - 5) Aldehyd d. isom. Thioisovaleriansäure. Sd. 114—115° (B. 13, 1574). — I, 953.
- C₅H₁₀S₂**
- 1) Aethylenäther d. $\alpha\alpha$ -Dimerkaptopropan (Propylidenäthylendisulfid). Sd. 191—192° (B. 21, 1476). — I, 943.
 - 2) Aethylenäther d. $\beta\beta$ -Dimerkaptopropan (Dimethylmethylenäthylendisulfid). Sd. 171° (B. 21, 1476). — I, 994.
 - 3) Methylenäthylendisulfid? Sd. 195—196° (B. 19, 2661; Soc. 49, 233, 238). — I, 364.
- C₅H₁₀S₃**
- 1) Merkaptodithioameisenisobutyläthersäure (Monoisobutylester d. Trithiokohlensäure). Na (B. 6, 316). — I, 888.
 - 2) Aethylester d. Merkaptodithioameisenäthyläthersäure (Diäthylester d. Trithiokohlensäure). Sd. 240° u. Zers. (A. 75, 147; 123, 67; 128, 333; J. pr. [1] 32, 254; [2] 6, 446; J. 1860, 397; B. 20, 2385; G. 17, 238). — I, 888.
- C₅H₁₀Se**
C₅H₁₁N
- 1) Aldehyd d. Selenisovaleriansäure. Sm. 56,5° (B. 4, 403). — I, 953.
C 70,6 — H 12,9 — N 16,4 — M. G. 85.
 - 1) δ -Amido- α -Penten. Sd. 85° (J. 1873, 333). — I, 1144.
 - 2) ρ -Amido- ρ -Penten (Valerylamin). (2HCl, PtCl₄) (A. Spl. 7, 90). — I, 1144.
 - 3) γ -Dimethylamidopropen (Dimethylallylamin). (2HCl, PtCl₄) (B. 30, 619).
 - 4) γ -Aethylamidopropen (Aethylallylamin). Sd. 84° (84—86°). HCl, (2HCl, PtCl₄), H₂SO₄ (A. 168, 261; B. 12, 2344; 16, 526, 530). — I, 1142.
 - 5) α -Methylimido- β -Methylpropan. Sd. 65—70° (B. 29, 2115).
 - 6) Butylimidomethan (Butylmethylenimin). Sd. 146—149°_{10–12} (B. 15, 169).
 - 7) Isoamylidenimid. 2 + AgNO₃, 3 + AgNO₃ (B. 11, 1200; J. 1878, 438). — I, 951.
 - 8) 1-Amido-R-Pentamethylen. Sd. 106—108°. HCl, (2HCl, PtCl₄), H₂SO₄ (A. 275, 325; B. 30, 975).
 - 9) 1-Amidomethyl-R-Tetramethylen. Sd. 82—83°. HCl, (2HCl, PtCl₄) (B. 21, 2698). — I, 1144.
 - 10) 1-Methyltetrahydropyrrol. Sd. 81—83°. (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (G. 15, 493; B. 18, 2080; 28, 582; 30, 1790). — IV, 2.
 - 11) 2-Methyltetrahydropyrrol. Sd. 96—97°₃₇. HCl, (2HCl, PtCl₄ + H₂O), (HCl, AuCl₃), (HCl, 5HgCl₂), Oxalat (A. 279, 354; B. 19, 2414; 20, 250; 22, 1865; 31, 906). — IV, 24.
 - 12) 3-Methyltetrahydropyrrol. Sd. 103—105°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), (3 + 2HJ, 2BiJ₃), Pikrat (B. 20, 1657; J. pr. [2] 57, 143). — IV, 25.
 - 13) Hexahydropyridin (Piperidin). Sd. 106°₈₀. + H₂O (Sm. — 14°). Lit. bedeutend. — IV, 3.
 - 14) Verbindung (Base aus Fleisch). Sd. 100°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (B. 19, 3120). — I, 1145.
 - 15) Base (aus Tropinsäure). Fl. (HCl, AuCl₃) (B. 29, 1217, 2975).
 - 16) Base (aus d. Base C₁₀H₁₈N₂ aus Nitrosopiperidin). Fl. (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃ + H₂O) (B. 30, 535; 31, 2273). — IV, 24.
 - 17) isom. Base (aus d. Base C₁₀H₁₈N₂ aus Nitrosopiperidin). HCl, (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃ + $\frac{1}{2}$ H₂O), HBr (B. 30, 536; 31, 2273). — IV, 24.
- C₅H₁₁N₅**
- C 42,6 — H 7,8 — N 49,6 — M. G. 141.
- 1) 1,2,3,4,5-Pentaamido-R-Penten. 3HCl + H₂O, 4HCl + H₂O, 5H₂SO₄ + 2H₂O (B. 22, 919). — IV, 1315.
 - 2) Allyldiguanid. HCl, 2HCl, (Cu, 2HCl + 2H₂O), (Cu, 2HNO₃), H₂SO₄ + $\frac{1}{2}$ H₂O, (Cu, H₂SO₄), Cu (M. 8, 380). — IV, 1311.
 - 3) 5-Aethylamido-1-Aethyl-1,2,3,4-Tetrazol. HCl, (HCl, AuCl₃) (A. 287, 252). — IV, 1312.
- C₅H₁₁Cl**
- 1) α -Chlorpentan (norm. Amylchlorid). Sd. 106,6°₄₀ (J. 1863, 524; A. 159, 72; 161, 268). — I, 152.
 - 2) β -Chlorpentan (Methylpropylcarbinolchlorid). Sd. 103—105° (A. 161, 268; 179, 321). — I, 152.
 - 3) γ -Chlorpentan (Diäthylcarbinolchlorid). Sd. 103—105° (A. 179, 321). — I, 153.
 - 4) α -Chlor- γ -Methylbutan? (act. Amylchlorid). Sd. 97—99° (Bl. 25, 546). — I, 153.

$C_5H_{11}Cl$

- 5) β -Chlor- β -Methylbutan (Dimethyläthylcarbinolchlorid). Sd. 86° (A. 190, 336; 191, 131; J. r. 9, 156; J. pr. [2] 31, 494; Bl. [3] 7, 578; C. 1897 [1] 802). — I, 153.
- 6) γ -Chlor- β -Methylbutan (Methylisopropylcarbinolchlorid). Sd. 91° (A. 127, 71; 129, 368; 190, 357). — I, 152.
- 7) δ -Chlor- β -Methylbutan (Isoamylchlorid). Sd. $100,9^\circ$ (A. 37, 164; 52, 312; 95, 337; 109, 2; 144, 34; 148, 350; 186, 392; J. 1876, 348; B. 19, 562; Bl. [3] 1, 603; Am. 19, 250). — I, 152.
- 8) isom. Amylchlorid. Sd. $85-87^\circ$ (Bl. 17, 3; 18, 166). — I, 153.
- 9) isom. Amylchlorid. Sd. 95° (Bl. 17, 3; 18, 166). — I, 153.

 $C_5H_{11}Br$

- 1) α -Brompentan (norm. Amylbromid). Sd. $128,7^\circ_{740}$ (A. 159, 73). — I, 176.
- 2) β -Brompentan (Methylpropylcarbinolbromid). Sd. 113° (A. 125, 118; B. 8, 1244). — I, 176.
- 3) α -Brom- β -Methylbutan (β -Methylbutylbromid). Sd. $116,5-118^\circ_{753,9}$ (M. 7, 62). — I, 176.
- 4) β -Brom- β -Methylbutan (Dimethyläthylcarbinolbromid). Sd. $108-109^\circ$ (A. 190, 337; J. r. 27, 358; J. pr. [2] 53, 268). — I, 176.
- 5) γ -Brom- β -Methylbutan. Sd. $114-116^\circ$ (A. 190, 357; J. r. 9, 201; Soc. 69, 1488). — I, 176.
- 6) δ -Brom- β -Methylbutan (Isoamylbromid). Sd. $118,6^\circ_{760}$ (A. 30, 298; 220, 171; M. 2, 649; J. 1876, 348; B. 14, 2766; 19, 563; 26, 1261). — I, 176.
- 7) Brompentan (aus act. Amylalkohol). Sd. $117-120^\circ$ (Z. 1869, 471; Bl. 25, 545). — I, 176.

 $C_5H_{11}J$

- 1) α -Jodpentan. Sd. $155,4^\circ_{732}$ (A. 159, 74; 243, 27). — I, 193.
- 2) β -Jodpentan (Methylpropylcarbinoljodid). Sd. $144-145^\circ$ (A. ch. [6] 12, 234; A. 148, 132; 179, 318). — I, 193.
- 3) γ -Jodpentan (Diäthylcarbinoljodid). Sd. $145-146^\circ$ (J. pr. [2] 23, 465; A. 179, 317). — I, 194.
- 4) α -Jod- β -Methylbutan (act. Amyljodid). Sd. $144-145^\circ$ (Bl. 25, 545). — I, 194.
- 5) β -Jod- β -Methylbutan (Dimethyläthylcarbinoljodid). Sd. $124-125^\circ$ (i. D.) (A. 190, 337; 191, 131; 220, 159; J. r. 9, 156; 17, 294; J. pr. [2] 58, 459). — I, 194.
- 6) γ -Jod- β -Methylbutan (Methylisopropylcarbinoljodid). Sd. $137-139^\circ$ (J. r. 9, 199; A. 190, 356; Soc. 69, 1488). — I, 194.
- 7) δ -Jod- β -Methylbutan (Isoamyljodid). Sd. $148,2^\circ$ (A. 30, 297; 95, 344; 282, 223; B. 19, 564; P. 123, 595; Bl. [3] 1, 604). — I, 194.

 $C_5H_{11}F$

- 1) δ -Fluor- β -Methylbutan (Isoamylfluorid). Sd. $75-80^\circ$ ($72-92^\circ$) (Soc. 39, 490). — I, 142.

 $C_5H_{12}O$

- C 68,2 — H 13,6 — O 18,2 — M. G. 88.
- 1) α -Oxypentan (norm. Amylalkohol). Sd. 137°_{740} (A. 159, 70; 161, 269; 190, 350; 225, 81; 233, 253; Bl. 48, 803; [3] 9, 100). — I, 232.
 - 2) β -Oxypentan (sec. Methylpropylcarbinol). Sd. $118,5^\circ_{758}$ (B. 9, 925; J. 1869, 513; J. r. 7, 314; 15, 407; 16, 333; J. 1879, 492; A. 148, 133; 161, 263; 179, 313; 190, 348; Bl. [3] 9, 677). — I, 232.
 - 3) γ -Oxypentan (sec. Diäthylcarbinol). Sd. $116,5^\circ_{753}$ (J. r. 6, 290; A. 175, 351; J. pr. [2] 26, 109). — I, 232.
 - 4) α -Oxy- β -Methylbutan (act. Amylalkohol). Sd. 128° (Bl. 25, 545; 31, 104; Z. 1870, 406; J. 1869, 367; A. 96, 255; J. pr. [2] 8, 272; B. 6, 560, 1314, 1363; 9, 358, 732; M. 3, 123; 7, 60; Soc. 63, 1130; 71, 255; J. pr. [2] 54, 464). — I, 233.
 - 5) β -Oxy- β -Methylbutan (Dimethyläthylcarbinol). Sm. -12° ; Sd. $102,5^\circ$ (A. 125, 114; 127, 236; 129, 365; 145, 292; 179, 349; 190, 336; 220, 102; 223, 71; B. 8, 1242; 15, 1573; 23, 2868; 24, 2519; J. pr. [2] 26, 111; [2] 31, 510; Bl. [3] 7, 578; J. r. 9, 155; 21, 334; 25, 354). — I, 233.
 - 6) γ -Oxy- β -Methylbutan (sec. Methylisopropylcarbinol). Sd. $112,5^\circ$ (J. r. 9, 255; B. 5, 216; 14, 2067; J. pr. [2] 26, 109; A. 180, 339; 190, 338; 191, 127; 209, 87). — I, 233.
 - 7) δ -Oxy- β -Methylbutan (Isoamylalkohol). Sd. $131,6^\circ$. Lit. bedeutend. Na, $2 + Na$, K (A. 202, 295; A. ch. [6] 11, 461); Ca, Ba (B. 16, 227); Al (Soc. 39, 1); Tl (J. 1864, 465); $3 + CaCl_2$ (M. 2, 210); $2 + SnCl_4$ (A. 147, 249). — I, 232.
 - 8) α -Oxy- β -Dimethylpropan (tert. Butylcarbinol). Sm. $48-50^\circ$; Sd. 112 bis 113° (B. 23, 2868; 24 [2] 557). — I, 234.

$C_5H_{12}O$

- 9) Methyläther d. α -Oxybutan (Methyl-norm. Butyläther). Sd. $70,3^\circ$ (Bl. [3] 7, 150; A. 243, 3). — I. 298.
- 10) Methyläther d. α -Oxy- β -Methylpropan (Methylisobutyläther). Sd. 59°_{741} (J. r. 19, 439). — I. 299.
- 11) Aethyläther d. α -Oxypropan (Aethyl-norm. Propyläther). Sd. $63,6^\circ$ (A. 151, 305; 200, 177; 243, 4; B. 16, 2634; 24 [2] 858; Am. 6, 245). — I. 298.
- 12) Aethyläther d. β -Oxypropan (Aethylisopropyläther). Sd. 54° (A. 138, 374; 276, 157; J. 1881, 409). — I. 298.

 $C_5H_{12}O_2$

- C 57,7 — H 11,5 — O 30,8 — M. G. 104.
- 1) $\alpha\delta$ -Dioxy-pentan (γ -Pentylenglykol). Sd. $219-220^\circ_{713}$ (B. 22, 2567; Soc. 51, 836; 53, 191). — I. 263.
 - 2) $\alpha\epsilon$ -Dioxy-pentan (Pentamethylenglykol). Sd. 162°_{31} (J. r. 22, 388; 25, 674). — I. 263.
 - 3) $\beta\gamma$ -Dioxy-pentan (ϵ -Methyläthyläthylenglykol). Sd. $187-188^\circ$ (A. 179, 308; B. 9, 1600; 16, 397; 21, 1236; 23, 2426; J. r. 7, 298). — I. 263.
 - 4) $\beta\delta$ -Dioxy-pentan (ϵ -Dimethyltrimethylenglykol). Sd. 177° (A. ch. [6] 12, 229). — I. 263.
 - 5) $\alpha\beta$ -Dioxy- β -Methylbutan (uns-Methyläthyläthylenglykol). Sd. $185-189^\circ$ (B. 21, 1236). — I. 264.
 - 6) $\alpha\delta$ -Dioxy- β -Methylbutan. Sd. $115-140^\circ_{20}$ (B. 28, 2955).
 - 7) $\beta\gamma$ -Dioxy- β -Methylbutan (Trimethyläthylenglykol). Sd. 177° (A. 115, 90; B. 10, 2240; 16, 396; 21, 1235; J. 1858, 424; A. ch. [3] 55, 458; J. r. 10, 217; 20, 32). — I. 393.
 - 8) $\beta\delta$ -Dioxy- β -Methylbutan (uns-Dimethyltrimethylenglykol). Sd. 202 bis 203° (J. r. 24, 514; 27, 393; J. pr. [2] 53, 151; [2] 55, 3).
 - 9) $\gamma\delta$ -Dioxy- β -Methylbutan (Isopropyläthylenglykol). Sd. 206° (A. 179, 352; B. 10, 230, 2240; 16, 397; 21, 1232; siehe auch (J. r. 20, 146). — I. 263.
 - 10) $\alpha\gamma$ -Dioxy- $\beta\beta$ -Dimethylpropan (Pentaglykol). Sm. 129° (127°); Sd. 206°_{747} (B. 27, 1089; A. 289, 38; M. 17, 76).
 - 11) Dimethyläther d. $\alpha\alpha$ -Dioxypropan (Propylidendimethyläther). Sd. 86 bis 88° (Am. 12, 520). — I. 941.
 - 12) Monäthyläther d. $\alpha\gamma$ -Dioxypropan. Sd. $160-161^\circ_{760}$ (Am. 19, 767).
 - 13) Methyläthyläther d. $\alpha\alpha$ -Dioxyäthan (Aethylidenmethyläthyläther). Sd. 85° (A. ch. [3] 48, 375; J. 1856, 597; A. 218, 52; 225, 267). — I. 921.
 - 14) Diäthyläther d. Dioxymethan + H_2O (Methylendiäthyläther). Sd. 74 bis 75° (89° wasserfrei) (J. 1879, 491; G. 13, 314; A. 274, 164; Bl. [3] 11, 752, 881). — I. 912.

 $C_5H_{12}O_3$

- C 50,0 — H 10,0 — O 40,0 — M. G. 120.
- 1) $\alpha\beta\delta$ -Trioxypentan. Sd. 192°_{633} (B. 21, 3349). — I. 278.
 - 2) $\beta\gamma\delta$ -Trioxypentan. Sd. 180°_{27} (B. 21, 3351). — I. 278.
 - 3) $\alpha\beta\gamma$ -Trioxo- β -Methylbutan. Sd. $163,4-165,4^\circ_{30}$ (M. 7, 68). — I. 278.
 - 4) $\alpha\beta$ -Dioxy- β -[Oxymethyl]butan. Sd. $186-189^\circ_{68}$ (J. r. 23, 186). — I. 278.
 - 5) α -Oxy- $\beta\beta$ -Di[Oxymethyl]propan. Sm. 199° ; subl. (A. 276, 75).
 - 6) β -Trioxypentan (Amylglycerin). Fl. (J. 1861, 664). — I. 278.
 - 7) $\alpha\gamma$ -Dimethyläther d. $\alpha\beta\gamma$ -Trioxypentan. Sd. 169° (C. 1898 [1] 238).
 - 8) α -Aethyläther d. $\alpha\beta\gamma$ -Trioxypentan (Aethylglycerinäther). Sd. 225 bis 230° (A. Spl. 1, 239). — I. 313.
 - 9) Dimethyläthyläther d. Trioxymethan (Orthoameisensäuredimethyläthyläther). Sd. $115-120^\circ$ (B. 16, 356). — I. 311.

 $C_5H_{12}O_4$

- C 44,1 — H 8,8 — O 47,1 — M. G. 136.
- 1) $\alpha\gamma$ -Dioxy- $\beta\beta$ -Di[Oxymethyl]propan (Pentaerythrit). Sm. 253° (A. 265, 319; 276, 58; J. pr. [2] 45, 328; [2] 56, 95). — I. 281.
 - 2) Tetramethyläther d. Tetraoxymethan (Orthokohlensäuremethyläther); nicht existenzfähig, siehe (A. 205, 254).
 - 3) Di[β -Oxyäthyläther] d. Dioxymethan. Sd. $74-75^\circ$ (Bl. [3] 11, 759).

 $C_5H_{12}O_5$

- C 39,5 — H 7,9 — O 52,6 — M. G. 152.
- 1) Adonit (Alkohol). Sm. 102° ; Sd. 140° u. Zers. (B. 26, 633).
 - 2) d-Arabit. Sm. 102° (B. 32, 555).
 - 3) l-Arabit. Sm. 102° (B. 20, 1234; 24, 538; J. pr. [2] 45, 329). — I. 282.

- $C_3H_{12}O_5$ 4) **r-Arabit.** Sm. 104—105° (B. 32, 556).
- $C_3H_{13}N_7$ 5) **Xylit** (Alkohol) (B. 24, 538; Bl. [3] 5, 740). — I, 282.
C 60,0 — H 12,0 — N 28,0 — M. G. 100.
- 1) **Diäthylamidoimidomethan** (uns-Diäthylformamidin). HCl, (2HCl, PtCl₄) (B. 17, 179). — I, 1159.
- 2) **Aethylamidoäthylimidomethan** (s-Diäthylformamidin). HCl, (2HCl, PtCl₄) (B. 18, 1649). — I, 1159.
- 3) **1-Amidohexahydropyridin** (Piperylhydrazin). Sd. 145—146° (146°₇₂₈). HCl, (2HCl, PtCl₄), HBr, HJ (A. 221, 299; B. 15, 859; C. 1898 [1] 1126). — IV, 480.
- 4) **2-Methylhexahydro-1,4-Diazin** (Methylpiperazin). Sd. 155—155,5°₇₀₃. 2HCl, (2HCl, PtCl₄), Pikrat (J. pr. [2] 51, 472). — IV, 481.
- 5) **Tetramethylammoniumcyanid.** + AgCN (B. 18, 2339, 2742). — I, 1121.
C 46,9 — H 9,4 — N 43,7 — M. G. 128.
- $C_3H_{12}N_4$ 1) **$\alpha\epsilon$ -Diamido- $\alpha\epsilon$ -Diimidopentan** (Glutarimidin). 2HCl + 2H₂O, (2HCl, PtCl₄) (B. 23, 2943). — I, 1167.
- $C_3H_{12}S$ 1) **δ -Merkapto- β -Methylbutan** (Isoamylmerkaptan). Sd. 120,1° (cor.) (116,8 bis 118°) (A. 52, 313, 317; 95, 346; B. 15, 2883). — I, 350.
- $C_3H_{14}S_2$ 1) **Diäthyläther d. Dimerkaptomethan** (Dithiomethylenglykoldiäthyläther). Sd. 184° (J. pr. [2] 15, 176; B. 19, 2813). — I, 351.
- $C_3H_{15}N$ C 68,9 — H 14,9 — N 16,1 — M. G. 87.
- 1) **α -Amidopentan** (norm. Amylamin). Sd. 103° (104°). (2HCl, PtCl₄) (B. 15, 770; C. 1898 [1] 702). — I, 1133.
- 2) **β -Amidopentan.** Sd. 91,5°₇₃₅. HCl, (2HCl, PtCl₄), (HCl, AuCl₃ + $\frac{1}{2}$ H₂O), HBr, (HBr, AuBr₃), H₂SO₄, Oxalat (B. 19, 1927; 22, 1856; C. 1898 [1] 702; 1898 [2] 474). — I, 1134.
- 3) **γ -Amidopentan** (Diäthylcarbinamin). Sd. 89—91°. HCl, (2HCl, PtCl₄) (A. 15, 540; C. 1898 [1] 702).
- 4) **β -Amido- β -Methylbutan** (tert. Amylamin). Sd. 77,5—78°₇₀₇. HCl, (2HCl, PtCl₄), HJ (Z. 1867, 38; A. 174, 60; J. r. 11, 171; J. pr. [2] 46, 309; C. 1898 [1] 702). — I, 1136.
- 5) **γ -Amido- β -Methylbutan.** Sd. 83—84° (C. 1898 [1] 702).
- 6) **δ -Amido- β -Methylbutan** (Isoamylamin). Sd. 95°. HCl, (2HCl, PtCl₄), (HCl, CoPtCl₂), HJ. Lit. bedeutend. — I, 1134.
- 7) **act. δ -Amido- β -Methylbutan.** Sd. 96—97°. HCl, (2HCl, PtCl₄) (Soc. 39, 332). — I, 1135.
- 8) **inact. δ -Amido- β -Methylbutan.** Sd. 96—97°₇₀₀. (2HCl, PtCl₄) (Soc. 39, 332). — I, 1135.
- 9) **α -Amido- $\beta\beta$ -Dimethylpropan** (tert. Butylcarbinamin). Sd. 82—83°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (B. 23, 2867; 24, 2156; 24 [2] 557; 26, 134). — I, 1136.
- 10) **α -Methylamidobutan.** Sd. 90,5—91,5°₇₀₄. HCl, (2HCl, PtCl₄) (B. 14, 323; B. 30, 160).
- 11) **β -Aethylamidopropan** (Aethylisopropylamin). Sd. 76°. (2HCl, PtCl₄) (B. 27, 1010).
- 12) **α -Methylamido- β -Methylpropan** (Methylisobutylamin). Sd. 76—78°. HCl, (2HCl, PtCl₄) (B. 29, 2115).
- 13) **Diäthylamidomethan** (Diäthylmethylamin). Sd. 63—65°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (A. 180, 181; 181, 177, 379; J. 1882, 476; B. 24, 1681; 26, 3040; 30, 1381). — I, 1126.
- 14) **Cespitin.** Sd. 95° (J. 1860, 358; 1868, 402).
C 52,2 — H 11,3 — N 36,5 — M. G. 115.
- $C_3H_{15}N_2$ 1) **Diäthylidiamidoimidomethan** (Diäthylguanidin) (B. 14, 1869; 23, 2196). — I, 1161.
- $C_3H_{15}P$ 1) **Isoamylphosphin.** Sd. 106—107° (B. 6, 297). — I, 1504.
- 2) **Methyldiäthylphosphin.** Sd. 110—112°. HCl (Soc. 53, 719). — I, 1502.
- $C_3H_{13}As$ 1) **Methyldiäthylarsin** (A. 122, 220). — I, 1513.
- $C_3H_{14}N_2$ C 58,8 — H 13,7 — N 27,5 — M. G. 102.
- 1) **$\alpha\epsilon$ -Diamidopentan** (Pentamethylendiamin; Cadaverin). Sd. 178—179°. 2HCl, (2HCl, 3HgCl₂), (2HCl, 4HgCl₂), (2HCl, 2AuCl₃), (2HCl, PtCl₄), Oxalat, Pikrat (H. 13, 567; 16, 196; 17, 551; 20, 287; B. 16, 1151; 18, 1924, 2957, 3100; 19, 781, 2585; 20, 1445, 2217; 27 [2] 580; 28, 563; Soc. 55, 699). — I, 1156.

- C₅H₁₄N₂**
- 2) $\beta\delta$ -Diamidopentan. Sd. 41—42°_{11—12}. 2HCl (B. 31, 550);
 - 3) isom. $\beta\delta$ -Diamidopentan. Sd. 29—30°_{9—10} (B. 31, 550).
 - 4) $\alpha\delta$ -Diamido- β -Methylbutan (β -Methyltetramethylendiamin). Sd. 172 bis 173°. 2HCl, (2HCl, 5HgCl₂), (2HCl, PtCl₄), (2HCl, 2AuCl₃ + 2H₂O), Pikrat (B. 20, 1654; 28, 2954). — I, 1157.
 - 5) d- $\alpha\delta$ -Diamido- β -Methylbutan. Sd. 170°. 2HCl, (2HCl, PtCl₄), Pikrat (Bl. [3] 17, 807).
 - 6) Di[Dimethylamido]methan. Sd. 85° (B. 26 [2] 934; 28 [2] 852; C. 1896, [2] 24).
 - 7) Gerontin. (2HCl, PtCl₄) (J. Th. 1890, 277). — I, 1157.
 - 8) Neuridin. 2HCl, (2HCl, PtCl₄), (2HCl, 2AuCl₃), Pikrat (B. 16, 1187, 1405; 18, 89; J. Th. 1884, 90). — I, 1157.
 - 9) Spermin (B. 25 [2] 756).
 - 10) uns-Methylbutylhydrazin. Sd. 50,5—51°₃₈ (B. 14, 320; B. 30, 161).
- C₅H₁₄Sn**
- 1) Zinntrimethyläthyl. Sd. 125—128° (A. 122, 59). — I, 1529.
- C₅H₁₅As**
- 1) Arsenpentamethyl (A. 122, 338). — I, 1512.
- C₅H₁₅Sb**
- 1) Antimonpentamethyl. Sd. 96—100° (J. 1860, 374). — I, 1515.
- C₅OCl₆**
- 1) 2,2,3,3,4,5-Hexachlor-1-Keto-2,3-Dihydro-R-Penten. Sm. 31,5°; Sd. 155—158°₈₀ (B. 21, 2727; A. 299, 367). — I, 1011.
 - 2) 1,1,3,3,4,5-Hexachlor-2-Keto-2,3-Dihydro-R-Penten. Sm. 92°; Sd. 235,5°_{740,5} (B. 23, 826, 2203; 24, 926; 25, 2697). — I, 1011.
- C₅OCl₅**
- 1) $\alpha\alpha\alpha\gamma\epsilon\epsilon\epsilon$ -Oktochlor- δ -Keto- β -Penten? Sd. 165—170°_{25—30} (B. 24, 922 25, 2234; 26, 510). — I, 1023.
- C₅O₂Cl₄**
- 1) 2,2,4,5-Tetrachlor-1,3-Diketo-2,3-Dihydro-R-Penten. Sm. 75—76°; Sd. 147—149°_{25—30} (B. 24, 916; 25, 2225; 26, 519). — I, 1023.
- C₅O₂Cl₅**
- 1) 2,2,4,4,5,5-Hexachlor-1,3-Diketo-R-Pentamethylen. Sm. 70° (A. 299, 378).
 - 2) Chlorid d. $\alpha\beta\delta\delta\delta$ -Pentachlor- γ -Keto- α -Buten- α -Carbonsäure (Chlorid d. β -Trichloracetyl-Dichlorakrylsäure). Sd. 149—150°_{17—20} (B. 25, 2227). — I, 618.
- C₅O₂Cl₆**
- 1) Oktochlor- $\beta\delta$ -Diketopentan (Oktochloracetylaceton). Sm. 42—43°; Sd. 165—168°_{30—32} (B. 23, 240). — I, 1017.
- C₅O₂Br₈**
- 1) Oktobrom- $\beta\delta$ -Diketopentan (Oktobromacetylaceton; Phlorobromin). Sm. 154—155° (A. 189, 165; B. 23, 1717; M. 6, 702). — I, 1017.
- C₅O₃Cl₁₀**
- 1) Dekachlordiäthylester d. Kohlensäure. Sm. 85—86° (A. 47, 294; Berz. J. 26, 759). — I, 542.
- C₅O₃Fe**
- 1) Kohlenoxydeisen. Sd. 102,8°₄₉ (Soc. 59, 1090). — I, 545.
- C₅NCl₅**
- 1) Pentachlorpyridin. Sm. 124° (Soc. 71, 1082; 73, 441).
- C₅Cr₃Fe₉**
- 1) Kohlenstoffchromeisen (C. 1898 [2] 83).
- C₅Fe₈W₆**
- 1) Kohlenstoffeisenwolfram (C. 1898 [2] 854).

C₅-Gruppe mit drei Elementen.

- C₅HOCl₇**
- 1) $\alpha\alpha\beta\gamma\epsilon\epsilon\epsilon$ -Heptachlor- δ -Keto- β -Penten. Sd. 182—185°_{13—15} (B. 25, 2695). — I, 1007.
- C₅HO₂Cl₃**
- 1) 2,2,5-Trichlor-1,3-Diketo-2,3-Dihydro-R-Penten. Sm. 69° (B. 26, 519).
 - 2) 2,4,5-Trichlor-1,3-Diketo-2,3-Dihydro-R-Penten. Sm. 49—50° (B. 26, 519).
- C₅HO₂Cl₅**
- 1) $\alpha\beta\gamma\delta\delta$ -Pentachlor- $\alpha\gamma$ -Butadien- α -Carbonsäure. Sm. 127° (B. 21, 2728; 25, 2697; 26, 2112). — I, 531.
 - 2) isom. Pentachlorbutencarbonsäure. Sm. 97—98°. Na (B. 26, 2111).
- C₅HO₂Br₃**
- 1) 2,2,4-Tribrom-1,3-Diketo-2,3-Dihydro-R-Penten. Sm. 120° (A. 294, 194).
 - 2) 2,4,5-Tribrom-1,3-Diketo-2,3-Dihydro-R-Penten. Sm. 116,5° (A. 294, 197).
 - 3) Bromid d. 3,5-Dibromfuran-2-Carbonsäure. Sm. 45—46°; Sd. 153 bis 155°₄ (A. 232, 78). — III, 704.
- C₅HO₂Br₇**
- 1) $\alpha\alpha\alpha\gamma\epsilon\epsilon\epsilon$ -Heptabrom- $\beta\delta$ -Diketopentan (Heptabromacetylaceton). Sm. 93—94° (B. 23, 1723). — I, 1017.

- $C_5H_3O_3Cl_3$ 1) 3,3,5-Trichlor-1,2,4-Triketo-R-Pentamethylen. Sm. 125°. NH_4 (B. 21, 2436; 25, 840, 848; J. pr. [2] 42, 181). — I, 1025.
2) 3,4,5-Trichlorfuran-2-Carbonsäure. Sm. 172–173°. $K, Ca + 4H_2O, Ba + 4H_2O, Ag$ (Am. 12, 119). — III, 701.
- $C_5H_3O_3Cl_3$ 1) $\alpha\beta\delta\delta\delta$ -Pentachlor- γ -Keto- α -Buten- α -Carbonsäure (β -Trichloracetyl- $\alpha\beta$ -Dichlorakrylsäure) + $1\frac{1}{2}H_2O$. Sm. 51–52° (85–86° wasserfrei) (B. 25, 2228; 26, 511, 1677). — I, 618.
- $C_5H_3O_3Cl_4$ 1) Tetrachloräthylidenester d. $\beta\beta\beta$ -Trichlor- α -Oxypropionsäure. Sd. 276° (A. 239, 299; 253, 122). — I, 934.
- $C_5H_3O_3Br_3$ 1) 3,3,5-Tribrom-1,2,4-Triketo-R-Pentamethylen. Sm. 191° u. Zers.; subl. NH_4 (B. 21, 2440; 25, 841, 858; J. pr. [2] 42, 178). — I, 1025.
2) 3,4,5-Tribromfuran-2-Carbonsäure. Sm. 218–219°. $Na + H_2O, K + H_2O, Ca + 4H_2O, Ba + 3H_2O, Ag$ (A. 232, 90; Am. 10, 423). — III, 704.
- C_5HNC1_4 1) 2,3,4,5-Tetrachlorpyridin. Sm. 21–22°; Sd. 120–125°₁₆ (Soc. 73, 440).
2) 2,3,4,6-Tetrachlorpyridin. Sm. 74–75°; Sd. 130–135°_{16–20} (Soc. 73, 440).
3) 2,3,5,6-Tetrachlorpyridin. Sm. 90–91°; Sd. 250–251° (Soc. 71, 1081; 73, 439).
- C_5HNC1_4 1) 2,6,8-Trichlorpurin + $5H_2O$. Sm. 184–186° u. Zers. (B. 30, 2221; 32, 486). — IV, 1246.
- $C_5H_2OCl_6$ 1) $\alpha\alpha\beta\gamma\epsilon\epsilon$ -Hexachlor- δ -Keto- β -Penten. Sd. 147–148°_{20–25} (B. 25, 2692). — I, 1007.
2) $\alpha\alpha\gamma\epsilon\epsilon\epsilon$ -Hexachlor- δ -Keto- β -Penten. Sd. 122–124°_{18–20} (B. 26, 505).
- $C_5H_2O_2Cl_2$ 1) 2,4-Dichlor-1,3-Diketo-2,3-Dihydro-R-Penten. Sm. 89° (B. 26, 518; A. 294, 192).
2) 4,5-Dichlor-1,3-Diketo-2,3-Dihydro-R-Penten. Sm. 162° (A. 299, 377).
- $C_5H_2O_2Cl_2$ 1) $\alpha\alpha\alpha\epsilon\epsilon\epsilon$ -Hexachlor- $\beta\delta$ -Diketopentan (Hexachloracetylaceton). Sd. 190 bis 195°₂₀ (A. ch. [6] 12, 237). — I, 1017.
- $C_5H_2O_2Br_2$ 1) 2,2-Dibrom-1,3-Diketo-2,3-Dihydro-R-Penten. Sm. 137° (A. 294, 189).
2) 2,4-Dibrom-1,3-Diketo-2,3-Dihydro-R-Penten. Sm. 98,5–99° (A. 294, 190).
- $C_5H_2O_2Br_4$ 1) 2,2,4,5-Tetrabrom-1,3-Diketo-R-Pentamethylen. Sm. 83° (A. 294, 193).
2) 2,4,4,5-Tetrabrom-1,3-Diketo-R-Pentamethylen. Sm. 87° (A. 294, 196).
- $C_5H_2O_2Br_6$ 1) $\alpha\alpha\alpha\epsilon\epsilon\epsilon$ -Hexabrom- $\beta\delta$ -Diketopentan (Hexabromacetylaceton). Sm. 107 bis 108° (A. ch. [6] 12, 240). — I, 1017.
- $C_5H_2O_3Cl_2$ 1) 3,4-Dichlorfuran-2-Carbonsäure. Sm. 167–168°. $Ca + 4H_2O, Ba + 3H_2O, Ag$ (Am. 12, 38; G. 16, 334). — III, 701.
2) 3,5-Dichlorfuran-2-Carbonsäure. Sm. 155–156°. $Ca + 3H_2O, Ba + 4H_2O$ (Am. 12, 47). — III, 701.
3) 4,5-[2]-Dichlorfuran-2-Carbonsäure. Sm. 197–198°. $Ca + 4H_2O, Ba + 4H_2O$ (Am. 12, 112). — III, 701.
- $C_5H_2O_3Cl_4$ 1) 2,4-Di[Dichlormethylen]-1,3,5-Trioxin. Sm. 75–79° (B. 31, 1935).
2) $\alpha\beta\delta\delta$ -Tetrachlor- γ -Keto- α -Buten- α -Carbonsäure (β -Dichloracetyl- $\alpha\beta$ -Dichlorakrylsäure). Sm. 71° (B. 26, 1679).
3) $\beta\delta\delta\delta$ -Tetrachlor- γ -Keto- α -Buten- α -Carbonsäure (β -Trichloracetyl- β -Chlorakrylsäure). Sm. 126° (B. 26, 506, 518, 1674, 1679).
- $C_5H_2O_3Cl_6$ 1) $\beta\beta\beta$ -Trichloräthylidenester d. $\beta\beta\beta$ -Trichlor- α -Oxypropionsäure (Chloralid). Sm. 114–115°; Sd. 272–273° (A. 61, 104; 193, 1; 239, 262, 300; B. 8, 1433; C. 1895 [2] 212). — I, 934.
- $C_5H_2O_3Br_2$ 1) 3,4-Dibrom-1,2,4-Triketo-R-Pentamethylen + H_2O (B. 25, 856). — I, 1025.
2) 3,4-Dibromfuran-2-Carbonsäure. Sm. 191–192°. $Na + 2H_2O, K, Ca + 5H_2O, Ba + 3H_2O, Ag$ (B. 11, 1088; A. 232, 83; G. 14, 177; Am. 15, 134). — III, 703.
3) 3,5-Dibromfuran-2-Carbonsäure. Sm. 167–168°. $Na + 2H_2O, K, Ca + 3H_2O, Ba + 4H_2O, Ag$ (B. 11, 1088; A. 232, 73). — III, 703.
- $C_5H_2O_3Br_4$ 1) $\alpha\delta\delta\delta$ -[oder $\beta\delta\delta\delta$]-Tetrabrom- γ -Keto- α -Buten- α -Carbonsäure. Sm. 160° (A. 294, 200).
- $C_5H_2O_3Br_6$ 1) $\beta\beta\beta$ -Tribromäthylidenester d. $\beta\beta\beta$ -Tribrom- α -Oxypropionsäure (Bromalid). Sm. 158° (A. 193, 52). — I, 936.

- $C_5H_2O_4Cl_4$ 1) Tetrachlorpropen- $\alpha\gamma$ -Dicarbonsäure (Tetrachlorglutakonsäure). Sm. 109–110° (B. 25, 2697). — I, 713.
- $C_5H_2O_4S$ 1) Thiohydrokrokonsäure. K_2 , Ca, Ba + $2H_2O$, Pb (A. 124, 39; B. 19, 290). — I, 900.
- $C_5H_2O_4N_2$ C 35,3 — H 1,2 — O 47,0 — N 16,5 — M. G. 170.
- $C_5H_2O_4N_4$ 1) Nitropyromekazon + H_2O (J. pr. [2] 23, 442; [2] 27, 262). — IV, 122.
C 30,3 — H 1,0 — O 40,4 — N 28,3 — M. G. 198.
- $C_5H_2O_4N_2$ 1) Verbindung (aus Methyluracil). Zers. bei 210° $NH_3 + \frac{1}{2}H_2O$, K + $1\frac{1}{2}H_2O$, Ba + $4H_2O$ (A. 229, 32; 236, 50). — I, 1354.
C 32,3 — H 1,1 — O 51,6 — N 15,0 — M. G. 186.
- $C_5H_2O_4N_2$ 1) 5-Nitro-4,6-Dioxy-2,3-Diketo-2,3-Dihydropyridin + H_2O . Zers. bei 200°. Na + $3H_2O$, K + $3H_2O$, Ag, Ag₂ (Soc. 65, 832).
- $C_5H_2NCl_3$ 1) ?-Trichlorpyridin. Sm. 49–50°; Sd. 100–120°₁₆ (B. 17, 1834; Soc. 73, 350). — IV, 113.
2) ?-Trichlorpyridin. Sm. 67–68°; Sd. 115–125°₁₆ (Soc. 73, 439).
3) ?-Trichlorpyridin. Sm. 71–72°; Sd. 100–105°₁₆. HCl, 2 + HgCl₂, 2 + PtCl₄ (Soc. 73, 438, 444; Am. 8, 310).
- $C_5H_2NBr_3$ 1) ?-Tribrompyridin. Sm. 167–168° u. Zers. (B. 29, 2229; 30, 2696 Anm.). — IV, 114.
- $C_5H_2N_2Cl_4$ 1) 2,3,5,6-Tetrachlor-4-Amidopyridin. Sm. 212° (B. 19, 2713; Soc. 73, 781). — IV, 812.
2) isom. Tetrachloramidopyridin. Sm. 174–175° (Soc. 73, 781).
- $C_5H_2N_4Cl_6$ 1) 6-Amido-2,4-Di[Trichlormethyl]-1,3,5-Triazin. Sm. 165–166° (J. pr. [2] 33, 81). — I, 1155.
- $C_5H_2N_4Br_6$ 1) 6-Amido-2,4-Di[Tribrommethyl]-1,3,5-Triazin. Sm. 184–185° u. Zers. (J. pr. [2] 50, 106).
- $C_5H_2N_4J_2$ 1) 2,6-Dijodpurin. Sm. 224° u. Zers. (B. 31, 2561; 32, 488).
- C_5H_3ON C 64,5 — H 3,2 — O 17,2 — N 15,0 — M. G. 93.
- $C_5H_3O_2N$ 1) Nitril d. Furan-2-Carbonsäure. Sd. 146–148° (A. 214, 228; B. 14, 752, 1058; 25, 1313, 1415). — III, 698.
C 55,1 — H 2,7 — O 29,3 — N 12,8 — M. G. 109.
- $C_5H_3O_2N$ 1) 2,5-Diketo-2,5-Dihydropyridin (Pyridoquinon). Zers. oberh. 200° (M. 18, 624).
C 43,8 — H 2,2 — O 23,4 — N 30,6 — M. G. 137.
- $C_5H_3O_2N_3$ 1) Azid d. Furan-2-Carbonsäure. Sm. 90° (Bl. [3] 17, 423).
2) Verbindung (aus Krokonsäure) (B. 19, 296). — I, 772.
- $C_5H_3O_2Cl$ 1) Chlorpyromekonsäure + H_2O . Sm. 174°. Ca (J. pr. [2] 32, 140). — I, 536.
2) Chlorid d. Furan-2-Carbonsäure. Sd. 170° (A. 100, 327; 214, 231; B. 14, 753). — III, 698.
- $C_5H_3O_2Cl_3$ 1) $\alpha\epsilon\epsilon$ -Trichlor- $\gamma\delta$ -Diketo- α -Penten. Sm. 94°; Sd. 90–92°₂₅ (B. 23, 3781). — I, 1021.
- $C_5H_3O_2Br_3$ 1) ?-Tribrom-1,2-Diketo-R-Pentamethylen. Sm. 155° (B. 30, 1472).
2) Tribromdiketo-R-Pentamethylen? Sm. 87° (A. 294, 205).
- $C_5H_3O_2Br_5$ 1) $\alpha\alpha\gamma\gamma\epsilon$ -Pentabrom- $\beta\delta$ -Diketopentan. Sm. 79° (A. 273, 203).
- $C_5H_3O_3N$ C 48,0 — H 2,4 — O 38,4 — N 11,2 — M. G. 125.
1) 2,4,5-Trioxypyridinchinon (Pyromekazon). + CH_4O , + C_2H_6O (J. pr. [2] 23, 442; [2] 27, 261). — IV, 121.
2) 6-Oxy-2,3-Diketo-2,3-Dihydropyridin (Soc. 63, 1044; 65, 828).
- $C_5H_3O_3Cl$ 1) 3-Chlorfuran-2-Carbonsäure. Sm. 145–146°. Ca + $3H_2O$, Ba + H_2O (Am. 12, 32). — III, 700.
2) 5-Chlorfuran-2-Carbonsäure. Sm. 176–177°. K, Ca + $3H_2O$, Ba + H_2O (Am. 12, 26). — III, 700.
3) Chlorpyromekonsäure. Sm. 181° (A. 24 [2] 84).
4) Säure (aus Tetrinsäure) (J. r. 17 [2] 36). — I, 617.
5) Anhydrid d. Chloreitrakonsäure. Sm. 98–100° (101–102°); Sd. 212° (J. 1873, 583; B. 26, 512; J. pr. [2] 46, 386; A. 295, 59). — I, 709.
- $C_5H_3O_4Cl_3$ 1) $\beta\delta\delta$ -Trichlor- γ -Keto- α -Buten- α -Carbonsäure (β -Dichloracetyl- β -Chlorakrylsäure). Sm. 106–107° (B. 26, 1679).
2) $\delta\delta\delta$ -Trichlor- γ -Keto- α -Buten- α -Carbonsäure (β -Trichloracetylakrylsäure). Sm. 131–132° (A. 142, 131; 223, 175). — I, 617.
- $C_5H_3O_4Cl_5$ 1) 2-Dichlormethylen-4-Trichlormethyl-1,3,5-Trioxin. Sm. 67–69° (B. 31, 1936).

- $C_5H_3O_3Br$ 1) 3-Bromfuran-2-Carbonsäure. Sm. 128—129°. Na, K, Ca + 3H₂O, Ba + H₂O, Ag (A. 232, 58; G. 17, 43). — III, 702.
2) 5-Bromfuran-2-Carbonsäure. Sm. 185—186° (183—184°). Na, K, Ca + 3H₂O, Ba + 4H₂O, Ag (B. 11, 482, 1840; 16, 1130; A. 232, 46; G. 14, 174). — III, 702.
3) Brompyromekonsäure. Pb (A. 84, 41). — I, 626.
4) Anhydrid d. Bromitakonsäure (B. 14, 1637).
5) Anhydrid d. Bromcitrakonsäure. Sm. 99—100° (95°); Sd. 235—238° (Z. 1870, 300; A. Spl. 1, 351; 2, 92; Bl. 28, 99; A. 206, 18; A. ch. [5] 12, 419; G. 22 [2] 26; B. 27, 1855; J. pr. [2] 52, 318). — I, 709.
- $C_5H_3O_3Br_3$ 1) 2,2,4-Tribrom-5-Oxy-1,3-Diketo-R-Pentamethylen. Sm. 146° (A. 294, 195).
2) $\delta\delta\delta$ -Tribrom- γ -Keto- α -Buten- α -Carbonsäure (β -Tribromacetyllakrylsäure). Sm. 153—154° (A. 294, 199).
- $C_5H_3O_3Br_5$ 1) 2,3,4,5,5-Pentabromtetrahydrofuran-2-Carbonsäure. Zers. bei 173° (A. 232, 53). — III, 703.
- $C_5H_3O_3J$ 1) Jodpyromekonsäure. Sm. 108—110°. Ba + H₂O, Pb (A. 92, 321; G. 28 [2] 299). — I, 627.
- $C_5H_3O_4N$ C 42,6 — H 2,1 — O 45,4 — N 9,9 — M. G. 141.
1) Monamid d. α -Keto- $\alpha\beta$ -Propadien- $\gamma\gamma$ -Dicarbonsäure (Krokonaminsäure). NH₄, Ba + 3(4)H₂O, Ag + xH₂O (B. 19, 773). — I, 1398.
- $C_5H_3O_4Cl_5$ 1) $\alpha\alpha\beta\gamma\gamma$ -Pentachlorpropan- $\alpha\gamma$ -Dicarbonsäure + H₂O (Pentachlorglutarsäure). Sm. 165° (wasserfrei) (B. 25, 2226). — I, 667.
- $C_5H_3O_5N$ C 38,2 — H 1,9 — O 51,0 — N 8,9 — M. G. 157.
1) Nitropyromekonsäure. Na, Ag (J. pr. [2] 19, 190). — I, 627.
2) ?-Nitrofuran-2-Carbonsäure (Nitropyroschleimsäure). Sm. 183°. Ca, Ba + xH₂O, Pb, Ag (J. pr. [2] 25, 51; B. 18, 1363). — III, 704.
C 32,4 — H 1,6 — O 43,2 — N 22,7 — M. G. 185.
- $C_5H_3O_5N_2$ 1) ?-Dinitro-3-Oxypyridin. Sm. 133°. Na (M. 16, 755). — IV, 116.
- $C_5H_3O_5Br$ 1) Verbindung (aus Oxykomensäure) + H₂O. Zers. bei 120° (J. pr. [2] 23, 441). — II, 1991.
- $C_5H_3O_6N$ C 34,7 — H 1,7 — O 55,5 — N 8,1 — M. G. 173.
1) 4-Oxyisoxazol-3,5-Dicarbonsäure + 2H₂O. Sm. 183—184° u. Zers. Na₂ + 2H₂O, Ag₂ (B. 24, 860). — I, 764.
- $C_5H_3O_6N_2$ C 29,9 — H 1,5 — O 47,7 — N 20,9 — M. G. 201.
1) 5-Nitro-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin-6-Carbonsäure + 2H₂O (Nitouracilcarbonsäure). Zers. bei 230°. K, Ba + 4½H₂O, Pb + ½H₂O, Ag₂ (A. 229, 32; 236, 34; 240, 4; 251, 238). — I, 1353.
C 24,5 — H 1,2 — O 45,7 — N 28,6 — M. G. 245.
- $C_5H_3O_7N_3$ 1) ?-Nitroso-?-Dinitro-4-Imido-2,6-Diketo-hexahydropyridin (Nitrosodinitroglutazin). Na, Ca₂ (B. 20, 2657). — I, 1397.
- $C_5H_3NCl_2$ 1) ?-Dichlorpyridin. Sm. 66—67°. (2HCl, PtCl₄ + 2H₂O) (B. 17, 1832). — IV, 113.
2) ?-Dichlorpyridin. Sm. 87—88° (Soc. 73, 437).
- $C_5H_3NBr_2$ 1) Dibrompyridin. Sm. 109—110° (112°); Sd. 222°. (2HCl, PtCl₄) (B. 12, 989; 15, 427, 1030, 1142, 1178; 16, 588, 649; 20, 1349; A. 210, 101; 217, 147). — IV, 113.
2) isom. ?-Dibrompyridin. subl. bei 80°; Sm. 164—165°. (2HCl, PtCl₄ + 2H₂O) (B. 16, 1184). — IV, 114.
- $C_5H_3NBr_4$ 1) 2,3,4,5-Tetrabrom-1-Methylpyrrol. Sm. 154—155° (B. 21, 2871) — IV, 66.
- C_5H_3NS 1) Nitril d. Thiophen-2-Carbonsäure. Sd. 192° (B. 24, 49; 25, 1311). — III, 754.
- $C_5H_3N_2Cl_3$ 1) 3,5,6-Trichlor-2-Amidopyridin. Sm. 158—160° (Soc. 71, 1083). — IV, 818.
2) 2,3,6-Trichlor-4-Amidopyridin? Sm. 157,5° (B. 19, 2711). — IV, 819.
3) 2,4,5-Trichlor-6-Methyl-1,3-Diazin? Sd. 245—247° u. Zers. (A. 229, 25). — I, 1350.
- $C_5H_3N_2Cl_2$ 1) 2,8-Dichlor-6-Amidopurin (Dichloradenin). Zers. oberh. 300° (B. 30, 2239; 31, 105). — IV, 1319.
- $C_5H_3Br_3S$ 1) 3,4,5-Tribrom-2-Methylthiophen. Sm. 86° (B. 18, 544). — III, 744.
2) 2,4,5-Tribrom-3-Methylthiophen. Sm. 34° (B. 17, 787; 18, 455, 3009). — III, 744.

- C₅H₄ON₄** C 44,1 — H 2,9 — O 11,8 — N 41,2 — M. G. 136.
 1) **6-Ketopurin** (Sarkin; Hypoxanthin). Salze meist bek. Lit. bedeutend. Synthese (B. 30, 2228). — III, 967.
 2) **8-Ketopurin**. Sm. bei 317° (cor.) (B. 30, 2213; 32, 476). — IV, 1247.
 3) **5-Furanyl-1,2,3,4-Tetrazol** (Furyltetrazotsäure). Sm. 193° u. Zers. NH₄ (B. 28, 467; A. 293, 28). — III, 699; IV, 1257.
- C₅H₄OS** 1) **Aldehyd d. Thiophen-2-Carbonsäure**. Sd. 198° (B. 19, 637, 1853; 22, 2838). — III, 761.
 2) **Thiofurfurol**, siehe C₁₀H₈O₂S₂ (A. 69, 86; 134, 61). — III, 725.
 3) **Thiofucusol** (A. 74, 288).
- C₅H₄O₂N₂** C 48,4 — H 3,2 — O 25,8 — N 22,6 — M. G. 124.
 1) **1,2-Diazin-3-Carbonsäure**. Sm. 200–201°. Cu (B. 32, 408).
 2) **1,4-Diazin-2-Carbonsäure** (Pyrazincarbonsäure). Zers. 229–230°. NH₄, Ca + 4H₂O, Ba + 3½H₂O, Cu + 2H₂O, Ag (B. 26, 723; J. pr. [2] 51, 468). — IV, 833.
 3) **Methylester d. Dicyanessigsäure**. Na (Am. 18, 740).
 4) **Cyanimid d. Bernsteinsäure** (Succinicyanimid). Sm. 138° (J. pr. [2] 22, 207). — I, 1439.
- C₅H₄O₂N₄** C 39,5 — H 2,6 — O 21,1 — N 36,8 — M. G. 152.
 1) **2,6-Diketopurin + H₂O** (Xanthin). HCl, H₂SO₄ + H₂O, Na + H₂O, Ba(OH)₂, Pb, Cu₂O, 2CuO, Ag₂O, + AgNO₃. Lit. bedeutend. Synthese (B. 30, 2235). — III, 952.
 2) **6,8-Diketopurin + H₂O**. Zers. oberh. 400° (B. 30, 2218; 32, 473). — IV, 1251.
 3) **Isoxanthin + ½H₂O** (A. 245, 223). — III, 953.
 4) **Pseudoxanthin** (B. 1, 153; H. 10, 258). — III, 953.
- C₅H₄O₂Cl₂** 1) **2,2-Dichlor-1,3-Diketo-R-Pentamethylen**. Sm. 118–119° (B. 22, 1260). — I, 1021.
 2) **Chlorid d. Itakonsäure**. Sd. 89°₁₇ (B. 14, 1635). — I, 707.
 3) **Chlorid d. Citrakonsäure**. Sd. 95°₁₇ (A. 87, 294; B. 14, 1635; 15, 1640). — I, 709.
 4) **Chlorid d. Mesakonsäure**. Sd. 80°₁₇ (B. 14, 1635). — I, 711.
- C₅H₄O₂Cl₄** 1) **Chlorid d. Mesadichlorbrenzweinsäure**. Sd. 105–106°₂₁ (J. pr. [2] 46, 390).
- C₅H₄O₂S** 1) **Thiophen-2-Carbonsäure**. Sm. 126,5°; Sd. 260°. Ca + 3H₂O, Ba + 2H₂O, Zn, Pb, Ag (B. 17, 2192, 2645; 18, 458, 542, 546, 2304, 2306; 20, 518; A. 236, 208; J. pr. [2] 43, 12; Ph. Ch. 3, 384; 6, 313). — III, 753.
 2) **Thiophen-3-Carbonsäure**. Sm. 136°. Ca + xH₂O, Ba, Ag (B. 18, 3003; 19, 3284; Ph. Ch. 19, 458). — III, 754.
 3) **Thiophen-[2 + 3]-Carbonsäure** (Gemisch). Sm. 117–118°; Sd. 258° (B. 16, 2173; 18, 543, 548; 19, 2891; Ph. Ch. 3, 384; A. 236, 221). — III, 755.
- C₅H₄O₃N₂** C 42,8 — H 2,9 — O 34,3 — N 20,0 — M. G. 140.
 1) **?-Nitro-3-Oxypyridin**. Sm. 210–211° (M. 16, 756). — IV, 116.
 2) **?-Nitro-3-Oxypyridin**. Sm. 295–298° u. Zers. (M. 16, 758). — IV, 116.
- C₅H₄O₃N₄** C 35,7 — H 2,4 — O 28,6 — N 33,3 — M. G. 168.
 1) **2,6,8-Triketopurin** (Harnsäure). Salze meist bekannt. Lit. bedeutend. — I, 1332.
 2) **Isoharnsäure** (B. 6, 1236; 7, 1633; 29, 2107; M. 3, 435; A. ch. [6] 28, 377). — I, 1338.
 3) **Verbindung** (aus Methyluracil) + H₂O (A. 236, 54). — I, 1354.
- C₅H₄O₃Cl₆** 1) **2,4-Di[Trichlormethyl]-1,3,5-Trioxin**. Sm. 129° (B. 31, 1934).
- C₅H₄O₃Br₂** 1) **α,β-Dibrom-γ-Keto-α-Buten-α-Carbonsäure** (α,β-Dibrom-β-Acetyllakrylsäure). Sm. 78–79° (B. 24, 77; A. 21, 127; 22 [2] 26). — I, 618.
 2) **Anhydrid d. ?-Dibrompropan-α,β-Dicarbonsäure** (Anhydrid d. Itadibrombrenzweinsäure). Sm. 50° (B. 14, 1637). — I, 565.
 3) **Anhydrid d. αα-Dibrompropan-α,β-Dicarbonsäure** (Anhydrid d. Citradibrombrenzweinsäure). Fl. (A. Spl. 2, 103; J. pr. [2] 52, 293). — I, 666.
 4) **Verbindung** (aus Xanthogallol). Sm. 124°. Ba + 3H₂O (A. 245, 349). — II, 1014.
- C₅H₄O₃Br₄** 1) **2,3,4,5-Tetrabromtetrahydrofuran-2-Carbonsäure** (Brenzschleimsäuretetrabromid). Sm. 159–160° u. Zers. (B. 11, 1086). — III, 700.

- $C_5H_4O_5J_2$ 1) $\alpha\beta$ -Dijod- γ -Keto- α -Buten- α -Carbonsäure ($\alpha\beta$ -Dijod- β -Acetylakrylsäure). Zers. bei 150—160° (B. 25, 2205). — I, 618.
- $C_5H_4O_4N_2$ C 38.5 — H 2.5 — O 41.0 — N 17.9 — M. G. 156.
- 1) 5-Amido-4,6-Dioxy-2,3-Diketo-2,3-Dihydropyridin (Soc. 65, 833).
- 2) 2,4,5,6-Tetraketo-1-Methylhexahydro-1,3-Diazin (Methylalloxan). + $KHSO_5$ + H_2O (A. 215, 304; B. 9, 1092; M. 3, 108). — I, 1400.
- 3) β -Nitropyrrol-2-Carbonsäure + H_2O (α -Säure). Sm. 144—146°. NH_4 (G. 12, 40). — IV, 82.
- 4) isom. Nitropyrrol-2-Carbonsäure + H_2O (β -Säure). Sm. 217° u. Zers. (wasserfrei) (B. 22, 2504). — IV, 82.
- 5) isom. Nitropyrrol-2-Carbonsäure + H_2O (γ -Säure). Sm. 128° (161° wasserfrei) (B. 22, 2505). — IV, 82.
- 6) Pyrazol-3,5-Dicarbonsäure + H_2O . Sm. 287—290° u. Zers. (289°) wasserfrei. Na + 11 H_2O , K , Ca + 5 H_2O , Ba + 4 H_2O , Ag_2 (A. 273, 248; 279, 218; B. 27, 1098; J. pr. [2] 52, 47; G. 22 [2] 360; 23 [1] 569). — IV, 543.
- 7) Imidazol-4,5-Dicarbonsäure. NH_4 + H_2O , K (A. 273, 338; A. ch. [6] 24, 525). — IV, 545.
- 8) 2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin-6-Carbonsäure (Uracil-carbonsäure). Na_2 , Ag_2 (J. pr. [2] 56, 494).
- C 32.6 — H 2.2 — O 34.8 — N 30.4 — M. G. 184.
- $C_5H_4O_4N_4$ 1) Alluransäure. Ag + H_2O (B. 6, 1011). — I, 1401.
- $C_5H_4O_4Cl_2$ 1) Verbindung (Säure b. d. Darstellung d. Trichlorglycerinsäure). Ca , Ba + H_2O (A. 177, 289). — I, 713.
- $C_5H_4O_4S$ 1) Hydrothiokroconsäure. Ba , Pb (A. 124, 39).
- $C_5H_4O_4N_2$ C 34.9 — H 2.3 — O 46.5 — N 16.3 — M. G. 172.
- 1) β -Nitro-2,4,5-Trioxypyridin (Nitropyromekazonsäure). Na (J. pr. [2] 23, 443; [2] 27, 263). — IV, 121.
- $C_5H_4O_5N_4$ C 30.0 — H 2.0 — O 40.0 — N 28.0 — M. G. 200.
- 1) β -Nitroso- β -Nitro-4-Imido-2,6-Diketo-hexahydropyridin (Nitroso-nitroglutazin). Na + xH_2O (B. 20, 2657). — I, 1396.
- 2) 5-Diazo-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin-6-Carbonsäure (Diazouracil-carbonsäure) (A. 258, 349). — I, 1353.
- 3) Tetraoxim d. Leukonsäure. Na_2 (B. 22, 916). — I, 868.
- $C_5H_4O_6N_4$ C 27.8 — H 1.8 — O 44.4 — N 25.9 — M. G. 216.
- 1) β -Dinitro-4-Imido-2,6-Diketo-hexahydropyridin (Dinitroglutazin) (B. 20, 2567). — I, 1397.
- $C_5H_4O_5N_6$ C 24.6 — H 1.6 — O 39.4 — N 34.4 — M. G. 244.
- 1) β -Nitro-5-Diazo-2,4-Diketo-6-Oximidomethyl-1,2,3,4-Tetrahydro-1,3-Diazin (Nitrodiazoisonitrosomethyluracil). Zers. bei 100° (A. 245, 222). — I, 1352.
- $C_5H_4O_6S$ 1) Furan-2-Carbonsäure-3-Sulfonsäure. K_2 + 2½ H_2O , Ca + 2 H_2O , Ba + 3 H_2O (Am. 10, 418). — III, 705.
- 2) Furan-2-Carbonsäure-5-Sulfonsäure. Na + H_2O , Na_2 + 5 H_2O , K , K_2 + 4 H_2O , Ca + 3 H_2O , Ba + 6(4) H_2O , Pb + 2 H_2O , Ag_2 (A. 116, 268; Am. 10, 373). — III, 705.
- C_5H_4NCl 1) 2-Chlorpyridin. Sd. 166°₁₁₄. (2HCl, $PtCl_4$). (HCl, $AuCl_3$) (B. 24, 3150; 31, 611). — IV, 112.
- 2) 3-Chlorpyridin. Sd. 148°_{743.3}. HCl, (2HCl, $PtCl_4$ + 2 H_2O), Pikrat (B. 14, 1154; 15, 1174, 1179; 22, 2835). — IV, 112.
- 3) 4-Chlorpyridin. Sd. 147—148°. (2HCl, $PtCl_4$) (M. 6, 315). — IV, 112.
- C_5H_4NBr 1) 3-Brompyridin. Sd. 169.5° (173°). (HCl, $AuCl_3$), (2HCl, $PtCl_4$ + 2 H_2O), HBr (B. 12, 990; 15, 943, 1173; 16, 589; 18, 723; M. 10, 373). — IV, 113.
- C_5N_4NJ 1) 4-Jodpyridin. Sm. bei 100°. (2HCl, $PtCl_4$) (M. 6, 319). — IV, 114.
- $C_5H_4N_2Br_3$ 1) Verbindung (aus Phlorobromin). Sm. 124° (A. 189, 167).
- $C_5H_4N_3Cl_3$ 1) Trichlordiamidopyridin. Sm. 206—207°. (2HCl, $PtCl_4$) (Soc. 73, 782).
- $C_5H_4N_3S_3$ 1) 2,6,8-Trimerkaptopurin (B. 31, 443; 32, 484). — IV, 1256.
- $C_5H_4N_5Br$ 1) β -Brom-6-Amidopurin + 2 H_2O (Bromadenin). HCl, HBr, HNO_3 , H_2SO_4 + 6 H_2O , Pikrat + H_2O , + $AgNO_3$ (H. 16, 5, 330). — IV, 1319.
- $C_5H_4Br_2S$ 1) β -Dibrom-3-Methylthiophen. Sd. 220—230° (A. 267, 161). — III, 744.
- C_5H_4ON C 63.2 — H 5.2 — O 16.8 — N 14.7 — M. G. 95.
- 1) 2-Oxypyridin (α -Pyridon). Sm. 106—107°; Sd. 280—281° (B. 16, 2160; 17, 590, 2391; 19, 2433; 24, 3145; M. 7, 297). — IV, 115.

- C₅H₅ON** 2) 3-Oxypyridin (β -Pyridon). Sm. 129°. Oxalat (B. 17, 763, 1896; M. 6, 604; 16, 753; 18, 614). — IV, 116.
- 3) 4-Oxypyridin + H₂O (γ -Pyridon). Sm. 66° (148,5° wasserfrei). HCl, (HCl, 2 HgCl₂), (2 HCl, PtCl₄ + H₂O), (HNO₃ + AgNO₃), + HgCl₂ (Soc. 67, 404; J. pr. [2] 29, 65; G. 21, 310; M. 5, 363, 402; 6, 300). — IV, 116.
C 48,8 — H 4,1 — O 13,0 — N 34,1 — M. G. 123.
- C₅H₅ON₃** 1) Verbindung (aus Cyanoform u. Methylalkohol). Sm. 214—215° (B. 29, 1174).
C 39,7 — H 3,3 — O 10,6 — N 46,4 — M. G. 151.
- C₅H₅ON₂** 1) 6-Amido-2-Ketopurin. H₂SO₄ + H₂O (B. 30, 2245; 32, 481). — IV, 1322.
- 2) 2-Amido-6-Ketopurin (Guanin). Salze meist bek. Lit. bedeutend. Synthese (B. 30, 2251). — III, 965.
- 3) 6-Amido-8-Ketopurin. H₂SO₄ (B. 30, 2215; 32, 482). — IV, 1322.
- C₅H₅OCl₃** 1) *aaa*-Trichlor- δ -Keto- β -Penten. Sm. 25—26°; Sd. 93—94°₂₀ (136 bis 140°₁₂₀) (C. 1899 [1] 596; B. 26, 909).
- 2) Chlorid d. Oxypentinsäure (A. ch. [5] 20, 486).
- 3) Chlorid d. Tetrinsäure (J. r. 17 [2] 36). — I, 617.
C 54,0 — H 4,5 — O 28,8 — N 12,6 — M. G. 111.
- C₅H₅O₂N** 1) anti-2-Oximidomethylfuran (anti-Furfuraldoxim). Sm. 73—74° (B. 25, 2582). — III, 725.
- 2) syn-2-Oximidomethylfuran (syn-Furfuraldoxim). Sm. 89°; Sd. 201 bis 208° u. ger. Zers. Na + 3 H₂O, HCl (B. 16, 2988; 25, 2574). — III, 725.
- 3) 2,4-Dioxypyridin. Sm. 260—265° u. Zers. (B. 31, 1687).
- 4) 2,5-Dioxypyridin. Sm. 248° u. Zers. HCl, (2 HCl, PtCl₄ + H₂O) (M. 18, 615).
- 5) 2,6-Dioxypyridin. Sm. bei 195° (192—193°). HCl (B. 31, 1246; Soc. 73, 350).
- 6) 3,5-Dioxypyridin + 1/2 H₂O. Sm. bei 255°. HCl (B. 17, 1836). — IV, 118.
- 7) β -Dioxypyridin. Sm. 237—239° u. Zers. HCl (M. 6, 656).
- 8) 3-Oxy-4-Keto-1,4-Dihydropyridin + H₂O (Dioxypyridin; Pyrokomenaminsäure). Zers. oberh. 250°. HBr (J. pr. [2] 27, 270). — IV, 119.
- 9) α -Cyanpropen- α -Carbonsäure (α -Cyancrotonsäure). Sm. 92° (Bl. [3] 7, 768). — I, 1221.
- 10) α -Cyanpropen- γ -Carbonsäure (γ -Cyanvinylelessigsäure). Sm. 185—195° (G. 27 [2] 410).
- 11) β -Cyancrotonsäure. K, Ag (A. 191, 70). — I, 1221.
- 12) Pyrrol-2-Carbonsäure (α -Carbopyrrolsäure). Sm. 191,5° u. Zers. NH₄, Ca, Ba, Pb, Ag (A. 116, 274; M. 1, 286; B. 14, 1055; 17, 104, 1150, 1437; G. 22 [2] 6; 26 [1] 71). — IV, 79.
- 13) Pyrrol-3-Carbonsäure. Sm. 161—162° u. Zers. Ba (M. 1, 626; B. 14, 1055; 20, 855). — IV, 82.
- 14) Allylester d. Cyanameisensäure. Sd. 135° (B. 5, 1045). — I, 1217.
- 15) Amid d. Furan-2-Carbonsäure. Sm. 141—142°, subl. bei 100° (A. 100, 237; 116, 282; 214, 227; Am. 15, 135; B. 19, 1277; C. r. (1846) 22, 856; Bl. [3] 17, 422). — III, 698.
- 16) Imid d. Citrakonsäure. Sm. 109—110°. Ag (B. 15, 1343; A. 77, 274; G. 12, 501; 15, 184). — I, 1391.
- 17) Methylimid d. Maleinsäure. Sm. 90—92° (G. 22 [1] 170; 26 [1] 435). — I, 1389.
- 18) Verbindung (aus Oximidokomansäure) (J. pr. [2] 29, 379). — IV, 152.
- C₅H₅O₂N₂** 1) Pleuricin. = (C₅H₅O₂N₂)₂. — III, 890.
C 35,9 — H 3,0 — O 19,2 — N 41,9 — M. G. 167.
- C₅H₅O₂N₃** 1) 6-Amido-2,8-Diketopurin. Zers. oberh. 360° (B. 30, 2243; 32, 482). — IV, 1324.
- 2) 2-Amido-6,8-Diketopurin. Zers. oberh. 380° (B. 30, 570, 572, 2245; 31, 2621; 32, 482). — IV, 1324.
- C₅H₅O₂Cl** 1) 3-Chlor-1,2-Diketo-R-Pentamethylen. Sm. 96—97° u. Zers. Na + 3 H₂O (B. 20, 2787). — I, 1021.
- 2) 2-Chlor-1,3-Diketo-R-Pentamethylen. Sm. 137° (B. 22, 1261). — I, 1021.
- 3) Säure (aus Chloralaceton) (C. 1899 [1] 596).
- 4) Chlorid d. Tetrinsäure. Sm. 30° (Am. 17, 795).
- 5) isom. Chlorid d. Tetrinsäure. Sd. 106,5—107,5°₂₀ (Am. 17, 795).

- C₅H₅O₂Cl₃** 1) Aethylester d. Trichlorakrylsäure. *Sd.* 192—194° (*A.* 297, 316).
2) Allylester d. Trichloressigsäure. *Sd.* 183—184,5°_{85,9} (*Ph. Ch.* 1, 386). — I, 471.
- C₅H₅O₂Br** 1) 4-Brom-1,2-Dihydro-R-Buten-3-Carbonsäure. *Sm.* 122°. *Ba* (*B.* 26, 2245; *Soc.* 65, 969).
2) Acetat d. α -Brom- γ -Oxypropin. *Sd.* 80—83°₁₂ (*C.* 1897 [2] 182).
- C₅H₅O₂Br₃** 1) $\alpha\alpha\beta$ -Tribrom- β -Buten- α -Carbonsäure. *Sm.* 124° (*C.* 1897 [1] 1012).
2) 1,2,2-Tribrom-R-Tetramethylen-1-Carbonsäure. *Fl.* (*Soc.* 65, 973).
- C₅H₅O₂J** 1) Aethylester d. β -Jodäthin- α -Carbonsäure (*Ac.* d. Jodpropionsäure). *Sm.* 68° (*B.* 18, 2274; 19, 540). — I, 530.
- C₅H₅O₃N** C 47,2 — H 3,9 — O 37,8 — N 11,0 — M. G. 127.
1) 2,4,5-Trioxypyridin (Pyromekazonsäure). *HCl* + *H₂O* (*J. pr.* [2] 19, 203; [2] 23, 441, 442; [2] 27, 258, 265). — IV, 121.
2) 2,4,6-Trioxypyridin. *Zers.* bei 220—230°. *Ba* (*B.* 19, 2701). — IV, 120.
3) Amidopyromekonsäure. *HCl* + *H₂O* (*J. pr.* [2] 19, 193; [2] 23, 441). — I, 627.
4) 2-Methyloxazol-4-Carbonsäure. *Sm.* 287—288° (*B.* 30, 2258).
5) Nitrit d. 2-Oxymethylfuran. *Sd.* 126—127° u. *Zers.* (*G.* 24 [2] 21). — III, 697.
- C₅H₅O₃Cl₃** 1) Aethylester d. $\beta\beta\beta$ -Trichlor- α -Ketoäthan- α -Carbonsäure (Aethylester d. Trichlorbrenztraubensäure). *Sd.* 110°₂₁ (*B.* 26, 658).
2) $\beta\beta\beta$ -Trichloräthylidenester d. α -Oxypropionsäure. *Sm.* 45°; *Sd.* 222 bis 224° (*A.* 193, 36; *J. pr.* [2] 17, 239). — I, 934.
- C₅H₅O₃Br** 1) Bromtetrinsäure. *Sm.* 87—88° (75°) (*B.* 21, 2608; *A.* 288, 24). — I, 617.
- C₅H₅O₃Br₃** 1) β -Tribrom- β -Ketobutan- δ -Carbonsäure. *Sm.* 81,5—82° (*A.* 292, 266). — I, 600.
2) Aethylester d. $\beta\beta\beta$ -Tribrom- α -Ketoäthan- α -Carbonsäure (Aethyl-ester d. Tribrombrenztraubensäure). *Sm.* 95—97° (*J. r.* 8, 125; siehe auch *A.* 143, 10). — I, 588.
3) $\beta\beta\beta$ -Tribromäthylidenester d. α -Oxypropionsäure. *Sm.* 95—97° (*B.* 9, 968; *J. pr.* [2] 13, 100). — I, 935.
- C₅H₅O₄N** C 42,0 — H 3,5 — O 44,7 — N 9,8 — M. G. 143.
1) Pyromekazonhydrat (*J. pr.* [2] 27, 264). — IV, 122.
2) Tetraoxypyridin + 2*H₂O* (Oxypyromekazonsäure). *HCl*, *Na*, *K*, *Ca*, *Tl* (*J. pr.* [2] 19, 200; [2] 27, 273). — IV, 122.
3) Nitrosohydropyromekonsäure. *HCl* (*J. pr.* [2] 19, 35, 36). — I, 619.
4) Nitrosotetrinsäure (Nitroso- α -Methyltetrinsäure). *Sm.* 130—131° u. *Zers.* (*A.* 288, 28).
5) Anhydroverbindung (aus Tetrinsäure). *Zers.* bei 70° (*A.* 288, 36).
C 35,1 — H 2,9 — O 37,4 — N 24,6 — M. G. 171.
- C₅H₅O₄N₃** 1) β -Nitro-4-Imido-2,6-Diketo-hexahydropyridin (Nitroglutazin). *Zers.* bei 170—180° (*B.* 20, 2656). — I, 1396.
2) 5-Nitro-2,4-Diketo-3-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin + *H₂O* (Nitromethyluracil). *Sm.* 255°. *K*, *Ag* (*A.* 253, 77). — I, 1346.
3) 5-Nitro-2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin (*A.* 240, 3). — I, 1350.
4) 5-Amido-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin-6-Carbonsäure (Amidouracilcarbonsäure). *Zers.* bei 150—160°. *K* + *H₂O*, *Ba* + 1½*H₂O*, *Pb*, *Ag* (*A.* 240, 20). — I, 1353.
5) 4,6-Dioxy-1,3,5-Triazin-2-Methylcarbonsäure. *Ag₃* (*J. pr.* [2] 49, 96).
6) Malobiursäure (Malonylbiuret). *K* + *H₂O* (*A.* 135, 312; *B.* 5, 888). — I, 1376.
7) Methylester d. 4-Oximido-5-Keto-4,5-Dihydropyrazol-3-Carbonsäure. *Sm.* 199—201°. *Ag* (*J. pr.* [2] 51, 52). — IV, 535.
C 30,1 — H 2,5 — O 32,2 — N 35,2 — M. G. 199.
- C₅H₅O₄N₅** 1) 5-Diazo-2,4-Diketo-6-Oximidomethyl-1,2,3,4-Tetrahydro-1,3-Diazin (Diazoisonitrosomethyluracil) (*A.* 245, 214). — I, 1352.
- C₅H₅O₄Cl** 1) Chloritakonsäure (*J.* 1873, 584). — I, 708.
2) Chloreitrakonsäure. *Ca*, *Ba* + 3½*H₂O*, *Pb*, *Ag*, *Ag₂* (*J. pr.* [2] 8, 73; *J.* 1873, 582; *B.* 26, 512). — I, 709.
3) Chlormesakonsäure. *Sm.* 208°. (*NH₄*)₂, *Ba* + 4*H₂O*, *Ag₂* (*J. pr.* [2] 46, 389).

- $C_5H_5O_4Cl$** 4) β -Chlorpropen- $\alpha\gamma$ -Dicarbonsäure (Chlorglutakonsäure). Sm. 129° (B. 20, 143). — I, 713.
- $C_5H_5O_4Cl_3$** 1) $\beta\beta\beta$ -Trichlor- α -Acetoxypropionsäure (Acetyltrichlormilchsäure). Sm. 65° (B. 10, 1061). — I, 557.
- $C_5H_5O_4Br$** 1) Bromitakonsäure. Sm. 164° u. Zers. (J. 1873, 584; B. 14, 1637). — I, 708.
- 2) Bromcitronensäure. $(NH_4)_2$, K, Ca + $2(1\frac{1}{2})H_2O$, Ba + H_2O , Ag₂ (A. 206, 21; A. Spl. 1, 351; 2, 97; Z. 1870, 300; Bl. 31, 252; 32, 388; B. 24, 76; J. pr. [2] 52, 315). — I, 709.
- 3) Brommesakonsäure. Sm. 220° (217°–218°). $(NH_4)_2$, K, Ca + $2H_2O$, Ba + $2H_2O$, Zn + $8H_2O$, Ag₂ (B. 27, 1851, 2130; J. pr. [2] 52, 315, 336).
- $C_5H_5O_4Br_3$** 1) β -Tribrompropen- $\alpha\beta$ -Dicarbonsäure (Tribrombrenzweinsäure). subl. bei 240°, Ag₂ (Z. 1870, 303). — I, 666.
- $C_5H_5O_5N_3$** C 32,1 — H 2,7 — O 42,8 — N 22,4 — M. G. 187.
- 1) Cyanuroessigsäure + H_2O . K + H_2O , Cu + $2H_2O$, Ag + H_2O (J. pr. [2] 42, 487). — I, 1446.
- $C_5H_5O_5N_5$** C 27,9 — H 2,3 — O 37,2 — N 32,6 — M. G. 215.
- 1) Pentaoxim d. Leukonsäure. Zers. bei 172°. K₂ (B. 19, 304). — I, 868.
- $C_5H_5NBr_2$** 1) Pyridindibromid. (2 + HBr. Sm. 126°) (Bl. 38, 124; C. r. 95, 85).
- $C_5H_5NBr_4$** 1) Pyridintetrabromid. Sm. 58,5° (C. 1897 [2] 592).
- $C_5H_5NJ_4$** 1) Pyridintetrajodid. Sm. 85°. HJ (C. 1896 [1] 42; 1897 [1] 1060; M. 4, 588). — IV, 107.
- $C_5H_5N_2Br$** 1) β -Brom-3-Amidopyridin. Sm. 100° (M. 16, 59). — IV, 812.
- $C_5H_5N_2Br_3$** 1) 2,4,5-Tribrom-1-Aethylimidazol (Aethyltribromglyoxalin). Sm. 61° (61–62°) (B. 10, 1372; 16, 537). — IV, 501.
- $C_5H_5N_3Cl_2$** 1) 3,5-Dichlor-2,6-Diamidopyridin? Sm. 200°. (2HCl, PtCl₄) (Soc. 71, 1083). — IV, 1120.
- $C_5H_5N_3S_2$** 1) 2,5-Dithiocarbonyl-1-Allyl-2,5-Dihydro-1,3,4-Triazol? Sm. 166 bis 167° (B. 29, 861).
- C_5H_5ClIS** 1) 2-Chlormethylthiophen. Sd. 175° u. Zers. (B. 19, 639). — III, 744.
- $C_5H_5ON_2$** C 54,5 — H 5,4 — O 14,5 — N 25,5 — M. G. 110.
- 1) Furfuramidin. HCl + H_2O (B. 25, 1416). — IV, 820.
- 2) 1-Acetylpyrazol. Sd. 155–156°, 44 (B. 28, 716). — IV, 498.
- 3) β -Amido- β -Oxypyridin + H_2O . Sm. 214° (wasserfrei). HCl, (2HCl, PtCl₄) (J. pr. [2] 32, 162). — IV, 820.
- 4) Nitril d. γ -Oxypropan- $\alpha\beta$ -Dicarbonsäure ($\beta\gamma$ -Dicyan- α -Oxypropan). Sd. 150–151° (B. 5, 621, 1045). — I, 246.
- 5) Amid d. Pyrrol-1-Carbonsäure (Tetrolharnstoff). Sm. 167° (B. 15, 944, 2580; 18, 416). — IV, 67.
- 6) Amid d. Pyrrol-2-Carbonsäure. Sm. 176,5° (A. 116, 272; M. 1, 289). — IV, 80.
- $C_5H_5ON_6$** C 36,1 — H 3,6 — O 9,6 — N 50,6 — M. G. 166.
- 1) 2,6-Diamido-8-Ketopurin + H_2O . Zers. oberh. 380° (B. 30, 2217; 32, 483). — IV, 1330.
- 2) 3-Keto-5-Methyl-2-[1,2,3,4-Tetrazolyl-5]-2,3-Dihydropyrazol. Sm. 215° u. Zers. (A. 273, 159). — IV, 1329.
- $C_5H_5OCl_2$** 1) Chlorid d. Pentinsäure. Sd. 189–191° (A. ch. [5] 20, 467). — I, 620.
- $C_5H_5OCl_4$** 1) Chlorallylchloral. Sd. 195° (B. 7, 1462).
- C_5H_5OS** 1) 3-Oxymethylthiophen. Sd. 207° (cor.) (B. 19, 639). — III, 753.
- 2) 5-Oxy-2-Methylthiophen. Sd. 200–202° u. Zers. (B. 19, 555). — III, 753.
- $C_5H_5O_2N_3$** C 47,6 — H 4,8 — O 25,4 — N 22,1 — M. G. 126.
- 1) 4-Imido-2,6-Diketo-hexahydropyridin? (Glutazin; Amidodioxypyridin?). Sm. 300° u. Zers. HCl + H_2O , Ag + xH_2O (B. 19, 2696; Soc. 73, 777). — I, 1396.
- 2) 2,5-Diketo-4-Aethylidentetrahydroimidazol (Aethylidenhydantoin) (B. 20, 2349). — I, 1305.
- 3) 2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin (Methyluracil). Zers. bei 270–280° (A. 229, 8; 236, 23; 251, 238; 302, 308). — I, 1349.
- 4) Nucleosin (C. 1896 [2] 102).
- 5) Thymin. Sm. oberh. 250° (B. 26, 2755; 27, 2217; H. 22, 188). — IV, 1623.
- 6) 3-Methylpyrazol-5-Carbonsäure. Sm. 236° u. Zers. Ca + $3H_2O$, Ag (A. 279, 217; B. 27, 1097; J. pr. [2] 52, 50; G. 22 [2] 363). — IV, 538.
- 7) Imid d. Amidocitronensäure. Sm. 230° (B. 31, 195).

- $C_5H_5O_4N_2$ 8) Cyanimid d. Essigsäure (Diacetylcyanamid). Zers. bei 65° (*J. pr.* [2] 17, 14). — I, 1438.
- $C_5H_5O_4Cl_2$ 9) Hydrazid d. Furan-2-Carbonsäure. Sm. 30° (*Bl.* [3] 17, 423).
- $C_5H_5O_4Cl_2$ 1) $\gamma\gamma$ -Dichlor- $\beta\delta$ -Diketobutan (Dichloracetylaceton). Sd. 87°_{18-20} (*B.* 23 [2] 687). — I, 1017.
- 2) β -Dichlorbuten β -Carbonsäure (Dichlorangelikasäure). Ba (*B.* 11, 1498). — I, 514.
- 3) Aethylester d. $\beta\beta$ -Dichlorakrylsäure. Sd. $173-175^\circ$ (*A.* 193, 22). — I, 502.
- 4) Allylester d. Dichloressigsäure. Sd. $175,6-175,8^\circ_{765,3}$ (*Ph. Ch.* 1, 386). — I, 470.
- 5) Chlorid d. Propan- $\alpha\alpha$ -Dicarbonsäure (Ch. d. Aethylmalonsäure). Sd. $76-82^\circ_{35}$ (*A. ch.* [6] 22, 350). — I, 668.
- 6) Chlorid d. Propan- $\alpha\beta$ -Dicarbonsäure (Ch. d. gew. Brenzweinsäure). Sd. $190-195^\circ$ (*B.* 16, 2624). — I, 664.
- 7) Chlorid d. Propan- $\alpha\gamma$ -Dicarbonsäure (Chlorid d. norm. Brenzweinsäure). Sd. $216-218^\circ$ (*A. ch.* [5] 14, 504). — I, 667.
- 8) Chlorid d. Propan- $\beta\beta$ -Dicarbonsäure (Ch. d. Dimethylmalonsäure). Sd. $165^\circ_{67,8}$ (*R.* 4, 207). — I, 668.
- $C_5H_5O_4Cl_4$ 1) $\beta\beta$ -Dichloräthylester d. $\alpha\alpha$ -Dichlorpropionsäure (*J. pr.* [2] 58, 124).
- $C_5H_5O_4Br_2$ 1) β -Dibrom- β -Buten- β -Carbonsäure. Sm. $88-89^\circ$ (*B.* 28, 1646).
- 2) Laktone d. $\beta\gamma$ -Dibrom- γ -Oxyvaleriansäure. Sm. $78-81^\circ$ (*A.* 229, 264). — I, 599.
- 3) Aethylester d. $\beta\beta$ -Dibromakrylsäure. Sd. $212-214^\circ$ u. Zers. (*A.* 195, 72). — I, 504.
- $C_5H_5O_4N_2$ 4) Acetat d. $\alpha\beta$ -Dibrom- γ -Oxypropen. Sd. $106-109^\circ_{20}$ (*C.* 1897 [2] 182). C 42,2 — H 4,2 — O 33,8 — N 19,7 — M. G. 142.
- 1) 2,4,5-Triketo-1,3-Dimethyltetrahydroimidazol (Dimethylparabansäure; Cholestrophan). Sm. $145,5^\circ$; Sd. $275-277^\circ$. Lit. bedeutend. — I, 1367.
- 2) 2,4,5-Triketo-1-Aethyltetrahydroimidazol (Aethylparabansäure). Sm. 45° (*B.* 31, 138).
- 3) 4-Oximido-2,6-Diketo-hexahydropyridin + H_2O . Sm. $194-196^\circ$. HCl (*B.* 19, 2703). — IV, 120.
- 4) 5-Oxy-2,4-Diketo-3-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin (Methyl-oxyuracil; Methylisobarbitursäure) (*A.* 253, 80). — I, 1347.
- 5) 2,4,6-Triketo-5-Methylhexahydro-1,3-Diazin (Isosuccinylharnstoff). Sm. 192° (*R.* 7, 22). — I, 1385.
- 6) Succinylharnstoff (*A.* 178, 204; *J. r.* 7, 241). — I, 1382.
- 7) 2,5-Oxdiazol-3-[Aethyl- β -Carbonsäure] (Furazanpropionsäure). Sm. 86° . Ca + $2H_2O$, Ag (*A.* 260, 101). — I, 496.
- 8) 3-Keto-2,3,4,5-Tetrahydro-1,2-Diazin-5-Carbonsäure. Sm. oberh. 250° u. Zers. Ca + H_2O , Ba + $2\frac{1}{2}H_2O$, Pb, Cu + $1\frac{1}{2}H_2O$, Ag (*B.* 26, 2063; *J. pr.* [2] 51, 141). — IV, 539.
- 9) γ -Oximido- γ -Cyanbuttersäure. Sm. 87° . Ca + $2H_2O$ (*A.* 260, 107). — I, 1220.
- 10) Methylester d. 5-Keto-4,5-Dihydropyrazol-3-Carbonsäure. Sm. $226,5-227,5^\circ$ (*J. pr.* [2] 51, 51; *B.* 26, 2055). — IV, 534.
- 11) Aethylester d. Nitrosocyanessigsäure. Sm. 133° ($127-128^\circ$). Na + $5H_2O$ (*B.* 24 [2] 595; *A.* 280, 331). — I, 1219.
- 12) Aethylester d. Diazooxyakrylsäure? Sd. $141-142^\circ_{71}$ (*B.* 19, 850; 28, 215). — I, 1494.
- 13) Cyanmonamid d. Bernsteinsäure (Succinylaminsäure). Sm. 128° . Na_2 + $5H_2O$, K_2 + H_2O , Ca + $4H_2O$, Ba + $2H_2O$, Ag, Ag_2 (*J. pr.* [2] 22, 193). — I, 1439.
- 14) Verbindung (aus β -Acetyl- β -Isonitrosopropionsäure). Sm. 85° (*B.* 25, 1721).
- 15) Verbindung (Säure aus α -Dimethylharnsäure). Sm. 160° (*Am.* 2, 305). — I, 1336.
- $C_5H_5O_4N_4$ C 35,3 — H 3,5 — O 28,2 — N 32,9 — M. G. 170.
- 1) 5-Amidoformylamido-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin + $\frac{2}{3}H_2O$ (Hydroxyxanthin) (*A.* 229, 40; 231, 249; 240, 6). — I, 1347.
- $C_5H_5O_4Cl_2$ 1) β -Dichlor- β -Ketobutan- δ -Carbonsäure (Dichlor- β -Acetylpropionsäure). Sm. 77° (*A.* 249, 290). — I, 600.
- $C_5H_5O_4Cl_4$ 1) 2,4-Di[Dichlormethyl]-1,3,5-Trioxin. Sm. $67-68^\circ$ (*B.* 31, 1935).

- $C_5H_5O_3Cl_4$ 2) Tetrachlordiäthylester d. Kohlensäure. Fl. (A. 47, 293). — I, 542.
- $C_5H_5O_3Br_2$ 1) $\alpha\gamma$ -Dibrom- β -Ketobutan- δ -Carbonsäure (β -Bromacetyl- β -Brompropionsäure). Sm. 114—115° (B. 17, 1981; 24, 1347; 26, 2216; A. 229, 266; 260, 83; 294, 183). — I, 600.
- 2) $\gamma\delta$ -Dibrom- β -Ketobutan- δ -Carbonsäure ($\alpha\beta$ -Dibrom- β -Acetylpropionsäure). Sm. 108° (A. 264, 254). — I, 600.
- $C_5H_5O_3S_2$ 1) 3-Methylthiophen- β -Sulfonsäure. Fl. K + $\frac{1}{4}H_2O$, Zn + $3\frac{1}{2}H_2O$, Pb (B. 19, 1621). — III, 744.
- $C_5H_5O_4N_2$ C 38,0 — H 3,8 — O 40,5 — N 17,7 — M. G. 158.
- 1) 4,5-Dihydropyrazol-3,5-Dicarbonsäure. Sm. 242° u. Zers. (A. 273, 236). — IV, 493.
- 2) Methylhydantoïncarbonsäure (A. 215, 286). — I, 1311.
- 3) Malyureidsäure. Sm. 215—220° u. Zers. Ba + H_2O (A. ch. [5] 11, 402; J. 1876, 752; B. 10, 1748). — I, 1383.
- 4) Monureid d. Maleinsäure (Maleinursäure). Sm. 167,5—168° u. Zers. (Am. 19, 493).
- $C_5H_5O_4N_4$ C 32,2 — H 3,2 — O 34,4 — N 30,1 — M. G. 186.
- 1) Ammelidoessigsäure. $NH_4 + 2H_2O$, Na + $2H_2O$, K + $2H_2O$, Ca + $4H_2O$, Sr + $4H_2O$, Ba + $8H_2O$, Cu + $6H_2O$ (J. pr. [2] 42, 476). — I, 1446.
- 2) 5-Hydrazido-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin-6-Carbonsäure (Hydrazinuracilcarbonsäure) (A. 258, 353). — I, 1353.
- 3) Pseudoharnsäure. $NH_4 + H_2O$, Na + $2H_2O$, K + H_2O , Ba + $5H_2O$, Ag (A. 127, 3; Bl. 31, 535; A. ch. [6] 28, 373; B. 30, 562). — I, 1338.
- $C_5H_5O_4N_6$ C 28,0 — H 2,8 — O 29,9 — N 39,3 — M. G. 214.
- 1) Verbindung (aus Triazocessigsäure). Sm. 170° u. Zers. (J. pr. [2] 38, 553). — I, 1494.
- $C_5H_5O_4Cl_2$ 1) β -Dichlorpropan- $\alpha\beta$ -Dicarbonsäure (Itadichlorbrenzweinsäure) (Z. 1865, 55). — I, 665.
- 2) β -Dichlorpropan- $\alpha\beta$ -Dicarbonsäure (Citradichlorbrenzweinsäure). Sm. 119—120° u. Zers. (J. 1873, 582; J. pr. [2] 46, 385; [2] 52, 339). — I, 665.
- 3) β -Dichlorpropan- $\alpha\beta$ -Dicarbonsäure (Mesadichlorbrenzweinsäure). Sm. 123° (J. pr. [2] 46, 391).
- 4) Dimethylester d. Dichlormethan- $\alpha\alpha$ -Dicarbonsäure (D. d. Dichlormalonsäure) (B. 23, 244). — I, 651.
- $C_5H_5O_4Cl_6$ 1) Verbindung (aus Formaldehyd u. Chloral) (B. 31, 1936).
- $C_5H_5O_4Br_2$ 1) β -Dibrompropan- $\alpha\alpha$ -Dicarbonsäure (aus Vinaconsäure). Sm. 112—113° u. Zers. (A. 294, 125 Anm.).
- 2) $\alpha\alpha$ -Dibrompropan- $\alpha\beta$ -Dicarbonsäure (Citradibrombrenzweinsäure). Sm. 150° (193—194° u. Zers.). Ca (A. Spl. 2, 96; A. 188, 86; 203, 356; 206, 2; B. 24, 2237; J. pr. [2] 52, 293, 320). — I, 665.
- 3) isom. $\alpha\alpha$ -Dibrompropan- $\alpha\beta$ -Dicarbonsäure (isom. Dibrombrenzweinsäure). Sm. 127—128° (B. 15, 1107). — I, 666.
- 4) β -Dibrompropan- $\alpha\beta$ -Dicarbonsäure (Itadibrombrenzweinsäure) (A. Spl. 1, 339; J. 1873, 584; B. 14, 1637; Z. 1865, 54). — I, 665.
- 5) $\alpha\beta$ -Dibrompropan- $\alpha\beta$ -Dicarbonsäure (Mesadibrombrenzweinsäure). Sm. 204° u. Zers. (170°) (A. Spl. 2, 102; A. 188, 86; 206, 2). — I, 666.
- 6) $\alpha\gamma$ -Dibrompropan- $\alpha\gamma$ -Dicarbonsäure (Dibromglutarsäure). Sm. 169 bis 170° (Bl. 27, 348; B. 24, 2230). — I, 667.
- 7) Monomethylester d. $\alpha\beta$ -Dibrombernsteinsäure. Zers. bei 245°. Na + $4H_2O$ (B. 15, 1846). — I, 659.
- 8) Dimethylester d. Dibrommethandicarbonsäure. Sm. 67° (B. 29, 1277).
- $C_5H_5O_5N_2$ C 34,5 — H 3,4 — O 46,0 — N 16,1 — M. G. 174.
- 1) Glykolein. Sm. 147° (R. 7, 247). — I, 1315.
- 2) 5,5-Dioxy-2,4,6-Triketo-1-Methylhexahydro-1,3-Diazin (Methylalloxansäure). Sm. 156° u. Zers. Ca (B. 9, 1092; 30, 3090). — I, 1401.
- 3) α -Formylharnstoff- β -[α -Ketoäthyl- β -Carbonsäure] (Formylmalonursäure). Sm. 189—199°. Ba, Ag (B. 29, 2046).
- $C_5H_5O_5N_4$ C 29,7 — H 3,0 — O 39,6 — N 27,7 — M. G. 202.
- 1) Alluransäure (oder $C_5H_5O_5N_4$). Ag + H_2O (B. 6, 1011).
- $C_5H_5O_6N_2$ C 27,0 — H 2,7 — O 57,7 — N 12,6 — M. G. 222.
- 1) Dinitrat d. Anhydroxylose. Sm. 75—80° (B. 31, 73).
- 2) Dinitrat d. Holzgummi (B. 31, 89).

- $C_5H_5O_{13}N_4$ C 18.2 — H 1.8 — O 63.0 — N 17.0 — M. G. 330.
 1) Tetranitrat d. Arabinose. Sm. 85° (B. 31, 72).
- $C_5H_4N_2S$ 1) Nitril d. γ -Rhodanbittersäure. Sd. $220^\circ_{110-120}$ (B. 23, 2490). — I, 1465.
- $C_5H_4N_2S_2$ 1) $\alpha\beta$ -Dirhodanpropan. Fl. (B. 23, 1086). — I, 1280.
 2) $\alpha\gamma$ -Dirhodanpropan. Sm. 23° (B. 23, 1083). — I, 1280.
- $C_5H_4N_2Se_2$ 1) $\alpha\beta$ -Diselencyanpropan. Sm. 66° (B. 23, 1090). — I, 1289.
 2) $\alpha\gamma$ -Diselencyanpropan. Sm. 51° (B. 23, 1090). — I, 1289.
- $C_5H_4N_4Cl_2$ 1) Cyanuräthylamidodichlorid. Sm. 107° (B. 32, 699).
- $C_5H_4N_5Cl_3$ 1) **4-Amido-6-Methylamido-2-Trichlormethyl-1,3,5-Triazin**. Sm. 153 bis 155° (J. pr. [2] 33, 88). — III, 1456.
- C_5H_7ON C 61.9 — H 7.2 — O 16.5 — N 14.4 — M. G. 97.
 1) Aethylverbindung d. Nitroäthan. Sd. $166-170^\circ$ (A. 243, 117). — I, 206.
 2) 2-Amidomethylfuran (Furylamin). Sd. 145°_{754} . HCl, (2HCl, PtCl₄), Dioxalat, Pikrat (A. 214, 228; B. 14, 752, 1059, 1475; 20, 399, 730). — IV, 70.
 3) **2,4-Dimethyloxazol**. Sd. 108° . HCl, (2HCl, PtCl₄) (B. 28, 3070; 30, 2255). — IV, 70.
 4) **3,5-Dimethylisoxazol**. Sd. $141-142^\circ$ (B. 21, 2178; A. ch. [6] 12, 215; Bl. [3] 7, 780). — I, 1033; IV, 69.
 5) β -Oxy- β -Dihydropyridin. Sm. 295° ; subl. (B. 29, 1787, 2110; H. 22, 169).
 6) Aldehyd d. β -Cyanisobuttersäure. Sd. 92° (A. ch. [6] 16, 186). — I, 242.
 7) Nitril d. γ -Oxy- α -Methylpropen- γ -Carbonsäure. Sd. $132-134^\circ_{11}$ (A. 299, 34).
 8) Nitril d. Oxyessigäthyläthersäure. Sd. $134-135^\circ$ (B. 6, 260; Bl. 30, 109).
 9) Nitril d. α -Ketobutan- α -Carbonsäure (N. d. Butyrylameisensäure). Sd. $133-137^\circ$ (Soc. 39, 16). — I, 1474.
 10) Nitril d. β -Ketobutan- γ -Carbonsäure (N. d. Methylacetylessigsäure). Sd. 156° (Bl. [3] 6, 814). — I, 1474.
 11) Nitril d. α -Keto- β -Methylpropan- α -Carbonsäure (N. d. Isobutyrylameisensäure). Sd. $117-120^\circ$ (Soc. 39, 13). — I, 1474.
- $C_5H_7ON_2$ C 48.0 — H 5.6 — O 12.8 — N 33.6 — M. G. 125.
 1) **2-Imido-4-Keto-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin** (Methylguanil; Imidomethyluracil). Sm. $292-294^\circ$ u. Zers. (296°). Na, HCl (2HCl, PtCl₄), HNO₃, H₂SO₄, Formiat (G. 20, 585; J. pr. [2] 49, 41; B. 19, 220; A. 262, 365). — I, 1164, 1348.
 2) **Oxydimethyl-1,3,5-Triazin** + H₂O. Zers. oberh. 260° . HCl, (2HCl, PtCl₄ + 4H₂O), H₂SO₄, Na + 2H₂O, Ba + 7H₂O (G. 27 [2] 428). — IV, 1120.
 3) Furylhydrazidin (2-Hydrazonamidomethylfuran). Fl. Pikrat (Sm. 164°) (B. 28, 466; A. 298, 27). — III, 622.
 4) Cyanamid d. Allylamidoameisensäure. Na, CuOH (B. 25, 821). — I, 1442.
- C_5H_7OCl 1) Chlorid d. α -Buten- δ -Carbonsäure. Sm. 128°_{765} (C. 1898 [2] 663).
 2) Chlorid d. R-Tetramethylencarbonsäure. Sd. $142-143^\circ$ ($137-139^\circ$) (B. 21, 2697; Soc. 61, 41). — I, 515.
- $C_5H_7OCl_3$ 1) β -Trichlor- β -Ketopentan (Methyltrichlorpropylketon). Sd. $191-193^\circ_{743.8}$ (A. 223, 152). — I, 226.
 2) $\delta\delta\delta$ -Trichlor- γ -Keto- β -Methylbutan. Sm. 5° ; Sd. $164.5-165^\circ_{765}$ (C. 1897 [1] 1014).
 3) Verbindung (aus Aceton). Sd. 186°_{753} (B. 8, 1439). — I, 282.
- C_5H_7OJ 1) Aethyläther d. β -Jod- γ -Oxypropin (Aethyljodpropargyläther) (A. 135, 284). — I, 304.
- $C_5H_7OJ_3$ 1) Aethyläther d. $\alpha\alpha\beta$ -Trijod- γ -Oxypropen (Aethyltrijodallyläther). Fl. (A. 135, 285). — I, 302.
- $C_5H_7O_2N$ C 53.1 — H 6.2 — O 28.3 — N 12.4 — M. G. 113.
 1) **5-Keto-3,4-Dimethyl-4,5-Dihydroisoxazol**. Sm. $123-124^\circ$. NH₄, Ba + $5\frac{1}{2}$ H₂O, Ag, AgH (A. 296, 56).
 2) Aethylester d. Cyanessigsäure. Sd. 207° . Na (J. 1874, 561; 1875, 528; Bl. 46, 62; A. ch. [6] 16, 426; B. 30, 963). — I, 1218.
 3) Nitril d. γ -Oxy- β -Ketobutan- δ -Carbonsäure (Diäcetylmonocyanhydrin). Fl. (C. 1898 [1] 24).

- C₅H₇O₂N**
- 4) Nitril d. α -Acetoxypropionsäure. Sd. 169°₁₀₀. HCl (Bl. [3] 13, 235; C. 1896 [1] 199; 1897 [2] 937).
 - 5) Nitril d. β -Acetoxypropionsäure. Sd. 205—208° (Bl. 46, 62). — I, 1471.
 - 6) Amid d. Tetrinsäure. Sm. 212° (B. 21, 2608). — I, 1356.
 - 7) Imid d. Propan- α,β -Dicarbonsäure (Imid d. Brenzweinsäure). Sm. 66°; Sd. über 280° u. Zers. (A. 87, 231; 91, 105; B. 27 [2] 557). — I, 1385.
 - 8) Imid d. Propan- α,γ -Dicarbonsäure (Imid d. Glutarsäure). Sm. 154,5° (151—152°); subl. Na + $\frac{1}{2}$ H₂O, K + $\frac{1}{2}$ H₂O, Ag (G. 12, 281; B. 25, 2778; 27 [2] 557; Am. 17, 532). — I, 1385.
 - 9) Methylimid d. Aethan- α,β -Dicarbonsäure (M. d. Bernsteinsäure). Sm. 66,5°; Sd. 234° (A. 182, 92; 251, 320; J. r. 8, 103). — I, 1380.
- C₅H₇O₂N₃**
- 1) s-Acetyl-Cyanacetylhydrazin. Sm. 172° (B. 27, 688).
 - 2) Propenbiuret? (B. 3, 759). — I, 1308.
 - 3) Nitroso-5-Keto-3,4-Dimethyl-4,5-Dihydropyrazol. Sm. 214°. Ag (J. pr. [2] 52, 41). — IV, 521.
 - 4) 5-Amido-2,4-Diketo-6 Methyl-1,2,3,4-Tetrahydro-1,3-Diazin + H₂O (Amidomethyluracil). Zers. bei 250°. HCl + H₂O, (2HCl, PtCl₄ + 2H₂O) (A. 231, 250). — I, 1351.
 - 5) 2,4-Diketo 3,6-Dimethyl-1,2,3,4-Tetrahydro-1,3,5-Triazin + H₂O (G. 27 [2] 425) — IV, 1121.
 - 6) Nitril d. β -Acetoximido- β -Amidopropionsäure (Cyanäthenylacetyl-amidoxim). Sm. 142° (B. 29, 1169).
 - 7) Amid d. 5-Keto-3-Methyl-4,5-Dihydropyrazol-1-Carbonsäure. Sm. 192° (A. 283, 31). — IV, 511.
- C₅H₇O₂Cl**
- 1) γ -Chlor- $\beta\delta$ -Diketopentan (Chloracetylaceton). Sd. 156°. Cu (B. 23 [2] 687). — I, 1017.
 - 2) γ -Chlor- β -Buten- β -Carbonsäure (Chlortiglinsäure). Sm. 73° (69,5°; 67°); Sd. 209—210°. Na, Mg + 2H₂O, Ba, Zn + $1\frac{1}{2}$ H₂O, Ag (A. 201, 57; 219, 357; B. 10, 1177; 15, 218; 18, 853; 27, 948, 1352; J. pr. [2] 41, 475, 477). — I, 513.
 - 3) isom. ρ -Chlor- γ -Buten- β -Carbonsäure. Sm. 55° (J. pr. [2] 41, 483; B. 27, 948, 1351). — I, 514.
 - 4) isom. ρ -Chlor- γ -Buten- γ -Carbonsäure (Chlormethylmethakrylsäure). Sm. 69,5°. Cu (A. 249, 303). — I, 514.
 - 5) α -Chlor- β -Methylpropen- α -Carbonsäure (α -Chlor- $\beta\beta$ -Dimethylakrylsäure). Sm. 80—81° (85—86°). Mg + $3\frac{1}{2}$ H₂O, Ca + 4H₂O, Sr + 4H₂O, Ba, Pb + 2H₂O, Ag (B. 27, 1228; A. 292, 279).
 - 6) Chlorbutencarbonsäure (Chlorangelikasäure?). Sm. 103—104° (B. 11, 1499). — I, 514.
 - 7) Lakton d. γ -Chlor- γ -Oxyvaleriansäure. Sd. 80—82°₁₀ u. Zers. (A. 229, 271). — I, 599.
 - 8) Methylester d. α -Chlorpropen- α -Carbonsäure (Methylester d. α Chlor-crotonsäure). Sd. 160,8° (B. 12, 344). — I, 507.
 - 9) Methylester d. β -Chlorisocrotonsäure. Sd. 142,4° (cor.) (Z. 1869, 274). — IV, 509.
 - 10) Aethylester d. β -Chlorakrylsäure. Sd. 146° (143—145°) (A. 179, 88; 193, 30). — I, 502.
 - 11) Allylester d. Chloressigsäure. Sl. 163,7—164°_{63,5} (Ph. Ch. 1, 386). — I, 468.
 - 12) β -Chlorallylester d. Essigsäure (Acetat d. β -Chlor- γ -Oxypropen). Sd. 145° (B. 5, 454; Bl. 39, 526). — I, 412.
 - 13) γ -Chlorallylester d. Essigsäure (Acetat d. α -Chlor- γ -Oxypropen). Sd. 156—159° (157—158°) (B. 8, 1318—1319; Bl. 39, 526). — I, 412.
- C₅H₇O₂Cl₃**
- 1) $\epsilon\epsilon\epsilon$ -Trichlor- δ -Oxy- β -Ketopentan (Chloralaceton). Sm. 75—76° (B. 25, 794; 26, 554, 909). — I, 979.
 - 2) Monoallyläther d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan (Chloralallylalkoholat). Sm. 20,5°; Sd. 116° (B. 7, 1462; G. 14, 14). — I, 933.
 - 3) Trichlorisovaleriansäure (A. 35, 149). — I, 476.
 - 4) Propylester d. Trichloressigsäure. Sd. 187° (B. 16, 789; Bl. 40, 302; Ph. Ch. 1, 379). — I, 471.
 - 5) $\beta\beta\beta$ -Trichlorisopropylester d. Essigsäure. Sd. 179—181° (C. 1899 [1] 778).

- C₅H₇O₂Br** 1) 1-Brom-R-Tetramethylen-1-Carbonsäure. Sm. 48—50°; Sd. 150 bis 155°₇₀ (Soc. 61, 42). — I, 515.
 2) α-Brom-β-Methylpropen-α-Carbonsäure (α-Brom-β,β-Dimethylakrylsäure). Sm. 87,5—88,5°. K (B. 27, 1227).
 3) Lakton d. β-Brom-γ-Oxyvaleriansäure. Fl. (A. 208, 101; 268, 61).
 4) Aethylester d. α-Bromakrylsäure. Sd. 155—158,5° (A. 171, 350; Am. 9, 122). — I, 503.
 5) γ-Bromallylester d. Essigsäure (Acetat d. α-Brom-γ-Oxypropen). Sd. 163—164° (B. 5, 453; C. 1897 [2] 181). — I, 412.
- C₅H₇O₃N** 6) Acetat d. β-Brom-γ-Oxypropen. Sd. 157—158°₇₆₃ (C. 1897 [2] 181). C 46,5 — H 5,4 — O 37,2 — N 10,9 — M. G. 129.
 1) γ-Nitroso-βδ-Diketopentan (Nitrosoacetylaceton; Diacetylnitrosomethan). Sm. 75° (B. 28 [2] 598; G. 23 [2] 302).
 2) Acetonylcarbaminat. Sm. 75,5—76°. Ag, + AgNO₃ (B. 11, 468; 13, 485). — I, 1312.
 3) 2-Ketotetrahydropyrrol-5-Carbonsäure (i-Pyroglutaminsäure). Sm. 182 bis 183°. Ag (M. 3, 228; G. 19, 100; 22 [2] 107; B. 27 [2] 122, 268). — I, 1214.
 4) γ-Oximido-α-Buten-α-Carbonsäure (stabil. Oxim d. β-Acetylakrylsäure). Sm. 206° u. Zers. (A. 264, 249). — I, 618.
 5) isom. γ-Oximido-α-Buten-α-Carbonsäure (labil. Oxim d. β-Acetylakrylsäure). Sm. 189° u. Zers. (B. 25, 2207). — I, 618.
 6) d-Pyroglutaminsäure (B. 24, 399; 27 [2] 122, 268).
 7) l-Pyroglutaminsäure. Sm. 160—161°. Ba (G. 22 [2] 105, 107; B. 27 [2] 122, 268). — I, 1214.
 8) Glutaminsäure. Sm. 180° (B. 8, 643). — I, 1214.
 9) Monamid d. Citrakonsäure (Citrakonaminsäure) (A. 77, 274). — I, 1391.
 10) Monamid d. Fumarsäuremonomethylester (Methylester d. Fumaraminsäure); subl. Sm. 160—162° (J. pr. [2] 38, 481). — I, 1388.
 11) Monamid d. Oxalsäuremonallylester (Allylester d. Oxaminsäure) (A. 102, 295). — I, 1362.
 12) Methylmonamid d. Fumarsäure (Methylfumaraminsäure). Sm. 208°. Na, K, Ba, Cd, Pb, Cu, Ag (B. 27 [2] 402; G. 25 [1] 98).
 13) Methylmonamid d. Maleinsäure. Sm. 149°. Ag (G. 22 [1] 171; 26 [1] 434). — I, 1389.
 C 38,2 — H 4,5 — O 30,6 — N 26,7 — M. G. 157.
- C₅H₇O₃N₃** 1) 5-Amido-2,4,6-Triketo-1-Methylhexahydro-1,3-Diazin (1-Methyluramil) (B. 30, 3091).
 2) Maly lureid. Sm. 230—235° u. Zers. (B. 10, 1747—1748; A. ch. [5] 11, 400). — I, 1383.
 3) Acetonylbiuret. Sm. 224° u. Zers. (B. 25, 1567). — I, 1315.
 4) N-Aethyläther d. Fulminursäure + H₂O. Sm. 155° (B. 25, 2756; A. 280, 334). — I, 1459.
 5) Dimethylester d. norm. Cyanursäure. Na (B. 19, 2067). — I, 1279.
 6) Dimethylester d. Isocyanursäure. Sm. 222° (220,5°). Cu, Ag + 1/2 H₂O (B. 14, 2728; 19, 2069; A. 291, 371). — I, 1268.
 7) Monomethylester d. Diazobernsteinsäuremonamid. Sm. 84° (B. 19, 2460). — I, 1496.
 8) Aethylester d. Fulminursäure. Sm. 133° (A. 97, 61; B. 25, 431, 2756). — I, 1459.
- C₅H₇O₃N₅** C 32,4 — H 3,8 — O 25,9 — N 37,8 — M. G. 185.
 1) Imidopseudoharnsäure + H₂O (B. 26, 2558).
- C₅H₇O₃Cl** 1) γ-Chlor-α-Oxy-β-Buten-α-Carbonsäure (Chlorangelaktinsäure). Sm. 116 bis 116,5°. Zn, Cu, Ag (A. 179, 100; B. 11, 1496). — I, 601.
 2) γ-Chlor-β-Ketobutan-δ-Carbonsäure (β-Chlor-β-Acetylpropionsäure). Fl. (A. 249, 282). — I, 600.
 3) Chlorid d. Methandicarbonsäuremonäthylester. Sd. 170—180° (B. 7, 1572). — I, 650.
 4) Chlorid d. Oxalsäuremonopropylester. Sd. 153—154° (A. 254, 28). — I, 584.
- C₅H₇O₃Cl₃** 1) βγγ-Trichlor-α-Oxyvaleriansäure (Trichlorvalerolaktinsäure). Sm. 140°. Na + H₂O (A. 179, 99; B. 11, 1492). — I, 565.
 2) Methylester d. γγγ-Trichlor-β-Oxybuttersäure. Sm. 61,2—61,6° (M. 12, 562). — I, 562.

- $C_3H_7O_3Cl_3$ 3) Aethylester d. $\beta\beta\beta$ -Trichlor- α -Oxypropionsäure. Sm. 66—67°; Sd. 233—237° (A. 179, 83; 193, 9; 253, 125; B. 13, 1940; 18, 754). — I, 556.
- $C_3H_7O_3Br$ 1) γ -Brom- β -Ketobutan- δ -Carbonsäure (β -Brom- β -Acetylpropionsäure). Sm. 59° (A. 264, 233). — I, 600.
2) δ -Brom- β -Ketobutan- δ -Carbonsäure (α -Brom- β -Acetylpropionsäure). Sm. 80° (A. 264, 257). — I, 600.
- $C_3H_7O_3Br_3$ 1) Aethylester d. $\beta\beta\beta$ -Tribrom- α -Oxypropionsäure. Sm. 44—46° (A. 193, 52). — I, 557.
- $C_3H_7O_4N$ C 41,4 — H 4,8 — O 44,1 — N 9,7 — M. G. 145.
1) γ -Oximido- β -Ketobutan- δ -Carbonsäure (β -Acetyl- β -Isonitrosopropionsäure). Sm. 119°. Ba + 3H₂O (B. 25, 1719). — I, 600.
2) Acetat d. α -Oximidopropionsäure. Sm. 60° u. Zers. (B. 24, 51). — I, 493.
3) Acetat d. β -Oximidopropionsäure. Sm. 145° u. Zers. (A. 264, 287; B. 25, 1906). — I, 494.
4) isom. Acetat d. β -Oximidopropionsäure. Fl. (B. 25, 1906). — I, 494.
5) Methylimid d. d-Weinsäure. Sm. 178° (B. 29, 2711).
6) Methylimid d. Traubensäure. Sm. 157—158° (B. 29, 2715, 2719).
C 34,7 — H 4,0 — O 37,0 — N 24,3 — M. G. 173.
- $C_3H_7O_4O_3$ 1) 1-Nitro-2,4-Diketo-5,5-Dimethyltetrahydroimidazol (Nitroacetonharnstoff). Sm. 140—141° (B. 7, 240). — I, 1312.
2) Thëursäure. Sm. 264° u. Zers. (B. 30, 2612).
- $C_3H_7O_4Cl$ 1) β -Chlorpropan- $\alpha\beta$ -Dicarbonsäure (Itachlorbrenzweinsäure). Sm. 140 bis 141°; Sd. 225—235° (Z. 1866, 721; J. pr. [2] 45, 60). — I, 664.
2) β -Chlorpropan- $\alpha\beta$ -Dicarbonsäure (Mesa- oder Citrachlorbrenzweinsäure). Sm. 129° (A. 188, 51; Z. 1866, 724). — I, 665.
3) Aethylester d. Chlorformoxylessigsäure. Sd. 182—183°₁₁₄ u. ger. Zers. (A. 302, 263).
4) Diformiat d. γ -Chlor- $\alpha\beta$ -Dioxypropan (Chlorpropylenglykolester d. Ameisensäure). Sd. 185—189°_{20—25} (J. pr. 34, 36). — I, 397.
- $C_3H_7O_4Cl_3$ 1) Aethylester d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxypropionsäure. Sm. 34,5° (B. 26, 658).
- $C_3H_7O_4Br$ 1) α -Brompropan- $\alpha\alpha$ -Dicarbonsäure (α -Bromäthylmalonsäure). Sm. 104° (B. 24, 3005). — I, 668.
2) β -Brompropan- $\alpha\alpha$ -Dicarbonsäure (β -Bromäthylmalonsäure). Sm. 141° (A. 191, 80). — I, 668.
3) γ -Brompropan- $\alpha\alpha$ -Dicarbonsäure (γ -Bromäthylmalonsäure). Sm. 116° (B. 15, 372—373; 17, 324; A. 227, 19). — I, 668.
4) α -Brompropan- $\alpha\beta$ -Dicarbonsäure? (Citrabrombrenzweinsäure). Sm. 148° (A. 188, 79; Bl. 28, 459; B. 24, 2236). — I, 665.
5) γ -Brompropan- $\alpha\beta$ -Dicarbonsäure (Itabrombrenzweinsäure). Sm. 137°; Sd. 250° u. Zers. (A. 188, 75; 216, 79; Z. 1866, 722). — I, 665.
6) isom. Brombrenzweinsäure. Sm. 202—204° (B. 14, 616).
- $C_3H_7O_4J$ 1) β -Jodpropan- $\alpha\beta$ -Dicarbonsäure (Itajodbrenzweinsäure). Sm. 135° (Z. 1866, 722). — I, 666.
- $C_3H_7O_6N$ C 37,3 — H 4,3 — O 49,7 — N 8,7 — M. G. 161.
1) α -Oximidopropionacetsäure. Sd. 130—132°. Ag₂ (A. 289, 303).
2) α -Oximidopropionoxylessigsäure. Sm. 165° u. Zers. Na + H₂O, Ag (A. 288, 30).
3) α -Oximidopropan- $\alpha\beta$ -Dicarbonsäure (α -Isonitrosoglutarsäure). Sm. 152° u. Zers. Ba + 1½H₂O (A. 260, 112). — I, 667.
4) β -Oximidopropan- $\alpha\gamma$ -Dicarbonsäure (Oxim d. Acetondicarbonsäure). Sm. 53—54°. Ag₂ (B. 23, 3765). — I, 764.
C 27,7 — H 3,2 — O 36,8 — N 32,2 — M. G. 217.
- $C_3H_7O_5N_5$ 1) Anhydroalloxansemicarbasid. Zers. oberh. 180° (B. 30, 133).
2) Verbindung (aus Harnstoff u. Nitrourazil) (A. 240, 15). — I, 1346.
- $C_3H_7O_5Cl$ 1) β -Chlor- α -Oxypropan- $\alpha\beta$ -Dicarbonsäure (Hydrochloroxycitrakonsäure). Sm. 160—162° u. Zers. Ca + 2H₂O (J. pr. [2] 11, 444; A. 253, 91). — I, 749.
2) α -Chlor- β -Oxypropan- $\alpha\beta$ -Dicarbonsäure (Chlorcitramalsäure). Sm. 139°. Ba + 4H₂O, Pb + 4H₂O, Ag₂ (A. 126, 204; 160, 101; 253, 87; J. pr. [2] 10, 68; [2] 11, 467; [2] 12, 392; [2] 46, 387; [2] 52, 338; J. 1873, 582; B. 31, 2050). — I, 749.

- C₅H₇O₃Cl** 3) **β-Chlor-γ-Oxypropan-α-β-Dicarbonsäure** (Chloritamalsäure). Sm. 150°. Ca (*J.* 1873, 583; *J. pr.* [2] 7, 158; *A.* 141, 30). — I, 748.
- C₅H₇O₃Br** 1) **β-Brom-α-Oxypropan-αβ-Dicarbonsäure?** (Hydrobromoxycitrakonsäure). Sm. 156° u. Zers. (*A.* 227, 240). — I, 750.
- C₅H₇O₃N** C 33,9 — H 4,0 — O 54,2 — N 7,9 — M. G. 177.
- 1) **Dimethylester d. Nitromethandicarbonsäure.** Fl. + NH₃ (*R.* 8, 283). — I, 653.
- C₅H₇O₁₅N₃** C 15,9 — H 1,9 — O 63,6 — N 18,6 — M. G. 377.
- 1) **Pentanitrat d. Xylit.** Fl. (*Bl.* [3] 5, 740). — I, 327.
- C₅H₇N₈** 1) **Crotonylsenfö.** Sd. 179° (*B.* 7, 516). — I, 1283.
- 2) **2,4-Dimethylthiazol.** Sd. 144–145,5°. + 2HgCl₂, (HCl, 4HgCl₂ + 4H₂O), (2HCl, PtCl₄) (*A.* 250, 265; 261, 6, 41). — IV, 70.
- 3) **2,5-Dimethylthiazol.** Sd. 148,9–150,9°₇₃₄. (2HCl, PtCl₄), Pikrat (*A.* 259, 240). — IV, 70.
- C₅H₇N₂Cl** 1) **β-Chlor-1,2-Dimethylimidazol** (Chloroxalmethyläthylin). Sd. 212–213°. HCl, (2HCl, PtCl₄), 2 + AgNO₃ (*A.* 184, 72). — IV, 516.
- 2) **Chlormethylat d. 1,4-Diazin** (Ch. d. Pyrazin). + PtCl₄, 2 + PtCl₄, + 6HgCl₂ (*J. pr.* [2] 51, 462). — IV, 818.
- C₅H₇N₂J** 1) **Jodmethylat d. 1,4-Diazin** (J. d. Pyrazin) (*J. pr.* [2] 49, 402; [2] 51, 462). — IV, 818.
- 2) **Jodmethylat d. 1-Methylpyrazol.** Sm. 190° (*A.* 273, 262).
- C₅H₇N₃S** 1) **2-Merkapto-1-Allyl-1,3,4-Triazol.** Sm. 111° (*B.* 29, 2490). — IV, 1102.
- 2) **2-Allylimido-2,3-Dihydro-1,3,4-Thiodiazol.** Sm. 73°. HCl (*B.* 27, 627). — IV, 1102.
- 3) **Cyanamid d. Allylamidothioameisensäure.** Na (*B.* 19, 450). — I, 1442.
- C₅H₇N₃S₂** 1) **3,5-Dithiocarbonyl-4-Allyltetrahydro-1,2,4-Triazol** (Allyldithiourazol). Sm. 136–137°. Ag₂ (*B.* 27, 1774; 29, 860).
- 2) **Verbindung (Base).** Sm. 114° (*Bl.* 33, 203).
- C₅H₇N₄Cl** 1) **Verbindung (aus 2-Chlor-7-Methylpurin).** Sm. 251° u. Zers. (*B.* 31, 2558).
- C₅H₈ON₂** C 53,6 — H 7,1 — O 14,3 — N 25,0 — M. G. 112.
- 1) **5-Keto-1,3-Dimethyl-4,5-Dihydropyrazol.** Sm. 106–109°; Sd. 205 bis 210°₂₁₀ (*A.* 279, 236).
- 2) **5-Keto-3,4-Dimethyl-4,5-Dihydropyrazol.** Sm. 249° (*J. pr.* [2] 52, 40). — IV, 521.
- 3) **2-Oxy-4,5-Dimethylimidazol.** subl. bei 280° (*B.* 28, 2040). — IV, 525.
- 4) **3-Methyl-4-Aethyl-1,2,5-Oxdiazol** (Methyläthylfurazan). Sd. 170,5°₇₅₈ (*B.* 28, 70; *Ph. Ch.* 22, 389). — IV, 525.
- 5) **3-Keto-6-Methyl-2,3,4,5-Tetrahydro-1,2-Diazin.** Sm. 94° (*J. pr.* [2] 50, 524). — IV, 525.
- 6) **Cyanamid d. Buttersäure** (Butyrylcyanamid). Na, Ag (*J. pr.* [2] 17, 18). — I, 1438.
- 7) **Amid d. α-Cyanbuttersäure.** Sm. 113°; Sd. 276° (*J.* 1889, 638). — I, 1246.
- 8) **Amid d. α-Cyanisobuttersäure.** Sm. 105–106° (*G.* 26 [1] 208).
- C₅H₈ON₂** C 42,8 — H 5,7 — O 11,4 — N 40,0 — M. G. 140.
- 1) **Chrysokreatinin** (*Bl.* 48, 18). — III, 883.
- 2) **5-Acetylamido-3-Methyl-1,2,4-Triazol.** Sm. noch nicht bei 270° (*A.* 303, 40).
- 3) **2-Imido-5-Amido-4-Keto-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin** (Amidoimidomethyluracil). Sm. 275° (*A.* 262, 368). — I, 1348.
- 4) **Nitril d. α-[Amidoformylazo]isobuttersäure.** Sm. 78° (*A.* 283, 34).
- C₅H₈OCl₂** 1) **γγ-Dichlor-β-Ketopentan.** Sd. 138°₇₅₈ (*J. pr.* [2] 51, 535).
- 2) **Aldehyd d. β-Dichlorisovaleriansäure.** Sd. 147° (*B.* 4, 402; *A.* 114, 1). — I, 953.
- 3) **Chlorid d. β-Chlorbutan-β-Carbonsäure.** Sd. 189° (*Soc.* 69, 175).
- 4) **Verbindung (aus Isoamylalkohol).** Sd. 180° (*A.* 119, 217).
- C₅H₈OBr₂** 1) **Aethyläther d. αβ-Dibrom-γ-Oxypropen** (Aethyldibromallyläther). (*A.* 158, 234). — I, 302.
- 2) **Aldehyd d. βγ-Dibrombutan-β-Carbonsäure** (*M.* 7, 55). — I, 953.
- 3) **Aldehyd d. β-Dibrom-β-Methylpropan-α-Carbonsäure.** Sm. 155 bis 160°₈₀ (*B.* 25 [2] 501). — I, 953.
- C₅H₈O₂N₂** C 46,9 — H 6,2 — O 25,0 — N 21,9 — M. G. 128.
- 1) **1-Nitroso-5-Keto-2-Methyltetrahydropyrrol.** Fl. (*B.* 22, 1864). — IV, 25.

- C₅H₈O₂N₂** 2) **2,4-Diketo-1-Aethyltetrahydroimidazol** (Aethylhydantoin) (A. 133, 65). — I, 1310.
 3) **2,4-Diketo-5,5-Dimethyltetrahydroimidazol** (Acetonylharnstoff). Sm. 175°. (HCl, AuCl₃ + 2H₂O). Ag, + AgNO₃ (A. 164, 264; M. 17, 238, 243; G. 26 [1] 210). — I, 1312.
 4) **6-Oximido-2-Ketohexahydropyridin** (Glutarimidoxim). Sm. 196° (B. 24, 3432). — I, 1487.
 5) **2,6-Diketo-4-Methylhexahydro-1,3-Diazin** (β-Methyl-β-Laktylharnstoff). Fl. (M. 17, 185).
 6) **1,2-Dioximido-R-Pentamethylen**. Sm. bei 210° u. Zers. (B. 30, 1472).
 7) **Methyläthylglyoximhyperoxyd**. Sd. 115–116°_{16.5} (B. 23, 3498). — I, 972.
 8) **Amid d. Itakonsäure**. Sm. 192° (B. 15, 1640). — I, 1391.
 9) **Amid d. Citrakonsäure**. Zers. bei 185–187° (B. 15, 1640). — I, 1391.
 10) **Amid d. Mesakonsäure**. Sm. 176,5° (B. 15, 1641; A. ch. [5] 20, 473). — I, 1391.
 11) **Amid d. i-Pyroglutaminsäure**. HCl, Ag (A. 179, 251; B. 27 [2] 123, 268).
 12) **Amid d. d-Pyroglutaminsäure** + H₂O. Sm. 165° (B. 27 [2] 123, 268).
 13) **Amid d. l-Pyroglutaminsäure** + H₂O. Sm. 165° (B. 24 [2] 399; 27 [2] 122, 268).
 14) **Aethylenamid d. Methandicarbonsäure** (Ac. d. Malonsäure). Sm. bei 280° u. Zers. (B. 17, 137; 28, 824). — I, 1371.
 15) **Imid d. β-Amidopropan-αβ-Dicarbonsäure** (Imid d. Homoasparaginsäure). Sm. 195° (B. 27 [2] 122).
 16) **Imid d. β-Amidopropan-αγ-Dicarbonsäure** (Glutimid). HCl, Ag (A. 179, 251). — I, 1386.
 17) **Imid d. Methylamidoäthan-αβ-Dicarbonsäure** (Methylasparaginsäureimid). Zers. bei 235° (G. 19, 427). — I, 1381.
C₅H₈O₂N₄ C 38,5 — H 5,1 — O 20,5 — N 35,9 — M. G. 156.
 1) **Dimethylester d. Amidocyanursäure**. Sm. 212°. + AgNO₃, (2HCl, PtCl₄) (B. 3, 273; 19, 2072). — I, 1451.
 2) **Aethylester d. 5-Amido-1,2,4-Triazol-3-Carbonsäure**. Sm. 247° (A. 303, 54).
 3) **Hydrazid d. 3-Keto-2,3,4,5-Tetrahydro-1,2-Diazin-5-Carbonsäure**. Sm. oberh. 250° (B. 26, 2062; J. pr. [2] 51, 145). — IV, 540.
C₅H₈O₂N₆ C 32,6 — H 4,3 — O 17,4 — N 45,7 — M. G. 184.
 1) **Melidoessigsäure**. K, HCl, HNO₃ + H₂O, H₂SO₄ + 4H₂O, + AgNO₃ + 4H₂O (J. pr. [2] 11, 337). — I, 1445.
C₅H₈O₂Cl₂ 1) **αβ-Dichlorisovaleriansäure**. Fl. (B. 27, 1228).
 2) **Methylester d. αβ-Dichlorbuttersäure**. Sd. 174–180° (M. 7, 368). — I, 474.
 3) **Aethylester d. αα-Dichlorpropionsäure**. Sd. 156–157° (B. 3, 467; 5, 477; 9, 1878). — I, 472.
 4) **Aethylester d. αβ-Dichlorpropionsäure**. Sd. 183–184° (B. 12, 178; A. 174, 367; 203, 25). — I, 472.
 5) **Aethylester d. ββ-Dichlorpropionsäure**. Sd. 171° (A. 239, 268). — I, 472.
 6) **β-Chloräthylester d. β-Chlorpropionsäure**. Sd. 210–215° (J. pr. [2] 31, 127). — I, 472.
 7) **Propylester d. Dichloressigsäure**. Sd. 176,7–177°₇₇ (Ph. Ch. 1, 379). — I, 470.
 8) **ββ-Dichlorisopropylester d. Essigsäure**. Sd. 205° (A. 138, 297; B. 4, 704; 16, 394; A. ch. [3] 52, 460; [6] 22, 493). — I, 409.
C₅H₈O₂Br₂ 1) **αβ-Dibrombutan-α-Carbonsäure** (αβ-Dibrom-norm. Valeriansäure). Sm. 56° (B. 26, 2081; A. 283, 72, 89, 102).
 2) **αβ-Dibrombutan-β-Carbonsäure**. Fl. (J. pr. [2] 51, 541).
 3) **βγ-Dibrombutan-α-Carbonsäure** (βγ-Dibrom-norm. Valeriansäure). Sm. 65° (B. 24, 2603; 26, 2081; A. 255, 31; 283, 97, 102). — I, 485.
 4) **γδ-Dibrombutan-α-Carbonsäure** (γδ-Dibrom-norm. Valeriansäure). Sm. 58° (A. 208, 110; 268, 60; 283, 104; B. 26, 2081). — I, 485.
 5) **βγ-Dibrombutan-β-Carbonsäure** (αβ-Dibrom-α-Methylbuttersäure). 2 isom. Formen. Sm. 86,5–87° u. 87,5–87,6°. K (A. 135, 295; 195, 123; 250, 244; 259, 12; 272, 49; 273, 127; 274, 99; B. 8, 830; 12, 255). — I, 485.

- $C_3H_5O_2Br_2$ 6) $\alpha\beta$ -Dibrom- β -Methylpropan- α -Carbonsäure ($\alpha\beta$ -Dibromisovaleriansäure). Sm. 107,5—108° (105—106°; 108—110°) (*J. pr.* [2] 34, 483; *A.* 280, 259; *B.* 27, 1226; 29 [2] 660). — I, 486.
7) gew. Dibromvaleriansäure. Sm. 83° (81°) (*A.* 191, 119; 208, 252; *B.* 25 [2] 501).
8) isom. Dibrombutancarbonsäure. Sm. 51—52° (*B.* 28, 1647).
9) Aethylester d. $\alpha\alpha$ -Dibrompropionsäure. Sd. 191—192° (*A.* 171, 324; *C.* 1897 [1] 902). — I, 480.
10) Aethylester d. $\alpha\beta$ -Dibrompropionsäure. Sd. 214,6° (*A.* 167, 230; 221, 85). — I, 481.
11) $\beta\gamma$ -Dibrom-norm. Propylester d. Essigsäure. Sd. 227—228° (*B.* 23, 1827). — I, 409.
12) $\beta\beta$ -Dibromisopropylester d. Essigsäure. Sd. 227—228° (*B.* 23, 1827). — I, 409.
- $C_3H_5O_2S$ 1) Tetrahydrothiophen-2-Carbonsäure. Sm. 51°. $Ca + 3H_2O$, Ag (*B.* 20, 518; *J. pr.* [2] 43, 12). — III, 756.
2) Methylester d. Propan- $\alpha\beta$ -Sulfid- α -Carbonsäure. Sd. 195—200°₃₀ (*B.* 28, 1636).
- $C_3H_5O_2N_2$ C 41,7 — H 5,5 — O 33,3 — N 19,5 — M. G. 144.
1) s-Diacetylarnstoff. subl. Sm. 152—153° (*J. pr.* [2] 5, 64; *B.* 23, 3515). — I, 1304.
2) 5-Oxy-2,4-Diketo-1,3-Dimethyltetrahydroimidazol (Dimethylglyoxylarnstoff). Sm. unter 100° (*M.* 3, 436). — I, 1357.
3) β -Amidoformylamidopropen- α -Carbonsäure (β -Uramidocrotonsäure). Na (*A.* 228, 6). — I, 1349.
4) β - α -Methylcarbamidoakrylsäure + H_2O . Sm. oberh. 300° (*J. pr.* [2] 56, 498).
5) β -Amid d. α -Methylenamidoäthan- $\alpha\beta$ -Dicarbonsäure (Methylen-asparagin). $Cu + 5H_2O$ (*C.* 1899 [1] 421).
- $C_3H_5O_2N_4$ C 34,9 — H 4,6 — O 27,9 — N 32,6 — M. G. 172.
1) Pyvuril (*A. ch.* [5] 11, 373; [6] 28, 109). — I, 1344.
2) Methylallantoïn. Sm. 225° u. Zers. Ag (*B.* 9, 1091). — I, 1358.
3) isom. Methylallantoïn. Sm. 246° (*A.* 298, 186).
- $C_3H_5O_2Cl_2$ 1) Aethylester d. $\beta\beta$ -Dichlor- α -Oxypropionsäure. Sd. 219—221° (205 bis 206°; 219—222°) (*A.* 179, 88; *J. r.* 7, 162; *Bl.* 34, 29). — I, 556.
2) $\alpha\beta$ -Dichlordiäthylester d. Kohlensäure. Sd. 195—196° (*A.* 258, 58). — I, 542.
- $C_3H_5O_2Br_2$ 1) $\beta\gamma$ -Dibrom- α -Oxyvaleriansäure. Sm. 104—105° (*A.* 299, 41).
2) Dibromdiäthylester d. Kohlensäure? (*B.* 15, 1369).
- $C_3H_5O_2S_2$ 1) $\alpha\alpha$ -Dimerkaptopropionäthylenäthersäure (Aethylenmerkaptolbrenztraubensäure). Sm. 102° (*B.* 21, 1477). — I, 588.
- $C_3H_5O_4N_2$ C 37,5 — H 5,0 — O 40,0 — N 17,5 — M. G. 160.
1) $\gamma\delta$ -Dioximidovaleriansäure. Sm. 136°. $Ba + 3H_2O$ (*A.* 260, 93). — I, 496.
2) Succinursäure (Succincarbaminsäure). Sm. 203—205° u. Zers. Hg, Ag (*B.* 6, 1104; *Ph. Ch.* 3, 375). — I, 1382.
3) Aethylester d. Oxalursäure. Sm. 177—178° u. Zers. (*B.* 4, 645; 9, 374; *Bl.* 21, 157). — I, 1368.
- $C_3H_5O_4N_6$ C 27,8 — H 3,7 — O 29,6 — N 38,9 — M. G. 216.
1) Verbindung (aus Guanidin u. Nitrouracil) + H_2O (*A.* 240, 18). — I, 1346.
- $C_3H_5O_4S$ 1) α -Merkaptopropan- $\alpha\beta$ -Dicarbonsäure. $Ba + H_2O$ (*M.* 18, 62).
2) Thiolaktylglykolsäure (Methyläthylsulfid- $\alpha\alpha'$ -Dicarbonsäure). Sm. 87 bis 88° (*B.* 29, 1140).
3) Thioglykolhydrakrylsäure (Methyläthylsulfid- $\alpha\beta$ -Dicarbonsäure). Sm. 94° (*B.* 29, 1140).
4) Dimethylthetinmonocarbonsäure. Sm. 150° u. Zers. (*B.* 25, 2452).
- $C_3H_5O_4N_2$ C 34,1 — H 4,5 — O 45,4 — N 15,9 — M. G. 176.
1) $\beta\beta$ -Dinitro- γ -Ketopentan. Sm. 43—44° (*A.* 17 [1] 273).
2) Methylisodialursäure (*A.* 298, 182).
3) Allophanylmilchsäure. Sm. 190° u. Zers. Pb, Ag (*B.* 22, 1575). — I, 1308.
4) Aethylester d. α -Nitro- α -Oximidoäthan-N-Carbonsäure (Ac. d. Carb-oxyäthylnitrolsäure). Sd. 143—144°₁₇ (*B.* 29, 1223; *Am.* 20, 24).

- $C_5H_8O_5N_4$ C 29,4 — H 3,9 — O 39,2 — N 27,5 — M. G. 204.
 1) Dialursaurer Harnstoff (*B.* 6, 1010). — *I.* 1394.
- $C_5H_8O_5N_6$ C 25,9 — H 3,4 — O 34,5 — N 36,2 — M. G. 232.
 1) Carbonyldibiuret. + 3HgO (*J. pr.* [2] 5, 48). — *I.* 1307.
 2) Cyanursäures Biuret (*M.* 2, 411). — *I.* 1307.
- $C_5H_8O_5S$ 1) Thiobrenztraubensäure. Sm. 109—110° (*B.* 19, 1933; 21, 485). — *I.* 891.
- $C_5H_8O_6N_2$ C 31,3 — H 4,1 — O 50,0 — N 14,6 — M. G. 192.
 1) Aethylester d. Nitramidoformoxylessigsäure. Sm. 80°. Ag (*A.* 302, 263).
- $C_5H_8O_6N_4$ C 27,3 — H 3,6 — O 43,6 — N 25,4 — M. G. 220.
 1) Uroxansäure. Na + 8H₂O, K₂ + 3(4)H₂O, Ca + 4H₂O, Ba + 3(5)H₂O, Pb + 1/2 H₂O, Ag₂ (*A.* 78, 286; 155, 177; *J. pr.* [2] 24, 504; *B.* 6, 1011; 8, 1291; 27 [2] 887; *H.* 20, 335). — *I.* 1339.
 2) s-Di[Methylnitroamid] d. Methandicarbonsäure (s-D. d. Malonsäure). Sm. 150° (*R.* 4, 200). — *I.* 1371.
- $C_5H_8O_6S$ 1) α-Sulfonpropionessigsäure (Methyläthylsulfon-αα'-Dicarbonsäure). Sm. 129° (*B.* 29, 1142).
 2) β-Sulfonpropionessigsäure (Methyläthylsulfon-αβ'-Dicarbonsäure). Sm. 154—155° (*B.* 29, 1141).
- $C_5H_8O_6S_2$ 1) Disulfid d. Pentaerythrit. Sm. 153—154° (*C.* 1896 [2] 534).
- $C_5H_8O_7S$ 1) Propan-αβ-Dicarbonsäure-α-Sulfonsäure (Sulfobrenzweinsäure). Ca₃ + 7H₂O, Ba₃ + 6H₂O (*A.* 157, 34; *M.* 18, 67). — *I.* 905.
 C 23,4 — H 3,1 — O 62,5 — N 10,9 — M. G. 224.
- $C_5H_8O_8N_2$ 1) Dinitrat d. αβ-Glycerinsäureäthylesters (*B.* 4, 706). — *I.* 632.
- C_5H_8NCl 1) Nitril d. α-Chlorvaleriansäure. Sd. 160°₇₄₄ (*C.* 1899 [1] 194).
 2) Nitril d. α-Chlorisovaleriansäure. Sd. 154°₇₅₀ (*C.* 1898 [2] 661).
- $C_5H_8N_2S$ 1) 2-Merkapto-4,5-Dimethylimidazol. Zers. bei 270° (*B.* 28, 2038). — *IV.* 525.
 2) Methyläther d. 2-Merkapto-1-Methylimidazol. Sd. 225°. HJ (Sm. 148°) (*B.* 22, 1356). — *IV.* 505.
 3) 2-Methylamido-4-Methylthiazol. Sm. 42°. (2HCl, PtCl₄), HJ (*A.* 249, 43). — *IV.* 519.
 4) 2-Methylimido-3-Methyl-2,3-Dihydrothiazol. Fl. HCl (*A.* 265, 114). — *IV.* 505.
 5) 2-Imido-3,4-Dimethyl-2,3-Dihydrothiazol. Sm. 47,5° (2 HCl, PtCl₄), HJ + H₂O (*B.* 16, 348; 20, 3122; *A.* 249, 44). — *IV.* 519.
- $C_5H_8N_2S_2$ 1) Dimethylester d. Dithiomelanurensäure. Sm. 200°. (HCl, AuCl₃) (*B.* 18, 2756). — *I.* 1451.
- $C_5H_8N_3Cl$ 1) Cyanuramidoäthylamidochlorid. Sm. 176° (*B.* 32, 700).
 2) Verbindung (aus Cyanurchlorid u. Methylamin). Sm. 241° u. Zers. (*B.* 18, 2766; 18 [2] 498). — *I.* 1447.
- $C_5H_8Cl_2Br_2$ 1) βγ-Dichlor-γδ-Dibrompentan. Sd. 140—145°₃₁ (*A.* 223, 161). — *I.* 177.
 2) Dichlordibrompentan (Dichloramylenbromid). Sd. 230—240° (*A.* 179, 37). — *I.* 915.
- C_5H_8ON C 60,6 — H 9,1 — O 16,2 — N 14,1 — M. G. 99.
 1) 5-Keto-2-Methyltetrahydropyrrol. Sm. 37°; Sd. 248°₇₄₃. HCl, (2HCl, PtCl₄) (*B.* 19, 1416; 22, 1863). — *IV.* 24.
 2) isom. Keto-2-Methyltetrahydropyrrol. Sd. bei 250° (*B.* 25, 2777). — *IV.* 25.
 3) 6-Oxy-2,3,4,5-Tetrahydropyridin. Sm. 129° (*B.* 25, 2784). — *IV.* 48.
 4) 2-Ketohexahydropyridin (Piperidon). Sm. 39—40°; Sd. 256° (*B.* 21, 2241). — *I.* 1200.
 5) β-Amido-δ-Keto-β-Penten (Acetylacetonamin). Sm. 43°; Sd. 209°. HCl, Cu (*Bl.* [3] 7, 779). — *I.* 1016.
 6) Oximido-R-Pentamethylen (Oxim d. Ketopentamethylen). Sm. 56,5°; Sd. 196—196,5°₇₅ (*A.* 275, 314, 320).
 7) α-Oximidoäthyl-R-Trimethylen (Acetyltrimethylenoxim). Sm. 50—51° (*Soc.* 59, 865). — *I.* 1032.
 8) γ-Oximido-β-Methyl-α-Buten. Sm. 45°; Sd. 83—84°₃₅ (*A.* 262, 340). — *I.* 1031.
 9) Anhydrid d. δ-Oximido-α-Oxypentan. Fl. (*Soc.* 59, 867). — *I.* 1030.
 10) Isocyansäureisobutyläther. Sd. 110° (*B.* 12, 1877). — *I.* 1265.
 11) Isocyansäure-tert. Butyläther. Sd. 85,5° (*B.* 12, 1875). — *I.* 1265.

- C₅H₉ON** 12) **polym. Isocyansäureisobutyläther** (*B.* 12, 1876). — *I*, 1265.
 13) **Nitril d. α -Oxybutan- α -Carbonsäure**. Fl. (*C.* 1899 [1] 194).
 14) **Nitril d. β -Oxybutan- β -Carbonsäure**. *Sd.* 180°₇₆₂ (*A.* 204, 18; *C.* 1899 [1] 194). — *I*, 1471.
 15) **Nitril d. α -Oxy- β -Methylpropan- α -Carbonsäure** (Nitril d. α -Oxyisovaleriansäure). *Sd.* 136° u. *Zers.* (*A.* 205, 26; *B.* 13, 907). — *I*, 1471.
 16) **Nitril d. α -Oxypropionäthyläthersäure**. *Sd.* 129—130° (*Bl.* [3] 13, 233; *C.* 1897 [2] 937).
 17) **Nitril d. β -Oxypropionäthyläthersäure**. *Sd.* 172° (*Bl.* 44, 458). — *I*, 297.
 18) **Amid d. α -Buten- δ -Carbonsäure**. *Sm.* 94°; *Sd.* 230°₇₇₀ (*C.* 1898 [2] 663).
 19) **Amid d. R-Tetramethylen-1-Carbonsäure**. *Sm.* 138°; *Sd.* 240° (*B.* 21, 2694). — *I*, 1250.
 20) **Aethylamid d. Akrylsäure**. *Sd.* 127—130°₃₀ (*Bl.* [3] 9, 420).
 21) **Allylamid d. Essigsäure**. *Sd.* 215°. *HCl* (*B.* 28, 1666; *M.* 19, 572). *C* 47,2 — *H* 7,1 — *O* 12,6 — *N* 33,1 — *M. G.* 127.
- C₅H₉ON₃** 1) **2-Imido-5-Keto-3-Aethyltetrahydroimidazol** (*Bl.* 47, 401). — *I*, 1191.
 2) **2-Imido-5-Keto-4-Aethyltetrahydroimidazol + H₂O** (α -Oxybutyrocyamidin) (*J.* 1880, 420). — *I*, 1197.
 3) **Verbindung** (aus Hydroxylamin u. Trimethylencyanid). *Sm.* 103° (*B.* 22, 2972). — *I*, 1487.
C 38,7 — *H* 5,8 — *O* 10,3 — *N* 45,2 — *M. G.* 155.
- C₅H₉ON₃** 1) **Aethylammelin**. *Sm.* 190—200°. + *AgNO₃* (*B.* 3, 275). — *I*, 1447.
 2) **Dimethylammelin**. *Zers.* bei 250°. (2*HCl*, *PtCl₄*) (*B.* 18, 2770). — *I*, 1447.
 3) **Dimethylamidocyanursäure** (id. mit Dimethylammelin?) (*J. pr.* [2] 33, 89). — *I*, 1447.
 4) **Aethylester d. Diamidocyanursäure** (id. mit Aethylammelin?). *Sm.* 190—200°. (2*HCl*, *PtCl₄*) (*B.* 19, 2080). — *I*, 1447.
- C₅H₉OCl** 1) **γ -Chlor- δ -Oxy- β -Penten**. *Sd.* 158—159°₇₂₄ (*A.* 223, 154). — *I*, 251.
 2) **Aethyläther d. α -Chlor- γ -Oxypropen**. *Sd.* 120—125° (*J.* 1872, 324). — *I*, 302.
 3) **Aethyläther d. β -Chlor- γ -Oxypropen**. *Sd.* 110° (*J.* 1872, 323; *B.* 5, 189). — *I*, 302.
 4) **Aethyläther d. γ -Chlor- γ -Oxypropen** (α -Aethylchlorallyläther). *Sd.* 115 bis 120° (*A. Spl.* 3, 182). — *I*, 958.
 5) **γ -Chlor- β -Ketopentan** (Methylchlorpropylketon). *Sd.* 130° (*A.* 186, 242; *Bl.* [3] 6, 832). — *I*, 996.
 6) **δ -Chlor- β -Ketopentan**. *Sd.* 159—160°₇₆₈ (*J. r.* 26, 16).
 7) **β -Chlor- γ -Ketopentan** (α -Chlordiäthylketon). *Sd.* 145° (135°) (*Bl.* [3] 6, 834; [3] 21, 15). — *I*, 997.
 8) **p -Chlor- γ -Keto- β -Methylbutan?** (Chlormethylisopropylketon). *Sd.* oberh. 120° u. *Zers.* (*Bl.* 29, 229). — *I*, 998.
 9) **Aldehyd d. p -Chlorisovaleriansäure**. *Sd.* 134—135° (*B.* 4, 402). — *I*, 953.
 10) **Chlorid d. norm. Valeriansäure**. *Sd.* 127—128° (*Bl.* [3] 11, 312).
 11) **Chlorid d. Isovaleriansäure**. *Sd.* 113,5—114,5°₇₂₅ (*A.* 203, 24; *J.* 1856, 429). — *I*, 459.
 12) **Chlorid d. Trimethylessigsäure**. *Sd.* 105—106° (*A.* 173, 373). — *I*, 459.
 13) **Verbindung** (aus Isoamylalkohol). *Sd.* 180—200° (*A.* 119, 219).
 14) **Verbindung** (aus Isoprenerythritchlorhydrin). *Sm.* 72,5—73° (*C.* 1899, [1] 590).
- C₅H₉OCl₃** 1) **$\gamma\gamma\delta$ -Trichlor- β -Oxypentan** (Methyltrichlorpropylcarbinol). *Sm.* 50,5°; *Sd.* 108—109°₃₀ (*A.* 223, 149). — *I*, 246.
 2) **$\delta\delta\delta$ -Trichlor- γ -Oxy- β -Methylbutan**. *Sd.* 190—191°₃₀ (*C.* 1897 [1] 1014).
- C₅H₉OBr** 1) **Aethyläther d. α -Brom- γ -Oxypropen**. *Sd.* 145—146° (*Bl.* [3] 6, 421; *C.* 1897 [1] 224). — *I*, 302.
 2) **Aethyläther d. β -Brom- γ -Oxypropen** (Aethyl- β -Bromallyläther). *Sd.* 130—135° (*B.* 5, 188). — *I*, 302.
 3) **ϵ -Brom- β -Ketopentan** (Methylbrompropylketon). *Sd.* 188—190° (*B.* 22, 1206; *Soc.* 55, 307; 59, 876). — *I*, 997.
 4) **Aldehyd d. γ -Bromisovaleriansäure**. *Sd.* 125°₃₀ (*B.* 25 [2] 501; *Bl.* [3] 11, 891). — *I*, 953.
 5) **Bromid d. Isovaleriansäure**. *Sd.* 143° (*Bl.* 11, 470). — *I*, 460.

- $C_5H_9OBr_3$ 1) γ -Brom- α -Oxy- $\beta\beta$ -Di[Brommethyl]propan (Pentaerythrittribromhydrin). Sm. 60° (A. [276](#), [62](#)).
- C_5H_9OJ 1) ϵ -Jod- β -Ketopentan. Sd. $109-110^\circ_{35}$ (Bl. [\[3\]](#) [17](#), [192](#)).
2) Aldehyd d. β -Jodisovaleriansäure. Fl. (A. ch. [\[6\]](#) [16](#), [163](#)). — I. [253](#).
3) Jodid d. Isovaleriansäure. Sd. 168° (A. [104](#), [111](#)). — I. [461](#).
- $C_5H_9OJ_3$ 1) γ -Jod- α -Oxy- $\beta\beta$ -Di[Jodmethyl]propan (Pentaerythrittrijodhydrin). Sm. 62° (A. [265](#), [330](#)). — I. [247](#).
- C_5H_9OF 1) Fluorid d. Isovaleriansäure. Sd. 82° (Bl. [\[3\]](#) [15](#), [757](#)).
C [52,2](#) — H [7,8](#) — O [27,8](#) — N [12,2](#) — M. G. [115](#).
- $C_5H_9O_2N$ 1) δ -Nitro- α -Penten (Allylnitroäthan) (J. [1873](#), [333](#)). — I. [212](#).
2) γ -Nitro- β -Methyl- β -Buten? (Nitroamylen). Sd. $166-170^\circ$ u. Zers. ($69-73^\circ_{14}$) (M. [2](#), [290](#)). — I. [212](#).
3) α -Oximido- β -Ketopentan. Sm. $48-51^\circ$ (B. [22](#), [528](#)). — I. [297](#).
4) γ -Oximido- β -Ketopentan (α -Isonitrosomethylpropylketon). Sm. $52-55^\circ$; Sd. $183-187^\circ$ (B. [11](#), [323](#), [695](#); [14](#), [1462](#); [28](#), [1514](#)). — I. [297](#).
5) β -Oximido- γ -Ketopentan (Isonitrosodiäthylketon). Sm. $59-62^\circ$ (B. [22](#), [528](#)). — I. [297](#).
6) Methyläther d. γ -Oximido- β -Ketobutan (M. d. Isonitrosomethyläthylketon). Sd. 125° (B. [16](#), [834](#)). — I. [296](#).
7) Äthyläther d. α -Oximido- β -Ketopropan (Äthyläther d. Isonitrosoacetone). Sd. 130° (B. [16](#), [834](#)). — I. [292](#).
8) Methylester d. β -Amidopropen- α -Carbonsäure? (M. d. β -Amidocrotonsäure). Sm. 85° . Na (B. [20](#), [3054](#); Bl. [\[3\]](#) [13](#), [72](#)). — I. [1206](#).
9) Allylester d. Amidoessigsäure. Sm. $170-180^\circ$ (J. pr. [\[2\]](#) [37](#), [160](#)). — I. [1185](#).
10) Amid d. α -Ketobutan- α -Carbonsäure (A. d. Butyrylameisensäure). Sm. 107° ($105-106^\circ$) (Soc. [39](#), [17](#); M. [15](#), [750](#)). — I. [1355](#).
11) Amid d. β -Ketobutan- γ -Carbonsäure (A. d. α -Acetylpropionsäure). Sm. 73° (A. [257](#), [348](#)). — I. [1355](#).
12) Amid d. β -Ketobutan- δ -Carbonsäure (A. d. Lävulinsäure). Sm. 107 bis 108° u. Zers. (A. [229](#), [260](#)). — I. [1355](#).
13) Amid d. α -Keto- β -Methylpropan- α -Carbonsäure (A. d. Isobutyrylameisensäure). Sm. $125-126^\circ$ ($106-107^\circ$) (Soc. [39](#), [14](#); M. [15](#), [760](#)). — I. [1355](#).
14) Methylimid d. Essigsäure (Methyldiacetamid). Sd. 192° (B. [14](#), [2731](#); [23](#), [2401](#)). — I. [1239](#).
15) Acetylamid d. Propionsäure (Acetopropionamid). Sm. 86° (Am. [13](#), [4](#)). — I. [1245](#).
16) Verbindung. Sm. $82-83^\circ$ (Z. [1866](#), [459](#)).
C [41,9](#) — H [6,3](#) — O [22,4](#) — N [29,4](#) — M. G. [143](#).
- $C_5H_9O_2N_3$ 1) Kaffolin. Sm. $194-196^\circ$ (B. [14](#), [1907](#); [15](#), [29](#); A. [215](#), [292](#)). — III. [263](#).
2) 2,6-Dioximidohexahydropyridin (Glutarenimidodioxim). Sm. 193° . Ag (B. [22](#), [2970](#)). — I. [1487](#).
- $C_5H_9O_2Cl$ 1) α -Chlorvaleriansäure (C. [1899](#) [\[1\]](#) [194](#)).
2) δ -Chlorvaleriansäure. Sm. $+4^\circ$ (B. [26](#), [2575](#)).
3) α -Chlorisovaleriansäure. Sm. $35-35,5^\circ$ (A. [141](#), [328](#); C. [1897](#) [\[1\]](#) [1015](#)). — IV. [476](#).
4) β -Chlorisovaleriansäure. Fl. (G. [27](#) [\[2\]](#) [368](#)).
5) Methylester d. α -Chlorbuttersäure. Sd. $145-146^\circ_{740}$ (C. [1898](#) [\[2\]](#) [273](#)).
6) Methylester d. β -Chlorbuttersäure. Sd. $155-156^\circ_{750}$ (C. [1898](#) [\[2\]](#) [273](#)).
7) Methylester d. γ -Chlorbuttersäure. Sd. $173-174^\circ$ (Bl. [45](#), [341](#); C. [1898](#) [\[2\]](#) [273](#)). — I. [474](#).
8) Äthylester d. i - α -Chlorpropionsäure. Sd. 146° (A. [107](#), [195](#); [148](#), [169](#); [203](#), [24](#); B. [9](#), [1593](#); [28](#), [1294](#)). — I. [472](#).
9) Äthylester d. d - α -Chlorpropionsäure. Sd. $146-149^\circ_{783}$ (B. [28](#), [1294](#); Soc. [67](#), [918](#); [69](#), [829](#)).
10) Äthylester d. β -Chlorpropionsäure. Sd. 162° (J. pr. [\[2\]](#) [31](#), [127](#); Bl. [\[3\]](#) [9](#), [416](#)). — I. [472](#).
11) α -Chloräthylester d. Propionsäure. Sd. 135° (A. [225](#), [276](#)). — I. [226](#).
12) Propylester d. Chloressigsäure. Sd. 161°_{740} ($162,3-162,5^\circ_{777,5}$) (A. [197](#), [8](#); J. pr. [\[2\]](#) [31](#), [127](#); Ph. Ch. [1](#), [389](#)). — I. [468](#).
13) Isopropylester d. Chloressigsäure. Sd. 149° (C. [1897](#) [\[2\]](#) [659](#)).
14) γ -Chlorpropylester d. Essigsäure. Sd. $163-165^\circ$ (Bl. [\[3\]](#) [15](#), [1225](#)).

- $C_3H_5O_2Cl$ 15) Isobutylester d. Chlorameisensäure. *Sd.* 128,8° (cor.) (*A.* 205, 230). — I, 467.
- $C_3H_5O_2Cl_3$ 1) Methyläthyläther d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan. *Sd.* 193,4° (*G.* 16, 331). — I, 922.
- $C_3H_5O_2Br$ 1) α -Brombutan- α -Carbonsäure (α -Bromvaleriansäure) (*B.* 17, 2504). — I, 484.
- 2) β -Brombutan- α -Carbonsäure (β -Bromvaleriansäure). *Sm.* 58,5—59,5° (59—60°) (*A.* 283, 73, 91, 99, 101; *B.* 28 [2] 1007; *C.* 1895 [1] 595).
- 3) γ -Brombutan- α -Carbonsäure (γ -Bromvaleriansäure). *Fl.* (*A.* 208, 94; 255, 30; 283, 99). — I, 485.
- 4) β -Brombutan- β -Carbonsäure. *Sd.* 140°₅₀ (*A.* 204, 23; *B.* 29, 58). — I, 485.
- 5) γ -Brombutan- β -Carbonsäure. *Sm.* 66—66,5° (*A.* 195, 110). — I, 485.
- 6) δ -Brombutan- β -Carbonsäure. *Fl.* (*Soe.* 69, 174).
- 7) α -Brom- β -Methylpropan- α -Carbonsäure (α -Bromisovaleriansäure). *Sm.* 44°; *Sd.* 230° u. ger. Zers. $Ca + 2H_2O$, $Pb + H_2O$, Cu (*A.* 119, 122; 139, 199; 174, 63; 242, 163; 267, 115; *A. Spl.* 2, 78). — I, 485.
- 8) β -Brom- β -Methylpropan- α -Carbonsäure (β -Bromisovaleriansäure). *Sm.* 73,5° (*B.* 28, 1133).
- 9) Methylester d. α -Brombuttersäure. *Sd.* 165—172° (*A. ch.* [5] 17, 555). — I, 483.
- 10) Methylester d. γ -Brombuttersäure. *Sd.* 186—187° (*Bl.* 46, 65). — I, 483.
- 11) Aethylester d. i - α -Brompropionsäure. *Sd.* 159—160° u. Zers. (159,4 bis 160,2°) (*A.* 156, 176; 197, 13; 206, 319; 216, 31 Anm.; 280, 251; *M.* 2, 543; *B.* 28, 1294; *C.* 1897 [1] 902). — I, 480.
- 12) Aethylester d. d - α -Brompropionsäure. *Sd.* 158—165°₇₅₅ (*B.* 28, 1294).
- 13) Aethylester d. l - α -Brompropionsäure. *Sd.* 87°_{50—59} (*Soe.* 67, 921).
- 14) Aethylester d. β -Brompropionsäure. *Sd.* 89°_{40—30} (*B.* 24, 282). — I, 480.
- 15) Propylester d. Bromessigsäure. *Sd.* 178°₇₆₅ (*C.* 1897 [2] 659).
- 16) Isopropylester d. Bromessigsäure. *Sd.* 165,5°₇₆₀ (*C.* 1897 [2] 659).
- $C_3H_5O_2J$ 1) γ -Jodbutan- β -Carbonsäure (Hydrojodtiglinsäure). *Sm.* 86,5° (*B.* 12, 255; *A.* 191, 116; 208, 254; *C.* 1897 [2] 262). — I, 491.
- 2) β -Jod- β -Methylpropan- α -Carbonsäure (β -Jodisovaleriansäure). *Sm.* 79 bis 80° (*J. pr.* [2] 23, 285; *J. r.* 13, 40). — I, 491.
- 3) Hydrojodangelikasäure. *Sm.* 46° (59—60°) (*B.* 12, 256; *A.* 208, 254; 216, 162; *C.* 1897 [2] 261). — I, 491.
- 4) Methylester d. γ -Jod-norm. Buttersäure. *Sd.* 198—200° (*Bl.* 46, 65). — I, 491.
- 5) Aethylester d. β -Jodpropionsäure. *Sd.* 202° (200°) (*A.* 122, 368; 192, 129; 216, 128; *B.* 1, 25; 29, 514; *J. pr.* [2] 20, 166; [2] 31, 128; [2] 49, 197). — I, 490.
- 6) Propylester d. Jodessigsäure. *Sd.* 198° (*Bl.* 43, 617). — I, 490.
- 7) Acetat d. γ -Jod- α -Oxypropan. *Sd.* 207—210°₇₅₅ (*C.* 1897 [2] 344; *B.* 16, 216).
- $C_3H_5O_2N$ C 45,8 — H 6,9 — O 36,6 — N 10,7 — M. G. 131.
- 1) Morpholin-4-Carbonsäure. Morpholinsalz (*A.* 301, 4).
- 2) α -Oximidovaleriansäure. *Sm.* 143—144° u. Zers. Ba , Ag (*B.* 16, 2180). — I, 496.
- 3) γ -Oximidovaleriansäure. *Sm.* 95—96°, $Ba + 2H_2O$, Ag (*B.* 16, 822, 1618; 20, 2670; 25, 1930; 28, 2131). — I, 496.
- 4) Methylacetylamidoessigsäure (Methylacetursäure). *Sm.* 134—135°, $Cu + H_2O$, Ag (*C.* 1895 [1] 327).
- 5) Methylester d. α -Oximidobuttersäure. *Sm.* 61° (*Bl.* [3] 11, 881).
- 6) Methylester d. α -Nitrosoisobuttersäure. *Fl.* Zers. bei 80—90° (*A.* 300, 77).
- 7) polym. Methylester d. α -Nitrosoisobuttersäure. *Sm.* 105° (*A.* 300, 80).
- 8) Methylester d. Acetylamidoessigsäure. *Sm.* 58,5°; *Sd.* 254°₇₁₂ (*B.* 17, 1672). — I, 1188.
- 9) Aethylester d. Acetylamidoameisensäure. *Sm.* 77—78°; *Sd.* 130°₇₅ (*B.* 8, 104, 1182; 25 [2] 610; *J. pr.* [2] 9, 299). — I, 1256.
- 10) Aethylester d. α -Oximidopropionsäure. *Sm.* 94°; *Sd.* 233° (213°) (*B.* 11, 693; 15, 1528; 20, 533; *A.* 229, 62; *Bl.* [3] 9, 631; [3] 11, 295). — I, 493.

- C₅H₉O₃N** 11) Monamid d. Propan- $\beta\beta$ -Dicarbonsäure (M. d. Dimethylmalonsäure). Sm. 84–85°. K + 2H₂O (B. 15, 580). — I, 1386.
 12) Monamid d. Methandicarbonsäuremonäthylester. Sm. 50° (B. 28, 479).
 13) Monamid d. Oxalsäuremonopropylester (Propylester d. Oxaminsäure) (Bl. 21, 77). — I, 1362.
 14) Methylmonamid d. Äthan- $\alpha\beta$ -Dicarbonsäure (Methylsuccinaminsäure). (A. 251, 319). — I, 1377.
 15) Methylmonamid d. Oxalsäuremonäthylester (Äthylester d. Methyl-oxaminsäure). Sd. 242–243° (A. 184, 68). — I, 1362.
 16) Dimethylmonamid d. Oxalsäuremonomethylester (Methylester d. Dimethyl-oxaminsäure). Sd. 236,5–238,5° (R. 8, 304). — I, 1363.
 17) Propylmonamid d. Oxalsäure. Sm. 109–110°. subl. Ca + 2H₂O (Bl. [3] 7, 408). — I, 1363.
- C₅H₉O₃N₂** 18) Isopropylmonamid d. Oxalsäure. Ca (A. ch. [2] 23, 312). — I, 1363.
 C 37,7 — H 5,6 — O 30,2 — N 26,4 — M. G. 159.
 1) Dimethylamid d. Oxalursäure. Sm. 225° u. Zers. (A. 178, 203). — I, 1369.
 2) Di[Methylamid] d. Oximidomethandicarbonsäure. Sm. 228° (M. 16, 775).
- C₅H₉O₃Cl** 3) Saures Guanid d. Bernsteinsäure (J. pr. [2] 49, 40).
 1) β -Chlor- α -Oxyvaleriansäure. Sm. 92°. Na, Ca + 3H₂O, Zn (A. 257, 123). — I, 567.
 2) γ -Chlor- δ -Oxyvaleriansäure. Fl. (C. 1898 [2] 663).
 3) β -Chlor- α -Oxy- α -Methylbuttersäure. Sm. 75°. Ca + 3H₂O, Zn (A. 234, 226; 257, 117; J. r. 21, 396). — I, 567.
 4) ρ -Chlor- α -Oxy- α -Methylbuttersäure. Sm. 103°. K, Ca, Zn, Ag (A. 257, 119). — I, 567.
 5) α -Chlor- β -Oxy- α -Methylbuttersäure. Sm. 111,5°. K, Ca, Zn (A. 234, 224; 257, 121). — I, 568.
 6) ρ -Chlor- ρ -Oxy- β -Methylbuttersäure. Na + H₂O, Ba + 8H₂O (J. pr. [2] 30, 396). — I, 569.
 7) Äthylester d. β -Chlor- α -Oxypropionsäure. Sm. 37°; Sd. 205° (unc.) (A. 206, 347). — I, 556.
 8) α -Chlordiäthylester d. Kohlensäure. Sd. 158–160° (A. 258, 54). — I, 542.
 9) Formiat d. β -Chlor- β -Oxyäthyläther? (β -Chloräthyläther d. $\alpha\beta$ -Dioxy-Äthanmonoformiat). Sd. 145–155°, (J. pr. [2] 34, 37). — I, 397.
 10) α -Acetat d. γ -Chlor- $\alpha\beta$ -Dioxypropan. Sd. 240° (A. Spl. 1, 233; A. ch. [3] 52, 461; [6] 22, 491). — I, 413.
 11) β -Acetat d. γ -Chlor- $\alpha\beta$ -Dioxypropan. Sd. 218° (A. ch. [6] 22, 489). — I, 413.
 12) Monacetat d. β -Chlor- $\alpha\gamma$ -Dioxypropan? Sd. 230° (A. ch. [6] 22, 489). — I, 413.
- C₅H₉O₃Br** 1) β -Brom- γ -Oxyvaleriansäure. Fl. (A. 208, 101; 268, 61). — I, 566.
 2) Monacetat d. ρ -Brom- $\alpha\beta$ -Dioxypropan? Sd. 175°₁₀₀ (J. 1878, 523). — I, 413.
- C₅H₉O₄N** C 40,8 — H 6,1 — O 43,5 — N 9,5 — M. G. 147.
 1) β -Amidopropan- $\alpha\beta$ -Dicarbonsäure + H₂O (Homoasparaginsäure). Sm. 232–234° (166,5–167°), wasserfrei. Cu + 4H₂O (B. 27 [2] 121; 31, 2044).
 2) d- α -Amidopropan- $\alpha\gamma$ -Dicarbonsäure (d-Amido-norm. Brenzweinsäure; Glutaminsäure). Sm. 202–202,5° u. Zers. Salze meist bek. Lit. bed. — I, 1213.
 3) l- α -Amidopropan- $\alpha\gamma$ -Dicarbonsäure (l Glutaminsäure). Sm. 198° (B. 29, 1700).
 4) α -Methylamidoäthan- $\alpha\beta$ -Dicarbonsäure + H₂O (inact. Methylasparaginsäure). Sm. 122–123° (178° wasserfrei). HNO₃, Ba + 4H₂O (G. 19, 426, 429; 26 [1] 433). — I, 1212.
 5) γ -Oximido- β -Oxybutan- α -Carbonsäure. Sm. 145° u. Zers. Ca + 11 $\frac{1}{2}$ H₂O, Ag (A. 264, 212). — I, 669.
 6) Nitroisovaleriansäure. Ca, Pb, Ag (A. 75, 263; 79, 376; B. 5, 602; 14, 1784; 15, 2319; J. 1883, 1089). — I, 497.
 7) Methylimidodiessigsäure (Methyldiglykolamidsäure). Sm. 226–227° u. Zers. Cu (A. 279, 41).

- C₅H₉O₄N**
- 8) **Methylester d. α -Amidoäthan- $\alpha\alpha$ -Dicarbonsäure** (M. d. α -Amidoisobernsteinsäure) (*G.* 17, 439). — I, 1213.
 - 9) **β -Methylester d. β -Amidoäthan- α -Carbonsäure- β N-Carbonsäure**. Sm. 77—77,5°. Ba, Ag (*Am.* 15, 511).
 - 10) **Aethylester d. β -Nitropropionsäure**. Sd. 161—165° (*J. pr.* [2] 20, 167). — I, 497.
 - 11) **N-Aethylester d. Amidomethancarbonsäure-N-Carbonsäure** (Urethanessigsäure). Sm. 67—69° (*B.* 29, 1682).
 - 12) **Aethylester d. Acethydroxam-N-Carbonsäure** (Ae. d. Carboxyacethydroxamsäure). Sm. 71—72° (*B.* 29, 1221; *Am.* 20, 23).
 - 13) **Aethylester d. Amidoformoxylessigsäure**. Sm. 61° (*A.* 302, 263).
 - 14) **Acetat d. γ -Nitro- α -Oxypropan**. Sd. 140—142°₃₈ (*R.* 16, 197).
 - 15) **Acetat d. α -Nitro- β -Oxypropan**. Sd. 112°₃₀ (*Bl.* [3] 13, 1000; [3] 15, 1224).
 - 16) **Monamid d. α -Oxyäthan- $\alpha\beta$ -Dicarbonsäuremonomethylester** (Methylester d. Malaminsäure). Sm. 105° (*J. pr.* [2] 38, 482). — I, 1395.
- C₅H₉O₄N₃**
- 17) **Methoxylmonamid d. Bernsteinsäure**. Sm. 77—77,5° (*Am.* 15, 219). C 34,3 — H 5,1 — O 36,6 — N 24,0 — M. G. 175.
 - 1) **δ -Amido- $\gamma\delta$ -Dioximidovaleriansäure**. Sm. 158° u. Zers. (*A.* 260, 110). — I, 1220.
 - 2) **Amidosuccinursäure**. Sm. 137—138° u. Zers. (*B.* 10, 1747). — I, 1383.
 - 3) **Di[Methylamid] d. Nitromethandicarbonsäure**. Sm. 156°. K, Ba + H₂O, Cu (*M.* 16, 776).
- C₅H₉O₄N₅**
- 1) **Nitrosocarbonyldi[Methylharnstoff]**. Sm. 120° u. Zers. (*B.* 30, 2615). C 36,8 — H 5,5 — O 49,1 — N 8,6 — M. G. 163.
- C₅H₉O₅N**
- 1) **Kryptophansäure**. Pb, Cu (*Z.* 1870, 378). — II, 2110.
 - 2) **Amidocitramalsäure**. HCl, Ca, Ba (*A.* 253, 92). — I, 1216.
 - 3) **Aethylester d. Salpetermilchsäure**. Sd. 178° (*B.* 3, 532). — I, 555.
- C₅H₉O₅N₃**
- 1) **Alloxansemicarbazid**. Zers. oberh. 120° (*B.* 30, 132). C 30,8 — H 4,6 — O 57,4 — N 7,2 — M. G. 195.
- C₅H₉O₇N**
- 1) **Hydrotinsäure**. Ag (*J.* 1852, 705). — II, 2109.
- C₅H₉NS**
- 1) **norm. Butylsenföhl**. Sd. 167° (*B.* 7, 512). — I, 1282.
 - 2) **sec. Butylsenföhl**. Sd. 159,5° (*B.* 2, 102; 7, 513). — I, 1282.
 - 3) **tert. Butylsenföhl**. Sd. 140° (*J. r.* 11, 179). — I, 1282.
 - 4) **Isobutylsenföhl**. Sd. 162° (*B.* 3, 757; 7, 511). — I, 1282.
 - 5) **α -Rhodan- β -Methylpropan** (Isobutylrhodanid). Sd. 174—176° (*B.* 3, 757). — I, 1278.
 - 6) **2-Aethyl-4,5-Dihydrothiazol**. Sd. 162°. Pikrat (*B.* 29, 2611).
 - 7) **2,5-Dimethyl-4,5-Dihydrothiazol**. Sd. 152°. (2HCl, PtCl₄) (*B.* 29, 2611). — IV, 49.
 - 8) **2-Methyl-4,5-Dihydro-1,3-Thiazin**. Sd. 173°₇₈₇. (2HCl, PtCl₄), Pikrat (*B.* 26, 1082). — IV, 49.
- C₅H₉NS₂**
- 1) **2-Merkapto-5-Aethyl-4,5-Dihydrothiazol** (*B.* 28, 3116). — IV, 49.
 - 2) **Methyläther d. 2-Merkapto-5-Methyl-4,5-Dihydrothiazol**. Sd. 216 bis 218° (*B.* 23, 967). — I, 1176.
 - 3) **2-Merkapto-6-Methyl-4,5-Dihydro-1,3-Thiazin**. Sm. 131° (*B.* 29, 1429). — IV, 49.
 - 4) **Aethylimidomethylenäther d. $\alpha\beta$ -Dimerkaptoäthan**. (2HCl, SnCl₂) (*A.* 262, 75). — I, 1280.
- C₅H₉NS₃**
- 1) **Dithioaldehydisorhodanwasserstoff**. Sm. 138°. + AgNO₃, 2 + PtCl₄ (*B.* 19, 1829). — I, 920.
- C₅H₉N₂Cl**
- 1) **Chlormethylat d. 1-Methylimidazol**. 2 + PtCl₄ (*B.* 14, 423, 1845; 15, 646; *A.* 214, 310). — IV, 501.
- C₅H₉N₂J**
- 1) **Jodmethylat d. 1-Methylpyrazol**. Sm. 190° (*A.* 273, 262). — IV, 496.
 - 2) **Jodmethylat d. 1-Methylimidazol** (*B.* 14, 423, 1845; 15, 646; *A.* 214, 309; 271, 35). — IV, 501.
 - 3) **Jodmethylat d. 2-Methylimidazol** (*B.* 14, 423, 1845; 15, 646; *A.* 214, 309). — IV, 516.
- C₅H₉N₂S**
- 1) **2-Methylimido-3,5-Dimethyl-2,3-Dihydro-1,3,4-Thiodiazol**. Sm. 248—249°. HJ (*B.* 27, 625). — IV, 1106.
 - 2) **Methylcyanamid d. Aethylamidothioameisensäure**. Sm. 162° (*B.* 19, 451). — I, 1442.

- $C_5H_9N_3S$ 3) Aethylecyanamid d. Methylamidothioameisensäure. Sm. 106° (B. 19, 451). — I, 1442.
- $C_5H_9N_3S_2$ 1) 3,5-Dithiocarbonyl-1[oder 2]-Methyl-4-Aethyltetrahydro-1,2,4-Triazol. Sm. 88° (B. 28, 953).
- 2) Allylamid d. Thioharnstoffthiocarbonsäure (α -Allyldithiobiuret). Sm. 138° u. Zers. (B. 25, 755). — I, 1327.
- $C_5H_9N_3S$ 1) Aethylester d. Diamidothiocyanursäure (Ae. d. Thioammelin). Sm. 165° (J. pr. [2] 33, 299). — I, 1448.
- $C_5H_9ClBr_2$ 1) Chlordibrompentan. Fl. (J. 1879, 577). — I, 133.
- 2) γ -Chlor- $\beta\gamma$ -Dibrom- β -Methylbutan. Sd. 215 — 217° u. Zers. (C. 1897 [1] 802).
- $C_5H_9Cl_2Br$ 1) Dichlorbrompentan (aus Fuselölamylen) (A. 120, 171, 172).
- $C_5H_{10}ON_2$ C 52.6 — H 8.8 — O 14.0 — N 24.6 — M. G. 114.
- 1) 1-Nitrosohexahydropyridin. Sd. 218° (215°_{corr}). HCl, 2HCl (A. 127, 81; 222, 298; B. 15, 425; 28, 537; Ph. Ch. 16, 216). — IV, 5.
- 2) β -Acetylhydrazonpropan. Sm. 133° (J. pr. [2] 53, 524).
- 3) Methylglyoxalinmethyloxydhydrat (B. 14, 423, 1845; 15, 646; A. 214, 310).
- 4) Nitril d. α -Amidoxy-norm. Valeriansäure. Sm. 102° (B. 26, 1553). C 42.2 — H 7.0 — O 11.3 — N 39.4 — M. G. 142.
- $C_5H_{10}ON_2$ 1) Xanthokreatinin (Bl. 48, 16; G. 17, 367, 385; 21 [2] 189). — III, 882.
- 2) 2,3,4,5-Tetraamido-1-Oxy-R-Penten. 3HCl, $2H_2SO_4 + 2H_2O$ (B. 22, 919). — I, 868.
- 3) Nitril d. α -[Amidoformylhydrazido]isobuttersäure. Sm. 144° (A. 283, 33).
- $C_5H_{10}OCl_2$ 1) Aethyläther d. $\beta\gamma$ -Dichlor- α -Oxypropan (Aethyldichlorpropyläther). Sd. 165° (Z. 1865, 554). — I, 298.
- $C_5H_{10}OBr_2$ 1) $\delta\epsilon$ -Dibrom- β -Oxypentan. Fl. (B. 27, 2434).
- 2) $\alpha\beta$ -Dibrom- γ -Oxypentan (Dibromamylalkohol). Fl. (J. r. 16, 320). — I, 247.
- 3) $\gamma\delta$ -Dibrom- α -Oxy- β -Methylbutan? Fl. (B. 28, 2957).
- 4) $\gamma\delta$ -Dibrom- β -Oxy- γ -Methylbutan. Fl. (J. r. 17, 298). — I, 247.
- 5) Aethyläther d. $\beta\gamma$ -Dibrom- α -Oxypropan (Aethyldibrompropyläther). Sd. 193 — 195° (Z. 1865, 554). — I, 298.
- $C_5H_{10}OS$ 1) Aethyläther d. α -Merkapto- β -Ketopropan (Thioäthylaceton). Sd. 170 bis 172° (B. 24, 165). — I, 353.
- 2) Methylester d. Propan- γ -Thiolcarbonsäure (M. d. Thiolisobuttersäure). Sd. 140 — 144° (B. 20, 2922). — I, 876.
- 3) Propylester d. Methanthiolcarbonsäure (Er. d. Thiolessigsäure). Sd. 135 — 137° (B. 12, 1062). — I, 875.
- 4) Isopropylester d. Methanthiolcarbonsäure (I. d. Thiolessigsäure). Sd. 124 — 127° (B. 12, 1062). — I, 875.
- $C_5H_{10}OS_2$ 1) Oxydithioameisenisobutyläthersäure (Isobutylxanthogensäure). K (B. 5, 974; 11, 1505). — I, 885.
- 2) Methylester d. Oxydithioameisenpropyläthersäure (M. d. Propylxanthogensäure). Sd. 202.1 — 203.6° (G. 17, 76, 79). — I, 885.
- 3) Aethylester d. Oxydithioameisenäthyläthersäure (Ae. d. Aethylxanthogensäure). Sd. 200° (A. 75, 125; B. 1, 168; G. 17, 76; J. pr. [2] 6, 445). — I, 884.
- 4) Aethylester d. Merkaptthiolameisenäthyläthersäure (Diäthylester d. Dithiolkohlensäure). Sd. 196 — 197° (B. 1, 167; 15, 2883; J. pr. [2] 31, 464; C. 1898 [2] 362). — I, 887.
- $C_5H_{10}O_2N_2$ C 46.2 — H 7.7 — O 24.6 — N 21.5 — M. G. 130.
- 1) $\alpha\beta$ -Dioximidopentan. Sm. 168° (B. 22, 528). — I, 1030.
- 2) $\alpha\delta$ -Dioximidopentan. Sm. 67 — 68° (B. 31, 45).
- 3) $\beta\gamma$ -Dioximidopentan (Methyläthylglyoxim). Sm. 170° (172 — 173°). Na (B. 16, 181; 22, 528; J. pr. [2] 51, 505, 537; [2] 55, 192). — I, 972, 1030.
- 4) $\beta\delta$ -Dioximidopentan? Sm. 149 — 150° (A. ch. [6] 12, 215). — I, 1033.
- 5) $\gamma\delta$ -Dioximido- β -Methylbutan. Sm. 110° (B. 30, 862).
- 6) Butyrylharnstoff. Sm. 176° (A. 94, 101). — I, 1304.
- 7) α -Aethylacetylharnstoff. Sm. 120° (J. pr. [2] 21, 31). — I, 1304.
- 8) 1-Nitrohexahydropyridin. Sd. $235.5^\circ_{\text{corr}}$ (245° cor.) (R. 8, 302; 15, 72; B. 28, 537). — IV, 5.
- 9) Aethylester d. Hydrazipropionsäure (J. pr. [2] 44, 558). — I, 587.

- $C_5H_{10}O_2N$ 10) Amid d. α -Oximido-norm. Valeriansäure. Sm. 131° (B. 26, 1554).
 11) Amid d. Propan- $\alpha\alpha$ -Dicarbonsäure (A. d. Aethylmalonsäure). Sm. 207° (212°) (B. 21, 1245; J. 1889, 639). — I, 1386.
 12) Amid d. Propan- $\alpha\beta$ -Dicarbonsäure (A. d. Brenzweinsäure). Sm. 175° (225°) (J. 1885, 1333; M. 17, 184). — I, 1385.
 13) Amid d. Propan- $\alpha\gamma$ -Dicarbonsäure (A. d. Glutarsäure). Sm. 176° u. Zers. (B. 23, 2943). — I, 1385.
 14) Amid d. Propan- $\beta\beta$ -Dicarbonsäure (A. d. Dimethylmalonsäure). Sm. 196–198° (Soc. 39, 545). — I, 1386.
 15) Amid d. Morpholin-4-Carbonsäure. Sm. 110–113° (A. 301, 8).
 16) s-Di[Methylamid] d. Methandicarbonsäure (D. d. Malonsäure). Sm. 136° (128°) (R. 4, 199; B. 17, 134; 28, 823). — I, 1371.
 17) Trimethylamid d. Oxalsäure. Sm. 32°; Sd. 139°₃₂ (R. 13, 341).
 18) s-Methyläthylamid d. Oxalsäure. Sm. 155–157° (A. 184, 67, 70). — I, 1365.
 19) Propylnitrosamid d. Essigsäure. Fl. (Bl. [3] 13, 125).
 20) Di[Acetylamido]methan (Methylenamid d. Essigsäure). Sm. 196°; Sd. 288°. (HCl. AuCl₃) (B. 25, 307, 310). — I, 1243.
 21) Hydrazid d. γ -Ketobutan- α -Carbonsäure (H. d. β -Acetylpropionsäure). Sm. 82° (J. pr. [2] 50, 522).
 22) Verbindung (aus Piperazin u. CO₂) (J. pr. [2] 53, 24).
 $C_5H_{10}O_2N_2$ C 38,0 — H 6,3 — O 20,3 — N 35,4 — M. G. 158.
 1) 1,4-Dinitroso-2-Methylhexahydro-1,4-Diazin (Dinitrosomethylpiperazin). Sm. 71° (J. pr. [2] 51, 475). — IV, 481.
 2) Akryldiureid (A. 151, 203; B. 15, 1159, 1393). — I, 1314.
 3) Amid d. α -[Amidoformylazo]isobuttersäure. Sm. 151° u. Zers. (A. 283, 36).
 4) Isopropylidenhydrazid d. Harnstoffcarbonsäure (Acetonamidobiuret). Sm. 189° (A. 303, 102).
 $C_5H_{10}O_2N_6$ C 32,2 — H 5,4 — O 17,2 — N 45,1 — M. G. 186.
 1) Dinitrosopentamethylentetramin. Sm. 207° (202–203°) (B. 21, 2737, 2888; A. 288, 231; Bl. [3] 11, 553, 557; [3] 13, 132; [3] 15, 1201). — I, 1169.
 2) Verbindung + $\frac{1}{2}H_2O$ (aus Formaldehyd u. Semicarbazid) (A. 303, 92).
 $C_5H_{10}O_2Cl_2$ 1) $\beta\gamma$ -Dichlor- $\alpha\delta$ -Dioxy- β -Methylbutan? Sm. 82,5° (C. 1899 [1] 590).
 2) $\alpha\gamma$ -Dioxy- $\beta\beta$ -Di[Chlormethyl]propan. Sm. 65° (C. 1896 [2] 535).
 3) Di[β -Chloräthyläther] d. Dioxymethan. Sd. 218–219° (B. 28 [2] 851).
 4) Aldehyd d. β -Dichlorpropionsäure-Aethylalkohols. Sd. 150–155° (A. Spl. 3, 192).
 5) Verbindung (aus Isopren). Sm. 81° (J. pr. [2] 55, 9; [2] 57, 157; B. 30, 1990).
 $C_5H_{10}O_2Br_2$ 1) $\gamma\delta$ -Dibrom- $\alpha\beta$ -Dioxy- β -Methylbutan? Sm. 126,5° (C. 1899 [1] 591).
 2) $\beta\gamma$ -Dibrom- $\alpha\delta$ -Dioxy- β -Methylbutan? Sm. 86° (C. 1899 [1] 591).
 3) Dimethyläther d. $\beta\gamma$ -Dibrom- $\alpha\alpha$ -Dioxypropan. Sd. 108°₁₅ (B. 31, 1015).
 $C_5H_{10}O_2J_2$ 1) Dijoddioxyptentan (Pentaerythridijodhydrin). Sm. 130° (A. 265, 329). — I, 264.
 $C_5H_{10}O_2S$ 1) α -Merkaptoisovaleriansäure (Bl. 30, 507). — I, 897.
 2) Aethylester d. α -Merkaptopropionsäure. Cu₂ (J. pr. [2] 29, 372). — I, 894.
 3) Aethylester d. Merkaptoessigmethyläthersäure (J. 1878, 685). — I, 891.
 4) Aethylester d. Aethylthiolkohlsäure. Sd. 156° (J. pr. [2] 6, 436). — I, 882.
 5) Diäthylester d. Thiokohlsäure. Sd. 161–162° (A. 75, 136; 207, 153; J. pr. [2] 6, 441; B. 15, 2882; 20, 2384). — I, 881.
 6) Anhydromethyläthylthetin (B. 26 [2] 409).
 7) Anhydrodimethyl- α -Propionylthetin (B. 26 [2] 410).
 $C_5H_{10}O_2N_2$ C 41,1 — H 6,8 — O 32,9 — N 19,2 — M. G. 146.
 1) α -Nitroso- α -Nitropentan (α -Nitro- α -Oximidopentan; Amylnitrolsäure) (A. 175, 136; B. 28, 1280).
 2) β -Nitroso- β -Nitropentan (Aethylpropylpseudonitrol). Fl. Zers. bei 59° (B. 29, 94).
 3) γ -Nitroso- γ -Nitropentan (Amylpseudonitrol). Sm. 63° (B. 21, 509). — I, 211.

- C₅H₁₀O₃N₂** 4) γ -Nitroso- γ -Nitro- β -Methylbutan (uns. Dimethylpropylpseudonitrol). Fl. (B. 29, 95).
 5) Harnstoffisopropyl- α -Carbonsäure (Acetonuraminsäure). Sm. 160°. Ag (A. 164, 274). — I, 1311.
 6) Methylester d. β -Harnstoffpropionsäure. Sm. 66,5° (Am. 15, 515).
 7) Aethylester d. Aethylnitrosamidoameisensäure. Sd. 90°₄₈ (B. 31, 2643).
 8) Propylester d. Harnstoffcarbonsäure (Propylester d. Allophansäure). Sm. 150–160° (J. 1874, 834). — I, 1306.
 9) Monamid d. Methylimidodiessigsäure. Sm. 168°. Cu + H₂O (A. 279, 43).
 10) α -[oder β] Amid d. β -Amidopropan- $\alpha\beta$ -Dicarbonsäure + 2H₂O (Homo-asparagin). Sm. 254–256° u. Zers. Cu + 2H₂O (B. 27 [2] 122; 31, 2041).
 11) Monamid d. ?-Amidopropan- $\alpha\gamma$ -Dicarbonsäure (Glutaminsäureamid). Cu (B. 16, 312; 18, 390; 23, 1700; 29, 1882; Fr. 22, 325; H. 20, 328). — I, 1385.
 12) α -Amid d. α -Methylamidoäthan- $\alpha\beta$ -Dicarbonsäure (Monamid d. Methylamidobernsteinsäure). Cu (G. 19, 427). — I, 1379.
 13) α -Amid d. β -Amidoäthan- α -Carbonsäure- β N-Carbonsäuremethylester. Sm. 142,5° (Am. 15, 512).
 14) Amid d. γ -Oxypropan- $\alpha\alpha$ -Dicarbonsäure. Sm. 150° (B. 32, 721).
 15) Amid d. α -Oxyäthanmethyläther- $\alpha\beta$ -Dicarbonsäure (Methoxylsuccinamid). Sm. 175° (Soc. 59, 470). — I, 1395.
 16) Mono[γ -Amidopropylamid] d. Oxalsäure (Amidopropylloxaminsäure) (B. 21, 2360). — I, 1363.
- C₅H₁₀O₃N₄** C 34,5 — H 5,7 — O 27,6 — N 32,2 — M. G. 174.
 1) α -Di[Acetylamido]harnstoff (J. pr. [2] 52, 475).
 2) Carbonyldi[Methylharnstoff]. Sm. 196–197° (B. 30, 2613, 2614).
 3) Verbindung (aus Harnstoff u. Formaldehyd) (B. 29, 2438, 2752; C. 1897 [2] 531, 736, 737).
- C₅H₁₀O₃Cl₂** 1) Propargyläthyläther + 2HClO (C. r. 93, 388).
- C₅H₁₀O₃S** 1) α -Aethylsulfon- β -Ketopropan (Aethylsulfonaceton). Fl. (B. 24, 868). — I, 995.
 2) α -Merkapto- α -Oxypropion[merkaptoäthyläther]säure. Fl. (H. 16, 582).
- C₅H₁₀O₃S₂** 1) Dimethyltrimethylentrisulfon. Subl. (B. 25, 238, 251).
C₅H₁₀O₄N₂ C 37,0 — H 6,2 — O 39,5 — N 17,3 — M. G. 162.
 1) $\alpha\alpha$ -Dinitropentan. Fl. K, Ag (J. pr. [2] 25, 271; J. 1882, 453; G. 28 [2] 266).
 2) $\beta\beta$ -Dinitropentan. Sd. 207,5–209,5₁₂₃ (B. 29, 95).
 3) $\gamma\gamma$ -Dinitropentan. Fl. (B. 29, 93).
 4) $\gamma\gamma$ -Dinitro- β -Methylbutan. Sd. 205–207°₁₂₄ (B. 29, 96).
 5) Dinitrit d. Dioxypentan? (Salpetrigsäureamylester). Sm. 96–97° u. 89° (A. 116, 248; 119, 85; 241, 292; 245, 243; 248, 162). — I, 210.
 6) α -Isonitramido-norm. Valeriansäure. Ba (B. 28, 1794, 2301).
 7) α -Methylisonitramidobuttersäure. Na (A. 300, 133).
 8) Methylester d. Propylnitramidoameisensäure. Fl. (R. 9, 71). — I, 1255.
 9) Methylester d. Isopropylnitramidoameisensäure. Fl. (R. 9, 73). — I, 1255.
- C₅H₁₀O₄S** 1) α -Aethylsulfonpropionsäure. Fl. (B. 21, 994). — I, 894.
 2) β -Aethylsulfonpropionsäure. Sm. 112° (B. 21, 995). — I, 895.
 3) Isovaleraldehydsulfonsäure. Ba + H₂O (M. 9, 1057). — I, 953.
- C₅H₁₀O₄S₂** 1) $\beta\beta$ -Aethylendisulfonpropan (Dimethylmethylenäthylendisulfon). Sm. 232° (B. 21, 1477). — I, 994.
- C₅H₁₀O₄S₃** 1) Aethyltrimethylendisulfonsulfid. Sm. 280° (B. 25, 252). — I, 943.
 2) Dimethyltrimethylendisulfonsulfid. Sm. 319° (B. 25, 249). — I, 938.
- C₅H₁₀O₅N₂** C 33,7 — H 5,6 — O 45,0 — N 15,7 — M. G. 178.
 1) Nitrat d. γ -Nitro- δ -Oxy- β -Methylbutan. Fl. (C. 1898 [1] 439).
 2) Dioxypropylester d. Harnstoffcarbonsäure (Glycerinester d. Allophansäure). Sm. 160° (A. 114, 157, 158). — I, 1307.
- C₅H₁₀O₅S** 1) Butan- β -Carbonsäure- β -Sulfonsäure (α -Sulfo- α -Methylpropionsäure). Ba + 5H₂O, Ag₂ (M. 9, 1064). — I, 903.
 2) β -Methylpropan- α -Carbonsäure- β -Sulfonsäure (Sulfoisovaleriansäure). Ba + H₂O, Pb + 2H₂O (G. 18, 91). — I, 903.

- $C_5H_{10}O_6S_3$ 1) **Aethyltrimethylentrisulfon**. Sm. oberh. 340° (B. 25, 254). — I, 943.
2) **Dimethyltrimethylentrisulfon** (B. 25, 239, 250). — I, 939.
- $C_5H_{10}NCl$ 1) **1-Chlorhexahydropyridin**. Sd. 52°₂₅ (B. 19, 1922; 21, 1775, 1924; Bl. [3] 19, 614). — IV, 5.
2) **3-Chlorhexahydropyridin**. (2HCl, PtCl₄ + H₂O) (B. 14, 1159). — IV, 112.
3) **Trimethyläthinyllammoniumchlorid**. + AuCl₃, 2 + PtCl₄ (A. 267, 286). — I, 1146.
- $C_5H_{10}NBr$ 1) **Trimethyläthinyllammoniumbromid** (A. 267, 286). — I, 1146.
2) **1-Bromhexahydropyridin**. Fl. (Bl. [3] 19, 615).
- $C_5H_{10}NBr_3$ 1) **Trimethyl- $\alpha\alpha\beta\beta$ -Tetrabromäthyllammoniumbromid**. Sm. 146° (A. 267, 288). — I, 1125.
- $C_5H_{10}N_2S$ 1) **Crotonylthioharnstoff**. Sm. 85° (B. 7, 516). — I, 1323.
2) **s-Methylallylthioharnstoff**. Sm. 46° (52°) (B. 23, 286; 24, 261). — I, 1322.
3) **2-Methylamido-5-Methyl-4,5-Dihydrothiazol**. Sm. 57°; Sd. 228°. Pikrat (B. 24, 263). — I, 1322.
4) **2-Methylimido-5-Methyltetrahydrothiazol**. Sm. 49—50°. (2HCl, PtCl₄). Pikrat (B. 23, 971). — I, 1325.
5) **2-Imido-3,5-Dimethyltetrahydrothiazol**. Fl. HJ (Sm. 171—172°) (B. 22, 2988). — I, 1324.
- $C_5H_{10}N_2S_2$ 1) **Dimethylformcarbothialdin** (Carbothialdin). Sm. 96° (Bl. [3] 15, 891; A. 65, 43; 165, 235; B. 11, 1383). — I, 919.
2) **Methylenamid d. Thioessigsäure**. Sm. 145—146° (B. 25, 309). — I, 1244.
3) **Verbindung** (aus Piperazin u. CS₂). subl. bei 212° (B. 30, 1585).
- $C_5H_{10}Cl_2S$ 1) **Verbindung** (aus Amylen) (A. 113, 272). — I, 118.
- $C_5H_{10}Br_2S_2$ 1) **Schwefelkohlenstoff + 2 Molec. Bromäthan**. + 2 AlBr₃ (C. 1898, [2] 362).
- $C_5H_{10}Br_2S_3$ 1) **Bromid d. Perthiokohlensäurediäthylester** (A. 128, 334). — I, 888.
 $C_5H_{11}ON$ C 59,4 — H 10,9 — O 15,8 — N 13,9 — M. G. 101.
1) **Aethyläther d. α -Imido- α -Oxypropan** (Propionimidoäthyläther). HCl (B. 16, 1654). — I, 1489.
2) **Aethyläther d. Aethylimidooxymethan**. Sd. 106°₁₈ (Am. 18, 388).
3) **γ -Amido- β -Ketopentan** (Methyl- α -Amidopropylketon). HCl, (2HCl, PtCl₄) (B. 26, 2208; 27, 1037).
4) **α -Dimethylamido- β -Ketopropan** (Dimethylamidoaceton). Sd. 123°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (B. 28, 2223; 29, 873).
5) **β -Oximidopentan** (Oxim d. Methyl-norm. Propylketon). Sd. 167°₇₆₃ (165°₇₂₅) (B. 20, 2581; 24, 4021; 26, 1433; 29, 94; C. 1898 [2] 474). — I, 1030.
6) **γ -Oximidopentan** (Oxim d. Diäthylketon). Sd. 165°₇₆₃ (B. 21, 509; 26, 1433). — I, 1030.
7) **γ -Oximido- β -Methylbutan** (Oxim d. Methylisopropylketon). Sd. 157 bis 158° (B. 16, 2984; 24, 4022; A. 248, 168). — I, 1030.
8) **δ -Oximido- β -Methylbutan** (Oxim d. Isovaleriansäurealdehyd). Fest. Sd. 160—162° (162—163°) (B. 16, 829; 25, 1915; 26, 1432, 2859). — I, 969.
9) **2,4-Dimethyltetrahydrooxazol**. Sd. 159°. (2HCl, PtCl₄), Pikrat (B. 30, 2255).
10) **4-Methyl-3,4,5,6-Tetrahydro-1,4-Oxazin** (Methylmorpholin). Sd. 117°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 22, 2090; A. 301, 10). — I, 1172.
11) **Aldehyd d. Amido-norm. Valeriansäure**. Sm. 39°; Sd. 110—111°₅₅. HCl (B. 25, 2781; 26, 2991; 31, 1560; Bl. [3] 19, 616). — I, 949.
12) **Amid d. Butan- α -Carbonsäure** (A. d. norm. Valeriansäure). Sm. 114 bis 116° (B. 13, 69). — I, 1246.
13) **Amid d. β -Methylpropan- α -Carbonsäure** (A. d. Isovaleriansäure). Sm. 126—128° (135°); Sd. 230—232° (A. 65, 56; 193, 102; B. 5, 673; 15, 982; 31, 2348; J. pr. [2] 52, 60). — I, 1247.
14) **Amid d. β -Methylpropan- β -Carbonsäure** (A. d. Trimethylessigsäure). Sm. 153—154°; Sd. 212°₇₆₆ (A. 173, 374; B. 6, 238). — I, 1247.
15) **Amid d. Säure C₅H₁₀O₂** (aus Harzessenz). Sm. 86—87° (B. 20, 1020). — I, 1247.

- $C_5H_{11}ON$ 16) Propylamid d. Essigsäure. *Sd.* 222—225° (*Bl.* [3] 11, 934).
 17) Diäthylamid d. Ameisensäure. *Sm.* 175—178° (2HCl, PtCl₄ + 2H₂O) (*J.* 1869, 602; *B.* 14, 744; *A.* 214, 240, 272; 237, 239). — I, 1235.
- $C_5H_{11}ON_3$ C 46,5 — H 8,5 — O 12,4 — N 32,6 — M. G. 129.
 1) β -Semicarbazonbutan. *Sm.* 135—136° (*B.* 29, 610).
 2) α -Semicarbazon- β -Methylpropan. *Sm.* 124° (*B.* 31, 2110).
- $C_5H_{11}ON_5$ C 38,2 — H 7,0 — O 10,2 — N 44,6 — M. G. 157.
 1) α -Isopropylidenamido- β -Imidoamidomethylharnstoff (Acetonamido-dicyandiamidin). HCl (*A.* 303, 111).
- $C_5H_{11}OCl$ 1) Chloroxypentan (Amylenglykolechlorhydrin). *Sd.* 155° (*A.* 115, 90; 126, 199; *J. r.* 14, 360). — I, 247.
 2) Chloroxypentan (aus Isopropyläthylen). *Fl.* (*J. r.* 14, 364). — I, 247.
 3) β -Chloroxy- β -Methylbutan. *Sd.* 141° (*C.* 1899 [1] 589).
 4) Chlormethyläther d. α -Oxy- β -Methylpropan. *Sd.* 131° (*Bl.* [3] 11, 881).
 5) Äthyläther d. γ -Chlor- α -Oxypropan. *Sd.* 132—134° (*B.* 27, 216; *Soc.* 65, 596; *Am.* 19, 769).
 6) Äthyläther d. α -Chlor- β -Oxypropan. *Sd.* 117—118° (*A.* 123, 134). — I, 295.
- $C_5H_{11}OBr$ 1) α -Brom- β -Oxypentan? *Sd.* 144—145°₁₅₀ (*B.* 19, 2569). — I, 247.
 2) Äthyläther d. γ -Brom- α -Oxypropan. *Sd.* 150—151° (147—148°) (*Am.* 19, 769; *B.* 31, 3071).
- $C_5H_{11}OJ$ 1) γ -Jod- α -Oxy- β -Dimethylpropan. *Sd.* 60° (i. V.) (*A.* 289, 43).
 2) Jodoxypentan (Jodamylalkohol). *Fl.* (*A. Spl.* 1, 125). — I, 247.
 3) Äthyläther d. γ -Jod- α -Oxypropan. *Sd.* 130—134° (*Am.* 19, 770).
- $C_5H_{11}O_2N$ C 51,3 — H 9,4 — O 27,3 — N 12,0 — M. G. 117.
 1) γ -Nitropentan. *Sd.* 152—155°₁₄₀ (*J. pr.* [2] 48, 379; *B.* 26, 138).
 2) β -Nitro- β -Methylbutan. *Sd.* 149—151°₁₄₀ (*J. pr.* [2] 48, 368; *B.* 26, 134).
 3) δ -Nitro- β -Methylbutan. *Sd.* 150—160° (*A.* 171, 43; 175, 135 Anm.). — I, 210.
 4) Nitrit d. β -Oxy- β -Methylbutan (Salpetrigsäuredimethyläthylcarbinol-ester). *Sd.* 92—93° (*G.* 16, 515). — I, 322.
 5) Nitrit d. δ -Oxy- β -Methylbutan (Salpetrigsäureisoamylester). *Sd.* 97 bis 98° (99°) (*A.* 52, 315; 111, 82; 116, 176; *Z.* 1866, 570; 1867, 734; 1868, 172; *J.* 1874, 352; 1883, 853; 1888, 1418; *G.* 18, 438). — I, 322.
 6) δ -Oximido- α -Oxypentan (Acetopropylalkoholoxim). *Fl.* (*Soc.* 59, 867). — I, 1030.
 7) α -Äthyläther d. β -Oximido- α -Oxypropan. *Sd.* 185—190° (*G.* 24 [2] 44).
 8) Diäthyläther d. Imidodioxymethan (D. d. Imidokohlensäure). *Sd.* 138 bis 140° (141°₁₄₄). HCl (*B.* 19, 874; 28, 2470; *A.* 287, 285). — I, 1490.
 9) α -Amidovaleriansäure. *subl.* HCl, (2HCl, PtCl₄), HNO₃, Cu, Ag (*A.* 211, 354; *A. ch.* [5] 16, 289; *Bl.* 37, 4; *B.* 15, 360; 19, 506). — I, 1199.
 10) γ -Amidovaleriansäure. *Sm.* 193°. HCl, (2HCl, PtCl₄) (*B.* 19, 2415; 22, 1861). — I, 1199.
 11) δ -Amidovaleriansäure. *Sm.* 157—158°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃ + H₂O), + AuCl₃ (*B.* 16, 1192; 17, 2546; 21, 2240; 23, 1769; 24, 1365; 31, 776). — I, 1199.
 12) α -Amidoisovaleriansäure. *subl.* HCl, HNO₃, Cu, Ag (*A.* 98, 17; 139, 200; 141, 326; 142, 374; 193, 106; 205, 18; *H.* 18, 476). — I, 1200.
 13) β -Amidoisovaleriansäure. *Sm.* 217°; *subl.* bei 180°. HCl + H₂O, (2HCl, PtCl₄), Cu + H₂O, Ag, (2Ag + AgNO₃ + H₂O) (*A.* 198, 53; *B.* 15, 2321). — I, 1201.
 14) α -Methylamidobuttersäure. HCl, (2HCl, PtCl₄), (HCl, AuCl₃ + H₂O), HNO₃, Cu + 2H₂O (*A. ch.* [5] 20, 188). — I, 1197.
 15) α -Dimethylamidopropionsäure. (HCl, AuCl₃), (2HCl, PtCl₄ + 4H₂O), Cu + 7H₂O (*Bl.* [3] 7, 99). — I, 1195.
 16) α -Äthylamidopropionsäure. (HCl, AuCl₃), Cu + 2H₂O (*A. ch.* [6] 7, 428). — I, 1195.
 17) Propylamidoessigsäure. (2HCl, PtCl₄ + H₂O), Cu + 2H₂O, (*Bl.* [3] 7, 409). — I, 1188.
 18) Trimethylamidoessigsäure + H₂O (Trimethylglycin; BetaIn; Lycin; Oxynurin). Salze meist bek. Lit. bedeutend. — I, 1186.
 19) isom.[?] Amidovaleriansäure. *Subl.* HCl, Cu (*H.* 17, 212; *J. pr.* [2] 27, 353). — I, 1199.
 20) isom. Amidovaleriansäure. (2HCl, PtCl₄) (*B.* 31, 2274).

- $C_5H_{11}O_2N$ 21) **Amidovaleriansäure** (aus Cupleïn) (*H.* **26**, 590).
 22) **Methylester d. Propylamidoameisensäure**. *Sd.* $180^{\circ}_{\text{Zers}}$ (*R.* **9**, 71). — *I.* **1255**.
 23) **Methylester d. Isopropylamidoameisensäure**. *Sd.* $165,5^{\circ}$ (*R.* **9**, 71). — *I.* **1255**.
 24) **Aethylester d. α -Amidopropionsäure**. *HCl* (*Sm.* 64—68°) (*J. pr.* [2] **38**, 487). — *I.* **1194**.
 25) **Aethylester d. β -Amidopropionsäure**. *HCl* (*Sm.* $65,5^{\circ}$; 69—71°) (*Am.* **15**, 510; *M.* **17**, 179).
 26) **Aethylester d. Aethylamidoameisensäure**. *Sd.* 174—175° (*J. pr.* [2] **21**, 125; *J.* **1854**, 565). — *I.* **1254**.
 27) **Aethylester d. Dimethylamidoameisensäure**. *Sd.* $147^{\circ}_{\text{Zers}}$ (*R.* **3**, 233; *8*, 208; *J. pr.* [2] **21**, 125). — *I.* **1254**.
 28) **Isobutylester d. Amidoameisensäure**. *Sm.* 61° (55°); *Sd.* 206—207° (*A.* **95**, 372; **302**, 270; *B.* **5**, 973). — *I.* **1253**.
 29) **Amid d. γ -Oxyvaleriansäure**. *Sm.* 50° (50°) (*A.* **227**, 104; **256**, 151). — *I.* **1344**.
 30) **Amid d. α -Oxyisovaleriansäure**. *Sm.* 104° (*A.* **205**, 27). — *I.* **1344**.
 31) **Amid d. α -Oxybuttermethyläthersäure**. *Sm.* 77—78° (*A. ch.* [5] **17**, 558). — *I.* **1343**.
 32) **Amid d. α -Oxypropionäthyläthersäure**. *Sm.* 62—63° (64°); *Sd.* 219° (*A. ch.* [3] **59**, 174; *B.* **28**, 2353; *C.* **1897** [2] 938). — *I.* **1343**.
 33) **Amid d. β -Oxypropionäthyläthersäure** (*Soc.* **59**, 478). — *I.* **1343**.
 34) **Aethylamid d. α -Oxypropionsäure**. *Sm.* 48°; *Sd.* 260° (*A. ch.* [3] **63**, 108). — *I.* **1343**.
 35) **Verbindung** (aus Acetylaceton u. Ammoniak) (*A. ch.* [6] **12**, 243). — *I.* **1016**.
- $C_5H_{11}O_2N_3$ *C* 41,4 — *H* 7,6 — *O* 22,1 — *N* 28,9 — *M. G.* 145.
 1) **α -Nitroso- $\alpha\beta$ -Diäthylharnstoff**. *Sm.* 5° (*A.* **179**, 102, 103; **199**, 284). — *I.* **1298**.
 2) **Isobutyrylamidoharnstoff**. *Sm.* 163° (*B.* **31**, 381).
 3) **Homokreatin**. *HCl*, (2 *HCl*, *PtCl*₄) (*J. pr.* [2] **12**, 256). — *I.* **1196**.
 4) **Trimethylbiuret**. *Sm.* 126° (*B.* **31**, 3273).
 5) **α -Oxybutyrocyamin** (*J.* **1880**, 420). — *I.* **1197**.
 6) **Diamid d. β -Amidopropan- $\alpha\beta$ -Dicarbonsäure** (*D. d. Homoasparaginsäure*). *Sm.* 175° (*B.* **27** [2] 122).
- $C_5H_{11}O_4Cl$ 1) **α -Monäthyläther d. γ -Chlor- $\alpha\beta$ -Dioxypropan**. *Sd.* 183—185° (*A. Spl.* **1**, 236; *B.* **5**, 449; **18**, 2287). — *I.* **306**.
 2) **Methyläthyläther d. β -Chlor- $\alpha\alpha$ -Dioxyäthan** (*Chlormethyläthylacetal*). *Sd.* 137° (*A.* **146**, 202, 203). — *I.* **928**.
 3) **Allyläthylechlorhydrin**. *Sd.* 220° (*J.* **1872**, 331).
- $C_5H_{11}O_5Br$ 1) **Bromdioxy-pentan** (*Bromamylenglykol*) (*J.* **1861**, 664). — *I.* **264**.
 $C_5H_{11}O_5P$ 1) **Trimethylphosphidoessigsäure** (*Phosphorbetaïn*). *HCl*, (2 *HCl*, *PtCl*₄), *HJ* (*B.* **4**, 736). — *I.* **1507**.
- $C_5H_{11}O_5B$ 1) **Monoisoamylborat** (*A. Spl.* **5**, 189; *A.* **57**, 329). — *I.* **345**.
 $C_5H_{11}O_5N$ *C* 45,1 — *H* 8,3 — *O* 36,1 — *N* 10,5 — *M. G.* 133.
 1) **γ -Nitro- β -Oxypentan**. *Sd.* $112^{\circ}_{\text{Zers}}$ (*C.* **1897** [2] 337; **1898** [1] 193; *R.* **16**, 199).
 2) **β -Nitro- γ -Oxypentan**. *Sd.* 118—121° (*C.* **1897** [2] 337; *R.* **16**, 198).
 3) **δ -Nitro- γ -Oxy- β -Methylbutan**. *Sd.* $120-123^{\circ}_{\text{Zers}}$ (*C.* **1897** [2] 337; *R.* **16**, 199).
 4) **γ -Nitro- δ -Oxy- β -Methylbutan**. *Sd.* 138—139° (*Na* (*C.* **1897** [2] 337; **1898** [1] 439; *R.* **16**, 200).
 5) **Nitrat d. δ -Oxy- β -Methylbutan** (*Salpetersäureisoamylester*). *Sd.* 147 bis 148° (*J.* **1847/48**, 699; *A.* **93**, 120; *Z.* **1868**, 174; *J. pr.* [2] **31**, 359; *B.* **19**, 567; **23**, 2180). — *I.* **325**.
 6) **α -Oxamido-norm. Valeriansäure** (α -Amidoxyl-norm. Valeriansäure). *Sm.* 156° u. *Zers.* (*B.* **26**, 1554; **28**, 2300).
 7) **β -Methylamido- α -Oxybuttersäure?** (*J. r.* **16**, 687). — *I.* **1202**.
 8) **Aethylester d. Aethoxylamidoameisensäure**. *Sd.* 195—196° (*Am.* **20**, 45).
 9) **Aethylester d. Methoxylmethylamidoameisensäure**. *Sd.* 150—155° (*Am.* **20**, 42).
 10) **Amid d. Trioxyessigtrimethyläthersäure**. *Sm.* 118° (*B.* **28**, 62).

- $C_5H_{11}O_3N_3$ C 37,3 — H 6,8 — O 29,8 — N 26,1 — M. G. 161.
 1) Aethylester d. α -Amidoharnstoff- α -Methylcarbonsäure (Ae. d. Amidohydantoinsäure). Sm. 70—74° (B. 31, 167).
 2) Aethylester d. Harnstoffamidoessigsäure (Ae. d. Carbonamidohydrazoessigsäure). Sm. 122° (B. 31, 166).
 3) Amid d. α -Methylisonitramidobuttersäure. Sm. 126° (A. 300, 132).
- $C_5H_{11}O_4N$ C 40,3 — H 7,4 — O 42,9 — N 9,4 — M. G. 149.
 1) β -Nitro- α - γ -Dioxy- β -Methylbutan. Sm. 78° (Bl. [3] 15, 1224).
 2) β -Nitro- α -Oxy- β -Oxymethylbutan. Sm. 57—58° (C. 1898 [1] 193).
 3) Arabinosamin. Sm. 124° u. Zers. (B. 28, 3083).
 4) Xylosamin. Sm. 130° u. Zers. (B. 28, 3083).
- $C_5H_{11}O_4N_3$ C 33,9 — H 6,2 — O 36,2 — N 23,7 — M. G. 177.
 1) α -Nitro- α -Isonitramidopentan. Ba (A. 300, 110).
 2) Guanidinsalz d. Oxalsäuremonäthylester. Sm. 134—136° u. Zers. (J. pr. [2] 49, 34).
- $C_5H_{11}O_5N$ C 36,4 — H 6,6 — O 48,5 — N 8,5 — M. G. 165.
 1) β -Nitro- α - γ -Dioxy- β -Oxymethylbutan. Sm. 125—126° (Bl. [3] 15, 1224).
 2) Oxim d. d-Arabinose. Sm. 138—139° (B. 31, 1576).
 3) Oxim d. l-Arabinose. Sm. 132—133° (138—139°) (B. 26, 743; 31, 1576).
- $C_5H_{11}O_5P$ 1) Trioxyvalerianphosphorsäure. Ba₃ (M. 16, 203).
 $C_5H_{11}NCl_2$ 1) Isoamyldichloramin. Sd. 58°₂₂ (Bl. [3] 3, 688). — I, 1134.
 $C_5H_{11}NBr_2$ 1) Isoamyldibromamin. Fl. (B. 26, 426). — I, 1134.
 2) β -Dibrom- α -Dimethylamidopropan (Dimethyl- β -Dibrompropylamin). HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HBr (B. 30, 620).
 3) β -Bromäthyltrimethylammoniumbromid. Sm. 146—147° (A. 267, 283). — I, 1141.
- $C_5H_{11}NBr_4$ 1) α - β -Tribromäthyltrimethylammoniumbromid. Sm. 152° (A. 267, 285). — I, 1125.
- $C_5H_{11}NS$ 1) Dimethyläthylsulfinecyanid. + AgCN (Bl. [3] 3, 165). — I, 360.
 $C_5H_{11}NS_2$ 1) Dimethyläther d. Aethylimidodimerkaptomethan. Sd. oberh. 200° (Bl. [3] 15, 900).
 2) Methylpropylamidodithioameisensäure. Methylpropylaminsalz (B. 29, 2114).
 3) Trimethylcarbinamidodithioameisensäure (J. r. 11, 170). — I, 1262.
 4) Diäthylamidodithioameisensäure (B. 14, 2756). — I, 1261.
- $C_5H_{11}N_3S$ 1) Diäthylidenthioharnstoffammoniak. Sm. 183—184° u. Zers. Pikrat, + AgNO₃ (B. 7, 162; Soc. 61, 510). — I, 1330.
- $C_5H_{11}N_3S_2$ 1) Propylamid d. Thioharnstoffthiocarbonsäure (α -Propyldithiobiuret). Sm. 121° (B. 25, 754). — I, 1326.
- $C_5H_{11}ClS_2$ 1) Methyläthylendisulfenchlorid. Sm. 225°. + PtCl₄, 2 + PtCl₄, 4 + 3PtCl₄, + AuCl₃, + HgCl₂, + 2HgCl₂, + 6HgCl₂ (B. 19, 2658; 31, 2287). — I, 364.
- $C_5H_{11}ClHg$ 1) Quecksilberisoamylchlorid. Sm. 86° (A. 130, 114). — I, 1526.
 $C_5H_{11}Br_2Bi$ 1) Wismuthisoamylbromid. Fl. (B. 21, 2041).
 $C_5H_{11}JS_2$ 1) Methyläthylendisulfinjodid. subl. (B. 19, 701, 2660; Soc. 49, 238). — I, 364.
- $C_5H_{11}JHg$ 1) Quecksilberisoamyljodid. Sm. 122° (A. 130, 113). — I, 1526.
 $C_5H_{11}J_3S_2$ 1) Methyläthylendisulfintrijodid. Sm. 92—93° (B. 19, 2658, 2660). — I, 364.
- $C_5H_{12}ON_2$ C 51,7 — H 10,3 — O 13,8 — N 24,1 — M. G. 116.
 1) α -Methylnitrosamidobutan. Sd. 199—201°₇₆₇ (R. 14, 325).
 2) α -Methylnitrosamido- β -Methylpropan (Methylisobutylnitrosamin). Sd. 186—188° (B. 29, 2118).
 3) β -Aethylnitrosamidopropan (Aethylisopropylnitrosamin). Sd. 70°₁₁ (B. 27, 1010).
 4) β -Amido- γ -Oximido- β -Methylbutan (Amylennitrolamin). Sm. 99—100°; Sd. 220°. HCl, 2 + AgNO₃ (A. 262, 328). — I, 1030.
 5) α -Dimethylamido- β -Oximidopropan. Sm. 99° (B. 28, 2224).
 6) α -Amido- α -Oximido- β -Dimethylpropan (Amenylamidoxim). Sm. 115 bis 116° (B. 24, 2154). — I, 1484.
 7) α -Methylamido- α -Methylimido- β -Oxypropan (Dimethylaktamidin). HCl (B. 23, 2947). — I, 1160.
 8) Isobutylharnstoff. Sm. 140,5—141,5° (Soc. 67, 559).
 9) sec. Butylharnstoff. Sm. 169—170° (Soc. 67, 560).

- C₅H₁₁ON₂** 10) **tert. Butylharnstoff.** Sm. 172° (B. 27 [2] 23).
 11) **uns-Methylpropylharnstoff.** Sm. 95° (B. 29, 2114).
 12) **s-Diäthylharnstoff.** Sm. 112,5° (106°; 107,5—110°); Sd. 263° (cor.). HNO₃ (A. 109, 105; 179, 101; B. 13, 1071). — I, 1298.
 13) **uns-Diäthylharnstoff.** Sm. 74° (70°). Oxalat (A. 119, 360; R. 2, 122; 8, 226; A. ch. [6] 9, 280). — I, 1298.
 14) **Tetramethylharnstoff.** Sd. 175—177° (168°) (B. 12, 1164; 26 [2] 405; R. 3, 229). — I, 1298.
 15) **Amid d. α-Amidoisovaleriansäure.** HCl, (2HCl, PtCl₄ + H₂O) (A. 205, 14; J. 1880, 809). — I, 1247.
- C₅H₁₁OS₂** 1) **Methyldiäthylendisulfinoxydhydrat.** Salze siehe diese u. (B. 19, 701, 2658, 2660; Soc. 49, 238). — I, 364.
- C₅H₁₁O₂N₂** C 45,4 — H 9,1 — O 24,2 — N 21,2 — M. G. 132.
 1) **α-Methylnitramidobutan.** α-Modif. Sd. 107,75°; β-Modif. Fl. (R. 14, 29, 317).
 2) **α-Methylnitramido-β-Methylpropan.** α-Modif. Sm. 22,4°; Sd. 104 bis 104,2°₁₇. β-Modif. Fl. Sd. 63—66°₁₇ (R. 14, 34).
 3) **α-Aethylnitramidopropan (Aethylpropylnitramin).** Sd. 108°₂₂ (R. 17, 274).
 4) **Iso-Aethylpropylnitramin.** Fl. (R. 17, 277, 292).
 5) **Iso-Propyläthylnitramin.** Sd. 65°₂₀ (R. 17, 281, 292).
 6) **Ornithin (Diamidovaleriansäure?).** HCl, 2HCl, 2 + 3HCl, HNO₃, Oxalat (B. 11, 408; 21, 3464; 30, 2880; H. 26, 2). — II, 2111.
 7) **α-Hydrazidovaleriansäure.** Sm. 215° (B. 29, 674).
C₅H₁₁O₂N₄ C 37,5 — H 7,5 — O 20,0 — N 35,0 — M. G. 160.
 1) **αα-Diamido-αε-Dioximidopentan + H₂O (Glutarendiamidoxim).** Sm. 233° (B. 22, 2967). — I, 1487.
 2) **αγ-Trimethylendiarnstoff.** Sm. 182° (A. 232, 226). — I, 1302.
 3) **α-Nitroso-α-Diäthylamidoharnstoff (Nitrosodiäthylsemicarbazid)** (A. 199, 313). — I, 1296.
 4) **Amid d. α-[Amidoformylhydrazido]isobuttersäure.** Sm. 205—206° u. Zers. (A. 283, 36).
- C₅H₁₁O₂S** 1) **β-Methylbutan-δ-Sulfinssäure (Isoamylsulfinssäure).** Ba + 4H₂O, Zn (J. pr. [2] 36, 436). — I, 368.
- C₅H₁₁O₂Sn** 1) **Zinntrimethylacetat** (A. 114, 379). — I, 1527.
- C₅H₁₁O₂S** 1) **β-Methylbutan-δ-Sulfonsäure (Isoamylsulfonsäure).** Ba, Cu, Ag (J. pr. [1] 34, 447; A. 69, 225; B. 17, 537). — I, 373.
 2) **Methyläthylthetin.** Chlorid, Bromid (B. 26 [2] 409).
- C₅H₁₂O₃S₂** 1) **Isoamylunterschwefligesäure.** Na + 2H₂O (B. 15, 1938). — I, 329.
- C₅H₁₁O₄N** 1) **Verbindung (Base aus Harn) = (C₅H₁₃O₄N)_x** (B. 25 [2] 46).
C₅H₁₁O₄N₂ C 31,3 — H 6,2 — O 33,3 — N 29,2 — M. G. 192.
 1) **αα-Di[Nitramido]pentan.** Sm. 59—60° (R. 7, 352). — I, 1157.
 2) **Dimethyläther d. αα-Diisonitramidopropan.** Sm. 56° (A. 300, 123).
 3) **Diäthyläther d. Diisonitramidomethan.** Sm. 82° (A. 300, 117).
 4) **Verbindung (aus Harnstoff u. Formaldehyd)** (C. 1897 [2] 194).
- C₅H₁₁O₄S** 1) **β-Oxypentan-β-Sulfonsäure (Isoamylisäthionsäure).** Ba (B. 3, 693). — I, 381.
 2) **isom. Oxypentansulfonsäure.** Ba, Cu (J. pr. [2] 2, 272). — I, 381.
 3) **Isoamylschwefelsäure.** Fast sämtliche Salze bekannt (A. 30, 292; 75, 275; B. 9, 1437; 11, 1506; J. 1884, 203). — I, 333.
 4) **Methylisobutylester d. Schwefelsäure** (J. pr. [2] 15, 41). — I, 333.
- C₅H₁₂O₄S₂** 1) **αα-Di[Methylsulfon]propan.** Sm. 97° (H. 14, 57). — I, 943.
 2) **ββ-Di[Methylsulfon]propan.** Sm. 118° (H. 14, 59). — I, 994.
 3) **Di[Aethylsulfon]methan.** Sm. 104° (B. 19, 2811; 23, 1875; 30, 487; A. 253, 156). — I, 351.
 4) **Pentan-γγ-Disulfinssäure (Amylendisulfinssäure).** K₂ + 2H₂O, Zn + 4H₂O, Ba + 2H₂O, Pb (A. 147, 145). — I, 369.
C₅H₁₁O₅N₂ C 33,3 — H 6,7 — O 44,4 — N 15,6 — M. G. 180.
 1) **N-Methyläther d. β-Hydroxynitrosamido-αγ-Dioxy-β-Oxymethylpropan.** Sm. 158—160° (B. 30, 1661).
- C₅H₁₂NCl** 1) **ε-Chlor-α-Amidopentan.** HCl, (HCl, AuCl₃), (2HCl, PtCl₄), Pikrat (B. 25, 420). — I, 1134.
 2) **Isoamylchloramin.** Fl. (Bl. [3] 3, 687). — I, 1134.
 3) **Trimethyläthenylammoniumchlorid.** + HgCl₂, + 6HgCl₂, 2 + PtCl₄, 2 + PtCl₂, + AuCl₃ (A. 267, 275; H. 26, 176). — I, 1111.

- C₅H₁₃NBr** 1) ϵ -Brom- α -Amidopentan. Pikrat (B. **25**, 3047). — **I**, 1134.
2) β -Brom- β -Amido- β -Methylbutan (Z. **1867**, 39). — **I**, 1136.
3) Trimethyläthenylammoniumbromid. Sm. **193°** (A. **267**, 276). — **I**, 1141.
- C₅H₁₃NBr₃** 1) Trimethyl- $\alpha\beta$ -Dibromäthylammoniumbromid. Sm. **165°** (A. **267**, 278). — **I**, 1125.
- C₅H₁₃NBr₅** 1) Trimethyl- $\alpha\beta$ -Dibromäthylammoniumtribromid. Sm. **73°** (A. **267**, 278). — **I**, 1125.
- C₅H₁₃NJ** 1) Trimethyläthenylammoniumjodid. Sm. **196°** (A. **267**, 277, 301). — **I**, 1141.
- C₅H₁₃N₂S** 1) norm. Butylthioharnstoff. Sm. **79°** (B. **7**, 512). — **I**, 1321.
2) sec. Butylthioharnstoff. Sm. **133°** (**127,5—128,5°**) (B. **7**, 513; Soc. **67**, 559). — **I**, 1321.
3) tert. Butylthioharnstoff. Sm. **165°** (J. r. **11**, 179). — **I**, 1321.
4) Isobutylthioharnstoff. Sm. **90—91°** (**93,5°**) (B. **3**, 757; **7**, 511). — **I**, 1321.
5) s-Methylpropylthioharnstoff. Sm. **79°** (B. **23**, 284). — **I**, 1320.
6) s-Diäthylthioharnstoff. Sm. **77°**. + PtCl₂ (B. **1**, 26; **2**, 601; J. r. **10**, 191; **25**, 582; J. pr. [2] **50**, 499; A. **285**, 188). — **I**, 1320.
7) uns-Diäthylthioharnstoff. Sm. **169—170°** (G. **19**, 423; B. **26**, 2506). — **I**, 1320.
8) $\alpha\alpha\beta$ -Dimethyläthylthioharnstoff. Sm. **37—37,5°** (B. **26**, 1686).
9) Diäthylaminrhodanat (B. **26**, 2504).
10) 2-Phenylimido-3-Phenyl-2,3-Dihydrothiazol. Sm. **105°** (A. **265**, 127). — **IV**, 505.
- C₅H₁₃J, S** 1) Dimethyläthylsulfonjodid + Jodoform. Sm. **136°** (C. **1898** [2] 524).
C₅H₁₃ON C **58,2** — H **12,6** — O **15,5** — N **13,6** — M. G. **103**.
1) β -Amido- δ -Oxy- β -Methylbutan (Oxyisoamylamin). Sd. **157—159°**. (2HCl, PtCl₄) (A. Spl. **7**, 90; B. **17**, 838). — **I**, 1176.
2) δ -Amido- δ -Oxy- β -Methylbutan + 7H₂O (Isovaleraldehydammoniak). Sm. **56—58°** (A. **130**, 218; J. r. **6**, 34). — **I**, 951.
3) α -Oxymethylamidobutan (Oxymethylbutylamin). Fl. (B. **15**, 169).
4) α -Oxymethylamido- α -Methylpropan (Isobutylamidooxymethan). Fl. (B. **28** [2] 852).
5) α -Aethylamido- β -Oxypropan (Oxyisopropyläthylamin). Sd. **160°**. (2HCl, PtCl₄ + 2H₂O) (B. **16**, 533). — **I**, 1175.
6) α -Dimethylamido- β -Oxypropan (Dimethylpropylalkin). Sd. **124,5** bis **126,5°**. (2HCl, PtCl₄) (J. **1880**, 523; B. **14**, 2407). — **I**, 1174.
7) Diäthylamidooxymethan. Fl. (B. [3] **13**, 158).
8) Trimethyläthenylammoniumhydrat (Neurin) (Salze siehe A. **140**, 306; **267**, 275; H. **26**, 176). (B. **2**, 12; **16**, 1406; **17**, 516, 1137; J. **1858**, 339; J. pr. [2] **33**, 367; G. **13**, 441; **18**, 203). — **I**, 1141.
C **45,8** — H **9,9** — O **12,2** — N **32,1** — M. G. **131**.
- C₅H₁₃ON₃** 1) α -Amido- $\alpha\beta$ -Diäthylharnstoff (s-Diäthylsemicarbazid). HCl (A. **199**, 284). — **I**, 1298.
2) Diäthylamidoharnstoff (uns. Diäthylsemicarbazid). Sm. **149°**. (2HCl, PtCl₄) (A. **199**, 312). — **I**, 1296.
- C₅H₁₃O₂N** C **50,4** — H **10,9** — O **26,9** — N **11,8** — M. G. **119**.
1) γ -Aethylamido- $\alpha\beta$ -Dioxypropan. Sd. **141—142°**₁₈. Pikronolat (M. **19**, 579; B. **32**, 757).
2) γ -Dimethylamido- $\alpha\beta$ -Dioxypropan (Dimethylpropylglykolin). Sd. **216** bis **217** (**220—222°**₇₅₅). (2HCl, PtCl₄). Pikronolat (B. **15**, 1153; **32**, 756). — **I**, 1177.
3) Methyl-di- β -Oxyäthylamin (Methyl-diäthoxylamin). Sd. **250—255°** (**246** bis **248°**₇₄₇). HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. **13**, 222; **22**, 2088; **31**, 1071). — **I**, 1172.
4) Aldehyd d. Trimethylamidoessigsäure (Betainaldehyd). (HCl, AuCl₃), (2HCl, PtCl₄) (B. **17**, 1142; **26**, 804; **27**, 166). — **I**, 1230.
- C₅H₁₃O₄P** 1) Isoamylphosphinsäure. Sm. **160°**. Ag₂ (B. **6**, 305). — **I**, 1504.
2) Isoamylphosphorige Säure. Fl. (A. **58**, 75). — **I**, 338.
3) Oxyisoamylunterphosphorige Säure. Fl. Ba + 4H₂O (A. ch. [6] **23**, 330). — **I**, 1504.
- C₅H₁₁O₂B** 1) Borsäuremethyl-diäthylester. Sd. **100—105°** (A. Spl. **5**, 197). — **I**, 344.
C₅H₁₃O₄P 1) Oxyisoamylphosphinsäure. Sm. **183—184°**. Ba, Ba + 2H₂O, Ag, (M. **5**, 627). — **I**, 1504.
2) Isoamylphosphorsäure. Ba, Pb, Cu, Ag₂ (A. **99**, 57). — **I**, 342.

- $C_3H_{13}O_4P$ 3) Methyldiäthylester d. Phosphorsäure. *Sd.* 208,2° (*A.* 262, 217). — I, 340.
- $C_3H_{13}NCl_2$ 1) Trimethyl- β -Chloräthylammoniumchlorid. $2 + PtCl_4$ (*A.* 267, 290). — I, 1125.
- $C_3H_{13}NBr_2$ 1) Trimethyl- β -Bromäthylammoniumbromid. *Sm.* 230° (*J.* 1858, 338; 1859, 376; *A.* 267, 268; *B.* 22, 1140). — I, 1125.
- $C_3H_{13}NBr_4$ 1) Trimethyl- β -Bromäthylammoniumtribromid. *Sm.* 147—148° (*A.* 267, 273). — I, 1125.
- $C_3H_{13}NJ_2$ 1) Trimethyl- β -Jodäthylammoniumjodid. *Sm.* 230—231° (234°; 240°) (*A.* 140, 309; 142, 324; 267, 302; *B.* 28, 2931). — I, 1125.
- $C_3H_{13}Cl_8$ 1) Methyldiäthylsulfinchlorid. $+ HgJ_2$, $+ HgCl_2$, $+ 2HgCl_2$, $+ 6HgCl_2$, $2 + PtCl_4$, $+ AuCl_3$ (*A.* 243, 193; *Bl.* [3] 2, 164; *B.* 31, 2285). — I, 359.
- $C_3H_{13}Cl_8Se$ 1) Methyldiäthylseleninchlorid. $2 + PtCl_4$ (*G.* 24 [2] 178).
- $C_3H_{13}JS$ 1) Methyldiäthylsulfinjodid. *Sm.* 104° u. *Zers.* $+ CdJ_2$, $2 + CdJ_2$ (*J. pr.* [2] 14, 207; *A.* 243, 193; 252, 247; *G.* 24 [2] 71). — I, 359.
- 2) isom. Methyldiäthylsulfinjodid (*J. pr.* [2] 14, 208, 211; *G.* 18, 67). — I, 359.
- $C_3H_{14}ON_4$ C 41,1 — H 9,6 — O 10,9 — N 38,4 — M. G. 146.
- 1) Di[Dimethylamido]harnstoff. *Sm.* 220° (*B.* 13, 2172).
- $C_3H_{14}OSn$ 1) Zinntrimethyläthylat. *Sd.* 66° (*B.* 3, 358). — I, 1527.
- $C_3H_{14}O_3Si$ 1) Orthokieselpropionsäuremethylester. *Sd.* 125—126° (*A.* 173, 145). — I, 1520.
- $C_3H_{14}O_4Si$ 1) Kieselsäuretrimethyläthylester. *Sd.* 133—135° (*A. ch.* [4] 9, 43). — I, 346.
- $C_3H_{14}O_6N_4$ C 26,5 — H 6,2 — O 42,5 — N 24,8 — M. G. 226.
- 1) Verbindung (aus Isocyanilsäure). *Pb.* (*J. pr.* [2] 32, 480).
- $C_3H_{14}NCl$ 1) Aethyltrimethylammoniumchlorid. $+ HgCl_2$, $+ 2HgCl_2$, $2 + CuCl_2$, $+ AuCl_3$, $2 + PtCl_4$ (*J.* 1883, 620; *B.* 25 [2] 745; *Soc.* 57, 768). — I, 1124.
- $C_3H_{14}NJ$ 1) Aethyltrimethylammoniumjodid (*A.* 108, 1; 181, 381; *M.* 10, 111; *J.* 1883, 620; *Soc.* 57, 768). — I, 1124.
- $C_3H_{14}NJ_3$ 1) Aethyltrimethylammoniumtrijodid. *Sm.* 64° (*A.* 108, 1; 240, 9). — I, 1125.
- $C_3H_{14}NJ_5$ 1) Aethyltrimethylammoniumpentajodid. *Sm.* 68° (26°) (*A.* 108, 3; 240, 70). — I, 1125.
- $C_3H_{14}NJ_9$ 1) Aethyltrimethylammoniumnonajodid. *Sm.* 38° (*A.* 240, 70). — I, 1125.
- $C_3H_{14}N_2S_2$ 1) Di[β -Amidoäthyläther] d. Dimerkaptomethan. $2HCl$ (*B.* 25, 3055). — I, 1172.
- 2) Aethylamidodithioameisensaures Aethylamin. *Sm.* 130° (*B.* 1, 25, 170; *J. r.* 10, 188). — I, 1261.
- $C_3H_{14}ClP$ 1) Trimethyläthylphosphoniumchlorid. $2 + PtCl_4$ (*A.* 104, 33; *Soc.* 53, 717). — I, 1503.
- $C_3H_{14}JP$ 1) Trimethyläthylphosphoniumjodid (*A.* 104, 33). — I, 1503.
- $C_3H_{15}ON$ C 57,1 — H 14,3 — O 15,2 — N 13,3 — M. G. 105.
- 1) Trimethyläthylammoniumhydrat. Salze siehe (*A.* 108, 1; 181, 381; *J.* 1883, 620; *Soc.* 57, 768; *M.* 10, 111). — I, 1124.
- $C_3H_{15}O_2N$ C 49,6 — H 12,4 — O 26,4 — N 11,6 — M. G. 121.
- 1) Trimethyl- β -Oxyäthylammoniumhydrat (Amanitin; Bilineurin; Cholin; Sinkalin). *Lit.* bedeutend. — I, 1171.
- $C_3H_{15}O_4P$ 1) Trimethyläthoxyphosphoniumhydrat (2 Chlorid + $PtCl_4$) (*A. Spl.* 1, 286). — I, 1499.
- $C_3H_{15}O_2Sn$ 1) Zinndiäthylverbindung. *Sm.* 100° (*B.* 9, 1686). — I, 1529.
- $C_3H_{15}O_3N$ C 43,8 — H 10,9 — O 35,0 — N 10,2 — M. G. 137.
- 1) Muscarin (Trimethyl- $\beta\beta$ -Dioxyäthylammoniumhydrat). HCl , ($2HCl$, $PtCl_4$), (HCl , $AuCl_3$) (*J.* 1870, 875; 1876, 804; *B.* 16, 207; 26, 801). — I, 1230.
- 2) Isomuscarin (Trimethyl- $\alpha\beta$ -Dioxyäthylammoniumhydrat). Salze, siehe diese (*A.* 267, 249; *B.* 26, 802). — I, 1177.
- $C_3H_{15}O_4N$ C 39,2 — H 9,8 — O 41,8 — N 9,2 — M. G. 153.
- 1) Verbindung $+ \frac{1}{2}H_2O$ (aus Vitellin) (*J.* 1868, 706). — IV, 1595.
- $C_3H_{17}O_3N_2$ C 23,7 — H 5,9 — O 31,6 — N 38,7 — M. G. 255.
- 1) Glycinguanidincarbonat $+ H_2O$. (*J. pr.* [2] 17, 480). — I, 1184.
- $C_3H_{19}O_2N$ C 48,0 — H 15,2 — O 25,6 — N 11,2 — M. G. 125.
- 1) Verbindung (aus Urin) (*B.* 25 [2] 345).
- C_5ONCl_7 1) Verbindung (aus Perchlörpyrokoll). *Sm.* 146—147° (*G.* 1882, 28).

- C_5OCl_5Br 1) 1,1,3,3,4-Pentachlor-5-Brom-2-Keto-2,3-Dihydro-R-Penten. Sm. 102° (B. 23, 826, 2204, 2210). — I, 1011.
- $C_5O_2Cl_3Br_3$ 1) $\alpha\gamma\delta$ -Trichlor- $\alpha\alpha\gamma\delta\delta$ -Pentabrom- $\beta\delta$ -Diketopentan (Trichlorpentabrom-acetylaceton). Sm. 93—98° (B. 23, 1720). — I, 1017.
- $C_5O_2Cl_4Br_2$ 1) $\alpha\alpha\gamma\gamma\delta\delta$ -Hexachlor- $\alpha\delta$ -Dibrom- $\beta\delta$ -Diketopentan (Hexachlordibrom-acetylaceton). Sm. 57—58°; Sd. 200—201°_{25—30} (B. 23, 235). — I, 1018.

C_5 -Gruppe mit vier Elementen.

- C_5HONCl_4 1) 2,2-Dichlor-3-Imido-1-Keto-2,3-Dihydro-R-Penten. Sm. 203° (B. 26, 1675; A. 299, 382).
- C_5HONCl_3 1) $\alpha\beta\gamma\delta\delta\delta$ -Hexachlor- α -Imido- δ -Keto- β -Penten. Sm. 111° (B. 26, 1676).
- C_5HONBr_2 1) Nitril d. 3,5-Dibromfuran-2-Carbonsäure. Sm. 88°; Sd. 225° (Am. 15, 131). — III, 704.
- $C_5HO_2NCl_4$ 1) 3,3,4,5-Tetrachlor-2,6-Diketo-1,2,3,6-Tetrahydropyridin. Sm. 80° (B. 26, 1675 Anm.).
- $C_5HO_2Cl_4Br$ 1) Tetrachlorbrombutencarbonsäure. Sm. 114° (101—101,5°) (B. 26, 2112).
- $C_5HO_3Cl_3Br_2$ 1) 5-Chlor-3,4-Dibromfuran-2-Carbonsäure. Sm. 193—194° (Am. 12, 126). — III, 704.
- $C_5HO_3Cl_2Br_3$ 1) 3,4-Dichlor-5-Bromfuran-2-Carbonsäure. Sm. 185—186° (Am. 12, 704). — III, 704.
- $C_5HO_5NCl_2$ 1) 3,4-Dichlor-5-Nitrofuran-2-Carbonsäure + H_2O . Sm. 189—190° (Am. 12, 126). — III, 705.
- $C_5HO_5NBr_2$ 1) 3,4-Dibrom-5-Nitrofuran-2-Carbonsäure. Sm. 204—205° (Am. 10, 390). — III, 705.
- $C_5H_2ONCl_3$ 1) 2,2,5-Trichlor-3-Imido-1-Keto-2,3-Dihydro-R-Penten. Sm. 207° (B. 26, 1673).
- $C_5H_2ONCl_5$ 1) $\alpha\gamma\delta\delta\delta$ -Pentachlor- α -Imido- δ -Keto- β -Penten. Sm. 141—142° (B. 26, 1674).
- 2) 2,2,3,3,5-Pentachlor-4-Amido-1-Keto-2,3-Dihydro-R-Penten. Sm. 127° (u. 118°) (B. 23, 2224; A. 299, 375). — I, 1011.
- 3) Amid d. Pentachlor- $\alpha\gamma$ -Butadien- α -Carbonsäure. Sm. 116° (B. 23, 2222). — I, 1250.
- $C_5H_2ONCl_7$ 1) 2,2,3,4,4,5,5-Heptachlor-3-Amido-1-Keto-R-Pentamethylen. Sm. 72°; Sd. 165°_{30—33} (A. 299, 376).
- $C_5H_2ON_4Cl_2$ 1) 2,8-Dichlor-6-Ketopurin (Dichlorhypoxanthin). Zers. oberh. 350° (B. 30, 2227; 32, 491). — IV, 1248.
- 2) 2,6-Dichlor-8-Ketopurin. Zers. oberh. 350° (B. 30, 2200, 2223; 32, 490). — IV, 1248.
- $C_5H_2ON_5Fe$ 1) Nitroprussidwasserstoff + H_2O . Lit. bedeutend.
- $C_5H_2O_2NCl_3$ 1) 3,4,5-Trichlorpyrrol-2-Carbonsäure + H_2O . Zers. bei 150°. K, Ba + H_2O (G. 12, 34). — IV, 81.
- 2) $\gamma\gamma\gamma$ -Trichlor- α -Cyanerotonsäure (B. 26 [2] 289).
- 3) Amid d. 3,4,5-Trichlorfuran-2-Carbonsäure. Sm. 160—161° (Am. 12, 123). — III, 702.
- $C_5H_2O_2NCl_5$ 1) Amid d. $\alpha\beta\delta\delta\delta$ -Pentachlor- γ -Keto- α -Buten- α -Carbonsäure + xH_2O (A. d. β -Trichloracetyl- $\alpha\beta$ -Dichlorakrylsäure). Sm. 143° (145—146°) (wasserfrei) (B. 25, 2230; 26, 1677). — I, 1356.
- $C_5H_2O_2NBr_3$ 1) 3,4,5-Tribrompyrrol-2-Carbonsäure. Zers. bei 140—150° (B. 17, 1153). — IV, 82.
- 2) Amid d. 3,4,5-Tribromfuran-2-Carbonsäure. Sm. 222—223° (A. 232, 95). — III, 704.
- $C_5H_2O_2N_3Cl$ 1) Verbindung (aus 6-Amido-2,4-Di[Trichlormethyl]-1,3,5-Triazin). Sm. 155° (J. pr. [2] 50, 117).
- $C_5H_2O_2Br_2S$ 1) β -Dibromthiophen-2-Carbonsäure. Sm. 221—222°. K, Ba + $3\frac{1}{2}H_2O$, Ag (B. 18, 543, 548, 2308). — III, 755.
- $C_5H_2O_3NCl_4$ 1) Monoxim d. 3,3,5-Trichlor-1,2,4-Triketo-R-Pentamethylen. Sm. 123—125° (B. 21, 2436). — I, 1034.
- $C_5H_2O_3Cl_3Br_2$ 1) $\beta\beta\beta$ -Trichloräthylidenester d. $\beta\beta\beta$ -Tribrom- α -Oxypropionsäure. Sm. 132—135° (A. 193, 54). — I, 934.

- $C_3H_3O_2Cl_2Br$ 2) $\beta\beta\beta$ -Tribromäthylidenester d. $\beta\beta\beta$ -Trichlor- α -Oxypropionsäure. Sm. 149—150° (A. 193, 53). — I, 936.
- $C_3H_3O_2Cl_2Br$ 1) $\beta\beta\beta$ -Dichlorbromäthylidenester d. $\beta\beta$ -Dichlor- β -Brom- α -Oxypropionsäure (Tetrachlorbromalid). Sm. 122° (B. 15, 600). — I, 936.
- $C_3H_3O_2NCl$ 1) 3-Chlor-5-Nitrofur-2-Carbonsäure + H_2O . Sm. 140—141° (wasserfrei) (Am. 15, 148). — III, 705.
- $C_3H_3O_2NBr$ 1) 3-Brom-5-Nitrofur-2-Carbonsäure + H_2O . Sm. 159—160° (wasserfrei) (Am. 10, 385). — III, 705.
- $C_3H_3O_2Cl_2S$ 1) 4,5[β]-Dichlorfur-2-Carbonsäure-3-Sulfonsäure. Ba, BaH + $2H_2O$ (Am. 12, 116). — III, 706.
- 2) 3,4-Dichlorfur-2-Carbonsäure-5-Sulfonsäure. K_2 + H_2O , Ba + $5H_2O$, Pb + $3H_2O$ (Am. 15, 149). — III, 706.
- $C_3H_3O_2Br_2S$ 1) 3,4-Dibromfur-2-Carbonsäure-5-Sulfonsäure. K_2 + H_2O , Ba + $5H_2O$, Pb + $4H_2O$, Ag_2 (Am. 10, 386). — III, 706.
- $C_3H_3ONCl_2$ 1) 2,5-Dichlor-3-Imido-1-Keto-2,3-Dihydro-R-Penten. Sm. 174° (B. 26, 1671).
- 2) 2-Dichlor-4-Oxypyridin. Sm. 178° (B. 17, 1835). — IV, 117.
- $C_3H_3ONCl_4$ 1) $\alpha\gamma\delta\epsilon$ -Tetrachlor- α -Imido- δ -Keto- β -Penten. Sm. 130° (B. 26, 1672).
- 2) Amid d. $\beta\delta\delta\delta$ -Tetrachlor- γ -Keto- α -Buten- α -Carbonsäure (A. d. β -Trichloracetyl- β -Chlorakrylsäure). Sm. 107—108° (B. 26, 1674).
- $C_3H_3ONBr_2$ 1) 2-Dibrom-2-Oxypyridin. Sm. 206—207° (B. 17, 591). — IV, 116.
- 2) 2-Dibrom-3-Oxypyridin. Zers. oberhalb 200°. HBr (B. 17, 1898). — IV, 116.
- 3) Dibromoxypyridin. Ag, ($2HCl$, $PtCl_4$) (B. 12, 986; 16, 1262; M. 6, 306). — IV, 118.
- $C_3H_3ONJ_2$ 1) 3,5-Dijod-2-Oxypyridin. Sm. 257—259°. Na + $3H_2O$ (B. 20, 1352). — IV, 118.
- $C_3H_3ON_2Cl_2$ 1) 3,5,6-Trichlor-4-Amido-2-Oxypyridin? Sm. 282°. Na (B. 19, 2712). — IV, 819.
- $C_3H_3ON_4Br$ 1) Bromhypoxanthin + $2H_2O$. NH_4 , Na + $2H_2O$, Ba + $3H_2O$, HBr, (HBr, Br_2) (B. 26, 1919; H. 18, 445). — III, 968.
- $C_3H_3ON_4Br_2$ 1) Bromhypoxanthintetrabromid. HBr (H. 18, 449). — III, 968.
- C_3H_3OCIS 1) Chlorid d. Thiophen-[2 + 3]-Carbonsäure. Sd. 206° (B. 18, 543). — III, 755.
- $C_3H_3ONCl_2$ 1) Amid d. 3,4-Dichlorfur-2-Carbonsäure. Sm. 176—177° (Am. 12, 42). — III, 701.
- 2) Amid d. 3,5-Dichlorfur-2-Carbonsäure. Sm. 153—154° (Am. 12, 50). — III, 701.
- $C_3H_3ONCl_4$ 1) Amid d. $\alpha\beta\delta\delta$ -Tetrachlor- γ -Keto- α -Buten- α -Carbonsäure. Sm. 190° (B. 24, 920; A. 299, 381). — I, 1356.
- 2) Nitril d. $\alpha\alpha\delta\delta$ -Tetrachlor- γ -Oxy- β -Ketobutan- γ -Carbonsäure. Sm. 110—111° (A. 254, 100). — I, 1476.
- $C_3H_3ONCl_6$ 1) Amid d. $\alpha\alpha\beta\delta\delta$ -Hexachlor- γ -Ketobutan- α -Carbonsäure. Sm. 155 bis 156° (A. 299, 380).
- $C_3H_3ONBr_2$ 1) 2-Dibrom-2,4-Dioxypyridin. Zers. bei 225—240° (B. 31, 1688).
- 2) 2-Dibrompyrrol-2-Carbonsäure. Zers. bei 105° (B. 16, 2388). — IV, 82.
- 3) Amid d. 3,4-Dibromfur-2-Carbonsäure. Sm. 195—196° (A. 232, 86). — III, 703.
- 4) Amid d. 3,5-Dibromfur-2-Carbonsäure. Sm. 175—176° (A. 232, 79; Am. 15, 130). — III, 704.
- 5) Imid d. Dibromcitronensäure. Sm. 142—144°. Ag (G. 15, 184). — I, 1391.
- 6) Methylimid d. Dibrommaleinsäure. Sm. 121° (B. 21, 2871). — I, 1391.
- $C_3H_3O_2N_2Br$ 1) Bromisoxanthin + H_2O (A. 245, 229). — III, 953.
- $C_3H_3O_2N_4Cl$ 1) 8-Chlor-2,6-Diketopurin (Chlorxanthin) (B. 30, 2236). — IV, 1251.
- $C_3H_3O_2N_4Br$ 1) Bromxanthin (A. 221, 343; B. 28, 2486). — III, 953.
- $C_3H_3O_2N_4Br_2$ 1) Tribromanhydropyvuril. Sm. 180° u. Zers. (A. ch. [5] 11, 388). — I, 1345.
- $C_3H_3O_2Cl_2S$ 1) 2-Chlorthiophen-2-Carbonsäure. Sm. 140° (B. 19, 694). — III, 755.
- $C_3H_3O_2Cl_2Br$ 1) 2,2-Dichlor-4-Brom-1,3-Diketo-R-Pentamethylen. Sm. 67° (B. 22, 1261). — I, 1021.
- $C_3H_3O_2Br_2S$ 1) 2-Bromthiophen-2-Carbonsäure. Sm. 139,5° (B. 19, 690). — III, 755.
- $C_3H_3O_2JS$ 1) 2-Jodthiophen-2-Carbonsäure. Sm. 131° (B. 19, 693). — III, 755.
- $C_3H_3O_2NCl_6$ 1) Cyansäurechloral. Sm. 167—170° u. Zers. (B. 5, 87). — I, 1265.

- $C_5H_5O_3N_3S$ 1) 5-Rhodan-2,4,6-Triketohexahydro-1,3-Diazin (Rhodanbarbitursäure). Nur Salze bekannt. NH_4 , K, Ag (B. 16, 1058). — I, 1375.
- $C_5H_5O_3Cl_3Br_2$ 1) $\alpha\alpha\alpha$ -Trichlor- $\gamma\delta$ -Dibrom- β -Ketobutan- δ -Carbonsäure (β -Trichloracetyl- $\alpha\beta$ -Dibrompropionsäure). Sm. 97,5° (A. 223, 188). — I, 600.
- $C_5H_5O_4NS$ 1) p-Nitrothiophen-2-Carbonsäure. Sm. 145–146°. Ag (B. 20, 116). — III, 755.
- $C_5H_5O_4N_2Cl$ 1) 4-Chlorpyrazol-3,5-Dicarbonsäure + H_2O . Sm. 285–286° (B. 28, 715 Anm.).
- $C_5H_5O_4N_2Br$ 1) 4-Brompyrazol-3,5-Dicarbonsäure + $2H_2O$ (B. 28, 715 Anm.).
2) 5[P]-Brom-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin-6-Carbonsäure + H_2O (Bromuracilcarbonsäure) (A. 240, 22). — I, 1352.
- $C_5H_5O_6ClS$ 1) 3-Chlorfuran-2-Carbonsäure-5-Sulfonsäure. K_2 + H_2O , Ba + $4H_2O$, Pb + $4H_2O$ (Am. 15, 145). — III, 706.
2) 5-Chlorfuran-2-Carbonsäure-3-Sulfonsäure. K_2 , Ca + $2H_2O$, BaH + $4H_2O$, Ba + $5H_2O$, Pb + H_2O (Am. 15, 151). — III, 706.
- $C_5H_5O_6BrS$ 1) 3-Bromfuran-2-Carbonsäure-5-Sulfonsäure. K_2 + $1\frac{1}{2}H_2O$, Ca + $6H_2O$, Ba + $4H_2O$, Pb + $4H_2O$ (Am. 10, 381). — III, 706.
2) 5-Bromfuran-2-Carbonsäure-3-Sulfonsäure. K_2 , Ca + $2H_2O$, Ba + $4H_2O$, BaH + $5H_2O$, Pb + $1\frac{1}{2}H_2O$, Ag_2 + $2H_2O$ (Am. 10, 409). — III, 706.
- $C_5H_4ON_3Br$ 1) Tribromoxydimethyl-1,3,5-Triazin + H_2O (G. 27 [2] 428). — IV, 1120.
- $C_5H_4ON_4S$ 1) 3-Keto-1-Methyl-3,4-Dihydro-2,4,5,6-Benzthiotetrazol? Zers. bei 270–280° (M. 16, 747). — IV, 543.
- $C_5H_4ON_5Cl$ 1) 6-Chlor-2-Amido-8-Ketopurin (B. 31, 2620).
2) 2-Chlor-6-Amido-8-Ketopurin. Zers. oberh. 360° (B. 30, 2215). — IV, 1322.
- $C_5H_4ON_5Br$ 1) Bromguanin. HCl (A. 221, 342). — III, 966.
- $C_5H_4ON_5J$ 1) 6-Jod-2-Amido-8-Ketopurin (B. 31, 2621).
- $C_5H_4O_3NCl$ 1) Amid d. 5-Chlorfuran-2-Carbonsäure. Sm. 154–155° (Am. 12, 30). — III, 700.
- $C_5H_4O_3NCl_3$ 1) $\alpha\alpha\alpha$ -Trichlor- δ -Oximido- γ -Keto- α -Penten? Sm. 110° (B. 23, 3782). — I, 1034.
2) Amid d. $\beta\delta\delta$ -Trichlor- γ -Keto- α -Buten- α -Carbonsäure (A. d. β -Dichloracetyl- β -Chlorakrylsäure). Sm. 167–168° (B. 26, 1672).
3) Nitril d. $\beta\beta\beta$ -Trichlor- α -Acetoxypropionsäure (Chloralacetylcyanid). Sm. 31°; Sd. 208° (B. 10, 1059). — I, 1470.
- $C_5H_4O_3NBr$ 1) Amid d. 3-Bromfuran-2-Carbonsäure. Sm. 155–156° (A. 232, 62). — III, 702.
2) Amid d. 5-Bromfuran-2-Carbonsäure. Sm. 144–145° (A. 232, 52; G. 15, 114). — III, 702.
3) Imid d. Bromcitronensäure. Sm. 179–182°. Ag (G. 15, 182). — I, 1391.
- $C_5H_4O_3N_2Cl_2$ 1) 2,6-Dichlor-4-Amido-3,5-Dioxypyridin? Sm. 241° u. Zers. (B. 19, 2711). — IV, 819.
- $C_5H_4O_3N_2Cl$ 1) Chlorearbäthamid? Sm. 138–140°; Sd. 260° (Berz. J. 26, 760). — I, 542.
- $C_5H_4O_3N_4S$ 1) 8-Merkapto-2,6-Diketopurin + H_2O (B. 31, 445; 32, 485). — IV, 1256.
2) Urosulfinssäure. K (B. 4, 724; 5, 45). — I, 1339.
- $C_5H_4O_3NBr$ 1) p-Brom-2,4,5-Trioxypyridin (Brompyromekazonsäure) (J. pr. [2] 23, 442; [2] 27, 259). — IV, 121.
- $C_5H_4O_3N_2S$ 1) Dehydrothiohydantoinessigsäure. Zers. bei 230–240° (M. 18, 79).
- $C_5H_4O_4N_2Cl_2$ 1) Monoureid d. Dichlormaleinsäure (Dichlormaleinursäure). Sm. 158° u. Zers. (Am. 18, 333).
- $C_5H_4O_4N_2Br_2$ 1) Monoureid d. Dibrommaleinsäure (Dibrommaleinursäure). Sm. 191° (Am. 18, 335).
- $C_5H_4O_4N_2S$ 1) 2-Amidothiazol-4,5-Dicarbonsäure + H_2O . Sm. 229–230° (A. 259, 272). — IV, 545.
- $C_5H_4O_5NCl$ 1) Chlorearbäthamsäure. (NH_4)₂ (Berz. J. 26, 759). — I, 542.
- C_5H_5ONS 1) anti-2-Oximidomethylthiophen. Fl. (B. 25, 2590). — III, 762.
2) syn-2-Oximidomethylthiophen. Sm. 133° (B. 19, 1854; 24, 47; 25, 2588). — III, 761.
3) Amid d. Furan-2-Thiocarbonsäure. Sm. 127° (B. 25, 1314). — III, 705.

- C_3H_4ONS 4) Amid d. Thiophen-2-Carbonsäure. Sm. 174° (A. 236, 210). — III, 754.
 5) Amid d. Thiophen-3-Carbonsäure. Sm. 177,5—178° (B. 19, 3285). — III, 755.
 6) Amid d. Thiophen-[2 + 3]-Carbonsäure. Sm. 174° (A. 236, 210). — III, 755.
- $C_3H_4ONS_2$ 1) Aethylidenrhodaninsäure. Sm. 147—148°. Pb (B. 17, 2278). — I, 1228.
- $C_3H_4ON_2Cl_3$ 1) $\gamma\delta\epsilon$ -Trichlor- α -Amido- α -Imido- δ -Keto- β -Penten. Sm. 143—144° (B. 26, 1673).
- $C_3H_4O_2NCl_2$ 1) Aethylester d. Dichloräthylenamidoameisensäure. Sm. 37° (B. 27, 1248).
- $C_3H_4O_2NBr_4$ 1) Amid d. 2,3,4,5-Tetrabromtetrahydrofuran-2-Carbonsäure. Sm. 121° u. Zers. (Am. 15, 133). — III, 698.
- $C_3H_4O_2NS$ 1) 2-Methylthiazol-5-Carbonsäure + H₂O. Sm. 144—145° (A. 259, 271). — IV, 84.
 2) 4-Methylthiazol-5-Carbonsäure. Sm. 257° u. Zers. (A. 259, 299). — IV, 84.
- $C_3H_4O_2NS_2$ 1) 2-Merkapto-4-Methylthiazol-5-Carbonsäure. Sm. 211—212° (G. 23 [1] 578). — IV, 87.
- $C_3H_4O_2N_2Cl$ 1) 5[?] -Chlor-2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin (Chlormethyluracil) (A. 236, 61). — I, 1350.
- $C_3H_4O_2N_2Cl_3$ 1) 5-Methyl-3-[$\beta\beta\beta$ -Trichlor- α -Oxyäthyl]-1,2,4-Oxdiazol (Trichlor- α -Oxypropenylazoximäthenyl). Sm. 160—161° (B. 24, 3677). — I, 1485.
- $C_3H_4O_2N_2Br$ 1) 5[?] -Brom-2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin (Brommethyluracil). Zers. über 230° (A. 229, 17; 231, 249; 236, 58). — I, 1350.
- $C_3H_4O_2ClS_2$ 1) Chlorid d. 3-Methylthiophen-?-Sulfonsäure (B. 19, 1622). — III, 744.
- $C_3H_4O_2Cl_2Br_2$ 1) Dibromchloralaceton. Sm. 117—118° (B. 26, 910).
- $C_3H_4O_2NCl_2$ 1) Methylester d. Mucochlorssäureoxim. Sm. bei 135° (Am. 16, 304).
- $C_3H_4O_2NBr_2$ 1) Methylester d. Mucobromssäureoxim. Sm. 146—147° (Am. 16, 300).
- $C_3H_4O_2NS$ 1) Pyridin-3-Sulfonsäure. NH₄, Na, Ba + 4H₂O (B. 15, 62; 16, 1183; M. 16, 751; G. 15, 276). — IV, 114.
 2) Pyridinschwefelsäure? Sm. 155° (B. 19, 1157). — IV, 114.
 3) 2-Oxy-4-Methylthiazol-5-Carbonsäure. Sm. 222° u. Zers. NH₄ + 3H₂O (A. 259, 296). — IV, 87.
 4) α -Rhodanacetessigsäure? Sm. 100°. NH₄ + 5H₂O (A. 250, 286). — I, 1229.
- $C_3H_4O_2NS$ 1) 2,4-Diketotetrahydrothiazol-5-Methylcarbonsäure. Sm. 168,5 bis 169° (A. 280, 241).
- $C_3H_4O_2NS_2$ 1) Pyridin-?-Disulfonsäure. Na₂ + 4H₂O, K₂ + 2½(3)H₂O, Ba + 1H₂O, Pb + 4½H₂O (B. 16, 735; 17, 593, 1835). — IV, 115.
- $C_3H_4O_2Br_2S_3$ 1) Aethylpentabromtrimethylentrisulfon. Sm. 221° u. Zers. (B. 25, 255). — I, 943.
- $C_3H_4NCl_2J$ 1) Pyridinchlorojodid. Sm. 132°. HCl (Bl. [3] 7, 73). — IV, 106.
- $C_3H_4N_2Cl_2S$ 1) Verbindung (aus Chloralhydrat u. Rhodanammonium). Zers. bei 180° (J. pr. [2] 18, 430). — I, 1288, 1330.
- $C_3H_4ONCl_2$ 1) Nitril d. $\beta\beta\gamma$ -Trichlor- α -Oxyvaleriansäure (Butyrchloralhydrocyanid). Sm. 101—102°; Sd. 230° u. Zers. (A. 179, 97; B. 11, 1488). — I, 1472.
 2) Allylamid d. Trichloressigsäure. Sm. 45° (A. ch. [6] 9, 216). — I, 1241.
- $C_3H_4ON_2S$ 1) 2-Acetylamidothiazol. Sm. 203° (A. 249, 37). — IV, 504.
 2) 2-Amidooximidomethylthiophen (Thiophenamidoxim). Sm. 91—92° (A. 236, 213). — III, 754.
 3) 2-Thiocarbonyl-4-Keto-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin (Thiomethyluracil). Na + 2H₂O, K + ½H₂O, Cu, Hg, Ag₂ (A. 236, 3; J. pr. [2] 25, 72; B. 19, 220). — I, 1354.
- $C_3H_4ON_2S_2$ 1) $\beta\gamma$ -Dirhodan- α -Oxypropan (Dithiocyanhydrin). Fl. (C. 1898 [2] 857).
- $C_3H_4ON_2Se$ 1) 2-Acetylamidoselenazol. Sm. 210° u. Zers. (A. 250, 309). — IV, 505.
- $C_3H_4ON_2Br$ 1) 5-Brom-2-Imido-4-Keto-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin (Imidobrommethyluracil) (A. 262, 367). — I, 1348.
- $C_3H_4O_2NCl$ 1) Aethylester d. Chlorcyanessigsäure. Sd. 190° (Soc. 52, 797). — I, 1218.

- $C_5H_6O_2NCl$ 2) Verbindung (aus Trichlorvalerolaktinsäureäthylester). Sm. 117—119° u. Zers. (Z. 1870, 513; B. 6, 1256; 11, 1495). — I, 565.
- $C_5H_6O_2NCl_2$ 1) Anhydroderivat d. Chloralmethan. Sm. 143° (B. 24, 1803; 27, 1249). — I, 1257.
- $C_5H_6O_2NBr$ 1) α -Brom- α -Cyanbuttersäure? (J. r. 7, 143). — I, 1220.
- $C_5H_6O_2N_2J_2$ 1) 5,6-Dijod-2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin (Methyluracildijodid) (A. 253, 74). — I, 1350.
- $C_5H_6O_2N_2S$ 1) 2-Thiocarbonyl-4,5-Diketo-1-Aethyltetrahydroimidazol (Aethylthioparabansäure). Sm. 66° (B. 31, 138).
2) 2-Thiocarbonyl-4,5-Diketo-1,3-Dimethyltetrahydroimidazol (Dimethylthioparabansäure). Sm. 112,5° (B. 14, 1450; M. 2, 281). — I, 1370.
3) 5-Amido-2-Methylthiazol-4-Carbonsäure. Zers. bei 200° (M. 16, 743). — IV, 542.
4) 2-Amido-4-Methylthiazol-5-Carbonsäure. Zers. oberh. 200°. Ag (3 + 4HCl, 2PtCl₄) (A. 250, 289). — IV, 541.
5) 2-Amidothiazol-4-Methylcarbonsäure. Sm. 130° (A. 261, 32). — IV, 543.
- $C_5H_6O_2N_2Se$ 1) 2-Amido-4-Methylselenazol-5-Carbonsäure. Sm. 195° u. Zers. HCl (A. 250, 309). — IV, 541.
- $C_5H_6O_2NCl$ 1) Methylester d. α -[oder β]-Chlor- γ -Oximidopropen- α -Carbonsäure (M. d. Chlormaleinsäurealdoxim). Sm. 130° (Am. 19, 667).
- $C_5H_6O_3NCl_2$ 1) Aethylester d. Trichloracetylamidoameisensäure. Fl. (B. 25 [2] 640).
2) Amid d. $\beta\beta\beta$ -Trichlor- α -Acetoxypropionsäure (A. d. Acetyltrichlormilchsäure). Sm. 94—95° (B. 10, 1060). — I, 1343.
- $C_5H_6O_3NBr$ 1) Lakton d. β -Brom- γ -Oximido- δ -Oxybutan- β -Carbonsäure. Sm. 128° (A. 291, 250).
2) Methylester d. α -[oder β]-Brom- γ -Oximidopropen- α -Carbonsäure (M. d. Brommaleinsäurealdoxim). Sm. 152—153° (Am. 19, 656).
- $C_5H_6O_3NJ$ 1) α -[oder β]-Jod- γ -Oximido- α -Buten- α -Carbonsäure (Oxim d. Jodacetylakrylsäure). Sm. 155° u. Zers. (B. 25, 2206). — I, 618.
- $C_5H_6O_3N_2Cl_2$ 1) 5,5-Dichlor-6-Oxy-2,4-Diketo-6-Methylhexahydro-1,3-Diazin (Dichloroxymethyluracil) (A. 236, 22, 59). — I, 1352.
- $C_5H_6O_3N_2Cl_4$ 1) Chloralharnstoff. Sm. 190° u. Zers. (A. 157, 246). — I, 1313.
- $C_5H_6O_3N_2Br_2$ 1) 5,5-Dibrom-6-Oxy-2,4-Diketo-6-Methylhexahydro-1,3-Diazin (Dibromoxymethyluracil). Zers. oberh. 230° (A. 229, 18; 236, 19). — I, 1352.
- $C_5H_6O_3N_2S$ 1) 2-Imido-4-Ketotetrahydrothiazol-5-Methylcarbonsäure (Thiohydantoinessigsäure). Zers. bei 210°. $NH_4 + H_2O$, $Na + 3H_2O$, Pb, HCl, (2HCl, PtCl₄ + H_2O) (A. 280, 235; M. 16, 791, 793; 18, 81).
- $C_5H_6O_3N_4S$ 1) α -Thiopseudoharnsäure (Thiouramidobarbitursäure). Zers. bei 250° (B. 4, 723; 12, 2310; 16, 1057). — I, 1338.
2) β -Thiopseudoharnsäure + H_2O (5-Harnstoff-6-Merkapto-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin) (A. 288, 171).
- $C_5H_6O_4N_2S$ 1) Diamid d. Furan-2-Carbonsäure-5-Sulfonsäure. Sm. 213° (Am. 10, 378). — III, 706.
- $C_5H_6O_6Br_4S_3$ 1) Dimethyltetrabromtrimethylentrisulfon. Sm. 231° u. Zers. (B. 25, 252). — I, 939.
- $C_5H_6O_6O_2P_6$ 1) Verbindung (aus CS₂ u. PH₄J) (B. 13, 133; M. 1, 85). — I, 881.
- $C_5H_7ONCl_2$ 1) Nitril d. Dichloroxyessigpropyläthersäure. Sd. 182—184°. + PtCl₄ (A. 229, 172). — I, 1470.
- $C_5H_7ONCl_4$ 1) Verbindung (aus Cyanurchlorid u. Methylamin). Sm. 155° (B. 18, 2771). — I, 1447.
- $C_5H_7ONBr_2$ 1) Verbindung (aus Piperidin) (B. 16, 560).
- C_5H_7ONS 1) Aldehyd d. β -Rhodanisobuttersäure. Fl. (A. ch. [6] 16, 197). — I, 949.
2) Rhodanid d. Buttersäure. Sm. 180° u. Zers. (A. ch. [5] 11, 295). — I, 1281.
- $C_5H_7ONS_2$ 1) Acetylimidomethylenäther d. $\alpha\beta$ -Dimerkaptoäthan. Sm. 69° (A. 262, 71). — I, 1280.
- $C_5H_7ON_2Cl$ 1) Verbindung (aus Trichlorvalerolaktinsäureäthylester). Sm. 118° u. Zers. (B. 11, 1494). — I, 565.
- $C_5H_7ON_2S$ 1) 3-Acetyl-2-Imido-5-Methyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 292°. Na (B. 29, 2516). — IV, 1106.

- $C_5H_7ON_3S$ 2) Amid d. 5-Amido-2-Methylthiazol-4-Carbonsäure + 2H₂O. Sm. oberh. 300° u. Zers. (M. 16, 740). — IV, 542.
- $C_5H_7OBr_2J$ 1) Aethyläther d. $\alpha\beta$ -Dibrom- α -Jod- γ -Oxypropen (Aethyldibromjodallyläther). Fl. (A. 135, 286). — I, 302.
- $C_5H_7O_2NCl_2$ 1) $\alpha\alpha$ -Dichlor- α -Oxamido- δ -Keto- β -Penten. Sm. 124—126° u. Zers. (C. 1899 [1] 597).
- $C_5H_7O_2NS$ 1) Thiaceetonuraminsäure. Sm. 152°. Ag (B. 6, 1117). — I, 1312.
2) Aethylester d. Rhodanmethancarbonsäure (Ae. d. Rhodanessigsäure). Sd. 220° (225°) u. Zers. (A. 136, 223; B. 10, 1349; 14, 734). — I, 1227.
- $C_5H_7O_2NS_2$ 1) Amid d. 3-Methylthiophen- ρ -Sulfonsäure. Sm. 78—80° (B. 19, 1633). — III, 744.
- $C_5H_7O_2N_2Cl$ 1) α -Crotonylharnstoff. Sm. 194° u. Zers. (u. Sm. 224—225 u. Zers.) (B. 11, 1489; 20, 2348). — I, 1304.
- $C_5H_7O_2N_3Br_2$ 1) 5, 5-Dibrom-2-Imido-6-Oxy-4-Keto-6-Methylhexahydro-1, 3-Diazin (Dibromimidooxymethyluracil). Sm. 160° (A. 262, 367). — I, 1348.
- $C_5H_7O_2N_3S$ 1) Methyläther d. 4-Nitro-2-Merkapto-1-Methylimidazol. Sm. 85° (2HCl, PtCl₄) (B. 22, 1357). — IV, 505.
2) 5-Nitroso-2-Methylimido-4-Keto-3-Methyltetrahydrothiazol. Sm. 220° (M. 8, 409). — I, 1328.
3) Methyläther d. 5-Amido-6-Merkapto-2, 4-Diketo-1, 2, 3, 4-Tetrahydro-1, 4-Diazin (Methylthiouramil). Sm. 252—253° u. Zers. (A. 288, 164).
- $C_5H_7O_2Cl_3Br_2$ 1) Allylchloraldibromid (B. 7, 1462).
- $C_5H_7O_2NCl_2$ 1) Methyl ester d. $\alpha\beta$ -Dichlor- γ -Oximidobuttersäure (M. d. Dichlorbernsteinsäurealdoxim). Sm. 135° (Am. 19, 667).
2) Aethylester d. Dichloracetylamidoameisensäure. Sm. 93° (B. 25 [2] 640).
- $C_5H_7O_2NBr_2$ 1) Methyl ester d. $\alpha\beta$ -Dibrom- γ -Oximidobuttersäure (M. d. Dibrombernsteinsäurealdoxim). Sm. 161—162° (Am. 19, 660).
- $C_5H_7O_2N_3S$ 1) Anhydrid d. Tauroammelin (B. 21, 875). — I, 1448.
- $C_5H_7O_2ClBr_2$ 1) Chlordibrom- α -Oxyvaleriansäure (Chlordibromvalerolaktinsäure). Sm. 169° (B. 11, 1497). — I, 566.
- $C_5H_7O_2N_4Br_3$ 1) Tribrombrenztraubensäureidiureid. Sm. 198—199° (B. 27 [2] 882).
- C_5H_7ONCl 1) Amid d. γ -Chlor- β -Buten- β -Carbonsäure (A. d. β Chlortiglinsäure). Sm. 108° (J. pr. [2] 41, 471). — I, 1250.
- $C_5H_7ON_2S$ 1) 2-Methylimido-4-Keto-3-Methyltetrahydrothiazol. Sm. 71° (M. 8, 408). — I, 1328.
2) 2-Imido-4-Keto-5, 5-Dimethyltetrahydrothiazol. Sm. 242° (M. 8, 410). — I, 1329.
3) 2-Aethylimido-4-Ketotetrahydrothiazol (Aethylthiohydantoïn). Sm. 144° (B. 31, 137).
4) 2-Imido-4-Keto-5-Aethyltetrahydrothiazol. Sm. 200° (M. 8, 409). — I, 1329.
5) 2-Thiocarbonyl-4-Keto-1, 3-Dimethyltetrahydroimidazol (Dimethylthiohydantoïn). Sm. 114° (M. 8, 416). — I, 1328.
6) 2-Thiocarbonyl-5-Keto-1, 4-Dimethyltetrahydroimidazol (Dimethylthiohydantoïn). Sm. 166,5° (B. 24, 3285). — I, 1329.
- $C_5H_7O_2NCl_3$ 1) Amid d. $\beta\gamma\gamma$ -Trichlor- α -Oxyvaleriansäure. Sm. 119° (96°) (B. 11, 1490). — I, 1343.
2) Butyrylchloral-Cyanacetyl. Sd. 250—252° (B. 11, 1490).
3) $\alpha\alpha\alpha$ -Trichlor- β -Oxy- δ -Oximidopentan (Chloral-Acetonoxim). Sm. 95 bis 105° (B. 26, 554, 909).
4) Verbindung (aus Formamid u. Butyrylchloral). Sm. 125° (B. 25, 1690). — I, 1235.
5) Verbindung (aus Formamid u. Butyrylchloral). Sm. 132° (B. 25, 1690). — I, 1235.
- $C_5H_7O_2N_2Cl_2$ 1) $\alpha\alpha$ -Dichlor- α -Oxamido- δ -Oximido- β -Penten. Sm. 155° u. Zers. (C. 1899 [1] 597).
- $C_5H_7O_2ClBr$ 1) β -Chlor- β -Bromisopropylester d. Essigsäure. Sd. 228° (A. ch. [3] 52, 462). — I, 409.
- $C_5H_7O_2NCl$ 1) Aethylester d. Chloracetylamidoameisensäure. Sm. 127—128°; subl. bei 100° (B. 25 [2] 640).

- $C_5H_8O_2NCl_3$ 1) Aethylester d. $\beta\beta\beta$ -Trichlor- α -Oxyäthylamidoameisensäure (Chloralurethan). Sm. 103° (B. 7, 631; 24, 1803). — I, 1257.
 $C_5H_8O_2NBr_3$ 1) Aethylester d. $\beta\beta\beta$ -Tribrom- α -Oxyäthylamidoameisensäure (Bromalurethan). Sm. 132° (B. 7, 632). — I, 1257.
 $C_5H_8O_2N_2S$ 1) Thiosuccinursäure. Sm. $210,5-211^\circ$ (B. 6, 1105; Ph. Ch. 3, 375). — I, 1384.
 $C_5H_8O_4NBr$ 1) Acetat d. α -Brom- α -Nitro- β -Oxypropan. Sd. $139-141^\circ_{48}$ (C. 1899 [1] 179).
 $C_5H_8O_4N_3Cl$ 1) Di[Methylamid] d. Chlornitromethandicarbonsäure. Sm. 109° (M. 16, 783).
 $C_5H_8O_4N_3Br$ 1) Di[Methylamid] d. Bromnitromethandicarbonsäure. Sm. $137-138^\circ$ (M. 16, 784).
 $C_5H_8O_5N_4S$ 1) Tauroammelid. Sm. $265-270^\circ$ u. Zers. (B. 21, 877). — I, 1449.
 $C_5H_8N_2ClJ$ 1) Jodmethylat d. β -Chlor-1-Methylimidazol. (A. 184, 56). — IV, 501.
 $C_5H_8N_3JS$ 1) Allylthioharnstoffjodecyanid. + AgCN (Z. 1869, 259). — I, 1322.
 $C_5H_8N_3BrS$ 1) Bromäthylester d. Diamidothiocyansäure (B. d. Thioammelid). (B. 20, 1063). — I, 1448.
 $C_5H_9ONBr_2$ 1) $\alpha\beta$ -Dibrom- γ -Oximido- β -Methylbutan. Sm. 58° (A. 262, 344). — I, 1031.
 2) $\beta\gamma$ -Dibrompropylamid d. Essigsäure + H_2O . Sm. 134° (M. 19, 575).
 $C_5H_9ONS_2$ 1) Aethylester d. Acetylamidodithioameisensäure. Sm. $122-123^\circ$ (B. 15, 1987). — I, 1262.
 $C_5H_9ON_3S$ 1) α -Formylamido- β -Allylthioharnstoff. Sm. $128-129^\circ$ (B. 27, 627).
 $C_5H_9OClBr_2$ 1) Aethyläther d. γ -Chlor- $\beta\gamma$ -Dibrom- α -Oxypropan (Aethylchloridibrompropyläther). Sd. 200° u. Zers. (J. 1872, 324). — I, 298.
 $C_5H_9O_2NCl_2$ 1) Verbindung (aus Salpetrigsäureisoamylester) (A. 111, 84).
 $C_5H_9O_2NBr_2$ 1) Dibromnitropentan (M. 2, 286).
 $C_5H_9O_2NS$ 1) Aethylester d. Acetylamidothioameisensäure. Sm. 104° (B. 25 [2] 640).
 $C_5H_9O_2N_2Cl_3$ 1) Chloral + uns-Dimethylharnstoff. Sm. 156° ; Hydrat (Sm. 74°) (R. 8, 239). — I, 1313.
 $C_5H_9O_3NS$ 1) Methylester d. Carboxyäthylamidothioameisensäure. Sm. 65 bis 66° (Soc. 69, 334).
 $C_5H_9O_3N_2Br$ 1) Bromamid d. β -Carbomethoxyamidopropionsäure. Sm. $117-118^\circ$ u. Zers. (Am. 19, 335).
 $C_5H_9O_4BrS_3$ 1) Aethylbromtrimethylendisulfonsulfid. Sm. 240° u. Zers. (B. 25, 253). — I, 943.
 $C_5H_9N_2BrS$ 1) 5-Brom-2-Methylamido-4,5-Dihydro-1,3-Thiazin. HBr. Sm. 145 bis 146° (C. 1898 [1] 304; Soc. 69, 853).
 $C_5H_9N_3JS$ 1) Allylthioharnstoffjodidecyanid. + AgCN (Z. 1869, 259). — I, 1322.
 $C_5H_{10}ONCl$ 1) β -Chlor- γ -Oximido- β -Methylbutan. Sm. $72-73^\circ$ (B. 12, 169; A. 245, 246; Soc. 63, 482; 65, 325). — I, 118.
 2) Aethyläther d. Aethylimidochloroxymethan. Sd. 126° (A. 287, 300).
 3) Chlorid d. Diäthylamidoameisensäure. Sd. $190-195^\circ$ (186°) (A. 214, 275; 299, 90; B. 14, 747). — I, 1236.
 $C_5H_{10}ONBr$ 1) Amid d. α -Bromisovaleriansäure. Sm. 133° (B. 31, 3236).
 $C_5H_{10}ON_2J_2$ 1) Jodmethylat d. 2-Imido-5-Jodmethyltetrahydrooxazol. Sm. 119° (C. 1898 [2] 768).
 $C_5H_{10}ON_2S$ 1) α -Oxy- α -Methyl- β -Allylthioharnstoff. Sm. $54-55^\circ$ (C. 1897 [2] 567; A. 298, 127).
 $C_5H_{10}OClBr$ 1) Aethyläther d. β -Chlorbrom- α -Oxypropan (Aethylchlorbrompropyläther). Sd. $186-188^\circ$ (A. 119, 239). — I, 298.
 $C_5H_{10}OClJ$ 1) Aethyläther d. β -Chlorjod- α -Oxypropan (Aethylchlorjodpropyläther). Sd. $200-210^\circ$ (B. 21, 2972). — I, 298.
 $C_5H_{10}OCl_3P$ 1) Verbindung (aus Oxyisoamylphosphinsäure). Sd. $106-109^\circ_{12}$ (M. 7, 22). — I, 1504.
 $C_5H_{10}O_2NCl$ 1) δ -Chlor- γ -Nitro- β -Methylbutan. Sd. $168-170^\circ_{158}$ (C. 1898 [1] 439).
 2) Diäthyläther d. Chlorimidodioxymethan (D. d. Chlorimidokohlensäure). Sm. 39° (B. 19, 862). — I, 1490.
 $C_5H_{10}O_2NBr$ 1) sec. Bromnitropentan. Sd. 186° (J. pr. [2] 48, 379; B. 26, 138).
 2) Diäthyläther d. Bromimidodioxymethan (D. d. Bromimidokohlensäure). Sm. 43° (B. 26, 425; 28, 2470). — I, 1490.
 $C_5H_{10}O_2NS$ 1) Aethylester d. α -Methylthioharnstoff- β -Carbonsäure. Sm. 119 bis 120° (Soc. 69, 330).

- $C_5H_{10}O_3NCl$ 1) γ -Chlor- γ -Nitro- δ -Oxy- β -Methylbutan. Sm. 153°_{sa} (C. 1898 [1] 439).
 $C_5H_{10}O_4Cl_2S_2$ 1) Diäthylsulfondichlormethan. Sm. $98-99^{\circ}$ (A. 253, 159). — I, 351.
 $C_5H_{10}O_4Br_2S_2$ 1) Diäthylsulfondibrommethan. Sm. 131° (B. 19, 2812; A. 253, 159). — I, 351.
 $C_5H_{10}O_4J_2S_2$ 1) Diäthylsulfondijodmethan. Sm. $176-177^{\circ}$ (180°) (A. 253, 161; B. 30, 488). — I, 351.
 $C_5H_{10}NCIS$ 1) Chlorid d. Diäthylamidothioameisensäure. Sm. $46,2-46,5^{\circ}$; Sd. 108°_{10} (B. 26, 1686).
 $C_5H_{10}NCl_2P$ 1) 1-Piperidyldichlorphosphin. Sd. $94-95^{\circ}_{10}$ (B. 29, 711). — IV, 5.
 $C_5H_{11}ONS$ 1) α -Thionylamidopentan. Sd. 90°_{as} (A. 274, 191).
 2) Aethylester d. Aethylamidothioameisensäure. Sd. $204-208^{\circ}$ (B. 2, 117). — I, 1260.
 3) Aethylester d. Aethylamidothiolumeisensäure. Sd. $204-208^{\circ}$ (B. 2, 118). — I, 1259.
 4) Isobutylester d. Amidothioameisensäure. Sm. 36° (B. 5, 976; J. pr. [2] 16, 380). — I, 1260.
 $C_5H_{11}OCIS_2$ 1) Methyloxydiäthylendisulfinchlorid. + 2 u. $6HgCl_2$ (B. 31, 2287).
 $C_5H_{11}OCl_2P$ 1) Dichlorid d. Isoamylphosphorigen Säure. Sd. 173° (178°) (A. 139, 348; C. 1897 [2] 333). — I, 338.
 $C_5H_{11}OJS$ 1) $\beta\gamma$ -Anhydrid d. Dimethyl- $\beta\gamma$ -Dioxypropylsulfinjodid. Zers. bei 195° (C. 1898 [2] 857).
 $C_5H_{11}O_2NS$ 1) α -Amido- α -Merkaptopropionäthyläthersäure (Aethylcystein). Sm. $226-228^{\circ}$ (H. 16, 562). — I, 895.
 2) Piperidylthionaminsäure. Sm. 70° (B. 28, 1015). — IV, 11.
 $C_5H_{11}O_2ClS$ 1) Methyläthylthetinchlorid. 2 + $PtCl_4$ + $6HgCl_2$ (B. 26 [2] 409; 31, 2290).
 2) Dimethyl- α -Propionylthetinchlorid. 2 + $PtCl_4$ + $2H_2O$ (B. 26 [2] 409).
 3) Dimethyl- β -Propionylthetinchlorid. 2 + $PtCl_4$ (B. 26 [2] 410).
 4) Chlorid d. β -Methylbutan- δ -Sulfonsäure (J. 1864, 505). — I, 373.
 $C_5H_{11}O_2BrS$ 1) Methyläthylthetinbromid. Sm. 84° (B. 26 [2] 409).
 2) Dimethyl- α -Propionylthetinbromid. Sm. $84-85^{\circ}$ (B. 26 [2] 409).
 3) Dimethyl- β -Propionylthetinbromid. Sm. 115° (B. 26 [2] 410).
 $C_5H_{11}O_3NS$ 1) α -Aethylsulfon- β -Oximidopropan (Oxim d. Aethylsulfonaceton). Sm. 101° (B. 24, 869). — I, 995.
 2) β -Allylamidoäthan- α -Sulfonsäure. Sm. $190-195^{\circ}$ (J. pr. [2] 31, 415). — I, 1179.
 3) Hexahydropyridin-2-Sulfonsäure. Sm. 180° (B. 26, 2992). — IV, 18.
 $C_5H_{11}O_3N_2S$ 1) Verbindung (aus Hexamethylen-tetramin) (J. pr. [2] 46, 8, 12). — I, 1168.
 $C_5H_{11}O_3ClS$ 1) 2-Chlor- β -Methylbutan- δ -Sulfonsäure. Ba (B. 17, 537). — I, 373.
 $C_5H_{11}NClBr$ 1) Trimethyl- β -Bromvinylammoniumchlorid. 2 + $PtCl_4$ + $AuCl_3$ (A. 267, 284).
 $C_5H_{11}N_2ClS$ 1) Chloräthylat d. Aethylenthioharnstoff. 2 + $PtCl_4$ + $AuCl_3$ (C. 1897 [2] 194).
 $C_5H_{11}N_2JS$ 1) Jodäthylat d. Aethylenthioharnstoff. Sm. bei 157° (C. 1897 [2] 194).
 $C_5H_{12}ONCl$ 1) Chlorid d. Trimethylamidoessigsäurealdehyd. + $AuCl_3$, 2 + $PtCl_4$ + $2H_2O$ (B. 17, 1142; 26, 469, 804). — I, 1230.
 $C_5H_{12}ON_2S$ 1) α -Oxy- $\alpha\beta$ -Diäthylthioharnstoff. Sm. 81° . Ag + $3H_2O$ (C. 1897 [2] 567; A. 298, 122).
 $C_5H_{12}O_3N_2S$ 1) Melolonthin (B. 4, 763). — III, 893.
 $C_5H_{12}O_3ClP$ 1) Chlorisoamylphosphinsäure. Ca (M. 7, 24). — I, 1504.
 $C_5H_{12}O_4N_2S$ 1) α -Methyl- $\alpha[\beta$ -Sulfopropyl]harnstoff (Dimethyltaurocarbaminsäure). Sm. $230-240^{\circ}$ u. Zers. (B. 22, 2989). — I, 1305.
 $C_5H_{12}NClBr_2$ 1) Trimethyl- $\alpha\beta$ -Dibromäthylammoniumchlorid. 2 + $PtCl_4$ + $AuCl_3$ (A. 267, 281). — I, 1125.
 $C_5H_{12}NClS_2$ 1) Methylthioformaldin-Chlormethylat. 2 + $PtCl_4$ (B. 19, 2346). — I, 914.
 $C_5H_{12}NJS_2$ 1) Methylthioformaldin-Jodmethylat. Sm. $161-163^{\circ}$ (B. 19, 2346; Bl. [3] 15, 890). — I, 914.
 $C_5H_{13}BrJ_2S$ 1) Dimethyläthylsulfimbromid + Jodoform. Sm. 125° (C. 1898 [2] 524).
 $C_5H_{13}ONCl_2$ 1) Trimethyl- α -Chlor- β -Oxyäthylammoniumchlorid. 2 + $PtCl_4$ (A. 267, 289). — I, 1171.

- $C_5H_{13}O_2NS$ 1) norm. Amylthionaminsäure (A. 274, 194).
 $C_5H_{13}O_2N_2Cl$ 1) Trimethyl- β -Nitrosoxyläthylammoniumchlorid. + $AuCl_3$, 2 + $PtCl_4$ (B. 26, 805).
 $C_5H_{13}O_3NS$ 1) Amylsulfaminsäure. Amylaminsalz (B. 28, 3166).
 2) Trimethyltaurin (Taurobetaïn). Sm. 240°? (J. pr. [2] 31, 418; [2] 34, 348; H. 7, 36). — I, 1179.
 3) Dimethyltaurocyamin + H_2O . Sm. 245° u. Zers. (J. pr. [2] 31, 419). — I, 1180.
 $C_5H_{13}O_3SP$ 1) Isoamylthiophosphorsäure. Na_3 , Ba + H_2O (J. 1869, 344). — I, 842.
 $C_5H_{13}NClBr$ 1) Trimethyl- β -Bromäthylammoniumchlorid. 2 + $PtCl_4$, + $AuCl_3$ (A. 267, 270). — I, 1125.
 $C_5H_{13}NClJ$ 1) Trimethyl- β -Jodäthylammoniumchlorid. 2 + $PtCl_4$, + $AuCl_3$ (A. 267, 309). — I, 1251.
 $C_5H_{13}NBrJ$ 1) Trimethyl- β -Bromäthylammoniumjodid (A. 140, 312; B. 22, 1140). — I, 1125.
 $C_5H_{14}ONCl$ 1) Trimethyl- β -Oxyäthylammoniumchlorid (Cholinchlorid). + 6 $HgCl_2$ + H_2O , 2 + $PtCl_4$, + $AuCl_3$ (A. 267, 272, 310; B. 18, 2520; 23, 2973; H. 24, 518).
 $C_5H_{14}ONBr$ 1) Trimethyl- β -Oxyäthylammoniumbromid (Cholinbromid) (B. 27 [2] 738).
 $C_5H_{14}ONJ$ 1) Trimethyl- β -Oxyäthylammoniumjodid (Cholinjodid) (A. 267, 308; B. 27 [2] 738).
 2) Isocholinjodid (B. 16, 208).
 $C_5H_{14}OClP$ 1) Trimethyläthoxylphosphoniumchlorid. 2 + $PtCl_4$ (A. Spl. 1, 286). — I, 1499.
 $C_5H_{14}O_2NCl$ 1) Trimethyl- $\alpha\beta$ -Dioxyäthylammoniumchlorid. + $AuCl_3$, 2 + $PtCl_4$ (A. 267, 292; B. 26, 802). — I, 1177.
 2) Trimethyl- $\beta\beta$ -Dioxyäthylammoniumchlorid. + $AuCl_3$, 2 + $PtCl_4$, + 2 H_2O (B. 26, 804, 805).
 $C_5H_{20}N_6Br_2S_3$ 1) Verbindung (aus Thiobarnstoff-Siliciumbromid) (Soc. 53, 862). — I, 1318.

C_5 -Gruppe mit fünf Elementen.

- $C_5HOCIBr_2S$ 1) Chlorid d. ?-Dibromthiophen-2-Carbonsäure. Sm. 35,5°; Sd. 250 bis 270° (B. 18, 2312). — III, 755.
 $C_5H_3ONBr_2S$ 1) Amid d. ?-Dibromthiophen-2-Carbonsäure. Sm. 165,5° (B. 18, 2312). — III, 755.
 $C_5H_5O_4N_2BrS$ 1) Bromdinitro-3-Methylthiophen. Sm. 125° (B. 18, 3004). — III, 744.
 $C_5H_4O_2NCIS$ 1) 2-Chlor-4-Methylthiazol-5-Carbonsäure. Sm. 144—148°. Ag (A. 259, 293). — IV, 84.
 $C_5H_4O_2NBrS$ 1) 2-Brom-4-Methylthiazol-5-Carbonsäure. Sm. 162—164° (A. 259, 295). — IV, 84.
 $C_5H_4O_2NJIS$ 1) 2-Jod-4-Methylthiazol-5-Carbonsäure. Sm. 174—176° (A. 259, 295). — IV, 84.
 $C_5H_7O_3NClBr$ 1) Methylester d. ?-Chlor-?-Brom- γ -Oximidobuttersäure (M. d. Chlorbrombernsteinsäurealdoxim). Sm. 167—168° (Am. 19, 660).
 C_5H_5ONBrS 1) Methyläther d. 5-Brom-2-Oxy-4,5-Dihydro-1,3-Thiazin. Sm. 95 bis 96° (Soc. 69, 32).
 $C_5H_{10}ON_2ClBr$ 1) Chlormethylat d. 2-Imido-5-Brommethyltetrahydrooxazol. 2 + $PtCl_4$ (C. 1898 [2] 768).
 $C_5H_{10}ON_2ClJ$ 1) Chlormethylat d. 2-Imido-5-Jodmethyltetrahydrooxazol. 2 + $PtCl_4$ (C. 1898 [2] 768).
 $C_5H_{10}ON_2BrJ$ 1) Jodmethylat d. 2-Imido-5-Brommethyltetrahydrooxazol (C. 1898 [2] 768).
 $C_5H_{10}O_2NJIS$ 1) Thioxaminsäureäthylester + Methyljodid (J. pr. [2] 9, 133). — I, 1364.
 $C_5H_{10}N_2ClBrS$ 1) α -Methyl- β -[?-Chlorbrompropyl]thioharnstoff. Sm. 120—123° (C. 1896 [1] 305).
 $C_5H_{10}N_2BrJS$ 1) 3-Jodmethylat d. 2-Imido-5-Brommethyltetrahydrothiazol. Sm. 183—184° (C. 1896 [1] 475).

C₆-Gruppe mit einem Element.

- C₆H₆** C 92,3 — H 7,7 — M. G. 78.
 1) **Benzol** (Phen). Sd. 80,4°. K, K₂, 3 + AlCl₃, 3 + AlBr₃, 2 + SbCl₅. Lit. bedeutend. — II, 22.
 2) **αδ-Hexadiin** (Allylenylallylen). Sd. 78—83°. Ag + AgNO₃ (GRINER, thèse; B. 25, 2646). — I, 140.
 3) **αε-Hexadiin** (Dipropargyl). Sm. —6°; Sd. 86—87°. Cu + 2H₂O, Ag₂ + 2AgNO₃ (B. 6, 956; 14, 399; 15, 328; 25, 2638; C. r. 91, 781; A. ch. [5] 23, 195; J. pr. [2] 23, 157; [2] 44, 233; [2] 49, 250; Soc. 67, 258). — I, 140.
 4) **βδ-Hexadiin** (Dimethyldiacetylen). Sm. 64°; Sd. 129—130° (J. pr. [2] 44, 230; GRINER, thèse 52). — I, 140.
- C₆H₈** C 90,0 — H 10,0 — M. G. 80.
 1) **Diallylen**. Sd. 70°. Cu + H₂O, Ag + C₂H₆O, Ag + H₂O (J. 1878, 380). — I, 138.
 2) **1,2-Dihydrobenzol**. Sd. 82—85°₆₇ (C. 1898 [2] 579; A. 302, 30).
 3) **1,4-Dihydrobenzol**. Sd. 85—86°₇₅₇ (C. 1898 [2] 579; A. 302, 31).
 4) **?-Dihydrobenzol**. Sd. 84—86°₇₁₈ (B. 25, 1840; J. pr. [2] 48, 450; [2] 49, 239; A. 278, 94, 115; Soc. 73, 945). — II, 19.
 5) **Kohlenwasserstoff** (aus Benzol). Sd. 222° (B. 9, 12). — II, 24.
 6) **Kohlenwasserstoff** (aus Fettgas). Sd. 80—85° (J. pr. [1] 18, 165). — I, 138.
 7) **Kohlenwasserstoff** (aus Steinöl von Amiano). Sd. 85,5° (A. 6, 257). — I, 138.
- C₆H₁₀** C 87,8 — H 12,2 — M. G. 82.
 1) **α-Hexin** (Butylacetylen). Sd. 68—70° (70,5—72°) (J. r. 19, 563; B. 30, 1494). — I, 133.
 2) **isom. ?-α-Hexin** (Hexoylen). Sd. 80—85° (76—80°) (A. 135, 127; 144, 247). — I, 133.
 3) **β-Hexin** (Methylpropylacetylen). Sd. 83—84° (B. 11, 1050; 30, 1494; J. r. 19, 562). — I, 133.
 4) **δ-Methyl-β-Pentin** (Methylisopropylacetylen). Sd. 71—72,5° (J. pr. [2] 53, 163).
 5) **γγ-Dimethyl-α-Butin** (Trimethylallylen). Sd. 38—39° (J. pr. [2] 37, 393). — I, 133.
 6) **αγ-Hexadiën**. Sd. 72—74° (Bl. [3] 15, 402).
 7) **αδ-Hexadiën?** (Isodiallyl). Sd. 80—83° (A. 264, 345). — I, 134.
 8) **isom. ?-αδ-Hexadiën** (Allylpropenyl). Sd. 64—66° u. 66—72° (GRINER, thèse). — I, 133.
 9) **αε-Hexadiën** (Diallyl). Sd. 59,5°. Lit. bedeutend. — I, 133.
 10) **polym. Diallyl** = (C₆H₁₀)_x. Fl. (Z. 1871, 36). — I, 134.
 11) **βδ-Hexadiën** (Dipropenyl). Sd. 87—89° (B. 30, 638). — I, 134.
 12) **δ-Methyl-αγ-Pentadiën**. Sd. 80° (A. 185, 157). — I, 134.
 13) **β-Methyl-βγ-Pentadiën**. Sd. 71—73° (77—78°) (J. r. 27, 396; J. pr. [2] 53, 153; A. 290, 152).
 14) **δ-Methyl-βγ-Pentadiën?** Sd. 71—73° (J. r. 27, 372; J. pr. [2] 53, 283).
 15) **βγ-Dimethyl-αγ-Butadiën** (Diisopropenyl). Sd. 69,5° (J. r. 21, 435; Bl. [3] 4, 301; B. 26 [2] 14). — I, 134.
 16) **Tetrahydrobenzol**. Sd. 80—81°₇₁₈ (83—84°₇₃₂) (J. pr. [2] 48, 450; [2] 49, 240; A. 278, 107, 115; 302, 27; C. 1898 [1] 1294; [2] 579; Soc. 73, 941).
 17) **1-Methyl-2,3-Dihydro-R-Penten**. Sd. 69—71° (B. 26, 775).
 18) **Kohlenwasserstoff** (aus Dimethylallylcarbinol) (B. 11, 2152). — I, 134.
 19) **Kohlenwasserstoff** (aus Leuchtgas). Sd. 65—70° (J. pr. [1] 18, 165). — I, 134.
 20) **Kohlenwasserstoff** (aus Theer). Sd. 80° (A. 139, 251). — I, 134.
- C₆H₁₂** C 85,7 — H 14,3 — M. G. 84.
 1) **α-Hexen** (norm. Hexylen; Butyläthylen). Sd. 68—70° (71°; 67,5—68,5°) (A. 108, 385; 132, 307; 165, 10—11; 177, 305; 199, 141; B. 25 [2] 377; 26 [2] 854; 30, 1494; R. 14, 44). — I, 118.
 2) **β-Hexen** (s-Methylpropyläthylen). Sd. 67°_{737,9} (J. 1863, 526; A. 135, 141; 161, 275; 172, 64; 177, 305; 199, 141; 213, 124; B. 11, 1152, 1420; 16, 232; M. 2, 309; J. pr. [2] 49, 240; Soc. 67, 257). — I, 118.

C_6H_{12}

- 3) β -Methyl- β -Penten (Dimethyläthyläthylen). Sd. 65—67°₇₅₇ (A. 195, 255). — I, 119.
- 4) γ -Methyl- β -Penten (Methyläthylpropylen). Sd. 69,5—71° (A. 195, 259; 219, 313; J. 1872, 350). — I, 119.
- 5) $\gamma\gamma$ -Dimethyl- α -Buten (Pseudobutyläthylen). Sd. 70° (56—59°) (J. 1873, 339; B. 26 [2] 14). — I, 119.
- 6) $\beta\gamma$ -Dimethyl- β -Buten (Tetramethyläthylen). Sd. 73° (J. r. 10, 86, 287; 11, 219; 14, 380; A. 196, 124; 208, 85; B. 16, 398; 26 [2] 15; 27, 455; 28, 2841; J. pr. [2] 54, 429; Am. 20, 152; C. 1899 [1] 248). — I, 119.
- 7) Hexahydrobenzol. Sd. 79,5° (80,5—81°₇₆₀) (A. 187, 163; 278, 110, 115; 302, 2; J. r. 23, 20; 24, 450; J. pr. [2] 48, 451; [2] 49, 245; [2] 56, 364; B. 27, 217; 28, 577, 1022; Soc. 65, 599; 73, 916, 934, 937; C. 1898, [2] 578). — II, 14.
- 8) Methyl-R-Pentamethylen. Sd. 70—71° (71,5—72,5°) (Soc. 53, 214; 73, 913; B. 28, 1022, 1235; 30, 388, 1222; 31, 1803; J. r. 28, 125; J. pr. [2] 56, 364; A. 302, 36). — I, 119.
- 9) Hexen (aus Dichloräthyläther). Sd. 66—68° (A. 178, 7).
- 10) Hexen (aus Erdpech) (Bl. 18, 167). — I, 119.
- 11) Hexen (aus Fischthran). Sd. 64—65° (Z. 1868, 228). — I, 119.
- 12) Hexen (aus Fuselöl). Sd. 60—70° (A. 128, 228). — I, 119.
- 13) Hexen (aus Harzöl). Sd. 67—70° (A. ch. [6] 1, 227). — I, 119.
- 14) Hexen (aus Oelsäure). Sd. 55° (A. 20, 63). — I, 122.
- 15) Hexen (aus Propen). Sd. 70—80° (J. 1873, 320). — I, 119.

 C_6H_{14}

- C 83,7 — H 16,3 — M. G. 86.
- 1) norm. Hexan. Sd. 69° (i. D.). Lit. bedeutend. — I, 102.
 - 2) β -Methylpentan (Äthylisobutyl). Sd. 62° (J. 1855, 574; Am. 8, 6; M. 15, 426; Soc. 73, 909). — I, 103.
 - 3) γ -Methylpentan (Methyldiäthylmethan). Sd. 64° (60°) (A. 219, 312; 220, 150; Bl. 25, 564). — I, 103.
 - 4) $\beta\beta$ -Dimethylbutan (Trimethyläthylmethan). Sd. 43—48° (A. 165, 107). — I, 103.
 - 5) $\beta\gamma$ -Dimethylbutan (Diisopropyl; s-Tetramethyläthan). Sd. 58° (62°) (A. 144, 184; 214, 167; Bl. 9, 268; A. ch. [5] 6, 124; [5] 9, 432; J. 1855, 1211; Z. 1871, 699; J. r. 13, 45; THOMSEN, Thermoch. Unters. 4, 58; B. 31, 1801). — I, 103.

 C_6N_6

- 1) Paracyan (A. 22, 280; 64, 296; J. 1868, 297; Berz. J. 10, 72; 23, 81; J. pr. [2] 34, 159; Bl. 43, 306). — I, 1478.

 C_6Cl_6

- 1) Hexachlorbenzol. Sm. 226°; Sd. 326°. Lit. bedeutend. — II, 45.

 C_6Cl_8

- 1) Oktochlor-1,4-Dihydrobenzol. Sm. 159—160° (Bl. [3] 11, 925; [3] 13, 418; B. 27 [2] 668). — III, 112.

 C_6Br_6

- 1) Hexabrombenzol. Sm. oberh. 315° (306—308°) (B. 9, 1507; 10, 403; 11, 2240; J. r. 9, 214; M. 2, 196; A. 231, 189; Am. 19, 365). — II, 59.

 C_6Br_8

- 1) Perbromhexon. Zers. bei 200° (B. 10, 403, 1234; 11, 2248). — I, 188.
- 2) isom. Perbromhexon (aus Hexan) (B. 10, 402, 1234). — I, 103.

 C_6J_6

- 1) Hexajodbenzol. Sm. 340—350° u. Zers. (B. 26 [2] 58; 29, 839 Anm., 1411, 1630).

C_6 -Gruppe mit zwei Elementen.

 C_6HCl_5

- 1) Pentachlorbenzol. Sm. 85—86°; Sd. 275—277° (A. 141, 96; 152, 247; 154, 182; 172, 344; A. ch. [4] 15, 283; J. 1868, 353; Bl. 48, 36; [3] 19, 460; C. 1896 [1] 100). — II, 44.

 C_6HBr_5

- 1) Pentabrombenzol. Sm. 260° (A. 137, 172; 191, 208; B. 11, 191). — II, 58.

 $C_6H_2O_4$

- C 52,2 — H 1,4 — O 46,4 — M. G. 138.

- 1) Butadiin- $\alpha\beta$ -Dicarbonsäure + H_2O (Diacetylendicarbonsäure). Explodiert bei 177° (B. 18, 678, 2270). — I, 735.

 $C_6H_2O_6$

- C 42,3 — H 1,2 — O 56,5 — M. G. 170.

- 1) 5,6-Dioxy-1,2,3,4-Tetraketo-1,2,3,4-Tetrahydrobenzol (Rhodizonsäure; Dioxydichinoyl). Na_2 , K, K_2 , $2C_6H_7N$ (A. 24, 1; 34, 232; 118, 189; 124, 32; B. 18, 513, 1840; 21, 1855; Bl. [3] 15, 460). — III, 355.

- $C_6H_2Cl_4$ 1) 1,2,3,4-Tetrachlorbenzol. Sm. 45–46°; Sd. 254° (A. 192, 238; M. 4, 232). — II, 44.
 2) 1,2,3,5-Tetrachlorbenzol. Sm. 50–51°; Sd. 246° (A. 141, 105; 192, 237; A. ch. [6] 6, 391; C. 1896 [1] 100). — II, 44.
 3) 1,2,4,5-Tetrachlorbenzol. Sm. 137–138°; Sd. 243–246° (A. ch. [4] 15, 277; A. 152, 248; 192, 236; J. 1868, 352; Bl. 48, 39; [3] 19, 460; B. 29, 875; G. 28 [1] 223). — II, 44.
- $C_6H_2Br_4$ 1) 1,2,3,5-Tetrabrombenzol. Sm. 98,5°; Sd. 329° (A. 137, 218, 227; B. 7, 1564; 8, 1429; 15, 473; 28, 683; J. 1875, 343; J. pr. [2] 27, 118). — II, 58.
 2) 1,2,4,5-Tetrabrombenzol. Sm. 174–175° (A. 133, 52; 137, 172; 231, 187; B. 15, 46; 28, 191; Am. 18, 250). — II, 58.
 3) isom. Tetrabrombenzol. Sm. 160° (B. 14, 911, 1169). — II, 58.
 4) isom. Tetrabrombenzol. Sm. 136–138° (M. 2, 194). — II, 58.
- $C_6H_2Br_6$ 1) Hexabromdihydrobenzol. Sm. 139° (A. 245, 348). — II, 1014.
- $C_6H_2J_4$ 1) α -Tetrajodbenzol. Sm. 247°; Sd. 290°. — II, 73.
 2) β -Tetrajodbenzol. Sm. 220°. — II, 73.
- $C_6H_3N_3$ C 35,8 — H 1,5 — N 62,7 — M. G. 201.
- $C_6H_3Cl_3$ 1) Mellon (A. 10, 5; 50, 354; P. 61, 375; A. ch. [2] 19, 85). — I, 1453.
 2) 1,2,3-Trichlorbenzol. Sm. 53–54°; Sd. 218–219° (A. 192, 234). — II, 44.
 3) 1,2,4-Trichlorbenzol. Sm. 16°; Sd. 213° (A. 192, 229; J. 1868, 349; Bl. [3] 19, 460). — II, 44.
 4) 1,3,5-Trichlorbenzol. Sm. 63,4°; Sd. 208,5°_{763,6} (A. 192, 232; A. ch. [4] 15, 264; J. 1875, 318; B. 30, 2351; R. 15, 86). — II, 44.
- $C_6H_3Cl_5$ 1) 1,2,4-Trichlorbenzolhexachlorid. Sm. 95–96° (J. pr. [2] 35, 416). — II, 43.
- $C_6H_3Br_3$ 1) 1,2,3-Tribrombenzol. Sm. 87,4° (J. 1875, 311). — II, 58.
 2) 1,2,4-Tribrombenzol. Sm. 44°; Sd. 275–276° (A. 137, 224; B. 6, 1490; 7, 1061; J. 1866, 454; 1875, 309; P. 35, 374; Am. 18, 238, 310; Soc. 73, 245). — II, 58.
 3) 1,3,5-Tribrombenzol. Sm. 119,6°; Sd. 278° (J. 1875, 312; A. 165, 173; 191, 206; M. 2, 197; 7, 47; J. pr. [2] 27, 104; J. r. 17, 176; Am. 12, 167; 14, 335; 18, 305; B. 28, 1931). — II, 58.
- $C_6H_3J_3$ 1) 1,2,4-Trijodbenzol. Sm. 76° (77°) (A. 137, 165; B. 28, 684). — II, 73.
 2) isom. Trijodbenzol. Sm. 83–84°. — II, 73.
 3) isom. Trijodbenzol. Sm. 182–184°. — II, 73.
- C_6H_4O C 78,3 — H 4,3 — O 17,4 — M. G. 92.
 1) Phenylenoxyd. Sm. 103° (A. 124, 249; M. 4, 121). — II, 164.
 2) Isophenylenoxyd. subl. bei 215° (Am. 2, 277). — II, 24.
- $C_6H_4O_2$ C 66,7 — H 3,7 — O 29,6 — M. G. 108.
 1) 1,2-Benzochinon (B. 31, 1458).
 2) 1,4-Benzochinon. Sm. 115,7°. Na_2 , K, K_2 . Lit. bedeutend. — III, 327.
 3) Phloroglucan? Sm. 118° (A. 276, 333). — II, 1020.
 4) Caramelin (J. 1854, 745). — I, 1107.
- $C_6H_4O_3$ C 58,1 — H 3,2 — O 38,7 — M. G. 124.
 1) Melansäure (A. 30, 167; J. pr. [1] 34, 251). — III, 348.
 2) Tannomelansäure (A. 53, 374). — III, 348.
 3) Anhydrid d. 1,2-Dihydro-R-Buten-3,4-Dicarbonsäure. Fl. (Soc. 65, 977).
- $C_6H_4O_4$ C 51,4 — H 2,9 — O 45,7 — M. G. 140.
 1) 2,5-Dioxy-1,4-Benzochinon. Na_2 , Ba + H_2O (B. 19, 2387; 21, 2374; 22, 1654; 23, 903; 31, 2402). — III, 348.
 2) 1,2-Pyron-5-Carbonsäure (Cumalinsäure). Sm. 205–210° u. Zers.; Sd. 218°₁₂₀. Mg + 6 H_2O , Ba + 2 H_2O , Zn + 6 H_2O (A. 264, 272). — I, 773.
 3) Komansäure (1,4-Pyroncarbonsäure?). Sm. 250° u. Zers. Ba + 1(3) H_2O , Ag (J. pr. [2] 29, 62; M. 6, 279). — II, 1735.
 4) 5-Aldehyd d. Furan-2,5-Dicarbonsäure + H_2O . Sm. 205° (wasserfrei) u. Zers. (B. 27, 1570; Am. 20, 174). — III, 713.
- $C_6H_4O_5$ C 46,1 — H 2,6 — O 51,3 — M. G. 156.
 1) 2,3,5-Trioxo-1,4-Benzochinon. Ba_3 , Pb_3 , Ag_3 (B. 12, 2041). — III, 354.
 2) Furan-2,5-Dicarbonsäure (Dehydroschleimsäure). Sm. noch nicht bei 300°. Ca + 3 H_2O , Ba + 2½ H_2O , Ag_3 (A. 193, 184; 245, 20; B. 12, 1082; 19, 1273, 1277; 24, 2139; 27, 1570; J. pr. [2] 25, 43; Am. 20, 177). — III, 714.

- $C_6H_4O_2$ 3) Komensäure. $NH_4 + H_2O$, Na, K, Mg + $5(8\frac{1}{2})H_2O$, Ca + $1(7)H_2O$, Ba + $5(6)H_2O$, Pb + H_2O , Fe + $2H_2O$, Cu + H_2O , Ag, Ag_2 (A. 5, 97; 26, 117; 49, 28; 51, 237; 80, 65; J. pr. [2] 23, 439; [2] 24, 276; [2] 27, 293; [2] 29, 380; B. 17, 2087). — I, 779.
- 4) Anhydrid d. Propen- $\alpha\beta\gamma$ -Tricarbonsäure (A. d. Akonitsäure) (B. 26 [2] 613).
- 5) Anhydrid d. trans-R-Trimethylen-1,2,3-Tricarbonsäure (A. d. Pseudo-akonitsäure). Sm. $189-190^\circ$; Sd. 266°_{75} (A. 284, 222; B. 21, 2642). — I, 819.
- $C_6H_4O_6$ 6) Anhydrid d. Acetoxylmaleinsäure. Sm. $89-91^\circ$ (B. 28, 2511).
C 41,9 — H 2,3 — O 55,8 — M. G. 172.
- 1) 2,3,5,6-Tetraoxy-1,4-Benzochinon. Na_2 , Ba (A. 124, 28; B. 18, 507, 1837; A. ch. [6] 12, 112). — III, 355.
- 2) Oxykomensäure + $3H_2O$. NH_4 , K_3 , Ba + $2H_2O$, Ba_3 (J. pr. [2] 23, 440; [2] 24, 286; [2] 27, 266). — II, 1990.
C 35,3 — H 1,9 — O 62,8 — M. G. 204.
- $C_6H_4O_8$ 1) Aethentetracarbonsäure + $1\frac{1}{2}H_2O$ (Dicarbintetracarbonsäure). Zers. bei $163-164^\circ$. K_2 , K_4 + $2H_2O$, Ca + $7H_2O$, Zn + $4\frac{1}{2}H_2O$, Ag, (A. 214, 78; 239, 130; B. 17, 2781, 2787, 2798; 24, 2997; 29, 1290). — I, 863.
C 69,2 — H 3,8 — N 26,9 — M. G. 104.
- $C_6H_4N_2$ 1) Nitril d. Pyridin-3-Carbonsäure. Sm. $48-49^\circ$. HCl, (2HCl, PtCl) (B. 15, 63). — IV, 144.
C 45,0 — H 2,5 — N 52,5 — M. G. 160.
- $C_6H_4N_6$ 1) 1,4-Ditriazobenzol (Hexaazobenzol). Sm. 83° (B. 21, 1561). — IV, 1331.
- 2) 1,2,3,5,6,7-Benzbitriazol (Diazimidobenzol). Sm. oberh. 300° (B. 26, 2960). — IV, 1260.
- $C_6H_4Cl_2$ 1) 1,2-Dichlorbenzol. Sd. 179° (A. 176, 40; 182, 94; A. ch. [6] 10, 413; [6] 28, 131; R. 15, 86). — II, 43.
- 2) 1,3-Dichlorbenzol. Sd. 172°_{767} (A. 182, 97; J. 1875, 317; R. 15, 86; Soc. 69, 848). — II, 44.
- 3) 1,4-Dichlorbenzol. Sm. 53° ; Sd. 172° (A. 176, 32; 223, 263; B. 6, 944; 27, 2106; J. 1864, 524; 1868, 347; 1875, 318; A. ch. [4] 15, 252; Bl. [3] 3, 186; [3] 19, 460; J. r. 25, 127; R. 15, 86). — II, 44.
- $C_6H_4Cl_6$ 1) Dichlorbenzolhexachlorid. Sm. noch nicht bei 250° (Z. 1868, 486; J. 1868, 356). — II, 43.
- $C_6H_4Br_2$ 1) 1,2-Dibrombenzol. Sd. $223,8^\circ_{753}$ (A. 164, 176; J. 1875, 303; G. 4, 337; M. 14, 323; B. 27 [2] 402; R. 15, 88). — II, 57.
- 2) 1,3-Dibrombenzol. Sd. $219,4^\circ_{758,4}$ (A. 165, 169; 176, 170; J. 1875, 304; M. 7, 45; 11, 335; Bl. 48, 213; G. 4, 336). — II, 57.
- 3) 1,4-Dibrombenzol. Sm. $80,3^\circ$ (87°); Sd. 219° . Lit. bedeutend. — III, 58.
- $C_6H_4Br_6$ 1) Oktobromhexen (aus Hexan) (B. 10, 1234). — I, 103.
- 2) Oktobromhexen. Sm. 184° (B. 11, 2249). — I, 186.
- $C_6H_4J_2$ 1) 1,2-Dijodbenzol. Sm. 27° ; Sd. $286,5^\circ_{751}$ (J. 1875, 318, 321; G. 17, 491). — II, 73.
- 2) 1,3-Dijodbenzol. Sm. $40,4^\circ$; Sd. $284,7^\circ_{758,5}$ (J. 1875, 318; B. 11, 81). — II, 73.
- 3) 1,4-Dijodbenzol. Sm. $129,4^\circ$; Sd. 285° (J. 1862, 251; 1875, 357; Z. 1866, 688 Ann.; A. 137, 164; 241, 47; B. 15, 1869; 27, 429). — II, 73.
- $C_6H_4F_2$ 1) 1,4-Difluorbenzol. Sd. $87-89^\circ$ (A. 243, 224). — II, 40.
- $C_6H_4S_2$ 1) Thiophten. Sd. $224-226^\circ$. Pikrat (B. 19, 2445). — III, 769.
- 2) polym. 1,4-Phenylendisulfid = $(C_6H_4S_2)_x$ (J. pr. [2] 41, 206). — II, 951.
C 60,5 — H 4,2 — N 35,3 — M. G. 119.
- $C_6H_4N_3$ 1) Diazobenzolimid (Triazobenzol). Sd. $73,5^\circ_{75-74}$ (A. 137, 65; 190, 92; B. 19, 313, 2995; 26, 89; G. 20, 798; 21 [2] 238; J. pr. [2] 40, 99; [2] 50, 252; Soc. 63, 257; 69, 1232; Ph. Ch. 16, 218). — IV, 1140.
- 2) 1,2,3-Benztriazol (Azimidobenzol; Amidoazophenylen). Sm. $98,5^\circ$ (B. 9, 222; 15, 1879, 2195). — IV, 1142.
- C_6H_5Cl 1) Chlorbenzol. Sd. 132° . Lit. bedeutend. — II, 43.
- $C_6H_5Cl_2$ 1) Chlorbenzoldichlorid (J. 1868, 356).
- 2) Verbindung (aus Naphta). Sm. 218° (B. 16, 966).
- $C_6H_5Cl_3$ 1) Chlorbenzoltetrachlorid (J. 1868, 356).
- $C_6H_5Cl_4$ 1) α -Chlorbenzolhexachlorid. Sm. 146° (Soc. 61, 104). — II, 43.
- 2) β -Chlorbenzolhexachlorid. Sm. bei 260° (A. 141, 101; J. 1868, 356; Soc. 61, 107). — II, 43.

- C_6H_5Cl 1) Chlorbenzoloktochlorid (*J.* 1868, 356).
- C_6H_5Br 1) Brombenzol. *Sd.* 155°. Lit. bedeutend. — II, 57.
- $C_6H_3Br_3$ 1) 2-Heptabrom-1-Methyl-R-Pentamethylen. *Sm.* 121—124° (124—125°) (*B.* 30, 1223; *J. pr.* [2] 56, 366; *C.* 1898 [2] 578; *A.* 302, 14).
- C_6H_5J 1) Jodbenzol. *Sd.* 188,2°. Lit. bedeutend. — II, 72.
- C_6H_5F 1) Fluorbenzol. *Sd.* 85° (*G.* 13, 534; *A.* 235, 258; 243, 221; *Soc.* 55, 487; *C.* 1898 [1] 1224). — II, 40.
- C_6H_5O C 76,6 — H 6,4 — O 17,0 — *M. G.* 94.
- 1) Oxybenzol (Phenol). *Sd.* 42,5—43°; *Sd.* 178,5° (180—180,5°). Lit. bedeutend. — II, 648.
- 2) 2-Furanyläthen (2-Aethenylfuran; Furfuräthylen). *Sd.* 99° (*B.* 27, 287). — III, 692.
- $C_6H_5O_2$ C 65,5 — H 5,4 — O 29,1 — *M. G.* 110.
- 1) α -Dioxy- $\beta\delta$ -Hexadiin. *Sm.* 111—112° (*Bl.* [3] 15, 982; *C.* 1897 [1] 281).
- 2) 1,2-Dioxybenzol (Brenzkatechin). *Sm.* 104°; *Sd.* 240—245°. Na, Na₂, Ca, Pikrat, Antimonverb. Lit. bedeutend. — II, 907.
- 3) 1,3-Dioxybenzol (Resorcin). *Sm.* 110° (119°); *Sd.* 276,5°. + NH₃, Na, Na₂, Al₃. Lit. bedeutend. — II, 914.
- 4) 1,4-Dioxybenzol (Hydrochinon). *Sm.* 169°. Lit. bedeutend. — II, 938.
- 5) 2-Acetylfuran. *Sd.* 67°₁₀ (*C.* 1898 [1] 327).
- 6) Methylfurfurol (Aldehyd d. 2-Methylfuran-5-Carbonsäure). *Sd.* 184 bis 186° (186,5—187°₇₃₀) (*B.* 22, 607; 26, 2420; 30, 1195; *Am.* 15, 161; *A.* 258, 116; *A. ch.* [6] 22, 83). — III, 726.
- $C_6H_5O_3$ C 57,1 — H 4,8 — O 38,1 — *M. G.* 126.
- 1) 1,2,3-Trioxybenzol (Pyrogallol). *Sm.* 132,5—133,5°; *Sd.* 292—294°₇₃₀; subl. 105—106°. + NH₃, Na, Na₂, Ba + 3(4)H₂O, PbO, SbO, Bi, + Anilin. Lit. bedeutend. — II, 1010.
- 2) 1,2,4-Trioxybenzol (Oxyhydrochinon). *Sm.* 140,5° (*M.* 4, 176; 5, 590; *C.* 1896 [2] 154; *B.* 31, 1248). — II, 1016.
- 3) 1,3,5-Trioxybenzol (Phloroglucin) + 2H₂O. *Sm.* 217—219° (wasserfrei). 3PbO. Lit. bedeutend. — II, 1018.
- 4) Betulin (oder C₃₀H₆₀O₃). *Sm.* 258° (251—252°); subl. (*CRELL's Ann.* 2, 312; *Berz. J.* 12, 242; *J. pr.* [1] 7, 53; *A.* 29, 135; 51, 79; 182, 368). — III, 620.
- 5) Maltol. *Sm.* 159°. Ca + 5H₂O, Cu, Zn + 3H₂O (*B.* 27, 809, 3115; 28, 34; *C.* 1898 [2] 440). — II, 1018; III, 726.
- 6) Oenoglucin + 2H₂O. *Sm.* 208,5° (wasserfrei) (*Bl.* 33, 584). — II, 1022.
- 7) Phenoglucin + 2H₂O. *Sm.* 200,5° (*Bl.* 33, 585). — II, 1023.
- 8) 4-Oxy-6-Methyl-1,2-Pyron (Oxymethylcumalin) (*Soc.* 69, 1389; 71, 326).
- 9) 2-Methylfuran-5-Carbonsäure. *Sm.* 108—109°. Na, K, Ca + 2H₂O, Ba, Ag (*B.* 22, 608; *Am.* 15, 165). — III, 707.
- 10) Anhydrid d. Akrylsäure. *Sd.* 97°₃₅ (*Bl.* [3] 9, 415).
- 11) Anhydrid[P] d. $\beta\delta$ -Diketopentan- α -Carbonsäure (A. d. Triacetsäure oder d. β -Oxy- δ -Keto- β -Penten- ϵ -Carbonsäure). *Sm.* 188—189°. K, Ba, Ag (*Soc.* 59, 609). — I, 692.
- 12) Anhydrid d. cis-R-Tetramethylen-1,2-Dicarbonsäure. *Sm.* 77°; *Sd.* 270—273° (*Soc.* 51, 25; 65, 581; *B.* 26, 2244). — I, 718.
- 13) Anhydrid d. cis-R-Tetramethylen-1,3-Dicarbonsäure. *Sm.* 49—50°; *Sd.* 254—255° (*J. r.* 22, 282; *Soc.* 73, 338). — I, 717.
- 14) Anhydrid d. α -Buten- $\alpha\beta$ -Dicarbonsäure (Anhydrid d. Aethylmaleinsäure). *Sd.* 142°₆₆ (*J. r.* 23, 434). — I, 716.
- 15) Anhydrid d. α -Buten- $\beta\gamma$ -Dicarbonsäure (A. d. Methylitakonsäure). *Sm.* 62—63° (*C.* 1897 [2] 264; *A.* 304, 170).
- 16) Anhydrid d. β -Buten- $\beta\gamma$ -Dicarbonsäure (A. d. Dimethylmaleinsäure; A. d. Pyrocinchonsäure). *Sm.* 96°; *Sd.* 223° (*B.* 12, 1152; 15, 293 *Ann.*; 15, 1318, 2012, 2347; 29, 1293; *J.* 1882, 879; *M.* 3, 608; *J. pr.* [2] 46, 300, 382; *A.* 267, 205; 304, 158). — I, 717.
- 17) Anhydrid d. malenoiden- β -Methylpropen- $\alpha\gamma$ -Dicarbonsäure (Anhydrid d. Acetrotensäure). *Sm.* 86° (*A. ch.* [6] 24, 110). — I, 715.
- 18) Aldehyd d. 4-Oxy-2-Methylfuran-5-Carbonsäure (Oxymethylfurfurol). *Fl.* (*B.* 28 [2] 786).
- 19) Methylester d. Furan-2-Carbonsäure. *Sd.* 181,3°_{137,6} (*B.* 27 [2] 246; *G.* 24 [1] 253). — III, 698.



C 50,7 — H 4,2 — O 45,1 — M. G. 142.

- 1) 1,2,3,5-Tetraoxybenzol. Sm. 165° (M. 16, 256).
- 2) 1,2,4,5-Tetraoxybenzol. Sm. 215—220° (B. 21, 2377). — II, 1032.
- 3) $\alpha\gamma$ -Butadien- $\alpha\delta$ -Dicarbonsäure (Mukonsäure). Zers. bei 320°. K₂, Ba, Pb, Ag₂ (A. 256, 23; Soc. 57, 373). — I, 730.
- 4) 1,2-Dihydro-R-Buten-3,4-Dicarbonsäure. Sm. 178°. Ag, Ag₂ (Soc. 65, 975).
- 5) isom. Dihydro-R-Butendicarbonsäure (Soc. 65, 977).
- 6) 1-Methyl-R-Trimethen-2,3-Dicarbonsäure. Sm. 200°. Ca + 3 H₂O, Ba (B. 26, 759).
- 7) 2-Methyl-R-Trimethen-1,3-Dicarbonsäure. Sm. 189°. Ca + 3 H₂O (B. 26, 762).
- 8) 2-Oxymethylfuran-5-Carbonsäure. Sm. 162—163° (165—170°). Ba (Am. 15, 181; B. 27, 1526).
- 9) 4-Oxy-2-Methylfuran-5-Carbonsäure. Sm. 148°. Ca, Cu, Ag + H₂O (B. 28 [2] 786).
- 10) Mukolaktensäure. Sm. 122—125° (100—105°). Ba + 4 H₂O (A. 165, 274; Soc. 57, 942). — I, 730.
- 11) $\beta\delta$ -Lakton d. β -Oxy- β -Buten- $\gamma\delta$ -Dicarbonsäure. Ba (Soc. 71, 1166).
- 12) $\alpha\gamma$ -Lakton d. α -Oxy- β -Methylpropen- $\alpha\gamma$ -Dicarbonsäure. Sm. 141° u. Zers. (B. 26, 763).
- 13) Methylester d. Akonsäure. Sm. 85° (A. 171, 163; B. 27, 3440). — I, 730.
- 14) Dimethylester d. Aethindicarbonsäure (Dimethylester d. Acetylen-dicarbonsäure). Sd. 195—198° u. ger. Zers. (B. 15, 2694). — I, 729.
- 15) Vinyloxalat (J. 1864, 483).



C 45,6 — H 3,8 — O 50,6 — M. G. 158.

- 1) α -Oxymukonsäure. Sm. 148—149° (146°). Ca + 3½ H₂O, Ba + 4½ H₂O, Ag₂ + ½ H₂O (B. 12, 1088; M. 9, 444). — I, 773.
- 2) β -Oxymukonsäure + H₂O. Sm. 173° (wasserfrei). Ca + 1½ H₂O, Ba + 1½ H₂O, Ag₂ (B. 12, 1088). — I, 773.
- 3) α -Keto- β -Buten- $\alpha\gamma$ -Dicarbonsäure. Fl. Cu + 2½ H₂O, Ag₂ (Bl. [3] 9, 379).
- 4) Säure (aus Brenztraubensäure). Ba (A. 305, 164).
- 5) Anhydrid d. Propan- $\alpha\beta\gamma$ -Tricarbonsäure (A. d. Tricarballysäure). Sm. 131—132° (B. 24, 597). — I, 808.
- 6) Anhydrid d. α -Acetoxyläthan- $\alpha\beta$ -Dicarbonsäure (A. d. Acetäpfelsäure). Sm. 59° (58°); Sd. 160—162° (B. 14, 2791; 26 [2] 371, 492; A. 254, 166). — I, 744.



C 41,4 — H 3,4 — O 55,2 — M. G. 174.

- 1) Hexaoxybenzol. Zers. bei 200°. K₂ (B. 18, 505, 1834; A. 11, 182; 24, 2; 113, 358; 124, 20; P. 4, 35). — II, 1040.
- 2) Ozobenzol (C. r. 76, 572; B. 14, 975; Bl. [3] 13, 940).
- 3) 2,4-Dioxy-1,3-Diketo-R-Pentamethylen-5-Carbonsäure. Ba₂ + 4 H₂O (B. 20, 2792). — I, 812.
- 4) $\beta\gamma$ -Diketobutan- $\alpha\delta$ -Dicarbonsäure (Ketipinsäure; Diacetyldicarbonsäure). Amorph. Zers. bei 150° (A. 246, 328; 249, 184). — I, 815.
- 5) Propen- $\alpha\alpha\beta$ -Tricarbonsäure (Carboxymesakonsäure). Sm. 168° (B. 23, 1934). — I, 818.
- 6) Propen- $\alpha\beta\gamma$ -Tricarbonsäure (Akonitsäure). Sm. 191° u. Zers. Salze meist bek. Lit. bedeutend. — I, 816.
- 7) Propen- $\alpha\gamma\gamma$ -Tricarbonsäure (Isoakonitsäure; Carboxylglutakonsäure) (A. 222, 255; B. 22, 1426). — I, 818.
- 8) R-Trimethylen-1,1,2-Tricarbonsäure. Sm. 184° u. Zers. (B. 17, 1186; Am. 9, 122; Ph. Ch. 10, 577). — I, 818.
- 9) cis-R-Trimethylen-1,2,3-Tricarbonsäure. Sm. 150—153°. Ca₃, Ag₃ (Soc. 47, 826). — I, 818.
- 10) trans-R-Trimethylen-1,2,3-Tricarbonsäure (Pseudoakonitsäure). Sm. 220°. Ca + 8 H₂O, Ba₃ + H₂O, Cu₃, Ag₃ (A. 229, 95; 284, 219; B. 23, 2583; Ph. Ch. 2, 903). — I, 818.
- 11) Acekonitsäure. Ba₃, Ag₃ + H₂O (A. 135, 306). — I, 812.
- 12) Citracetsäure. Ba₃ + 2 H₂O, Pb₃ + 2 H₂O (A. 135, 310, 311). — I, 812.
- 13) Anhydrid d. d-Mannozuckersäure + 2 H₂O. Sm. 180—190° u. Zers. (B. 24, 539). — I, 854.

- $C_6H_6O_6$ 14) Anhydrid d. l-Mannozuckersäure + $2H_2O$. Sm. 68° (B. 20, 341, 2715). — I, 854.
 15) Anhydrid d. i-Mannozuckersäure. Sm. 190° u. Zers. (B. 24, 544). — I, 854.
 16) $\alpha\gamma$ -Lakton d. α -Oxypropan- $\alpha\beta\gamma$ -Tricarbonsäure (L. d. Isocitronensäure; Butyrolaktondicarbonsäure). Sm. $120-130^\circ$. Ca + $3H_2O$, Ba, Ag₂ (A. 255, 51; 285, 9). — I, 841.
 $C_6H_6O_7$ C 37,9 — H 3,1 — O 59,0 — M. G. 190.
 1) Regiansäure. CaO, PbO, CuO (J. 1871, 814; B. 10, 1545).
 2) Säure (aus Pyrogallol). Ba (B. 6, 486). — I, 845.
 $C_6H_6O_8$ C 35,0 — H 2,9 — O 62,1 — M. G. 206.
 1) Aethan- $\alpha\alpha\beta\beta$ -Tetracarbonsäure (Acetylentetracarbonsäure). Sm. 167 bis 169° u. Zers. ($169-171^\circ$ u. Zers.). K₄ + $2H_2O$ (B. 25, 1154, 1157; Am. 18, 576). — I, 858.
 $C_6H_6O_{11}$ C 26,7 — H 2,2 — O 71,1 — M. G. 270.
 1) Atripasäure + $6H_2O$ (J. 1884, 1442). — I, 872.
 $C_6H_6N_2$ C 67,9 — H 5,7 — N 26,4 — M. G. 106.
 1) Nitril d. α -Buten- $\delta\delta$ -Dicarbonsäure (N. d. Allylmalonsäure). Sd. 217 bis 218° (J. 1889, 640). — I, 1480.
 $C_6H_6N_4$ C 53,7 — H 4,5 — N 41,8 — M. G. 134.
 1) Glykosin. subl. ($2HCl$, $PtCl_4$), ($4HCl$, $2PtCl_4$), Oxalat, + $AgNO_3$ (A. 107, 200; B. 9, 1543; 10, 1366; 17, 2000; Soc. 51, 556). — I, 1169.
 2) 7-Methylpurin. Sm. 181 $^\circ$ (184° cor.) (B. 31, 2559).
 3) 9-Methylpurin. Sm. $160-161^\circ$ ($162-163^\circ$) (B. 31, 2573).
 4) 3-Amido-1-Diazobenzolimid. Fl. HCl (B. 18, 963). — IV, 1257.
 5) 4-Amido-1-Diazobenzolimid. Sm. 65° . HCl, ($2HCl$, $PtCl_4$) (B. 21, 1559). — IV, 1257.
 6) 6-Amido-1,2,3-Benztriazol. Sm. 162° . $2HCl$, ($2HCl$, $PtCl_4$ + H_2O), Ag (B. 26, 2957). — IV, 1258.
 7) Nitril d. Triglykolamidsäure (Nitriloacetonitril). Sm. 126° (A. 278, 234, 238; J. pr. [2] 49, 498; B. 27 [2] 235).
 $C_6H_6N_{10}$ C 33,0 — H 2,8 — N 64,2 — M. G. 218.
 1) Melem (J. pr. [2] 33, 287). — I, 1446.
 $C_6H_6Cl_4$ 1) Tetrachlorhexin (aus Mannit) (B. 12, 1273, 1274).
 $C_6H_6Cl_6$ 1) α -Benzolhexachlorid. Sm. 157° ; Sd. 288° (A. 137, 122; P. 35, 370; A. ch. [2] 30, 274; [6] 10, 234; Bl. [3] 5, 136; Z. 1871, 284, 293; J. 1862, 482; 1868, 355; 1885, 729; Am. 2, 205; Soc. 59, 166). — II, 42.
 2) β -Benzolhexachlorid. Sm. bei 310° ; subl. (A. ch. [6] 10, 227; B. 17, 2256; Soc. 59, 169; Bl. [3] 5, 136). — II, 42.
 $C_6H_6Br_4$ 1) $\alpha\beta\epsilon\zeta$ -Tetrabrom- $\alpha\epsilon$ -Hexadien (Dipropargyltetrabromid) (B. 6, 959). — I, 140.
 2) $\beta\gamma\delta\epsilon$ -Tetrabrom- $\beta\delta$ -Hexadien (Dimethyldiacetylentetrabromid). Sm. 48° (GRINER, thèse 54). — I, 187.
 $C_6H_6Br_6$ 1) α -Benzolhexabromid. Sm. 212° ($212-215^\circ$) (P. 35, 374; Bl. 24, 485; A. ch. [6] 10, 270; Am. 18, 314). — II, 57.
 2) β -Benzolhexabromid. Sm. 253° (Am. 18, 315; Soc. 73, 244; C. 1898 [1] 834).
 $C_6H_6Br_8$ 1) Dipropargyloktobromid ($\alpha\alpha\beta\beta\epsilon\epsilon\zeta\zeta$ -Oktobromhexan). Sm. 140° (B. 7, 21; 14, 399). — I, 140.
 2) isom. Oktobromhexan (aus Hexan) (B. 10, 1234). — I, 179.
 3) Oktobromhexan (aus β -Jodhexan). Sm. 135° (B. 11, 2250). — I, 179.
 $C_6H_6J_4$ 1) $\alpha\beta\epsilon\zeta$ -Tetraiod- $\alpha\epsilon$ -Hexadien (Dipropargyltetraiodid). Sm. 113° (B. 14, 399). — I, 140.
 C_6H_6S 1) Merkapto benzol (Thiophenol). Sd. $172,5^\circ$ ($169,5^\circ_{100}$). Pb, Hg, Ag, + $HgCl$, + Chloral (Z. 1867, 194; H. 5, 321; A. 149, 248; 176, 180; B. 6, 669; 11, 1174; 17, 2080; 18, 886; 19, 1796; 28, 2319, 3240; A. ch. [6] 1, 530; [6] 17, 437; J. pr. [2] 41, 187). — II, 779.
 $C_6H_6S_2$ 1) 1,3-Dimerkapto benzol. Sm. 27° ; Sd. 243° . Pb (J. pr. [2] 2, 418; J. 1876, 450). — II, 934.
 2) 1,4-Dimerkapto benzol. Sm. 98° . Pb (J. 1876, 450; G. 6, 142; J. pr. [2] 41, 205). — II, 950.
 $C_6H_6P_4$ 1) Phenylphosphorhydrür (B. 11, 885). — IV, 1645.
 C_6H_6Se 1) Selenobenzol. Sd. 183° (B. 27, 1763; A. ch. [6] 20, 229). — II, 818.

C_6H_7N

C 77,4 — H 7,5 — N 15,0 — M. G. 93.

- 1) Amidobenzol (Anilin). Sm. — 8°; Sd. 183,7° (71°). Salze meist bek. Lit. bedeutend. — II, 308.
- 2) 2-Methylpyridin. Sd. 129°. Salze meist bek. Lit. bedeutend. — IV, 122.
- 3) 3-Methylpyridin. Sd. 140—142° (143,5°). Salze meist bek. Lit. bedeutend. — IV, 124.
- 4) 4-Methylpyridin. Sd. 142,5—144,5° (HCl + 2 HgCl₂), (2 HCl, PtCl₄), (HCl, AuCl₃), Pikrat (M. 17, 368; B. 17, 2696; 18, 3439; 20, 413; 21, 828; A. 247, 10). — IV, 125.
- 5) Thierölpikolin (Gemisch). Sd. 135°. Salze meist bek. (A. 60, 86, 99; 96, 203; 105, 342; J. 1876, 781; 1877, 436). — IV, 125.
- 6) Pikolin (aus Acetylen u. HCN) (J. 1877, 436). — IV, 127.
- 7) Pikolin (aus bituminösem Schiefertheeröl) (J. 1854, 494). — IV, 127.

 $C_6H_7N_5$

C 48,3 — H 4,7 — N 47,0 — M. G. 149.

- 1) 6-Methylamidopurin + 1½ H₂O. Sm. noch nicht bei 270°. (HCl, AuCl₃) (H. 18, 434, 455). — IV, 1319.
- 2) 2-Amido-7-Methylpurin. Sm. 274° (283° cor.) (B. 31, 2555; 32, 479).
- 3) 6-Amido-7-Methylpurin (7-Methyladenin). Sm. 351° (B. 31, 111, 118; 32, 479). — IV, 1320.
- 4) 8-Amido-7-Methylpurin (B. 30, 1857; 32, 479). — IV, 1320.
- 5) 2-Amido-9-Methylpurin. Sm. 241° (247° cor.) (B. 31, 2570).
- 6) 6-Amido-9-Methylpurin. Sm. 308—310° (B. 30, 2250; 31, 109; 32, 478). — IV, 1320.
- 7) 5,6-Diamido-1,2,3-Benzotriazol. 2 HCl (B. 26, 2959). — IV, 1259.

 C_6H_7Cl $C_6H_7Cl_5$

- 1) Chlordihydrobenzol. Sd. 135—140° (C. 1897 [2] 540).
- 1) Pentachlorhexen (Quereitpentachlorhydrin). Sm. 102° (A. ch. [5] 15, 57). — I, 283.

 C_6H_7Br $C_6H_7Br_5$

- 1) Bromdiallylen. Sd. 150° (B. 14, 400). — I, 188.
- 1) Pentabrom-1-Methyl-R-Pentamethylen. Sm. 124—125° (121—124°) (J. pr. [2] 56, 366; B. 30, 1223).

 C_6H_7P

- 1) Phenylphosphin. Sd. 160—161°. HJ (B. 7, 1689; 10, 808; 12, 338; A. 181, 341). — IV, 1646.

 C_6H_8O

C 75,0 — H 8,3 — O 16,7 — M. G. 96.

- 1) 2,5-Dimethylfuran. Sd. 93° (B. 20, 1085; 22, 103; G. 24 [1] 278). — III, 692.
- 2) ε-Keto-β-Hexin (Acetyldimethylacetylen). Sm. 149—150° (A. ch. [6] 26, 359). — I, 1011.
- 3) 2-Keto-1-Methyl-2,3-Dihydro-R-Penten. Sd. 157—158° (A. 275, 373; B. 27, 1538).
- 4) Aldehyd d. 2,3-Dihydro-R-Penten-4-Carbonsäure. Fl. (B. 31, 2108).
- 5) Aldehyd (aus Crotonsäurealdehyd u. Essigsäurealdehyd). Sd. 172° (A. 162, 105). — I, 262.
- 6) Verbindung (aus d. Alantwurzel). Sm. 110°; Sd. 240°₁₄ (A. 285, 357 Anm.).
- 7) Verbindung (aus Mannid). Sd. 108—109° (J. 1885, 1210).

 $C_6H_8O_2$

C 64,3 — H 7,1 — O 28,6 — M. G. 112.

- 1) Isobenzoylglykol (= 1,4-Dioxybenzol?). Sm. 170° (J. 1880, 440; B. 27, 1942). — I, 271.
- 2) Isochinontetrahydrür + ½ H₂O. Sm. 170° (wasserfrei) (A. 211, 324). — I, 1022.
- 3) Methyläther d. 2-Oxymethylfuran. Sd. 134—136° (A. 272, 297). — III, 696.
- 4) 1,3-Diketohexahydrobenzol (Dihydroresorcin). Sm. 104—106° u. ger. Zers. Na, Ca, Ba, Ag (A. 278, 28; 294, 270; B. 28, 2348). — II, 905.
- 5) 1,4-Diketohexahydrobenzol. Sm. 78° (75°). + NaHSO₃ (A. 211, 322; 278, 90; B. 22, 2170; 25, 1037; 28, 738; Soc. 73, 603). — I, 1022.
- 6) δ-Keto-α-Hexen (Methylallyldiketon). Fl. (B. 22, 2124). — I, 1022.
- 7) 2,3-Dihydro-R-Penten-4-Carbonsäure. Sm. 119—121° (Soc. 65, 101; B. 31, 2109; A. 275, 338).
- 8) αγ-Pentadien-α-Carbonsäure (Sorbinsäure). Sm. 134,5°; Sd. 228° u. Zers. Ca, Ba (A. 110, 133; Bl. 46, 802; J. r. 20, 651; Ph. Ch. 3, 274; B. 23, 2376; 24, 85; 27, 351). — I, 531.
- 9) Isosorbinsäure. Sm. 38°; Sd. 106—107°₂₀. Ca, Ba + 2 H₂O, Cu + H₂O (J. r. 11, 125; J. pr. [2] 37, 423). — I, 532.

$C_5H_8O_2$

- 10) α -Pentin- α -Carbonsäure (Propylacetylen-carbonsäure). Sm. 27°; Sd. 125°₂₀. Ca, Ba + 3H₂O, Cu + 2H₂O (J. pr. [2] 37, 420). — I, 532.
- 11) Säure (aus Brenzterebinsäure). Sm. 93—96°. Ba (A. 180, 56). — I, 532.
- 12) γ -Lakton d. γ -Oxy- α -Penten- α -Carbonsäure (Parasorbinsäure). Sd. 221° (A. 110, 129; B. 27, 344).
- 13) Lakton d. β -Oxy- β -Penten- δ -Carbonsäure. Sd. 210—214° (Soc. 71, 1163).
- 14) Lakton d. β -Oxy- β -Penten- ϵ -Carbonsäure (Anhydrid d. α -Acetbuttersäure). Sd. 194—195° (A. 294, 319).
- 15) Lakton d. Terelaktensäure. Sm. 11—12°; Sd. 210° (A. 208, 49; 226, 372). — I, 606.
- 16) Allylester d. Akrylsäure. Sd. 119—124° (A. 167, 250). — I, 501.
- 17) Metakrolein (J. 1876, 480).

 $C_6H_{10}O_4$

- C 56,3 — H 6,2 — O 37,5 — M. G. 128.
- 1) α -Oxy- γ -Keto- β -Aethanoyl- α -Buten (Oxymethylenacetylaceton). Sm. 47°; Sd. 190—200°. Ca + 2H₂O, Ba, Fe, Cu, Ag (B. 26, 2731; A. 297, 59).
- 2) γ -Keto- α -Penten- β -Carbonsäure (α -Propionylakrylsäure). Sm. 106 bis 108° (B. 20, 1322). — I, 621.
- 3) 1-Acetyl-R-Trimethylen-1-Carbonsäure. Fl. Ag (Soc. 47, 829; 51, 825; 59, 804). — I, 619.
- 4) 5-Methyl-2,3-Dihydrofuran-4-Carbonsäure (Methyldehydropentenon-carbonsäure). Sm. 150° u. Zers. (Soc. 59, 878). — I, 619.
- 5) Pentinsäure (Aethylsuccinylbernsteinsäure). Sm. 126,5° (128°). Na₂ + 2H₂O, K₂ + H₂O, Mg + 5H₂O, Ca + H₂O, Ba + 2H₂O (A. ch. [5] 20, 465; A. 219, 104; B. 22, 243). — I, 620.
- 6) Oxysorbinsäure. Sm. 85°. Ca, Ba, Cd (B. 12, 2003). — I, 619.
- 7) Anhydrid d. Butan- $\alpha\beta$ -Dicarbonsäure (A. d. Aethylbernsteinsäure). Sd. 243° (A. 242, 125). — I, 675.
- 8) Anhydrid d. Butan- $\alpha\gamma$ -Dicarbonsäure. Sd. 272—275° (A. 292, 210).
- 9) Anhydrid d. Butan- $\alpha\delta$ -Dicarbonsäure. Sd. 95—100° (C. 1896 [2] 1090).
- 10) Anhydrid d. fum. Butan- $\beta\gamma$ -Dicarbonsäure (A. d. fum. s-Dimethylbernsteinsäure). Sm. 38° (43°) (B. 20, 2741; 22, 390; Soc. 69, 266). — I, 672.
- 11) Anhydrid d. mal. Butan- $\beta\gamma$ -Dicarbonsäure (A. d. mal. s-Dimethylbernsteinsäure). Sm. 87°; Sd. 234—235° (A. 234, 53, 57; B. 18, 2346; 20, 2740; 21, 3170, 3171; Soc. 69, 267). — I, 672.
- 12) Anhydrid d. β -Methylpropan- $\alpha\beta$ -Dicarbonsäure (A. d. uns-Dimethylbernsteinsäure). Sm. 29°; Sd. 219—220° (224°₄₁) (A. 242, 139, 201; 292, 185; B. 30, 256, 613; C. 1895 [2] 447). — I, 674.
- 13) Anhydrid d. β -Methylpropan- $\alpha\gamma$ -Dicarbonsäure (A. d. β -Methylglutarsäure). Sm. 46°; Sd. 282—284° (A. 218, 151). — I, 676.
- 14) Anhydrid d. Isodimethylbernsteinsäure. Sm. 186—187° (B. 18, 839). — I, 673.
- 15) Anhydrid einer isom. Butan- ρ -Dicarbonsäure. Sm. 86—87° (B. 20, 2443). — I, 673.
- 16) Lakton d. δ -Oxy- γ -Keto- β -Methylbutan- β -Carbonsäure. Sd. 208 bis 212° (B. 31, 2729).
- 17) Methylester d. Tetrinsäure. Sd. 215—220° (B. 31, 2731).
- 18) Aethylester d. Oxytetrölsäure (oder Succinylbernsteinsäurediäthylester C₁₂H₁₆O₆). Sm. 127—127,5° (B. 15, 1382, 1383; 16, 133; A. 213, 151).
- 19) Allylester d. α -Ketoäthan- α -Carbonsäure. Sd. 165° (Bl. [3] 13, 482). C 50,0 — H 5,6 — O 44,4 — M. G. 144.
- 1) Bergenin (J. 1880, 1072). — III, 620.
- 2) Carminzucker (oder C₆H₁₀O₅) (A. 141, 338).
- 3) R-Tetramethylen-1,1-Dicarbonsäure. Sm. 154—156°. Ba + H₂O, Pb + 2H₂O, Cu + H₂O, Ag₂ (Soc. 51, 2, 5; 61, 705; J. pr. [2] 45, 480, 486; B. 19, 1051). — I, 717.
- 4) cis-R-Tetramethylen-1,2-Dicarbonsäure. Sm. 138°. Ba, Ag₂ (Soc. 51, 22; 65, 582; J. pr. [2] 45, 478, 486; B. 26, 2244). — I, 718.
- 5) trans-R-Tetramethylen-1,2-Dicarbonsäure. Sm. 131° (Soc. 65, 585).
- 6) cis-R-Tetramethylen-1,3-Dicarbonsäure. Sm. 138—139°. Ba + 2H₂O, Ag₂ (J. r. 22, 285; Soc. 73, 337). — I, 717.
- 7) trans-R-Tetramethylen-1,3-Dicarbonsäure (Homoitakonsäure). Sm. 170—171°. Pb + 1/2 H₂O, Ag₂ (A. 208, 333; J. r. 12, 449; 22, 279; Soc. 73, 336). — I, 717.

 $C_6H_8O_4$

$C_4H_4O_4$

- 8) 1-Methyl-R-Trimethylen-2,2-Dicarbonsäure (Methylvinaconsäure). Sm. 113,5°. $Ca + 5H_2O$, $Ba + 2H_2O$, $BaH + 3H_2O$, Ag , Ag_2 (A. 294, 116).
- 9) α -Buten- $\alpha\beta$ -Dicarbonsäure (Aethylfumarsäure; Methylmesakonsäure). Sm. 193–195°. $Ca + 3\frac{1}{2}H_2O$, $Ba + 1\frac{1}{2}H_2O$, Ag_2 (A. ch. [5] 20, 485; B. 24, 2013; J. r. 23, 432). — I, 715.
- 10) α -Buten- $\alpha\beta$ -Dicarbonsäure (Aethylmaleinsäure; Methylcitakonsäure). Sm. 100–101°. $Ca + H_2O$, $Ba + 4H_2O$, Ag_2 (A. 255, 33; J. r. 23, 434; B. 23, 1936; 24, 2011). — I, 715.
- 11) α -Buten- $\alpha\gamma$ -Dicarbonsäure (α -Methylglutakonsäure). Sm. 137° (A. 222, 259; Soc. 63, 879). — I, 716.
- 12) α -Buten- $\alpha\gamma$ -Dicarbonsäure (Iso- α -Methylglutakonsäure). Sm. 141°. Ba , Ag_2 (M. 15, 60).
- 13) α -Buten- $\alpha\delta$ -Dicarbonsäure (Dihydromukonsäure). Sm. 168–169° (A. 256, 14, 15; Ph. Ch. 10, 417). — I, 714.
- 14) α -Buten- $\beta\gamma$ -Dicarbonsäure (Methylitakonsäure). Sm. 150–151°. $Ca + H_2O$, $Ba + H_2O$, Ag_2 (B. 29, 1843; C. 1897 [2] 264; A. 304, 166).
- 15) α -Buten- $\delta\delta$ -Dicarbonsäure (Allylmalonsäure). Sm. 103° (105°). Ca , $Ba + H_2O$, Ag_2 (A. 204, 169; 216 52; 294, 119 Anm.; B. 15, 621, 624; 27, 1178; Ph. Ch. 10, 417; J. 1884, 1160; 1886, 1370; J. pr. [2] 49, 127). — I, 716.
- 16) β -Buten- $\alpha\beta$ -Dicarbonsäure (Methylitakonsäure). Sm. 166–167°. $Ca + H_2O$, $Ba + \frac{1}{2}H_2O$ (A. 255, 36; J. r. 23, 437). — I, 716.
- 17) β -Buten- $\alpha\delta$ -Dicarbonsäure (isom. Dihydromukonsäure). Sm. 195°. Zn , Ag_2 (A. 132, 98; 165, 262; 256, 10, 15, 26; Ph. Ch. 10, 417; Soc. 57, 371, 936; B. 18, 680; 27, 1542). — I, 714.
- 18) β -Buten- $\beta\gamma$ -Dicarbonsäure (Dimethylfumarsäure; β -Methylmesakonsäure). Sm. 240°. $Ca + 2H_2O$, $Ba + 2\frac{1}{2}H_2O$, Ag_2 (B. 29, 1842; C. 1897 [2] 263; A. 304, 162).
- 19) β -Buten- $\beta\gamma$ -Dicarbonsäure (Dimethylmaleinsäure; Pyrocinchonsäure). $Na_2 + 1\frac{1}{2}H_2O$, Ca , Ba , Ag_2 (B. 12, 1151; 15, 293, 1318, 2013; 18, 829, 836, 849; 22, 64, 653; 23, 646; 29, 1842; J. pr. [2] 46, 300; A. 234, 44; 267, 206; M. 3, 608; C. 1897 [2] 263). — I, 716.
- 20) β -Methylpropen- $\alpha\alpha$ -Dicarbonsäure (Isopropylenmalonsäure). Sm. 170 bis 171°. Ba (B. 28, 786).
- 21) fum. β -Methylpropen- $\alpha\gamma$ -Dicarbonsäure (fum. Acetacrotensäure). Sm. 115–116°. $Ba + 6H_2O$ (A. ch. [6] 24, 108). — I, 714.
- 22) mal. β -Methylpropen- $\alpha\gamma$ -Dicarbonsäure (mal. Acetacrotensäure). Sm. 141°. $Ba + 5H_2O$, Cu , Ag_2 (A. ch. [6] 24, 110). — I, 715.
- 23) isom. β -Methylpropen- $\alpha\gamma$ -Dicarbonsäure (Homomesakonsäure). Sm. 147°; subl. bei 120°. $Ca + H_2O$, $Ba + 4\frac{1}{2}H_2O$, $Cu + 2H_2O$, Ag_2 (A. 222, 31). — I, 715.
- 24) Diakrylsäure. Na_2 , Ca , Ba (A. 174, 293). — I, 718.
- 25) Säure (aus δ -Oxy- α -Methylglutarsäure). Sm. 133,5° (M. 11, 513). — I, 718.
- 26) Säure (aus Saccharon). Sm. 139° (A. 218, 368). — I, 718.
- 27) Laktid (Bianhydrid d. α -Oxypropionsäure). Sm. 124,5°; Sd. 255° (A. 7, 43; 53, 116; 70, 243, 245; 167, 319; 279, 71; B. 7, 755; 26, 263; 27, 2950). — I, 555.
- 28) Lakton d. $\delta\delta$ -Dioxy- γ -Keto- β -Methylbutan- β -Carbonsäure. Sm. 168 bis 169° u. Zers. (B. 30, 857; 31, 2729).
- 29) $\alpha\gamma$ -Lakton d. γ -Oxybutan- $\alpha\beta$ -Dicarbonsäure (L. d. Oxypropylmalonsäure; Carbovalerolaktensäure). Fl. Ba , Ag (A. 216, 54; 294, 122; B. 15, 621). — I, 751.
- 30) $\alpha\gamma$ -Lakton d. γ -Oxybutan- $\alpha\beta$ -Dicarbonsäure (L. d. Methylitamalsäure; Methylparakonsäure). Sm. 78–79°. $Ca + 2\frac{1}{2}H_2O$, $Ba + 3\frac{1}{2}H_2O$, Ag (A. 255, 18). — I, 751.
- 31) $\alpha\gamma$ -Lakton d. γ -Oxybutan- $\alpha\gamma$ -Dicarbonsäure (L. d. α -Methoxyglutarsäure). Sm. 68–70°; Sd. 200–215° (i. V.). $Ca + 4(5)H_2O$, Ag (A. 208, 63; 238, 291; B. 14, 1780). — I, 750.
- 32) $\beta\delta$ -Lakton d. δ -Oxybutan- $\beta\beta$ -Dicarbonsäure (α -Methylbutyrolakton-carbonsäure). Sm. 98°. $Ca + H_2O$, $Ba + 4H_2O$, Ag (B. 28, 9; A. 294, 106).
- 33) $\alpha\beta$ -Lakton d. α -Oxy- β -Methylpropan- $\alpha\beta$ -Dicarbonsäure + H_2O . Sm. 54–55° (B. 30, 1955).
- 34) α -Aldehyd d. α -Keto- β -Methylpropan- $\alpha\beta$ -Dicarbonsäure. Sm. 138° (B. 30, 859).

- C₄H₄O₄** 35) Methylester d. $\alpha\gamma$ -Diketobutan- α -Carbonsäure (M. d. Acetbrenztraubensäure). Sm. 63—64° (Soc. 61, 853; B. 30, 955). — I, 691.
- 36) Methylester d. α -Oxy- γ -Keto- α -Buten- β -Carbonsäure. Sd. 185°₁₆₀. Cu (A. 297, 21, 26).
- 37) α -Methylester d. Mesakonsäure. Sm. 36°; Sd. 145°₁₅ (B. 30, 2651).
- 38) β -Methylester d. Mesakonsäure. Sm. 61—62° (B. 30, 2651).
- 39) α -Methylester d. Itakonsäure. Sm. 64°; Sd. 149°₁₂ (B. 30, 2651).
- 40) Dimethylester d. Fumarsäure. Sm. 102°; Sd. 192° (J. r. 11, 288; J. 1881, 717; B. 12, 2282; J. pr. [2] 38, 477; Soc. 59, 472). — I, 699.
- 41) Dimethylester d. Maleinsäure. Sd. 205° (i. D.) (B. 12, 2283; A. 248, 192; Ph. Ch. 4, 484). — I, 702.
- 42) Monäthylester d. Fumarsäure. Sm. 70° (66°); Sd. 147°₁₆. K, Ag (A. 164, 297; Soc. 59, 738; 61, 714; B. 30, 2651). — I, 699.
- 43) Monäthylester d. Maleinsäure. Fl. Na, K (Soc. 59, 740; 61, 714; J. r. 20, 263). — I, 702.
- 44) Äthylester d. Äthan- $\alpha\beta$ -Dicarbonsäure (Ä. d. Bernsteinsäure) (A. ch. [3] 67, 296). — I, 656.
- 45) Pyruvin (Brenztraubensäureglycidester). Sm. 82°; Sd. 240—241° (Z. 1871, 701; M. 6, 511; A. 263, 247; J. 1887, 1779). — I, 586.
- C₄H₄O₅** C 45,0 — H 5,0 — O 50,0 — M. G. 160.
- 1) Hydrokomensäure. Ag₂ (A. 138, 195). — I, 766.
- 2) Oxyhydromukonsäure. Sm. noch nicht bei 220°. Ba + 2H₂O (A. 165, 265). — I, 765.
- 3) Pyroisomalsäure. Ba, Pb, Cu, Ag₂ (A. 139, 267).
- 4) Pyrolävilinsäure. Ca (C. 1895 [2] 593).
- 5) Terechrysinsäure. Pb (A. 64, 378). — I, 766.
- 6) β -Ketobutan- $\gamma\delta$ -Dicarbonsäure. Ba (Soc. 71, 1166).
- 7) Oxymaleinäthyläthersäure. Sm. 144—147°. K (M. 14, 497).
- 8) Lakton d. $\gamma\delta$ -Dioxybutan- $\alpha\alpha$ -Dicarbonsäure (L. d. Dioxypropylmalonsäure). Ba (B. 14, 144; 15, 624). — I, 803.
- 9) Dimethylester d. α -Ketoäthan- $\alpha\beta$ -Dicarbonsäure (Dimethylester d. Oxaleissigsäure). Sm. 74—76°; Sd. 137°₃₀. Na, Cu (A. 277, 375).
- 10) Monoäthylester d. α -Ketoäthan- $\alpha\beta$ -Dicarbonsäure (M. d. Oxaleissigsäure). Sm. 95—97°. Zers. bei 140° (A. 246, 323). — I, 761.
- 11) Pektin? (A. 28, 282). — I, 1105.
- C₄H₄O₆** C 40,9 — H 4,5 — O 54,6 — M. G. 176.
- 1) Propan- $\alpha\alpha\beta$ -Tricarbonsäure. Sm. 146° u. Zers. Ba₂ (B. 13, 2165; 14, 614; 15, 1107; 29, 1513; A. 214, 54; Ph. Ch. 10, 572; A. ch. [6] 27, 281). — I, 809.
- 2) Propan- $\alpha\beta\gamma$ -Tricarbonsäure (Tricarbalylsäure). Sm. 166°. Salze meist bek. Lit. bedeutend. — I, 808.
- 3) α -Acetoxyläthan- $\alpha\beta$ -Dicarbonsäure (Acetoxylbernsteinsäure; Acetyläpfelsäure). Sm. 132° (139°) (B. 14, 2791; 26 [2] 371, 492; A. 254, 165). — I, 743.
- 4) 1,2-Dioxy-R-Tetramethylen-1,2-Dicarbonsäure. Fl. (Soc. 65, 972).
- 5) Parapyruvinsäure (Parabrenztraubensäure). Ca + 4H₂O, Ba + 3 $\frac{1}{2}$ (4 $\frac{1}{2}$)H₂O (R. 13, 345; 14, 297; A. 305, 157).
- 6) Säure (aus d. Säure C₆H₆O₆J) (J. 1868, 508). — I, 809.
- 7) Lakton [oder Anhydrid] d. $\alpha\beta\gamma$ -Trioxybutan- $\alpha\gamma$ -Dicarbonsäure + H₂O (Saccharon). NH₄, Na (B. 16, 2958; A. 218, 363). — I, 833.
- 8) Lakton [oder Anhydrid] d. Glykuronsäure. Sm. 175—178° u. Zers. (H. 3, 440; 11, 398; B. 16, 1966; 24, 523; A. 290, 157). — I, 833.
- 9) Dimethylester d. Säure C₄H₄O₆ (aus Weinsäure). Sm. 151° (Soc. 65, 905).
- C₄H₄O₇** C 37,5 — H 4,2 — O 58,3 — M. G. 192.
- 1) α -Oxypropan- $\alpha\beta\gamma$ -Tricarbonsäure (Isocitronensäure). Na₂, Ca₂ + H₂O, Ba₂ + H₂O, Ag₂ (A. 255, 48; 285, 7; J. 1873, 593). — I, 841.
- 2) β -Oxypropan- $\alpha\beta\gamma$ -Tricarbonsäure + H₂O (Citronensäure). Sm. 100° (153—154° wasserfrei). Lit. bedeutend. — I, 835.
- 3) Lakton [oder Anhydrid] d. Schleimsäure (A. 15, 179; B. 24, 2141). — I, 856.
- 4) Lakton d. d-Zuckersäure (Zuckerlaktonsäure). Sm. 130—132° (A. 245, 6). — I, 862.

- $C_6H_5O_7$ 5) Lakton d. Norisozuckersäure (Isozuckersäure). Sm. 185°. $(NH_4)_2$, K + $\frac{1}{2}H_2O$, K₂, Ca, Sr, Ba, Pb + $2H_2O$, Cu, Ag₂ (B. 17, 246; 19, 1258; 27, 118, 130, 142). — I, 853.
- $C_6H_5O_8$ C 34,6 — H 3,8 — O 61,6 — M. G. 208.
- 1) $\alpha\beta$ -Dioxypropan- $\alpha\beta\gamma$ -Tricarbonsäure? (Oxycitronensäure). Fl. Ca + $9H_2O$, Ba₃ + $5H_2O$, Cd₂ + $3H_2O$ (A. 178, 157; B. 16, 1079). — I, 858.
- 2) β -Dioxypropan- β -Tricarbonsäure (Dioxypropenyltricarbonsäure). Fl. Ca, Ca₃ (B. 18, 638). — I, 857.
- $C_6H_5O_9$ C 32,1 — H 3,6 — O 64,3 — M. G. 224.
- 1) $\alpha\beta\gamma$ -Trioxypropan- $\alpha\alpha\gamma$ -Tricarbonsäure (Dioxyisocitronensäure). Ca + $3H_2O$ (C. r. 91, 728; J. 1880, 611). — I, 869.
- C_6H_5N 1) Piturin (identisch mit Nikotin). Sd. 243–244°. (HCl, 5HgCl₂) (J. 1878, 915; 1879, 791; 1881, 958). — III, 926.
- $C_6H_5N_2$ C 66,7 — H 7,4 — N 25,9 — M. G. 108.
- 1) 1,2-Diamidobenzol. Sm. 102–103°; Sd. 256–258°. 2HCl, (2HCl, PtCl₄), H₂SO₄ + $\frac{1}{2}H_2O$, H₂SO₄. Lit. bedeutend. — IV, 553.
- 2) 1,3-Diamidobenzol. Sm. 63°; Sd. 282–284°. 2HCl, (2HCl, 2SnCl₂), (2HCl, SnCl₄), (2HCl, PtCl₄), H₂SO₄. Lit. bedeutend. — IV, 568.
- 3) 1,4-Diamidobenzol. Sm. 140°; Sd. 267°. subl. 2HCl, (2HCl, 2SnCl₂), (2HCl, PtCl₄), 2HBr, H₂S₂O₃, H₂SO₄, Oxalat, Benzolsulfonat. Lit. bedeutend. — IV, 579.
- 4) Phenylhydrazin + $\frac{1}{2}H_2O$. Sm. 24,1° (17,5° wasserfrei); Sd. 243,5° (i. D.). Salze meist bek. Lit. bedeutend. — IV, 650.
- 5) 2,5-Dimethyl-1,4-Diazin (Dimethylpyrazin; Glykolin; Ketin). Sm. 15°; Sd. 155°. HCl, (2HCl, PtCl₄ + $3H_2O$), (HCl, PtCl₄), (HCl, AuCl₃ + H_2O), Pikrat, + HgCl₂, + 2HgCl₂, 2 + PtCl₄ (B. 25, 260; 26, 2205; 27, 1143; 30, 228, 532; J. pr. [2] 43, 156; [2] 47, 455, 464, 485; [2] 48, 20; Ph. Ch. 16, 218). — IV, 821.
- 6) 2,6-Dimethyl-1,4-Diazin. Sm. 47–48°. (HCl, AuCl₃), + 6HgCl₂, + AuCl₃, Pikrat (J. pr. [2] 54, 492). — IV, 822.
- 7) α -Glykosin. Sd. 136°. HCl, + AuCl₃ (Bl. 44, 103). — I, 1046.
- 8) Mannitin. Sd. 170° (G. 12, 416). — IV, 822.
- 9) Nitril d. Butan- $\alpha\alpha$ -Dicarbonsäure (N. d. Propylmalonsäure). Sd. 216 bis 217° (J. 1889, 640). — I, 1479.
- 10) Nitril d. β -Methylpropan- $\alpha\alpha$ -Dicarbonsäure (N. d. Isopropylmalonsäure). Sd. 204,5° (J. 1889, 640). — I, 1479.
- 11) Nitril d. β -Methylpropan- $\alpha\gamma$ -Dicarbonsäure (N. d. uns-Dimethylbernsteinsäure). Sd. 218–220° (B. 22, 1740). — I, 1479.
- $C_6H_5N_3$ C 52,9 — H 5,9 — N 41,2 — M. G. 136.
- 1) 2,5-Diamido-1,4-Diimido-1,4-Dihydrobenzol. 2HCl, 2HNO₃ (B. 20, 335, 2115). — IV, 1245.
- $C_6H_5N_4$ C 43,9 — H 4,9 — N 51,2 — M. G. 164.
- 1) 2,6-Diamido-7-Methylpurin. Sm. 390° u. Zers. (B. 31, 118; 32, 480). — IV, 1330.
- $C_6H_5N_5$ C 37,5 — H 4,2 — N 58,3 — M. G. 192.
- 1) 3,3'-Dimethyl-5,5'-Azo-1,2,4-Triazol? (B. 26, 2600). — IV, 1237.
- C_6H_5Cl 1) 1,1,4,4-Tetrachlorhexahydrobenzol. Sm. 125,5° (J. r. 25, 126).
- $C_6H_5Cl_2$ 1) $\alpha\beta\gamma\delta\epsilon\zeta$ -Hexachlorhexan. Sm. 137,5°; Sd. 180–185°₃₀ (B. 23 [2] 658). — I, 155.
- 2) Hexachlorhexan (aus α -Chlorhexan). Sd. 285–290° (J. 1863, 525). — I, 154.
- C_6H_5Br 1) $\gamma\delta$ -Dibrom- $\alpha\epsilon$ -Hexadien. Sm. 84,5–85° (GRINER, thèse 77). — I, 187.
- 2) Dibromdiallyl. Sd. 210° (J. pr. [2] 8, 57, 58). — I, 187.
- 3) Bromderivat d. β -Methyl- $\beta\gamma$ -Pentadien. Fl. (A. 290, 152).
- $C_6H_5Br_2$ 1) $\gamma\delta\epsilon\zeta$ -Tetrabrom- α -Hexen. Sm. 112° (GRINER, thèse 78). — I, 186.
- 2) isom. $\gamma\delta\epsilon\zeta$ -Tetrabrom- α -Hexen. Sm. 108–109° (GRINER, thèse 78). — I, 186.
- 3) Diallylentetrabromid (J. 1878, 380). — I, 186.
- 4) 1,2,3,4-Tetrabromhexahydrobenzol. Sm. 184° (C. 1898 [2] 579; Soc. 73, 948; A. 278, 96).
- 5) 1,2,4,5-Tetrabromhexahydrobenzol. Fl. (C. 1898 [2] 579; A. 278, 96).
- $C_6H_5Br_3$ 1) Hexabromhexan (Diallylenhexabromid). Fl. (J. 1878, 380). — I, 179.
- 2) Hexabromhexan (Dibromdiallylbromid). Sm. 76–77° (B. 7, 23). — I, 179.

- $C_6H_5Br_6$ 3) Hexabromhexan (aus sec. Jodhexan). Sm. 152° (B. 11, 2250). — I, 179.
 4) Hexabromhexan (aus Hexan) (B. 10, 1234; 26, 2437). — I, 103.
- C_6H_5S 1) 3-Methylpenththiophen. Sd. 134° (B. 19, 3270). — III, 770.
 2) 2-Aethylthiophen. Sd. $132-134^\circ$ (B. 17, 1560; 18, 547, 3016; 19, 671). — III, 745.
 3) 3-Aethylthiophen. Sd. $135-136^\circ$ (B. 19, 3284; A. 267, 146). — III, 745.
 4) 2,3-Dimethylthiophen. Sd. $136-137^\circ$ (B. 20, 2559, 2586). — III, 745.
 5) 2,4-Dimethylthiophen. Sd. $137-138^\circ$ (B. 20, 2018). — III, 745.
 6) 2,5-Dimethylthiophen. Sd. $136,5-137,5^\circ$ (B. 18, 566, 2252; 20, 1747; 29, 2560; G. 24 [1] 271). — III, 746.
 7) 3,4-Dimethylthiophen. Sd. $144-146^\circ$ (B. 21, 1836). — III, 746.
 8) isom. ?-Dimethylthiophen. Sd. $138-140^\circ$ (B. 19, 1858). — III, 746.
- C_6H_5Se 1) 2,5-Dimethylselenophen (Selenoxen). Sd. $153-155^\circ$ (B. 18, 2255; G. 24 [2] 399). — III, 770.
- C_6H_5N C 75,8 — H 9,5 — N 14,7 — M. G. 95.
 1) 1-Aethylpyrrol. Sd. 131° . (4HCN, Fe[CN]₆) (B. 2, 101; 9, 936; 10, 1862, 1962; 22, 661; G. 23 [2] 425). — IV, 66.
 2) 2-Aethylpyrrol (B. 23, 2563; G. 21 [2] 167). — IV, 71.
 3) 3-Aethylpyrrol. Sd. $163-165^\circ$ (B. 19, 2190; 23, 2563; G. 19, 294; 21, 248). — IV, 71.
 4) 2,3-Dimethylpyrrol. Sd. 165° (B. 22, 1926). — IV, 71.
 5) 2,4-Dimethylpyrrol. Sd. $170-175^\circ$ (171° cor.) (Soc. 67, 220; A. 236, 326). — IV, 71.
 6) 2,5-Dimethylpyrrol. Sd. 165°_{752} (B. 13, 78; 18, 1565, 2254; 30, 1588; G. 24 [1] 278). — IV, 71.
 7) 1-Methyl-?-Dihydropyridin. Sd. 129° (B. 14, 1499). — IV, 62.
 8) Nitril d. β -Penten- γ -Carbonsäure. Sd. $143-145^\circ$ (C. 1899 [1] 195).
 9) Nitril d. γ -Methyl- α -Buten- α -Carbonsäure. Sd. $154-155^\circ_{754}$ (C. 1898 [2] 662).
 10) Nitril d. β -Methyl- β -Buten- γ -Carbonsäure. Sd. $155-157^\circ_{760}$ (C. 1899, [1] 195).
 11) Nitril d. β -Methyl- β -Buten- δ -Carbonsäure. Sd. 166° (M. 17, 221).
 12) Nitril d. R-Pentamethylencarbonsäure. Sd. $170-171^\circ$ (A. 275, 336).
 C 58,5 — H 7,3 — N 34,2 — M. G. 123.
 1) 1,2,3-Triamidobenzol. Sm. bei 103° ; Sd. 330° . 2HCl, H₂SO₄ + 2H₂O (A. 163, 23). — IV, 1121.
 2) 1,2,4-Triamidobenzol. Sm. unterh. 100° ; Sd. bei 340° . 2HCl, H₂SO₄ (A. 174, 265; B. 15, 2197, 2480; 19, 1253). — IV, 1121.
 3) 1,3,5-Triamidobenzol. (3HCl, SnCl₂) (A. 215, 349; M. 18, 757). — IV, 1124.
 4) 3-Amidophenylhydrazin (B. 18, 964; 22, 2815). — IV, 1126.
 5) 6-Amido-2,4-Dimethyl-1,3-Diazin (Kyanmethin). Sm. $180-181^\circ$. HCl, (2HCl, PtCl₄), HJ, (HJ, J₂), (HJ, J₄), HNO₃, H₂SO₄, 2H₂SO₄, Oxalat + 2H₂O, 2 + AgNO₃ (B. 2, 319; 4, 176; 15, 2389; J. pr. [2] 27, 152; [2] 31, 365; [2] 39, 244; [2] 42, 3; C. 1899 [1] 785). — IV, 1127.
 6) 2-Amido-4,6-Dimethyl-1,3-Diazin. Sm. 153° . (2HCl, PtCl₄ + 2 $\frac{1}{2}$ H₂O) (Bl. [3] 7, 791). — IV, 1127.
 7) Nitril d. $\alpha\alpha$ -Imidodipropionsäure. Sm. 68° . HCl (A. 200, 126; B. 6, 1115). — I, 1464.
 C 30,6 — H 3,8 — N 65,5 — M. G. 235.
- $C_6H_5N_{11}$ 1) Melam (A. 10, 12; 179, 119; B. 9, 1554; J. pr. [2] 33, 286). — I, 1446.
- C_6H_5Cl 1) Chlordiallyl. Sd. 120° (J. 1878, 379; Ann. scientif. Brux. 1878). — I, 164.
 2) Chlorhexin (aus Mesityloxyd). Sd. 130° (A. 140, 298). — I, 164.
 3) p-Chlortetrahydrobenzol. Sd. $142-143^\circ_{757}$ (C. 1898 [2] 579; A. 302, 11).
- $C_6H_5Cl_3$ 1) Trichlorhexahydrobenzol. Sd. $135-140^\circ_{30}$ (C. 1897 [2] 540).
- $C_6H_5Br_3$ 1) Bromderivat d. β -Methyl- $\beta\gamma$ -Pentadien. Fl. (A. 290, 152).
- C_6H_5J 1) Jodid d. Alkohols C₆H₁₀O (aus Glycerin). Sd. $130-135^\circ$ (B. 18, 2931).
- C_6H_5O C 73,5 — H 10,2 — O 16,3 — M. G. 98.
 1) 2-Oxy-1,2,3,4-Tetrahydrobenzol. Sd. 166° (cor.) (A. 278, 97). — II, 643.
 2) Alkohol (aus Glycerin). Sd. 140° (B. 18, 2931). — I, 273.
 3) Propenyläther d. γ -Oxypropen (Allyläther). Sd. $94,3^\circ$ ($85-87^\circ$) (A. 102, 290; 214, 146; A. ch. [3] 48, 291). — I, 301.

$C_6H_{10}O$

- 4) β -Hexen- β -Oxyd (Iun. Anhydrid d. ζ -Oxy- β -Ketohezan). Sd. 109—109,5° (106—107°) (Soc. 51, 723; A. 289, 186). — I, 269.
- 5) ϵ -Keto- α -Hexen (Allylaceton). Sd. 128—130°. + 2 NaHSO₃ (J. 1878, 379; A. 187, 35; 201, 81; 264, 323; 303, 171; J. r. 13, 358). — I, 1009.
- 6) δ -Keto- β -Methyl- β -Penten (Mesityloxyd; Isopropylidenaceton). Sd. 130°. Lit. bedeutend. — I, 1007.
- 7) R-Ketohexamethylen (Ketoexahydrobenzol). Sd. 154,5—154,6°_{751,4} (A. 275, 362; 278, 100; 302, 18; B. 27, 1544; C. 1898 [2] 578).
- 8) 2-Keto-1-Methyl-R-Pentamethylen. Sd. 142—144° (C. 1896 [2] 1092; G. 26 [2] 276).
- 9) 3-Keto-1-Methyl-R-Pentamethylen. Sd. 141—143° (B. 25, 3517; 30, 1222). — I, 1009.
- 10) 2-Keto-1,3-Dimethyl-R-Tetramethylen. Sd. 115—120° (C. 1897 [2] 342).
- 11) Acetyl-R-Tetramethylen. Sd. 134°₇₃₈ (Soc. 51, 237; 61, 47). — I, 1009.
- 12) isom. Acetyl-R-Tetramethylen? Sd. 109—110° (B. 16, 1789). — I, 1009.
- 13) Dumasin (Keton). Sd. 120—125°. + NaHSO₃ + 2 H₂O (P. 44, 494; 68, 277; A. 110, 21; B. 15, 587, 592; 29, 1841). — I, 1009.
- 14) Metaceton. Sd. 84° (A. 15, 281; 52, 127; 162, 303; J. 1856, 455).
- 15) Helleborin siehe auch C₁₀H₁₄O₆ (C. 1897 [2] 764).
- 16) Aldehyd d. β -Penten- β -Carbonsäure (Methyläthylakrolein). Sd. 137,3°_{738,6} (M. 3, 693; 4, 10, 725; 9, 637; J. r. 19, 306). — I, 960.
C 63,2 — H 8,8 — O 28,0 — M. G. 114.

 $C_6H_{10}O_2$

- 1) $\gamma\delta$ -Dioxy- $\alpha\epsilon$ -Hexadiën (Divinylglykol). Sd. 197—198° (GRINER, thèse 66). — I, 271.
- 2) $\gamma\delta$ -Dioxy- $\alpha\epsilon$ -Hexadiën? (Akropinakon). Sd. 160—180° (A. Spl. 3, 271). — I, 271.
- 3) Hexandioxyd (aus Dichlorhexylenglykol). Sd. 179—180° (J. r. 21, 321; B. 18, 1352). — I, 216.
- 4) Hexandioxyd (aus Epichlorhydrin). Sd. 153° (A. ch. [6] 22, 447; A. 154, 186). — I, 216.
- 5) $\beta\gamma$ -Diketohezan (Methylpropyldiketon; Acetylbutyryl). Sd. 128° (B. 22, 2119). — I, 1018.
- 6) $\beta\delta$ -Diketohezan (Acetylpropionylmethan). Sd. 158°. Cu (B. 22, 1014; A. ch. [6] 26, 362). — I, 1018.
- 7) $\beta\epsilon$ -Diketohezan (Acetonylaceton). Sd. 194°₇₅₄ (B. 18, 58; 19, 3157; 20, 1086; 22, 169, 2100; 24, 1303; 25, 3074; A. 246, 24; 303, 145; J. pr. [2] 50, 140). — I, 1018.
- 8) $\gamma\delta$ -Diketo- β -Methylpentan (Acetylisobutyryl). Sd. 115—116° (B. 22, 2121). — I, 1019.
- 9) $\beta\delta$ -Diketo- γ -Methylpentan (Methylacetylaceton). Sd. 169° (Bl. [3] 7, 785; Soc. 59, 428; 61, 848). — I, 1019.
- 10) α -Penten- α -Carbonsäure (β -Propylakrylsäure). Sm. 32,7—33,1°; Sd. 216 bis 217°. Ca + 3 H₂O, Ba + 1½ H₂O, Zn + 2½ H₂O, Cd + 2 H₂O, Ag (A. 283, 118; G. 13, 354). — I, 517.
- 11) α -Penten- β -Carbonsäure (α -Propylakrylsäure). Sd. 200—202°. Ca (J. pr. [2] 51, 547; J. r. 25, 308).
- 12) α -Penten- ϵ -Carbonsäure. Sm. 202—204°. Ca + H₂O, Ba, Cd, Ag (B. 30, 2052).
- 13) β -Penten- α -Carbonsäure (Hydrosorbinsäure). Sd. 204,5° (208°). Ca + H₂O, Ba, Cd + 2 H₂O, Cu, Ag (A. 161, 309; 200, 42; 255, 61; 266, 38; 283, 117; 296, 194; B. 15, 624; 29, 2370; J. pr. [2] 26, 115; Ph. Ch. 3, 274). — I, 517.
- 14) β -Penten- β -Carbonsäure (α -Methyl- β -Aethylakrylsäure). Sm. 24,4°; Sd. 213°. Ca + 4 H₂O, Ag (M. 4, 47, 59, 70; Ph. Ch. 3, 275). — I, 516.
- 15) β -Penten- γ -Carbonsäure (α -Aethylcrotonsäure). Sm. 41,5° (39,5°); Sd. 209°. Ca + 5 H₂O, Cu, Pb + H₂O, Ag (A. 136, 5; 188, 245; 200, 21; 268, 22; 274, 58; J. 1868, 529; B. 6, 1098). — I, 516.
- 16) β -Penten- ϵ -Carbonsäure. Sd. 206,5°. Cd + 2 H₂O (B. 29, 2370; 30, 2052; 31, 2000).
- 17) β -Methyl- α -Buten- α -Carbonsäure (β -Aethylcrotonsäure). Sd. 198—200°. Ag (B. 27, 1577).
- 18) γ -Methyl- α -Buten- α -Carbonsäure (Isobrenzterebinsäure). Sd. 211—212°. Ca, Zn, Ag (J. r. 11, 125; M. 17, 213; Soc. 75, 168). — I, 518.

- $C_5H_{10}O_2$
- 19) β -Methyl- α -[oder β -]Buten- δ -Carbonsäure (Brenzterebinsäure). Sm. 5 bis 6°; Sd. 207°. $Ca_3 + H_2O$, $Ba + 5H_2O$, Ag (A. ch. [5] 27, 72; B. 6, 1095; A. 180, 45; 208, 37; J. 1855, 652). — I, 517.
 - 20) β -Methyl- β -Buten- γ -Carbonsäure (Trimethylakrylsäure). Sm. 71°; Sd. 204—205° (C. 1896 [2] 702, 728; Soc. 69, 1479).
 - 21) β -[oder γ -]Methyl- β -Buten- δ -Carbonsäure. Sd. 205—207° (A. 296, 173).
 - 22) R-Pentamethylen-carbonsäure. Sd. 214—215°. $Ca + 5H_2O$, $Ba + H_2O$, Ag (A. 275, 335; B. 26, 2248; 27, 1229; Soc. 65, 98).
 - 23) Isohydrosorbinsäure. Sd. 208—210°. $Ca + H_2O$ (B. 15, 618; A. 200, 53). — I, 517.
 - 24) Pseudobrenzterebinsäure. Sd. 202—203°. $Ca + H_2O$, Ag (A. 228, 184). — I, 518.
 - 25) P-Penten-P-Carbonsäure (aus Trichlorcapronsäure). Sm. 39° (B. 10, 1054). — I, 518.
 - 26) Säure (im Crotonöl). Sd. 208° (A. 191, 121). — I, 518.
 - 27) Lakton d. γ -Oxypentan- α -Carbonsäure (Caprolakton). Sd. 220° (A. 208, 67; 256, 134; B. 13, 955; 15, 617, 629; 17, 1300; 18, 643; J. pr. [2] 48, 211). — I, 570.
 - 28) Lakton d. δ -Oxypentan- α -Carbonsäure. Sm. 17—19°; Sd. 230—231° (A. 216, 134; M. 15, 31). — I, 570.
 - 29) $\alpha\gamma$ -Lakton d. γ -Oxy- β -Methylbutan- α -Carbonsäure (oder $\beta\delta$ -Lakton d. β -Oxy- β -Methylbutan- δ -Carbonsäure). Sd. 205,25—205,75° (A. 296, 175).
 - 30) Lakton d. β -Oxy- β -Methylbutan- δ -Carbonsäure (Lakton d. γ -Oxyisocapronsäure). Sm. 7—8°; Sd. 207° (A. 200, 60, 259; 208, 42, 55; 226, 345; B. 13, 749; 29, 3021; M. 17, 213; C. 1899 [1] 780). — I, 572.
 - 31) Lakton d. γ -Oxy- α -Methylvaleriansäure. Sd. 206° (A. 216, 30). — I, 572.
 - 32) Lakton d. γ -Oxy- β -Methylvaleriansäure. Sd. 209—211° (A. 216, 35). — I, 571.
 - 33) Lakton d. γ -Oxy- α -Äthylbuttersäure. Sd. 215° (217,5°) (A. 226, 338; B. 26, 1654). — I, 571.
 - 34) Lakton d. γ -Oxy- $\beta\beta$ -Dimethylbuttersäure. Sd. 207°,₁₁₀ (Bl. [3] 19, 560).
 - 35) Lakton d. β -Oxy- α -Propylpropionsäure? Sm. 137° (B. 18, 637). — I, 572.
 - 36) Aldehyd d. β -Ketopentan- α -Carbonsäure. Na, Cu (B. 21, 1148). — I, 966.
 - 37) Aldehyd d. γ -Ketopentan- β -Carbonsäure (A. d. Propionylpropionsäure). Sm. 40°; Sd. 164—166°. NH_4 , Na, Cu (B. 22, 3275). — I, 967.
 - 38) Aldehyd (aus Essigsäurealdehyd). Sd. 220° (J. 1872, 433; Bl. 18, 63). — I, 916, 966.
 - 39) Äthylester d. Propen- α -Carbonsäure (Äthylester d. α -Crotonsäure). Sd. 142—143° (B. 11, 1359; 16, 2634; A. 235, 9). — I, 507.
 - 40) Äthylester d. β -Crotonsäure. Sd. 136° (Z. 1871, 243; B. 13, 480). — I, 509.
 - 41) Äthylester d. Propen- β -Carbonsäure (Ä. d. Methakrylsäure). Sd. 115 bis 120° (B. 24, 1935). — I, 510.
 - 42) Äthylester d. R-Trimethylen-carbonsäure. Sd. 133—134° (B. 18, 1738). — I, 512.
 - 43) Allylester d. Propionsäure. Sd. 124—124,5°_{778,8} (Ph. Ch. 1, 385). — I, 420.
 - 44) norm. Propylester d. Akrylsäure. Sd. 122,9° (A. 221, 81). — I, 501.
 - 45) Isopropenylcarbinolester d. Essigsäure. Sd. 120° (J. r. 16, 502). — I, 412.
 - 46) Acetat d. δ -Oxy- α -Buten. Sd. 125°₇₃₀ (B. 27, 2437).
 - 47) Acetat d. α -Oxy- β -Buten. Sd. 130—131° (C. 1896 [2] 576).
 - 48) Verbindung (Harz) (J. 1875, 682).
C 55,4 — H 7,7 — O 36,9 — M. G. 130.
- $C_5H_{10}O_3$
- 1) Glycerinäther. Sd. 171—172° (A. 92, 312; 174, 90; A. Spl. 8, 258; Z. 1871, 528; B. 4, 920; 5, 68; 14, 1946; J. 1881, 511). — I, 314.
 - 2) 1-Oxy-R-Pentamethylen-1-Carbonsäure. Sm. 103°. $Ca + 6H_2O$, $Zn + 2H_2O$, Ag (A. 275, 333).
 - 3) 1-[α -Oxyäthyl]-R-Trimethylen-1-Carbonsäure? (α -Äthylen- β -Oxybuttersäure). Sd. 175—185°₉₀ u. ger. Zers. $Cu + H_2O$, Ag (Soc. 59, 870). — I, 606.



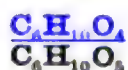
- 4) γ -Oxy- α -Penten- α -Carbonsäure. Ba (B. 27, 349).
- 5) β -Oxypropenäthyläther- α -Carbonsäure (β -Oxyisocrotonäthyläthersäure). Sm. 141° (137° u. Zers.). K + 3H₂O (A. 219, 328; 276, 233; B. 26, 2732). — I, 589.
- 6) β -Ketopentan- δ -Carbonsäure (β -Acetylisobuttersäure). Sd. 247—248°. Ba, Zn, Ag (A. 206, 322; G. 21, 28; B. 26, 1454; Soc. 71, 1163). — I, 605.
- 7) β -Ketopentan- ϵ -Carbonsäure (γ -Acetylbuttersäure). Sm. 13°; Sd. 274 bis 275° u. ger. Zers. (Hydrat Sm. 35—36°). Ca + H₂O, Zn, Ag (A. 216, 129; 289, 196; 294, 269, 318; B. 18, 3281; 26, 888; 28, 2348; Soc. 69, 1512). — I, 602.
- 8) γ -Ketopentan- α -Carbonsäure (β -Propionylpropionsäure; Homolävulinsäure). Sm. 32—33°. Ca + 1½H₂O, Ag (A. 200, 57; 268, 69; G. 21 [2] 169). — I, 602.
- 9) γ -Keto- β -Methylbutan- α -Carbonsäure (β -Acetylbuttersäure). Sd. 241 bis 242°. Zn (A. 206, 332). — I, 605.
- 10) γ -Keto- β -Methylbutan- β -Carbonsäure (Dimethylacetylessigsäure). Ba (B. 15, 1874). — I, 606.
- 11) α -Keto- $\beta\beta$ -Dimethylpropan- α -Carbonsäure (Trimethylbrenztraubensäure). Sm. 90—91° (und 87—89°); Sd. 188,7—189,2°_{747A}. Na, Ca + 3H₂O, Ag (M. 10, 771). — I, 606.
- 12) Terelaktonsäure. Ba (A. 208, 49). — I, 606.
- 13) Hydrohexinsäure. Sm. 92—93° (A. ch. [5] 20, 491).
- 14) Isohydrohexinsäure. Sm. 112,5—113° (A. ch. [5] 20, 491).
- 15) Laktone einer β -Dioxypentan- β -Carbonsäure (L. einer Dioxycapronsäure). Fl. (A. 268, 40). — I, 634.
- 16) Laktone d. Isodioxycapronsäure. Fl. (A. 268, 68). — I, 634.
- 17) Laktone (aus Dibromcapronsäure). Ag (B. 15, 619).
- 18) Anhydrid d. Propionsäure. Sd. 165° (168—169°) (A. 94, 322; J. 1875, 520; 1885, 192; B. 16, 2481; G. 25 [2] 132). — I, 463.
- 19) Aldehyd d. β -Acetoxybuttersäure? (Aldolmonacetat). Sd. 100—110° (J. 1872, 450). — I, 964.
- 20) Methylester d. β -Ketobutan- γ -Carbonsäure (M. d. α -Acetylpropionsäure). Sd. 177,4° (Z. 1866, 458; A. 192, 153). — I, 601.
- 21) Methylester d. β -Ketobutan- δ -Carbonsäure (M. d. β -Acetylpropionsäure). Sd. 191—191,5°₇₄₃ (A. 206, 220). — I, 598.
- 22) Methylester d. β -Oxypropenmethyläther- α -Carbonsäure (M. d. β -Oxyisocrotonmethyläthersäure). Sd. 175,8° (A. 256, 207). — I, 589.
- 23) Äthylester d. γ -Oxypropen- α -Carbonsäure (Ä. d. Oxymethakrylsäure). Sd. 145—150° (B. 11, 2226). — I, 588.
- 24) Äthylester d. Propan- $\alpha\beta$ -Oxyd- α -Carbonsäure (Ä. d. β -Methylglycidsäure). Sd. 172—174° (B. 21, 2054). — I, 590.
- 25) Äthylester d. Propan- $\alpha\beta$ -Oxyd- β -Carbonsäure (Ä. d. α -Methylglycidsäure). Sd. 162—164° (B. 21, 2054). — I, 590.
- 26) Äthylester d. α -Ketopropan- α -Carbonsäure (Äthylester d. Propionylameisensäure). Sd. 74—77°₂₅ (J. r. 19, 267). — I, 591.
- 27) Äthylester d. α -Ketopropan- β -Carbonsäure (Äthylester d. Methylformylelessigsäure). Sd. 160—162° (B. 20, 2934). — I, 597.
- 28) Äthylester d. β -Ketopropan- α -Carbonsäure (Ä. d. Acetylessigsäure). Sd. 180,6—181,2°₇₅₄. Lit. bedeutend. Salze (A. 188, 269; 201, 143; Z. 1868, 652; 1869, 29; B. 10, 702; 16, 297; 31, 3153). — I, 591.
- 29) Äthylester d. Isoacetessigsäure (Äthyl- β -Propylidenester d. Kohlensäure). Sd. 128—129° (Am. 13, 322; A. 283, 380). — I, 597.
- 30) Acetat d. γ -Oxy- β -Ketobutan (Methylacetylcarbinolester d. Essigsäure). Sd. 160° (Bl. [3] 6, 813). — I, 414.
- 31) Verbindung (aus Glycerin). Sm. 124—125°; Sd. 209°. + HgCl₂ (J. pr. [2] 55, 79).



- C 49,3 — H 6,9 — O 43,8 — M. G. 146.
- 1) Mannid. Sd. 297—317° u. Zers. (B. 17, 874; A. ch. [3] 47, 312). — I, 286.
 - 2) Isomannid. Sm. 87°; Sd. 274° u. Zers. (Bl. 41, 119). — I, 286.
 - 3) β -Mannid. Sm. 119°; Sd. 205—206°₁₆; subl. bei 140° (J. r. 16, 378; A. 233, 374). — I, 287.
 - 4) Quercitan (A. ch. [5] 15, 60). — I, 283.
 - 5) Dimethylenäther d. Erythrit. Sm. 97—98° (A. 289, 27).

$C_6H_{10}O_4$

- 6) s-Diäthylenäther d. $\alpha\alpha\beta\beta$ -Tetraoxyäthan. Sm. 134–135° (M. 16, 5, 8).
- 7) Butan- $\alpha\alpha$ -Dicarbonsäure (Propylmalonsäure). Sm. 96° (M. 9, 310; R. 5, 239; Ph. Ch. 5, 402; J. pr. [2] 40, 211; B. 27, 1178). — I, 671.
- 8) Butan- $\alpha\beta$ -Dicarbonsäure (Aethylbernsteinsäure). Sm. 98°. K, K_2 + $\frac{1}{2}H_2O$, Ca + 3(2)H₂O, Ba + $1\frac{1}{2}H_2O$, Sr, Zn + 2H₂O, Ag₂ (A. 192, 149; 242, 121; 255, 41; A. ch. [5] 20, 488; B. 19, 3284; 22, 1818; 26, 1927; J. pr. [2] 40, 213; Soc. 39, 338; Ph. Ch. 5, 403). — I, 674.
- 9) Butan- $\alpha\gamma$ -Dicarbonsäure (α -Methylglutarsäure). Sm. 77–78° (76°); Sd. 222°_{air}. Zn, Ag₂ (A. 192, 134; 218, 369; 233, 155; 292, 210; B. 19, 3270; 23, 3400; 25, 266; 26, 776, 810; 31, 2892; J. pr. [2] 40, 214; Ph. Ch. 5, 405; M. 15, 64; Soc. 73, 21, 38). — I, 675.
- 10) Butan- $\alpha\delta$ -Dicarbonsäure (Adipinsäure). Sm. 149–149,5° (153–155°); Sd. 265°₁₀₀. Salze meist bekannt. Lit. bedeutend. — I, 669.
- 11) Butan- $\beta\beta$ -Dicarbonsäure (Methyläthylmalonsäure). Sm. 118° (121°). Ag₂ (A. 204, 147; Ph. Ch. 5, 402; J. pr. [2] 40, 210; M. 3, 620; 14, 701). — I, 671.
- 12) fum. Butan- $\beta\gamma$ -Dicarbonsäure (fum. s-Dimethylbernsteinsäure). Sm. 195° (192°; 209°). NH₄, Ca + $1\frac{1}{2}H_2O$, Sr, Ba + 4H₂O, Pb, Cu, Ag₂. Lit. bedeutend. — I, 671.
- 13) mal. Butan- $\beta\gamma$ -Dicarbonsäure (malenoide s-Dimethylbernsteinsäure). Sm. 123–124° (129°). Ca + 2H₂O, Ba + 3H₂O, Ag₂ (J. r. 22, 549; B. 21, 3167; 22, 648; 23, 640; 26, 1459; A. 274, 44; 304, 178). — I, 672.
- 14) β -Methylpropan- $\alpha\alpha$ -Dicarbonsäure (Isopropylmalonsäure). Sm. 87°. Ag₂ (A. 204, 144; J. pr. [2] 40, 211; B. 27, 1178; Ph. Ch. 5, 402). — I, 671.
- 15) β -Methylpropan- $\alpha\beta$ -Dicarbonsäure (uns-Dimethylbernsteinsäure). Sm. 137–138° (139–141°); Sd. 230°. Salze meist bekannt (B. 14, 1075; 15, 852; 18, 2350; 22, 1740; 23, 3400; 26, 1927; 28, 2176; 29, 18, 2796; 30, 255, 598, 613; J. pr. [2] 40, 213; A. 217, 141; 242, 133, 192, 194, 199; 292, 184; 299, 181; J. 1886, 1372; Bl. [3] 19, 387; Ph. Ch. 5, 403; C. 1895 [2] 447, 929; Soc. 73, 842; G. 28 [2] 306). — I, 673.
- 16) β -Methylpropan- $\alpha\gamma$ -Dicarbonsäure (β -Methylglutarsäure). Sm. 85 bis 86° (87°). Ca, Pb + $\frac{1}{2}H_2O$, Ag₂ (A. 218, 150; B. 24, 308, 2888; 31, 2589). — I, 675.
- 17) Butan- η -Dicarbonsäure. Sm. 120–121°. Ca + 2H₂O, Ag₂ (B. 18, 841, 2347; 20, 2742). — I, 673.
- 18) Isodimethylbernsteinsäure? Sm. 240–241° (B. 18, 843; 20, 2739). — I, 673.
- 19) isom. Dimethylbernsteinsäure. Ba (B. 14, 2501, 2503). — I, 674.
- 20) isom. Dimethylbernsteinsäure (Aethylbernsteinsäure?). Sm. 88–92° (B. 23, 3402). — I, 675.
- 21) isom. Dimethylbernsteinsäure. Sm. 74° (TATE, Dissert. Würzburg 1879).
- 22) Paradipinsäure. Zn + 3H₂O (A. 174, 296). — I, 676.
- 23) Methylester d. d- α -Acetoxylpropionsäure. Sd. 170–171,5° (C. 1895 [1] 1054).
- 24) Ortho-Monomethylester d. Methylbernsteinsäure. Sd. 240–240,5°₇₅₇ (J. pr. [2] 47, 278; B. 26, 339).
- 25) Dimethylester d. Bernsteinsäure. Sm. 18,5°; Sd. 195,2° (A. 49, 195; 221, 88; J. pr. [2] 40, 350; [2] 50, 140; Soc. 45, 516; B. 22, 3185). — I, 655.
- 26) Dimethylester d. Isobernsteinsäure. Sd. 178–179,5°₇₇₀ (R. 8, 286; B. 28, 2617; 29, 1505). — I, 663.
- 27) Monoäthylester d. Bernsteinsäure. Fl. Ag, Guanidinsalz (J. 1859, 280; Soc. 61, 711; J. pr. [2] 49, 40). — I, 655.
- 28) Äthylester d. Acetoxylessigsäure. Sd. 179° (A. 123, 325; 142, 370; B. 17, 1673; J. pr. [2] 38, 426). — I, 550.
- 29) Diäthylester d. Oxalsäure. Sd. 186,1°. + SnCl₄, + TiCl₄, + 2TiCl₄. Lit. bedeutend. — I, 647.
- 30) Diacetat d. $\alpha\alpha$ -Dioxyäthan. Sd. 168,8° (A. 206, 249; 225, 275; B. 9, 304; 16, 403; R. 1, 248). — I, 925.
- 31) Diacetat d. $\alpha\beta$ -Dioxyäthan. Sd. 186–187° (A. 177, 49; A. ch. [3] 55, 433; J. pr. [2] 39, 166). — I, 413.
- 32) Verbindung (Zucker) (A. 142, 229).



- 33) Verbindung (aus Mannit). *Sd.* 157°, (*B.* 7, 264; *J.* 1885, 1210).
 C 44.4 — H 6.2 — O 49.4 — *M. G.* 162.
- 1) Achroodextrin. 3 Modif. (*Z.* 1870, 346; *J.* 1874, 881; *B.* 12, 1479; *Bl.* 25, 2; *H.* 2, 188, 410).
- 2) Achrooglykogen (*H.* 6, 75). — *I.* 1094.
- 3) α -Amylan (*B.* 15, 735). — *I.* 1087.
- 4) β -Amylan (*B.* 15, 735). — *I.* 1087.
- 5) Bassorin (*A.* 51, 36; *J.* 1860, 504; *J. pr.* [1] 95, 480; *H.* 14, 156). — *I.* 1087.
- 6) Carminzucker (*A.* 141, 338). — *I.* 1037.
- 7) Carragheenschleim (*J.* 1865, 659; 1868, 805; *B.* 8, 417; 9, 1158; *H.* 14, 159). — *I.* 1088.
- 8) Carubin (Kohlehydrat) (*C.* 1897 [2] 476).
- 9) Cellulose. Lit. bedeutend. — *I.* 1073.
- 10) Cellulosin + $1\frac{1}{2}H_2O$ (*B.* 24 [2] 319). — *I.* 1088.
- 11) Chinovose (*B.* 26, 2418). — *III*, 576.
- 12) Dextran (Gährungsgummi) (*WAGNER's Jahresbericht* 1875, 790; *J. pr.* [2] 17, 409; [2] 45, 325; *A.* 104, 197; *J. Th.* 1881, 85). — *I.* 1092.
- 13) γ -Galaktan (*B.* 20, 1001). — *I.* 1092.
- 14) α -Galaktin (*Bl.* 37, 409). — *I.* 1092.
- 15) Gelose (*J.* 1859, 562; 1880, 1010). — *I.* 1093.
- 16) Glykogen. Ba, Pb. Lit. bedeutend. — *I.* 1093.
- 17) Glykosan (*J.* 1860, 510; 1862, 471, 472). — *I.* 1049.
- 18) Gramminin = $6C_6H_{10}O_5 + H_2O$. *Sm.* 209° (*B.* 21, 594). — *I.* 1094.
- 19) Gummi (im Gummigutt) (*A.* 45, 72). — *III*, 558.
- 20) Holzgummi (*A.* 64, 388; *B.* 13, 2168; *J. pr.* [2] 19, 146; *C.* 1896 [1] 898).
- 21) Inuloid (*A.* 156, 190).
- 22) Irisin (Phlein). *Sm.* 218° (*B.* 20, 3311; 21, 396, 597; *A.* 234, 364). — *I.* 1097.
- 23) Isolichenin (*J.* 1873, 848). — *I.* 1099.
- 24) Lävulin (*J.* 1867, 768; 1869, 748; *Bl.* 7, 262). — *I.* 1096.
- 25) Lävoglukosan. *Sm.* 178° (*Bl.* [3] 11, 949; *B.* 27 [2] 665).
- 26) Lävulan (*B.* 14, 1509). — *I.* 1097.
- 27) Lävulin (Synanthrose). Ba, Pb. (*A.* 156, 181; 198, 228; *B.* 14, 1826; *J. Th.* 1881, 68). — *I.* 1098.
- 28) Lävulosan. Fl. (*J.* 1859, 547; *M.* 8, 546). — *I.* 1055.
- 29) Laktocaramel. CuO (*J.* 1856, 647). — *I.* 1107.
- 30) Leinsamenschleim (*A.* 51, 50; 175, 215; *J. pr.* [1] 95, 484). — *I.* 1098.
- 31) Lichenin. PbO (*A.* 28, 279; 55, 165; *J.* 1847, 48, 831; *B.* 19, 2541). — *I.* 1098.
- 32) Mannan (aus Phytelephas) (*C.* 1896 [1] 898).
- 33) Methylenitan (*A.* 120, 296; *B.* 16, 919; *J. r.* 14, 195; *J. pr.* [2] 33, 343). — *I.* 1039.
- 34) Metinulin (*J.* 1869, 748). — *I.* 1096.
- 35) Paradextran (*B.* 26, 3098; *H.* 19, 559).
- 36) Paragalaktan (*H.* 14, 237). — *I.* 1092.
- 37) Paraisodextran (*B.* 28, 775).
- 38) Paramylum (*A.* 75, 58; 172, 13, 14). — *I.* 1099.
- 39) Pyroinulin (*J.* 1870, 850). — *I.* 1096.
- 40) Secalin (Secalan) (*C.* 1898 [1] 36).
- 41) Sinistrin (*H.* 3, 112; *J.* 1880, 1059; *J. Th.* 1881, 71). — *I.* 1099.
- 42) Stärke (oder $C_{24}H_{40}O_{20}$). Lit. bedeutend. — *I.* 1080.
- 43) Tunicin (*A. ch.* [3] 56, 149; *J. pr.* [1] 37, 439; *A.* 54, 318; 160, 323; *B.* 12, 1939; 26, 362; *H.* 18, 43). — *I.* 1079.
- 44) Viscose (*C. r.* 93, 78).
- 45) Methylenäther einer Pentose (aus Cellulose) (*B.* 29, 1457).
- 46) α -Oxybutan- $\alpha\alpha$ -Dicarbonsäure + H_2O (Propyloxymalonsäure; Propyltartronsäure). *Sm.* 52—56°; Zers. bei 105°. Pb (*M.* 15, 753).
- 47) γ -Oxybutan- $\alpha\alpha$ -Dicarbonsäure (Oxypropylmalonsäure). Fl. Ca, Ba + $1(2)H_2O$, Ag₂ (*B.* 15, 621; *A.* 216, 54; 294, 123). — *I.* 751.
- 48) γ -Oxybutan- $\alpha\beta$ -Dicarbonsäure (Methylitaminsäure). Ca + $3H_2O$, Ba + $3H_2O$, Ag₂ (*A.* 255, 23; *B.* 25, 3173). — *I.* 751.
- 49) δ -Oxybutan- $\alpha\beta$ -Dicarbonsäure (Oxyäthylbernsteinsäure). Ba (*M.* 11, 517; 13, 602). — *I.* 751.

$C_4H_{10}O_5$

- 50) γ -Oxybutan- $\alpha\gamma$ -Dicarbonsäure (α -Methyloxyglutarsäure). Ca + $7H_2O$, Ba + $4H_2O$, Sr + $4H_2O$, Zn, Ag₂ (B. 14, 1781; A. 208, 62; 238, 287; Soc. 67, 353). — I, 750.
- 51) δ -Oxybutan- $\alpha\gamma$ -Dicarbonsäure (δ -Oxy- α -Methylglutarsäure). Fl. Ba (M. 11, 503). — I, 751.
- 52) α -Oxybutan- $\alpha\delta$ -Dicarbonsäure. Sm. 151° (Soc. 67, 159).
- 53) δ -Oxybutan- $\beta\beta$ -Dicarbonsäure. Ba + $3H_2O$, Ag (A. 294, 108).
- 54) β -Oxybutan- $\beta\gamma$ -Dicarbonsäure (Oxyadipinsäure; Dimethyloxybernsteinsäure). Sm. 143° . Na₂, Ca + $4\frac{1}{2}H_2O$, Ba + $2H_2O$, Ag₂ + $\frac{1}{2}H_2O$ (B. 12, 769; J. pr. [2] 46, 298). — I, 752.
- 55) α -Oxy- β -Methylpropan- $\alpha\alpha$ -Dicarbonsäure (Isopropyloxymalonsäure, Isopropyltartronsäure). Sm. 149° u. Zers. Cu + H_2O , Ag₂ (M. 15, 766).
- 56) α -Oxy- β -Methylpropan- $\alpha\beta$ -Dicarbonsäure (β -Dimethyläpfelsäure). Sm. 129° (129 — 131°). Ag₂ (B. 30, 860, 1957).
- 57) β -Oxy- β -Methylpropan- $\alpha\gamma$ -Dicarbonsäure (β -Methyloxyglutarsäure). Fl. Ca, Cu, Ag₂ (J. pr. [2] 23, 276). — I, 750.
- 58) Adipomalsäure. Pb + $5H_2O$ (Bl. 14, 8). — I, 752.
- 59) Paradipimialsäure. Na + H_2O , Ba, Pb, Cu + H_2O (A. 174, 285, 292). — I, 752.
- 60) Isoarabinsäure + H_2O . Fl. K, Ca + $9H_2O$ (B. 22, 751; 25, 1964, 2446). — I, 752.
- 61) Dilaktylsäure. Sm. 105 — 107° . K, Ca, Zn + $3H_2O$ (A. ch. [3] 63, 114; J. r. 22, 107; A. 148, 224). — I, 558.
- 62) β -Oxypropanmethyläther- $\alpha\gamma$ -Dicarbonsäure (β -Oxyglutarmethyläthersäure). Fl. Ca, Ba, Ag₂ (J. pr. [2] 23, 274; J. r. 11, 398). — I, 747.
- 63) α -Oxyäthanäthyläther- $\alpha\alpha$ -Dicarbonsäure (Isoäpfeläthyläthersäure; α -Oxyäthylidenbernsteinäthyläthersäure). Sm. 110 — 112° . Ca, Ag₂ (J. r. 21, 559; 22, 313; A. 273, 41). — I, 745.
- 64) β -Oxyäthanäthyläther- $\alpha\alpha$ -Dicarbonsäure (β -Oxyäthylidenbernsteinäthyläthersäure). Ca, Ba, Ag₂ (J. r. 22, 33, 39; A. 273, 45). — I, 746.
- 65) α -Oxyäthanäthyläther- $\alpha\beta$ -Dicarbonsäure (d-Oxybernsteinäthyläthersäure). Sm. 76 — 80° . $NH_4 + H_2O$, K, Ca, Ba, Ag₂ (Soc. 63, 229; 67, 967).
- 66) α -Oxyäthanäthyläther- $\alpha\beta$ -Dicarbonsäure (l-Oxybernsteinäthyläthersäure). Sm. 76 — 80° . Ag₂ (Soc. 63, 229; 67, 967; 75, 158).
- 67) α -Oxyäthanäthyläther- $\alpha\beta$ -Dicarbonsäure (i-Oxybernsteinäthyläthersäure). Sm. 84 — 86° . Ca, Ba + H_2O , Pb, Ag (Soc. 39, 348; 47, 865; 67, 960). — I, 745.
- 68) Diäthyläther- $\beta\beta$ -Dicarbonsäure (Dihydrakrylsäure). Na (A. 166, 39). — I, 560.
- 69) Säure (aus Rohrzucker). K₂, Ca, Cu (B. 16, 1730). — I, 753.
- 70) Anhydrid d. α -Oxypropionsäure. Zers. bei 250 — 260° (A. 53, 114; 70, 242; 133, 257; 164, 181; Z. 1869, 338). — I, 554.
- 71) Lakton d. Antiaronsäure (C. 1896 [2] 591).
- 72) Lakton d. $\beta\gamma\delta\epsilon$ -Tetraoxypentan- α -Carbonsäure (Metasaccharin; L. d. Metasaccharinsäure). Sm. 141 — 142° (B. 16, 2625; 18, 642; 26, 1649; A. 271, 67). — I, 786.
- 73) Lakton d. $\alpha\beta\delta\epsilon$ -Tetraoxypentan- β -Carbonsäure (Isosaccharin; L. d. Isosaccharinsäure). Sm. 95° (J. 1883, 1364; B. 18, 631; 24, 2028; A. 271, 66). — I, 785.
- 74) Lakton d. $\beta\gamma\delta\epsilon$ -Tetraoxypentan- β -Carbonsäure (Saccharin; L. d. Glykosaccharinsäure). Sm. 160 — 161° (B. 13, 2212; 15, 701, 2953; 18, 1333; 24, 2028; (J. pr. [2] 45, 312; Bl. 35, 439; A. 271, 66). — I, 785.
- 75) β -Lakton d. $\alpha\gamma$ -Dioxy- $\beta\beta$ -Di[Oxymethyl]buttersäure. Sm. 184° (A. 276, 80).
- 76) Lakton d. Rhamnonsäure (Rhamnosaccharin). Sm. 150 — 151° (148°) (B. 21, 1813, 2048; 22, 1703; 29, 1963; A. 271, 71). — I, 786.
- 77) Lakton d. Isorhamnonsäure. Sm. 150 — 152° (B. 29, 1964).
- 78) Dimethylester d. Diglykolsäure. Sm. 36° (A. 273, 65).
- 79) Dimethylester d. α -Oxyäthan- $\alpha\beta$ -Dicarbonsäure (D. d. Äpfelsäure). Sd. 122°_{10} (A. 80, 303; 254, 165; B. 14, 2790; 18, 1952; Soc. 69, 823). — I, 743.
- 80) Dimethylester d. Äpfelsäure (aus Crassulaceen). Sd. 162°_{25} (B. 31, 1435).

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- 81) Monäthylester d. α -Oxyäthan- $\alpha\beta$ -Dicarbonsäure (M. d. Aepfelsäure). Fl. (A. 80, 302). — I, 743.
 - 82) Äthylester d. Oxyacetoxylessigsäure? Sd. 240—250° (A. 147, 203).
 - 83) Äthylester einer Säure $C_4H_6O_5$? Sm. 64°; Sd. 155°_{ss} (B. 27, 2943).
 - 84) β -Oxyäthylester d. Bernsteinsäure (A. 115, 359; A. ch. [3] 67, 293). — I, 656.
 - 85) Dioxypropylester d. α -Ketoäthan- α -Carbonsäure (Glycerinester d. Brenztraubensäure). K, $Ca(OH)_2 + 2H_2O$, $Cu(OH)_2 + 3H_2O$, Ag (M. 6, 513). — I, 586.
 - 86) Diformiat d. $\alpha'\alpha'$ -Dioxydiäthyläther. Sd. 175—185° u. Zers. (A. 226, 226). — I, 925.
 - 87) Diacetat d. Di[Oxymethyl]äther. Sd. 208—209° (G. 28 [2] 493).
 - 88) Verbindung (Kohlehydrat) (B. 27 [2] 30).
 - 89) Verbindung (aus Aceton) (Z. 1868, 51).
 - 90) Verbindung (aus Inulin) (M. 8, 544). — I, 1096.
 - 91) Verbindung (aus Myrrhe) (B. 23 [2] 494).
 - 92) Verbindung (aus Rohrzucker) (M. 10, 499). — I, 1099.
 - 93) Verbindung (aus Runkelrüben) (J. r. 13, 128).
 - 94) Verbindung (Dextrin?) (M. 2, 630).
- $C_8H_{10}O_6$
- C 40,5 — H 5,6 — O 53,9 — M. G. 178.
 - 1) $\gamma\delta$ -Dioxybutan- $\alpha\alpha$ -Dicarbonsäure (Dioxypropylmalonsäure). Ba, Ag_2 (B. 14, 144; 15, 624; A. 216, 59). — I, 803.
 - 2) $\beta\gamma$ -Dioxybutan- $\alpha\delta$ -Dicarbonsäure? (aus Erythrit). K, Ba + $2H_2O$, Cd + $4H_2O$, Pb + $2H_2O$ (B. 17, 1094; J. r. 18, 428). — I, 803.
 - 3) β -Dioxybutan- $\alpha\delta$ -Dicarbonsäure (Dioxyadipinsäure aus Hydromukonsäure). Ba + $4H_2O$ (A. 165, 267). — I, 803.
 - 4) $\beta\gamma$ -Dioxybutan- $\beta\gamma$ -Dicarbonsäure + H_2O (Dimethyltraubensäure). Sm. 178—179° u. Zers. K, Ca + $1\frac{1}{2}H_2O$, Ba + $2H_2O$ (A. 188, 318; 249, 208; B. 25, 397). — I, 803.
 - 5) $\alpha\beta$ -Dioxyäthandi[methyläthercarbonsäure] (Diglykoläthylensäure). Fl. K, Ca + $3H_2O$, Ag (J. 1863, 363). — I, 803.
 - 6) Adipoweinsäure. K (Z. 1870, 410). — I, 802.
 - 7) Chitarsäure. CaH + $4H_2O$, Ca (B. 27, 145).
 - 8) Laktonsäure. Sm. 100°. $NH_3 + H_2O$, Na + $3H_2O$, Ca + $7H_2O$, Cd, Pb + $4H_2O$ (A. 122, 96; 158, 259; B. 13, 2307; 14, 651, 2529).
 - 9) Anhydrid d. i-Galaktonsäure. Sm. 122—125°; Hydrat (Sm. 64—65°) B. 25, 1252; A. 271, 82). — I, 829.
 - 10) Anhydrid d. d-Glykonsäure (A. d. Dextronsäure). Sm. 130—135° (B. 23, 2625; A. 271, 76). — I, 826.
 - 11) Anhydrid d. d-Gulonsäure. Sm. 178—180° (B. 24, 525; H. 15, 73). — I, 828.
 - 12) Anhydrid d. l-Gulonsäure. Sm. 185° (B. 24, 529, 530; Bl. [3] 7, 395). — I, 828.
 - 13) Anhydrid d. d-Mannonsäure. Sm. 149—153° (B. 22, 3219; Bl. [3] 7, 395). — I, 827.
 - 14) Anhydrid d. l-Mannonsäure. Sm. 145—150° (B. 19, 3033; 20, 339; 21, 916; Bl. [3] 7, 395). — I, 828.
 - 15) Anhydrid d. i-Mannonsäure. Sm. 155° (B. 23, 376). — I, 828.
 - 16) Dimethylester d. d-Weinsäure. Sm. 48°; Sd. 280° (B. 13, 1176, 1538; 18, 1399; 31, 787; J. 1882, 856; Ph. Ch. 4, 581; Soc. 73, 194). — I, 794.
 - 17) Dimethylester d. l-Weinsäure. Sm. 48°; Sd. 158°_{11,5} (B. 18, 1399; 31, 787). — I, 798.
 - 18) Dimethylester d. Traubensäure. Sm. 85°; Sd. 282° (B. 13, 1178; 18, 1398; J. 1881, 715; Ph. Ch. 4, 476, 581). — I, 800.
 - 19) Monäthylester d. d-Weinsäure. Sm. 90°. Na, K, Li, Ca + $5H_2O$, Ba + $2H_2O$, Pb, Ag (A. 22, 238; J. r. 7, 150; R. 8, 370; B. 26 [2] 933; 27, 470). — I, 794.
 - 20) Monäthylester d. Traubensäure. K + $2H_2O$, Ba + $2H_2O$, Ag (A. 22, 247). — I, 800.
 - 21) α -Akroson. Fl. (B. 22, 98). — I, 1039.
 - 22) Glykosen. Fl. (B. 22, 88). — I, 1050.
 - 23) Indiglycin. 2PbO (J. 1858, 470). — I, 1071.
 - 24) Oxycellulose? (J. 1883, 1782; J. r. 24, 271).

$C_6H_{10}O_7$

C 37,1 — H 5,2 — O 57,7 — M. G. 194.

- 1) $\alpha\beta\gamma$ -Trioxybutan- $\alpha\gamma$ -Dicarbonsäure (Saccharonsäure). $(NH_4)_2$, Ca, Ag_2 (B. 15, 2958; A. 218, 363). — I, 833.
- 2) β -Trioxybutan- $\alpha\delta$ -Dicarbonsäure (Trioxyadipinsäure). Sm. 146° u. Zers. Ca + 4H₂O, Zn + 3½H₂O, Cu + 4H₂O, Ag_2 (B. 18, 644, 1555). — I, 832.
- 3) β -Trioxybutan- $\alpha\delta$ -Dicarbonsäure (Trioxyadipinsäure). Ba + ½H₂O (A. 185, 269). — I, 832.
- 4) $\alpha\alpha'$ -Dioxydiäthyläther- $\alpha\alpha'$ -Dicarbonsäure (Ätheräthylidenmilchsäure). K₂ (J. pr. [2] 41, 516). — I, 832.
- 5) Glykuronsäure. K, Ba, Pb (H. 3, 437; 6, 490; 11, 391; 13, 280; B. 15, 1020, 1966; 16, 1110; 24, 522; 25, 2569; 25 [2] 473; A. 290, 155). — I, 833.
- 6) Hydruvinsäure. Ca, Ba, Zn (B. 5, 956; A. 208, 129; H. 5, 325). — I, 832.
- 7) Oxyglykonsäure. Fl. Ca + 3H₂O, Sr + 3H₂O, Cd + 2H₂O, Pb + 2H₂O (J. Th. 1886, 505; A. ch. [6] 21, 565). — I, 833.
- 8) Säure (aus d. Säure C₆H₉O₅Cl). Ba₂ + 2H₂O (J. 1868, 508). — I, 834.
- 9) Säure (aus Chondrosin). Ba (B. 25 [2] 473). — IV, 1628.

 $C_6H_{10}O_8$

C 34,3 — H 4,7 — O 61,0 — M. G. 210.

- 1) Schleimsäure. Sm. 213° (206°). Salze meist bekannt. Lit. bedeutend. — I, 854.
- 2) Alloschleimsäure. Sm. 166—171° u. Zers. Ca + 1½H₂O (B. 24, 2137). — I, 856.
- 3) d-Taloschleimsäure. Sm. 158° u. Zers. Ca (B. 24, 3626; 27, 384). — I, 856.
- 4) l-Taloschleimsäure. Ca (B. 27, 391).
- 5) d-Zuckersäure. Salze meist bek. Lit. bedeutend. — I, 851.
- 6) l-Zuckersäure. K, Ca + 4H₂O, Ag (B. 24, 534). — I, 853.
- 7) i-Zuckersäure. K (B. 23, 2622). — I, 853.
- 8) d-Idozuckersäure. Fl. Cu + 2H₂O (B. 28, 1983).
- 9) l-Idozuckersäure. Fl. Cu + 2H₂O (B. 28, 1980).
- 10) d-Mannozuckersäure. Ca, Sr, Ba, Cd, Ag_2 (B. 24, 539; Soc. 59, 309). — I, 854.
- 11) l-Mannozuckersäure (Metazuckersäure). K, Ca + H₂O (B. 20, 341). — I, 854.
- 12) i-Mannozuckersäure (B. 25, 544). — I, 854.
- 13) Norisozuckersäure. NH_4 , $(NH_4)_2$, K + ½H₂O, K₂, Mg + 2H₂O, Sr + H₂O, Ca + H₂O, Ba + H₂O, Zn + 3H₂O, Pb, Cu + 3H₂O, Ag_2 (B. 27, 121, 127).
- 14) Parazuckersäure. Ba (J. 1880, 1029). — I, 583.
- 15) Säure (aus Tetracetyl Schleimsäurediäthylester). Ca + 2(3)H₂O (M. 14, 484).

 $C_6H_{10}O_9$ $C_6H_{10}N_2$

C 31,9 — H 4,4 — O 63,7 — M. G. 226.

- 1) Isodulcitsäure. Ca, Ba, Cd, Pb₂ (A. 145, 197).
- 2) 1,3,5-Trimethylpyrazol. Sm. 37°; Sd. 170°₇₅₅. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (A. 279, 232; B. 28, 716). — IV, 523.
- 3) 3,4,5-Trimethylpyrazol. Sm. 137—138° (138—139°); Sd. 232—233°₇₅₈ (234—236°). HCl, (2HCl, PtCl₄ + 2H₂O), + 2HgCl₂, Ag, 2 + AgNO₃, Pikrat (A. 279, 244; J. pr. [2] 52, 51). — IV, 527.
- 4) 1-Propylimidazol (Propylglyoxalin). Sd. 219—223°. (2HCl, PtCl₄) (B. 15, 650; A. 214, 321). — IV, 501.
- 5) 2-Propylimidazol (Parapropylglyoxalin). (2HCl, PtCl₄), Oxalat (B. 16, 543, 544; M. 9, 603). — IV, 527.
- 6) 2-Isopropylimidazol. Sm. 133° (129°); Sd. 256—260°. HCl, HBr, Oxalat (B. 16, 747; M. 9, 610; A. ch. [6] 24, 538). — IV, 527.
- 7) 2-Methyl-1-Aethylimidazol (Paramethyläthylglyoxalin). Sd. 212—213°. HCl, (2HCl, PtCl₄), (2HCl, ZnCl₂), 2 + AgNO₃ (B. 13, 511, 515, 2353; 14, 424; 15, 2707; 16, 285, 489, 544; 17, 1290; A. 214, 298). — IV, 517.
- 8) 4-[oder 5-]Methyl-5[oder 4-]Aethylimidazol. Fl. (HCl, AuCl₃), Pikrat (B. 27, 1039). — IV, 528.
- 9) 2,4,5-Trimethylimidazol. Sm. 132,5—133°; Sd. 271°. HCl, Cu, Ag (B. 21, 1415; A. 249, 405). — IV, 528.

- $C_6H_{10}N_2$ 9) Aethylallylcyanamid. Sm. 100°. (2HCl, PtCl₄), 2 + 3HgCl₂ (A. 83, 348). — I, 1437.
 10) Glykolin. HCl, + CH₃J (C. r. 92, 795).
 11) Nitril d. γ -Imidopentan- β -Carbonsäure (Dipropionitril). Sm. 47–48°; Sd. 257–258° (J. pr. [2] 38, 337; [2] 39, 191; [2] 43, 408; [2] 47, 105; [2] 52, 102; B. 26, 2894). — I, 1474.
- $C_6H_{10}N_4$ C 52,2 — H 7,2 — N 40,6 — M. G. 138.
 1) 1,2,3,4-Tetraamidobenzol. H₂SO₄ (B. 22, 1648). — IV, 1242.
 2) 1,2,3,5-Tetraamidobenzol. 2HCl, 3HCl + H₂O, 2H₂SO₄ (B. 30, 539). — IV, 1243.
 3) 1,2,4,5-Tetraamidobenzol. 4HCl, H₂SO₄, 2 + 3H₂SO₄ (B. 20, 334). — IV, 1243.
 4) 1-Imidoamidomethyl-3,5-Dimethylpyrazol. HNO₃ (A. 302, 294). — IV, 1244.
 5) 2,2'-Bi[4,5-Dihydroimidazol]. Sm. 290–300° u. Zers. 2HCl, (2HCl, PtCl₄), Pikrat (B. 25, 2132). — I, 1366.
 6) 1,4,5,8-Benzotetrazin? HBr (B. 27, 1666).
 C 37,1 — H 5,2 — N 57,7 — M. G. 194.
- $C_6H_{10}N_2$ 1) s-Di[3-Methyl-1,2,4-Triazolyl-5]-hydrazin. 2HCl (B. 26, 2601). — IV, 1238.
- $C_6H_{10}Cl_2$ 1) $\epsilon\epsilon$ -Dichlor- β -Hexen. Sd. 150° u. Zers. (J. 1878, 379; Ann. scientif. Brux. 1878). — I, 162.
 2) Dichlorhexen (aus Mesitylchlorid). Fl. (A. 140, 298; J. r. 13, 560). — I, 1008.
 3) Dichlorhexen (aus dem Pinakon C₈H₁₄O₂) (B. 6, 35).
 4) 1,2-Dichlorhexahydrobenzol. Sd. 187–189° (C. 1898 [2] 579; A. 302, 12, 29).
 5) 1,3-Dichlorhexahydrobenzol. Sd. 190–192° (C. 1898 [2] 579; A. 302, 12, 32).
 6) 1,4-Dichlorhexahydrobenzol. Sd. 196–198° (C. 1898 [1] 1294; 1898 [2] 579; A. 302, 12, 32; Soc. 73, 943).
- $C_6H_{10}Br_2$ 1) $\beta\gamma$ -Dibrom- γ -Hexen (Methylpropylacetylendibromid). Fl. (B. 11, 1054). — I, 186.
 2) $\beta\delta$ -Dibrom- β -Methylpentan. Sd. 78–79°_{13–14} (J. r. 27, 401; J. pr. [2] 53, 160).
 3) 1,2-Dibromhexahydrobenzol. Sd. 215–220°₁₁₃ (Zers. bei 210°) (A. 278, 108; 302, 29).
 4) 1,4-Dibromhexahydrobenzol. cis-Form. flüssig; trans-Form. Sm. 113° (A. 278, 94).
- $C_6H_{10}Br_4$ 1) $\alpha\beta\gamma\delta$ -Tetrabromhexan. Sm. 91–92° (Bl. [3] 15, 403).
 2) $\alpha\beta\gamma\delta$ -Tetrabromhexan. Fl. (Bl. [3] 15, 403).
 3) $\alpha\beta\delta\epsilon$ -Tetrabromhexan (Allylpropenyltetrabromid). Sm. 63–64° (GRINER, thèse). — I, 178.
 4) isom. $\alpha\beta\delta\epsilon$ -Tetrabromhexan. Fl. (GRINER, thèse). — I, 178.
 5) $\alpha\beta\delta\epsilon$ - β -Tetrabromhexan. Sm. 160–162° (A. 284, 346). — I, 134.
 6) $\alpha\beta\epsilon\zeta$ -Tetrabromhexan (Diallyltetrabromid). Sm. 63° (64–65°; 54–56°) (B. 6, 589; 22, 2498; M. 1, 715; J. r. 17 [2] 35; 25, 619). — I, 178.
 7) isom. $\alpha\beta\epsilon\zeta$ -Tetrabromhexan. Fl. Sd. 135–149° (B. 22, 2498). — I, 178.
 8) $\beta\beta\gamma\gamma$ -Tetrabromhexan (B. 11, 1054). — I, 178.
 9) $\beta\gamma\delta\epsilon$ -Tetrabromhexan (Dipropenyltetrabromid). Sm. 182–183° (180,5 bis 181°) (B. 30, 638). — I, 178.
 10) isom. $\beta\gamma\delta\epsilon$ -Tetrabromhexan. Sm. 95–97° (GRINER, thèse). — I, 178.
 11) isom. $\beta\gamma\delta\epsilon$ -Tetrabromhexan. Sm. 64–65° (GRINER, thèse). — I, 178.
 12) isom. $\beta\gamma\delta\epsilon$ -Tetrabromhexan. Fl. (GRINER, thèse).
 13) $\beta\gamma\delta\epsilon$ -Tetrabrom- β -Methylpentan. Fl. (A. 185, 157). — I, 178.
 14) $\alpha\beta\gamma\delta$ -Tetrabrom- $\beta\gamma$ -Dimethylbutan (Diisopropenyltetrabromid). Sm. 139° (137–138°) (J. r. 21, 435; B. 26 [2] 15; Am. 20, 151). — I, 178.
 15) Tetrabromhexan (aus Hexoylen). Sm. 112°; Sd. 318° (A. 139, 250). — I, 178.
- $C_6H_{10}J_2$ 16) Tetrabromhexan (aus Jodhexen). Sm. 142° (Z. 1871, 699). — I, 178.
- $C_6H_{10}J_4$ 1) 1,4-Dijodhexahydrobenzol. cis-Form. flüssig; trans-Form. Sm. 144 bis 145° (A. 278, 96).
 2) $\alpha\beta\epsilon\zeta$ -Tetraiodhexan (Diallyltetraiodid). Sm. über 100° (A. 100, 363). — I, 195.

- $C_6H_{10}S$ 1) Allyläther d. γ -Merkaptopropen (Allylsulfid). Sd. 140° . + $2AgNO_3$ (A. 51, 295; 55, 297; 58, 36; 71, 23; 102, 291; 139, 121; 241, 118; G. 17, 76; B. 25 [2] 910). — I, 366.
- $C_6H_{10}S_2$ 1) Allyldisulfid. Sd. $78-80^\circ_{16}$ (B. 25 [2] 910).
- $C_6H_{10}S_3$ 1) Allyltrisulfid? Sd. 188° ($112-122^\circ_{16}$). + $6HgCl_2$ (J. 1860, 399; B. 25 [2] 910).
- $C_6H_{10}S_4$ 2) Amylenester d. Trithiokohlensäure. Fl. (A. 126, 297). — I, 882.
- $C_6H_{10}S_4$ 1) Allyltetrasulfid? Sd. bei 122° (B. 25 [2] 910).
- 2) Diäthylenäther d. $\alpha\alpha\beta\beta$ -Tetramerkaptoäthan. Sm. 133° (B. 21, 1476). — I, 966.
- $C_6H_{10}S_5$ 1) Diallylhexasulfid. Sm. $75,5^\circ$. + $2HgCl_2$, + $PtCl_4$ (B. 23 [2] 201). — I, 366.
- $C_6H_{11}N$ C 74,2 — H 11,3 — N 14,4 — M. G. 97.
- 1) Diallylamin. Sd. 111° (B. 14, 1879; 16, 1641). — I, 1143.
- 2) 2-Amido-1,2,3,4-Tetrahydrobenzol. (2HCl, $PtCl_4$) (B. 27, 1449; Am. 16, 453). — IV, 50.
- 3) 1,5-Dimethyl-2,3-Dihydropyrrol. Sd. $53-54^\circ_{93-96}$ (2HCl, $PtCl_4$), (HCl, $AuCl_3$) (B. 31, 279).
- 4) 2-Methyl-1,2,3,4-Tetrahydropyridin. Sd. $125-127^\circ$ (B. 20, 1645; 26, 2995). — IV, 49.
- 5) 6-Methyl-1,2,3,4-Tetrahydropyridin. Sd. $131-132^\circ_{716}$. HCl, (2HCl, $PtCl_4$), (HCl, $AuCl_3$), Pikrat (A. 289, 198). — IV, 49.
- 6) Dehydrodiacetonamin. (2HCl, $PtCl_4$) (A. 183, 283). — I, 985.
- 7) Nitril d. Pentan- γ -Carbonsäure. Sd. $144-146^\circ$ (B. 23, 191). — I, 1466.
- 8) Nitril d. β -Methylbutan- β -Carbonsäure. Sd. $128-130^\circ$ (A. 174, 56). — I, 1467.
- 9) Nitril d. β -Methylbutan- δ -Carbonsäure (Isoamylecyanid). Sd. 155° (154°). + $SbCl_5$, 2 + $TiCl_4$, 2 + $SnCl_2$ (A. 52, 313; 65, 302; 106, 284; B. 19, 568; 25 [2] 637). — I, 1466.
- 10) Isoamylisocyanid (Isoamylcarbylamin). Sd. 137° (A. 146, 109). — I, 1483.
- $C_6H_{11}N_3$ C 58,5 — H 7,3 — N 34,2 — M. G. 123.
- 1) 4-Amido-1,3,5-Trimethylpyrazol. Sm. $102-104^\circ$. 2HCl (B. 28, 717). — IV, 1111.
- 2) Dimethylsuccinimidin. HCl (B. 16, 1658). — I, 1165.
- $C_6H_{11}N_5$ C 47,7 — H 6,0 — N 46,3 — M. G. 151.
- 1) Pentaamidobenzol. 3HCl (Am. 11, 451; 14, 378; B. 21, 1547, 1706). — IV, 1317.
- 2) 4,6-Diamido-2-Propyl-1,3,5-Triazin (Propylenguanamin). HCl + $1\frac{1}{2}H_2O$, + $AgNO_3$ (B. 9, 230). — IV, 1317.
- 3) 4,6-Diamido-2-Isopropyl-1,3,5-Triazin (Isopropylenguanamin). HNO_3 , + $AgNO_3$ (B. 9, 231). — IV, 1317.
- $C_6H_{11}Cl$ 1) δ -Chlor- α -Hexen. Sd. $115-120^\circ$ u. Zers. ($120-123^\circ$) (Bl. 3, 15, 402, 886).
- 2) ϵ -Chlor- α -Hexen (Diallylhydrochlorid). Sd. $130-140^\circ$ (J. 1864, 514; A. ch. 4 3, 171). — I, 162.
- 3) δ -Chlor- δ -Methyl- α -Penten (Chlorid d. Dimethylallylcarbinol). Sd. 109 bis 114° (A. 185, 156). — I, 162.
- 4) Chlorhexen (aus Hexenylalkohol). Sd. $70-71^\circ$ (A. ch. 5 27, 64; B. 16, 228, 229). — I, 253.
- 5) Chlorhexen (aus s -Methylpropyläthylenchlorid. Sd. 122° (Bl. 41, 363). — I, 162.
- 6) Chlorhexen (aus Tetramethyläthylen). Sd. $113-115^\circ$ (J. r. 21, 432). — I, 162.
- 7) Chlorhexahydrobenzol. Sd. 143°_{165} (C. 1898 [1] 1294; 1898 [2] 578; A. 302, 9; Soc. 73, 940).
- $C_6H_{11}Cl_3$ 1) Trichlorhexan (aus α -Chlorhexan). Sd. $215-218^\circ$ (J. 1863, 525). — I, 154.
- $C_6H_{11}Br$ 1) α -[oder β -]Brom- α -Hexen. Sd. 46°_{20} (B. 30, 1494).
- 2) β -[oder γ -]Brom- δ -Methyl- β -Penten. Sd. $128-131^\circ$ (J. r. 27, 406; J. pr. 2 53, 165).
- 3) γ -Brom- β -Methyl- β -Penten. Sd. $138-141^\circ$ (J. pr. 2 53, 282).
- 4) β -Brom- $\gamma\gamma$ -Dimethyl- α -Buten? Sd. $138-141^\circ_{138,5}$ (A. 135, 126; 144, 247; 172, 70; B. 11, 1424). — I, 186.
- 5) Bromhexen (aus Hexenylalkohol). Sd. $99-100^\circ$ (B. 16, 229; A. ch. 5 27, 65). — I, 253.

- $C_6H_{11}Br$ 6) **Bromhexahydrobenzol**. *Sd.* 162—163°₇₁₄ u. *ger. Zers.* (*A.* 278, 107; *C.* 1898 [1] 1294; 1898 [2] 579; *Soc.* 73, 946).
- $C_6H_{11}Br_2$ 1) **Tribromhexan** (β -Bromhexylendibromid). *Sd.* 125—135° (*A.* 135, 126). — I, 186.
- $C_6H_{11}J$ 1) ϵ -Jod- α -Hexen (Diallylhydrojodid). *Sd.* 164—165° (*A. ch.* [4] 3, 168). — I, 199.
- 2) Jodhexen (aus Pinakon). *Sd.* 142—145° (*Z.* 1871, 699). — I, 198.
- 3) Jodhexen (aus Hexenylalkohol). *Sd.* 130—132° (*B.* 16, 229; *A. ch.* [5] 27, 66). — I, 253.
- 4) Jodhexahydrobenzol. *Sd.* 180° u. *ger. Zers.* (193°₇₄₃) (*A.* 278, 107; 302, 12; *C.* 1898 [2] 578).
- 5) **3-Jod-1-Methyl-R-Pentamethylen**. *Sd.* 177—179° (*B.* 30, 1222).
C 72,0 — H 12,0 — O 16,0 — M. G. 100.
- $C_6H_{12}O$ 1) δ -Oxy- α -Hexen (Aethylallylcarbinol). *Sd.* 130—132° (*Bl.* [3] 11, 124).
- 2) ϵ -Oxy- α -Hexen (Methylcrotylcarbinol). *Sd.* 138—139° (*A.* 201, 42). — I, 252.
- 3) δ -Oxy- δ -Methyl- α -Penten (Dimethylallylcarbinol). *Sd.* 119,5° (Hydrat. *Sm.* 116—117°) (*A.* 185, 151, 175; *J. pr.* [2] 23, 205; [2] 26, 111; [2] 46, 544; *J. r.* 8, 363; 19, 17; 11, 410; 15, 132; 16, 1222). — I, 252.
- 4) α -Oxy- β -Methyl- β -Penten (Methyläthylallylalkohol). *Fl.* (*M.* 4, 28). — I, 252.
- 5) δ -Oxy- δ -Methyl- β -Penten (Dimethylisoallylcarbinol). *Sd.* 110—115° (*J.* 1872, 349). — I, 253.
- 6) γ -Oxy- $\beta\gamma$ -Dimethyl- α -Buten (Dimethylisopropenylcarbinol). *Sd.* 117,5 bis 118° (*J. r.* 21, 432). — I, 253.
- 7) *isom.* Oxyhexen (Diallylhydrat). *Sd.* 140° (138—139°) (*J.* 1864, 514; *A. ch.* [4] 3, 172; *Z.* 1871, 36; *Soc.* 33, 53; *J. r.* 13, 353; *J. pr.* [2] 23, 19; *A.* 201, 42). — I, 252.
- 8) *isom.* Oxyhexen (Hexenylalkohol). *Sd.* 137°₇₄₅. Na, K (*A. ch.* [5] 27, 58; *B.* 16, 228). — I, 253.
- 9) Aethyläther d. α -Oxy- β -Methylpropen (Aethylisocrotyläther). *Sd.* 92 bis 94° (*Z.* 1870, 524; *B.* 10, 1902; *J. r.* 16, 495). — I, 302.
- 10) Aethyläther d. γ -Oxy- β -Methylpropen (Aethylisopropenylcarbinoläther). *Sd.* 78—85° (*J. r.* 16, 505). — I, 302.
- 11) *norm.* Propyläther d. γ -Oxypropen (Allyl-*norm.* Propyläther). *Sd.* 90 bis 91° (*A.* 276, 192).
- 12) Isopropyläther d. γ -Oxypropen (Allylisopropyläther). *Sd.* 82—83°₇₃₀ (*A.* 276, 195).
- 13) Oxyhexahydrobenzol. *Sm.* 25°; *Sd.* 160—161° (*cor.*) (*A.* 278, 98, 106; 302, 20; *C.* 1898 [2] 578).
- 14) **2-Oxy-1-Methyl-R-Pentamethylen**. *Sd.* 148—149° (*B.* 27, 1539).
- 15) **3-Oxy-1-Methyl-R-Pentamethylen**. *Sd.* 48—50°₁₂ (150—151°) (*B.* 25, 3519; 26, 775; 30, 1222).
- 16) **1-[α -Oxyäthyl]-R-Tetramethylen**. *Sd.* 144—145° (*Soc.* 61, 50). — I, 253.
- 17) **Hexan- $\alpha\beta$ -Oxyd**? (*norm.* Hexylenoxyd). *Sd.* 115° (*J.* 1864, 516). — I, 309.
- 18) **Hexan- $\alpha\epsilon$ -Oxyd** (δ -Hexylenoxyd). *Sd.* 103—104°₇₁₀ (*B.* 18, 3283). — I, 309.
- 19) **Hexan- $\beta\gamma$ -Oxyd** (Methyl-*norm.* Propyläthylenoxyd). *Sd.* 109—110° (*J. r.* 14, 376; *A. ch.* [5] 29, 553). — I, 309.
- 20) **Hexan- $\beta\epsilon$ -Oxyd** (Hexylenpseudooxyd; 2,5-Dimethyltetrahydrofuran). *Sd.* 93° (*J.* 1864, 515; *Z.* 1871, 36; *A. ch.* [6] 16, 203; *A.* 303, 183). — I, 310.
- 21) $\beta\gamma$ -Dimethylbutan- $\beta\gamma$ -Oxyd (Tetramethyläthylenoxyd). *Sd.* 95—96° (*J. r.* 14, 391). — I, 310.
- 22) *isom.* Hexanoxyd (Diisopropylenoxyd). *Sd.* 185° (*Bl.* 19, 147). — I, 310.
- 23) β -Ketohehexan (Methylbutylketon). *Sd.* 127°. + NaHSO₃ (*A.* 108, 125; 135, 144; 161, 273; 303, 183; *J. pr.* [2] 44, 306; [2] 51, 505; *J. r.* 26, 479). — I, 998.
- 24) γ -Ketohehexan (Aethylpropylketon). *Sd.* 122—124° (*A.* 161, 289; *B.* 8, 1019, 1195; *J. pr.* [2] 44, 264). — I, 999.
- 25) β -Keto- γ -Methylpentan (Methyläthylacetone). *Sd.* 118° (*A.* 219, 308; *J. r.* 16, 711). — I, 999.
- 26) γ -Keto- β -Methylpentan (Aethylisopropylketon). *Sd.* 113,8—114°₇₄₅ (*J. r.* 8, 242; *J. pr.* [2] 44, 280; *Bl.* [3] 1, 549; *M.* 16, 901). — I, 999.

$C_5H_{10}O$

- 27) δ -Keto- β -Methylpentan (Methylisobutylketon). *Sd.* 114°. + NaHSO₃ (A. 81, 86; 145, 82; J. pr. [2] 44, 281; J. r. 19, 207). — I, 999.
- 28) γ -Keto- $\beta\beta$ -Dimethylbutan (Methylpseudobutylketon; Pinakolin). *Sd.* 106° (A. 114, 57; 174, 125; B. 13, 1573; 14, 2065; 19, 562; 28, 1364; 30, 2268; A. ch. [6] 26, 491; M. 16, 897; 18, 575). — I, 999.
- 29) Keton (aus $\alpha\gamma$ -Dioxy- $\beta\beta$ -Dimethylbutan). *Sd.* 120—122° (103—105°) (M. 11, 397; 19, 88). — I, 1000.
- 30) Keton (aus $\alpha\gamma$ -Dioxy- $\beta\beta$ -Dimethylbutan). *Sd.* 210° (M. 11, 397; 19, 88). — I, 1000.
- 31) Keton (aus Chlorhexylen). *Sd.* 125°₇₅₃ (Bl. 41, 363). — I, 1000.
- 32) Aldehyd d. Pentan- α -Carbonsäure (Aldehyd d. norm. Capronsäure). *Sd.* 127,9° (A. 187, 130). — I, 954.
- 33) Aldehyd d. Pentan- β -Carbonsäure (Aldehyd d. Methylpropylelessigsäure). *Sd.* 116°₇₃₇ (M. 4, 24, 40). — I, 954.
- 34) Aldehyd d. β -Methylbutan- δ -Carbonsäure (Aldehyd d. Isobutylelessigsäure). *Sd.* 121°₇₄₃ (A. 133, 179). — I, 954.
- 35) Verbindung (aus Carnaubawachs) = (C₅H₁₀O)_n. *Sm.* 62°; *Sd.* 345—354° (B. 11, 2114). — I, 254.

 $C_8H_{14}O_2$

- C 62,1 — H 10,3 — O 27,6 — M. G. 116.
- 1) 1,2-Dioxyhexahydrobenzol. *Sm.* 99—100°; *Sd.* 225°; subl. bei 70° (C. 1898 [2] 579; A. 302, 21).
- 2) 1,4-Dioxyhexahydrobenzol (cis-Chinit). *Sm.* 100—102° (B. 25, 1038; A. 278, 92). — I, 270.
- 3) 1,4-Dioxyhexahydrobenzol (trans-Chinit). *Sm.* 139° (B. 25, 1038; A. 278, 92). — I, 270.
- 4) isom. 1,4-Dioxyhexahydrobenzol? (Hexinglykol). *Sd.* 218—225° (A. 159, 186; B. 10, 556; 25 [2] 506). — I, 269.
- 5) Methylenäther d. $\alpha\gamma$ -Dioxy- $\beta\beta$ -Dimethylpropan. *Sd.* 126° (A. 289, 44).
- 6) Äthylenäther d. $\alpha\alpha$ -Dioxy- β -Methylpropan (Isobutylidenäthylenäther). *Sd.* 125°_{747,3} (A. ch. [6] 16, 33; Bl. [3] 21, 276). — I, 949.
- 7) ϵ -Oxyhexan- $\alpha\beta$ -Oxyd (Methylbutylallylcarbinoloxyd). *Sd.* 178—181° (J. r. 19, 509). — I, 315.
- 8) ζ -Oxy- β -Ketohehexan (δ -Acetyl-norm. Butylalkohol). *Sd.* 226—227° (155 bis 157° u. Zers.) (Soc. 51, 717; 55, 354; B. 18, 3280; A. 289, 181). — I, 269.
- 9) δ -Oxy- γ -Ketohehexan (Propioin). *Sd.* 132—133°₃₇₇ (G. 25 [2] 52, 128).
- 10) α -Oxy- δ -Keto- β -Methylpentan (γ -Acetylisobutylalkohol). *Sd.* 140—142°₁₀₀ (Soc. 61, 72). — I, 269.
- 11) β -Oxy- δ -Keto- β -Methylpentan (Diacetonalkohol). *Sd.* 163,5—164,5° (A. 169, 115, 178, 342). — I, 269.
- 12) Äthyläther d. γ -Oxy- β -Ketobutan? (Äthoxylmethyldimethylketon). *Sd.* 100—105° (A. 234, 196). — I, 311.
- 13) Pentan- α -Carbonsäure (norm. Capronsäure). *Sm.* — 1,5°; *Sd.* 205°. K, Ca + H₂O, Ba, Ba + H₂O, Sr + 3H₂O, Zn + H₂O, Cu, Cd + H₂O, Ag. Lit. bedeutend. — I, 431.
- 14) Pentan- β -Carbonsäure (Methylpropylelessigsäure). *Sd.* 193°₇₄₈ (i. D.). Salze meist bek. (A. 193, 349; 226, 291; J. r. 10, 107; B. 15, 308; 16, 1823; 17, 919; 18, 632; 20, 1321; M. 4, 25, 40, 63; 12, 594; J. pr. [2] 23, 288). — I, 433.
- 15) Pentan- γ -Carbonsäure (Diäthylelessigsäure). *Sd.* 190°_{756,5} (i. D.). Ca, Ca + 4H₂O, Ba + 2H₂O, Zn, Pb, Ag (A. 138, 223; 193, 349; 200, 24; 201, 70; 202, 308; 204, 241; Am. 3, 393; 18, 749; J. pr. [2] 23, 288; M. 9, 600; B. 6, 1175; 15, 950, 1763; J. r. 11, 107). — I, 433.
- 16) inakt. β -Methylbutan- α -Carbonsäure (inakt. β -Methyl- β -Äthylpropionsäure). *Fl.* *Sd.* 196—198° (R. 6, 153; Soc. 67, 267). — I, 434.
- 17) akt. β -Methylbutan- α -Carbonsäure (β -Methyl- β -Äthylpropionsäure). *Sd.* 196—198°₇₇₀. Ba + 3H₂O, Ba + 3½H₂O, Ag (A. 195, 103; R. 5, 221; M. 14, 563). — I, 436.
- 18) β -Methylbutan- β -Carbonsäure (Dimethyläthylelessigsäure). *Sm.* — 14°; *Sd.* 187°. Na, Na₂, Ba + 5H₂O, Zn, Ag (J. r. 6, 165; A. 174, 56; 185, 127; M. 14, 239). — I, 433.
- 19) β -Methylbutan- γ -Carbonsäure (Methylisopropylelessigsäure). *Sd.* 189 bis 191°. Ca + H₂O, Ag (Z. 1866, 502; R. 5, 231, 236; Soc. 69, 1478; 73, 16). — I, 434.

- $C_6H_{12}O_2$
- 20) β -Methylbutan- δ -Carbonsäure (Isobutylelessigsäure). Sd. $199,7^\circ_{132}$. Ca, Ca + $3(5)H_2O$, Ba, Ba + $1(4)H_2O$, Ag. Lit. bedeutend. — I, 432.
 - 21) isom. Capronsäure (Isobutylelessigsäure?) (A. 59, 41; 64, 70; 70, 112; 73, 203).
 - 22) Hydroäthylcrotonsäure (identisch mit Diäthylelessigsäure) (A. 200, 24).
 - 23) Aldehyd d. γ -Oxypentan- β -Carbonsäure. Sd. $94-96^\circ_{21}$ (M. 19, 155).
 - 24) Aldehyd d. γ -Oxy- β -Methylbutan- β -Carbonsäure. Sd. $88-90^\circ_{22}$ (M. 19, 79).
 - 25) Methylester d. norm. Valeriansäure. Sd. $127,3^\circ$ (A. 233, 273). — I, 426.
 - 26) Methylester d. Isovaleriansäure. Sd. $116,7^\circ$ (A. 64, 219; 163, 290; 218, 214; 220, 334; 223, 83; 234, 343; Ph. Ch. 12, 42). — I, 428.
 - 27) isom. Methylester d. Isovaleriansäure. Sd. $114-116^\circ$ (A. ch. 6 1, 253). — I, 429.
 - 28) Methylester d. d-Butan- β -Carbonsäure. Sd. $113-115^\circ_{712}$ (Bl. 3 15, 295).
 - 29) Methylester d. Trimethylelessigsäure. Sd. $100-102^\circ$ (A. 173, 372). — I, 430.
 - 30) Methylester d. Isobutylameisensäure. Sd. $116-117^\circ$ (A. 193, 101). — I, 429.
 - 31) Äthylester d. norm. Buttersäure. Sd. $119,9^\circ$ (P. 72, 281; 122, 553; 2 12, 41; A. 135, 221; 160, 210, 229; 161, 178; 214, 185; 218, 318; 220, 111; 223, 80; 234, 343; 246, 144; B. 15, 2463; 28, 2432, 2438; R. 14, 112, 117). — I, 422.
 - 32) Äthylester d. Isobuttersäure. Sd. $110,1^\circ$ (A. ch. 4 28, 366; 6 8, 131; A. 218, 333; 220, 111; 223, 82; 234, 343; P. 2 12, 42; B. 15, 2463; 31, 197 Anm.; M. 2, 684; R. 14, 113, 118). — I, 625.
 - 33) norm. Propylester d. Propionsäure. Sd. $122,4^\circ$ (P. 2 12, 41; A. 161, 31; 163, 271; 218, 321; 220, 110; 223, 78; 234, 343; M. 2, 687; B. 15, 2463). — I, 420.
 - 34) Isopropylester d. Propionsäure. Sd. $109-111^\circ_{749,7}$ (M. 2, 688). — I, 420.
 - 35) norm. Butylester d. Essigsäure. Sd. $124,4^\circ$ (A. 158, 168; 161, 193; 233, 259; M. 2, 693; B. 15, 2463). — I, 409.
 - 36) Isobutylester d. Essigsäure. Sd. $116,5^\circ$ (P. 2 12, 41; A. 163, 282; 218, 325; 220, 109; 223, 77; 234, 343; B. 15, 2463; R. 14, 109, 116). — I, 409.
 - 37) Methyläthylcarbinolester d. Essigsäure (Acetat d. β -Oxybutan). Sd. $111-113^\circ$ (A. 150, 112; J. 1864, 501). — I, 409.
 - 38) Trimethylcarbinolester d. Essigsäure (Acetat d. β -Oxy- β -Methylpropan). Sd. 96° (51°). + $2ZnCl_2$ (A. 144, 7; J. pr. 2 48, 484; Bl. 3 7, 582; J. r. 25, 451). — I, 409.
 - 39) norm. Amylester d. Ameisensäure. Sd. $130,4^\circ$ (A. 233, 254). — I, 396.
 - 40) Isoamylester d. Ameisensäure. Sd. $123,3^\circ$ (Bl. 5, 12; J. 1860, 7; P. 2 12, 4; A. 218, 329; 220, 106; 223, 76; 234, 343; B. 15, 2463; 17, 2304). — I, 396.
 - 41) β -Methylbutylester d. Ameisensäure. Sd. $120-122^\circ_{736}$ (Bl. 3 15, 279).
 - 42) Dimethyläthylcarbinolester d. Ameisensäure. Sd. $112-113^\circ_{750}$ (J. pr. 2 48, 481; J. r. 25, 446).
- $C_6H_{12}O_3$
- C 54,5 — H 9,1 — O 36,4 — M. G. 132.
- 1) 1,3,5-Trioxyhexahydrobenzol (Phloroglucit) + $2H_2O$. Sm. $184-185^\circ$ (wasserfrei); Sd. bei 300° (B. 27, 357). — II, 1010.
 - 2) Hexandioxydhydrat. Sd. 145°_{20} (A. ch. 6 22, 450). — I, 316.
 - 3) Äthyläther d. $\alpha\beta\gamma$ -Trioxpropan (Glycerinallyläther). Sd. 240° u. Zers. (A. 156, 149). — I, 313.
 - 4) Acetonglycerin ($\alpha\beta$ -[oder $\alpha\gamma$ -]Isopropylidenäther d. $\alpha\beta\gamma$ -Trioxypropan). Sd. $104-106^\circ_{81}$ (B. 28, 1169).
 - 5) α -Oxycapronsäure. Sm. $60-62^\circ$. Na, K, Mg + $2H_2O$, Ca, Ba, Zn + $2H_2O$, Cu, Ag (J. r. 9, 139; 12, 367; Bl. 3 6, 92). — I, 569.
 - 6) Leucinsäure (α -Oxycapronsäure?). Sm. 73° . Ca, Ba, Zn + H_2O , Co, Cu, Ag (A. 68, 55; 91, 135; 118, 295; J. 1861, 780). — I, 569.
 - 7) β -Oxycapronsäure. Fl. Ca + $\frac{1}{2}H_2O$, Ba + H_2O , Ag (A. 283, 124).
 - 8) γ -Oxycapronsäure. Fl. NH_4 , Ca, Ba, Ag (A. 200, 53; 208, 67; 255, 61; 256, 155; B. 16, 373; 17, 1300; 18, 642, 1555). — I, 569.
 - 9) δ -Oxycapronsäure. Ba, Ag (A. 216, 136; B. 26, 889). — I, 570.

$C_4H_8O_3$

- 10) β -Oxyisocapronsäure. Fl. Ag (M. 17, 210).
- 11) γ -Oxyisocapronsäure. NH_4 , Ba, Ag (A. 200, 63, 259; 208, 43, 56; J. pr. [2] 48, 221; B. 13, 749; M. 17, 213). — I, 572.
- 12) β -Oxy- α -Methylvaleriansäure. Fl. Ba (M. 19, 159).
- 13) isom.- β -Oxy- α -Methylvaleriansäure. Fl. (B. 20, 1321). — I, 570.
- 14) γ -Oxy- α -Methylvaleriansäure. Ba (A. 218, 35; 218, 371; B. 16, 1822; 18, 635). — I, 571.
- 15) γ -Oxy- β -Methylvaleriansäure (A. 218, 35). — I, 571.
- 16) l- α -Oxy- γ -Methyl-norm. Valeriansäure (α -Oxyisobutylelessigsäure). Sm. 54—55° (56°, 74°). Zn + 2H₂O, Cd, Cu, Ag (A. 209, 238; J. r. 9, 136; B. 7, 1109; 10, 231; 14, 617; 26, 56; 30, 1981; H. 17, 521; 18, 29). — I, 572.
- 17) l- α -Oxy- γ -Methyl-norm. Valeriansäure. Sm. 72,5° (67°). Ca + 2H₂O, Zn + $\frac{1}{2}$ H₂O, Cu (H. 18, 29).
- 18) α -Oxy- α -Methylisovaleriansäure. Sm. 75—77° (63°). Ag (C. 1896 [2] 703; Soc. 69, 1486; M. 18, 577).
- 19) β -Oxy- α -Methylisovaleriansäure. Sd. 160°₃₃ (C. 1896 [2] 728; Soc. 69, 1483).
- 20) α -Oxy- $\beta\beta$ -Dimethylbuttersäure. Sm. 87—88° (M. 10, 779; 12, 356; 13, 647). — I, 572.
- 21) β -Oxy- α -Aethylbuttersäure. Fl. Na, Cu, Ag (A. 188, 240; Soc. 59, 872). — I, 570.
- 22) γ -Oxy- α -Aethylbuttersäure. Fl. Ca + 1 $\frac{1}{2}$ H₂O, Ba, Ag (A. 226, 335; B. 26, 1654). — I, 571.
- 23) β -Oxy- $\alpha\alpha$ -Dimethylbuttersäure. Fl. Ba (M. 19, 82).
- 24) β -Oxy- α -Propylpropionsäure? Ba (B. 18, 636). — I, 572.
- 25) α -Oxy- $\alpha\alpha$ -Diäthylelessigsäure (Diäthylglykolsäure). Sm. 80° (74°); subl. bei 50°. NH_4 , Ba, Zn, Cu, Ag + $\frac{1}{2}$ H₂O (A. 135, 26; 200, 21; 209, 235; J. 1867, 451; 1877, 719; Z. 1866, 490; 1867, 705; B. 5, 950; 14, 1974). — I, 570.
- 26) α -Oxybutteräthyläthersäure. Fl. K, Ba, Zn, Ag (A. ch. [5] 17, 532). — I, 561.
- 27) β -Oxybutteräthyläthersäure. Sd. 213—220°. K (B. 12, 2058; Soc. 59, 478). — I, 562.
- 28) γ -Oxybutteräthyläthersäure. Sd. 231°. Ca + 2H₂O, Ag (A. 267, 202; Am. 19, 775). — I, 563.
- 29) Oxyisobutteräthyläthersäure. Sd. 180°₂₄. Ba + H₂O, Zn, Pb + H₂O, Ag (B. 10, 450; 12, 179). — I, 564.
- 30) α -Oxypropionpropyläthersäure. Ca + 2H₂O, Ag (Soc. 73, 871).
- 31) d- α -Oxypropionpropyläthersäure. Ca, Ag (Soc. 73, 873).
- 32) β -Oxypropionpropyläthersäure. Ca + 2H₂O, Ag (Soc. 73, 299).
- 33) Metaldehyd = (C₂H₄O)₃. subl. bei 112—115° (A. 14, 141; 66, 155 bis 156; 162, 125; Z. 1865, 32; B. 3, 468; 25, 3316; A. ch. [5] 25, 227; J. 1882, 362; Ph. Ch. 3, 612; B. 3, 468; Am. 16, 43). — I, 917.
- 34) Paraldehyd = (C₂H₄O)₃. Sd. 124°. Lit. bedeutend. — I, 916.
- 35) Methylester d. α -Oxybuttermethylethersäure. Sd. 150—155° (A. ch. [5] 17, 557). — I, 561.
- 36) Methylester d. β -Oxybuttermethylethersäure. Sd. 146—148° (Soc. 49, 476). — I, 562.
- 37) Methylester d. Oxyessigpropyläthersäure. Sd. 178,5°₂₀₀ (A. 197, 8, 21). — I, 549.
- 38) Aethylester d. α -Oxybuttersäure. Sd. 167° (A. 197, 15, 21). — I, 560.
- 39) Aethylester d. l- α -Oxybuttersäure. Sd. 169° (165—170°) (C. 1895 [1] 826; Bl. [3] 15, 482).
- 40) Aethylester d. Oxyisobuttersäure. Sd. 150° (A. 136, 12; 188, 53). — I, 563.
- 41) β -Oxyäthylester d. Buttersäure (Monobutyrat d. $\alpha\beta$ -Dioxyäthan). Sd. 220° (A. 114, 123). — I, 423.
- 42) Aethylester d. α -Oxypropionmethylethersäure. Sd. 135,5°₁₅₀ (A. 197, 13, 21). — I, 555.
- 43) Aethylester d. Oxyessigäthyläthersäure. Sd. 152° (158,4°) (A. 129, 40; 197, 8, 21; Z. 1867, 708; B. 4, 706; 17, 486; J. pr. [2] 51, 358). — I, 549.
- 44) Propylester d. l- α -Oxypropionsäure. Sd. 122—123°₁₅₀ (Soc. 67, 918).

- C₆H₁₁O₂**
- 45) Isopropylester d. α -Oxypropionsäure. Sd. 166—168° (*Bl.* 17, 97). — I, 554.
 - 46) Propylester d. Oxyessigmethyläthersäure. Sd. 147° (*A.* 197, 8, 21; *B.* 17, 486). — I, 549.
 - 47) Aethylpropylester d. Kohlensäure. Sd. 145,6° (*B.* 17, 1606). — I, 543.
 - 48) Methylisobutylester d. Kohlensäure. Sd. 143,6° (*A.* 205, 245). — I, 543.
 - 49) Monoamylester d. Kohlensäure. Sm. bei -60° (*B.* 31, 3001).
 - 50) Acetat d. $\alpha\alpha$ -Dioxyäthanmonoäthyläther. Sd. 125—130° (*B.* 31, 1018).
- C₆H₁₁O₄**
- C 48,7 — H 8,1 — O 43,2 — M. G. 148.
- 1) Digitoxose (*B.* 28 [2] 1058; 31, 2455).
 - 2) Dulcid (*A. ch.* [4] 27, 181). — I, 288.
 - 3) Pyroglycid. Sd. 245—255° (*J. pr.* [2] 20, 193; *A. ch.* [3] 67, 304). — I, 315.
 - 4) $\beta\gamma$ -Dioxypentan- β -Carbonsäure (Dioxyacpronsäure). Sm. 150,3—151,8°. Ca + 3H₂O (*M.* 4, 48, 66, 83). — I, 634.
 - 5) $\beta\gamma$ -Dioxypentan- γ -Carbonsäure (Isohexerinsäure). Sm. 95—96°. Ca + 3H₂O, Ba, Zn + H₂O (*A.* 268, 23). — I, 635.
 - 6) $\delta\delta$ -Dioxypentan- α -Carbonsäure (*Soc.* 69, 1512).
 - 7) $\gamma\delta$ -Dioxy- β -Methylbutan- δ -Carbonsäure ($\alpha\beta$ -Dioxyisocapronsäure). Sm. 108°. Ca (*M.* 17, 216).
 - 8) Isodioxyacpronsäure. Ca, Ba (*A.* 268, 42, 69). — I, 634.
 - 9) isom. Dioxyacpronsäure. Ca, Ba, Ag (*A.* 268, 41). — I, 634.
 - 10) Hexerinsäure. Sm. 141° (144,5—145,5°). Ca, Ba, Cu (*A.* 200, 39; 268, 26). — I, 634.
 - 11) Dioxyessigdiäthyläthersäure. Fl. Ba, Ag (*J.* 1864, 316; *Z.* 1870, 167; *B.* 8, 188; 11, 1478). — I, 631.
 - 12) Aethylester d. $\alpha\beta$ -Dioxybuttersäure. Sd. 225—230° u. Zers. (*B.* 21, 2055). — I, 633.
 - 13) norm. Propylester d. $\alpha\beta$ -Dioxypropionsäure. Sd. 126—127°₁₄ (*Soc.* 63, 513, 1415).
 - 14) Isopropylester d. $\alpha\beta$ -Dioxypropionsäure. Sd. 114—116°₁₃ (*Soc.* 63, 514, 1415).
 - 15) Verbindung (aus Aethylenglykol). Sd. 240° (*J.* 1863, 485).
 - 16) Verbindung (Oxylakton) (*B.* 15, 619).
- C₆H₁₁O₅**
- C 43,9 — H 7,3 — O 48,8 — M. G. 164.
- 1) Antiarose (*C.* 1896 [2] 591).
 - 2) Carubinese. Fl. (*Bl.* [3] 17, 958).
 - 3) Chinovose (*B.* 26, 2415).
 - 4) Dulcitan (BERTHELOT, *Chim. org. synth.* 2, 209). — I, 288.
 - 5) Isodulcitan (*A.* 127, 362; 186, 323; *J. pr.* [2] 45, 307). — I, 290.
 - 6) Fukose (Zucker) (*A.* 271, 86; *J. pr.* [2] 45, 309). — I, 1070.
 - 7) Mannitan, amorph u. kryst. (*A. ch.* [3] 47, 306; [5] 2, 459; [5] 6, 102; *J. r.* 16, 383). — I, 285.
 - 8) Methylarabinosid. Sm. 169—171° (*B.* 26, 2407; 28, 1156).
 - 9) α -Methylxylosid. Sm. 90—92° (*B.* 28, 1158).
 - 10) β -Methylxylosid. Sm. 156—157° (*B.* 28, 1157).
 - 11) Pinit. 2PbO (*A. ch.* [3] 46, 76); siehe C₇H₁₄O₆.
 - 12) Quercit (1,2,3,4,5-Pentaoxyhexahydrobenzol?). Sm. 225° (234°). CaSO₄ + 2H₂O, CaO + 2H₂O (*A. ch.* [3] 27, 392; [5] 15, 1; *A.* 81, 104; 190, 282; *J.* 1854, 628; 1857, 505; *B.* 11, 45; 14, 1598; 29, 1762; *Bl.* 48, 703). — I, 282.
 - 13) Methylester d. Trioxyessigtrimethyläthersäure. Sd. 76°₁₁ (*A.* 254, 31). — I, 737.
 - 14) Aethylester d. β -Trioxybuttersäure. 2 + CaCl₂ (*A.* 244, 294). — I, 737.
- C₆H₁₁O₆**
- C 40,0 — H 6,7 — O 53,3 — M. G. 180.
- 1) α -Akrose (i-Lävulose) (*B.* 22, 100, 359, 475; 23, 3889). — I, 1038.
 - 2) Cerasinose (SACHSE, *Phytochem. Unters.*, Leipzig 1880, 78). — I, 1039.
 - 3) Cerebrose (= Galaktose) (*J. pr.* [2] 25, 23; [2] 53, 90).
 - 4) Cerebrosische Säure. Ba (*J. pr.* [2] 25, 23).
 - 5) Eucalyn + H₂O (*A. ch.* [3] 46, 72).

$C_6H_{12}O_6$

- 6) Formose. BaO (*J. pr.* [2] 33, 329; siehe auch *B.* 21, 989). — I, 1039.
- 7) d-Galaktose. Sm. 168°. BaO. Lit. bedeutend. — I, 1040.
- 8) l-Galaktose. Sm. 162—163° (*B.* 25, 1259). — I, 1040.
- 9) i-Galaktose. Sm. 140—142° (*B.* 25, 1255; 31, 1571). — I, 1040.
- 10) β -Galaktose (*Bl.* [3] 15, 5, 197).
- 11) γ -Galaktose (*Bl.* [3] 15, 5, 199).
- 12) Galtose. Fl. (*R.* 16, 269).
- 13) Glutose. Fl. (*R.* 16, 274).
- 14) d-Glykose (Dextrose; Traubenzucker). Sm. 146° (wasserfrei). Lit. bedeutend. — I, 1041.
- 15) l-Glykose. Sm. 141—143° (*B.* 23, 2618). — I, 1050.
- 16) i-Glykose. Fl. (*B.* 23, 2660). — I, 1050.
- 17) d-Gulose. Fl. (*B.* 24, 526). — I, 1050.
- 18) l-Gulose. Fl. (*B.* 24, 532). — I, 1050.
- 19) d-Idose (*B.* 28, 1982).
- 20) l-Idose (*B.* 28, 1978).
- 21) d-Inosit. Sm. 247—248° (*A. ch.* [6] 29, 271). — I, 1052.
- 22) l-Inosit. Sm. 238°; Sd. 250° (i. V.) (*B.* 23 [2] 26). — I, 1052.
- 23) i-Inosit (Damböse; Phasäomannit) + 2H₂O. Sm. 225° (217—218°); Sd. 319° (i. V.). BaO, PbO. Lit. bedeutend. — I, 1050.
- 24) Isoformose. BaO (*J. pr.* [2] 34, 51). — I, 1039.
- 25) Lävulose (Fruchtzucker; Fruktose). Sm. 95°. Lit. bedeutend. — I, 1053.
- 26) Lokaose (*B.* 18, 3424). — I, 1055.
- 27) Mannitose. HKO (*A.* 118, 273).
- 28) d-Mannose (Seminose). Sm. 132°. Pb + H₂O (*B.* 21, 1806; 22, 366, 609, 1155, 3218; 24, 699; *A.* 267, 349; *R.* 14, 329; 15, 221; *Bl.* [3] 19, 408). — I, 1055.
- 29) l-Mannose. Fl. (*B.* 23, 373). — I, 1055.
- 30) i-Mannose. Fl. (*B.* 23, 381, 390). — I, 1055.
- 31) Matezodamböse = C₆H₁₂O₆ (*Bl.* 21, 220).
- 32) Methose. Fl. (*B.* 22, 475). — I, 1040.
- 33) Phenose (*A.* 136, 323; *J.* 1881, 353). — I, 1055.
- 34) Phlorose + H₂O (d-Glykose?). Sm. 144—145° (wasserfrei) (*A.* 30, 200; 176, 114; 192, 173; 277, 302; *B.* 26, 942).
- 35) Pseudofruktose (*R.* 16, 278).
- 36) Pseudotagatose. Sm. 156° (*R.* 16, 267).
- 37) Quercin (Zucker). Sm. 340° u. Zers. (*Bl.* 48, 113). — I, 1056.
- 38) Scyllit (*J.* 1858, 550). — I, 1056.
- 39) Sorbin (Sorbiose; Sorbose). Lit. bedeutend. — I, 1056.
- 40) d-Tagatose. Sm. 124° (*R.* 16, 265).
- 41) Kohlehydrat (aus Mucin) (*C.* 1898 [2] 368).
- 42) Zucker (aus Aesculin) + $\frac{1}{2}$ H₂O (*A.* 87, 186). — I, 1057.
- 43) Zucker (aus Formaldehyd) (*B.* 21, 989).
- 44) Zucker (aus Robinin) (*A. Spl.* 1, 270). — I, 1057.
- 45) Zucker (aus d. Säure C₆H₈O₆ aus Weinsäure) (*B.* 28 [2] 926; *Soc.* 71, 375).
- 46) Verbindung (Zucker?) (*J.* 1874, 883).
- 47) $\beta\gamma\delta\epsilon$ -Tetraoxypentan- α -Carbonsäure? (Metasaccharinsäure). Ca + 2H₂O, Cu + 2H₂O (*B.* 16, 2625; 18, 642; 26, 1649). — I, 785.
- 48) $\alpha\beta\delta\epsilon$ -Tetraoxypentan- β -Carbonsäure (Maltosaccharinsäure; Isosaccharinsäure). Ca (*Bl.* 38, 512; *B.* 26, 1650). — I, 785.
- 49) $\beta\gamma\delta\epsilon$ -Tetraoxypentan- β -Carbonsäure (Glykosaccharinsäure). K, Ca, Zn, Cu + 4H₂O (*B.* 13, 196, 2212; 15, 2953; *Bl.* 36, 226; *J.* 1880, 1025). — I, 784.
- 50) $\alpha\beta\delta\epsilon$ -Tetraoxypentan- γ -Carbonsäure? (Parasaccharinsäure). Fl. Ba + 4H₂O (*B.* 26, 1653).
- 51) $\beta\beta$ -Di[Oxymethyl]- $\alpha\gamma$ -Dioxybuttersäure. Ca (*A.* 276, 81).
- 52) Rhamnonsäure (Isodulcitonsäure). NH₄, Ca, Sr + $7\frac{1}{2}$ H₂O, Ba, Brucinsalz (*B.* 21, 1813, 2048; 29, 1962; *A.* 271, 68). — I, 786.
- 53) Isorhamnonsäure. Brucinsalz (*B.* 29, 1963).
- 54) Säure (aus Phenose). Ca (*A.* 136, 329).
- 55) polym. Trioxymethylen. $4 + \frac{3}{2}$ BaO (*A. ch.* [5] 17, 311; *Bl.* [3] 17, 856). — I, 912.

 $C_6H_{10}O_6$

- C 36,7 — H 6,1 — O 57,1 — M. G. 196.
- 1) Chitonsäure. Fl. Ca (*B.* 27, 139).



- 2) d-Galaktonsäure. NH_4 , $Na + 2H_2O$, $Ca + 5H_2O$, Ba , Cd , $Pb + 4H_2O$ (A. 122, 96; 158, 259; 271, 81; B. 13, 2307; 14, 651, 2529; 18, 1552; 25, 1247; M. 16, 334). — I, 829.
- 3) l-Galaktonsäure. $Ca + 5H_2O$ (B. 25, 1258). — I, 829.
- 4) Glykogensäure. Ca , $Ba + 3H_2O$, Cd , Mn , Pb_2 , $Co + 2H_2O$ (A. 182, 209). — I, 830.
- 5) d-Glykonsäure (Dextronsäure). Fl. Salze meist bek. Lit. bedeutend. — I, 825.
- 6) l-Glykonsäure. Ca (B. 23, 2611). — I, 827.
- 7) i-Glykonsäure. $Ca + H_2O$ (B. 23, 2617). — I, 827.
- 8) d-Gulonsäure. Ca (B. 24, 525; H. 15, 71). — I, 828.
- 9) l-Gulonsäure. $Ca + 3\frac{1}{2}H_2O$, Ba , Brucinsalz (B. 24, 529; 28, 1677 Anm., 1878; 29, 1862). — I, 828.
- 10) i-Gulonsäure. Ca (B. 25, 1028). — I, 828.
- 11) d-Idonsäure. Brucinsalz, $Cd + CdBr_2 + H_2O$ (B. 28, 1981).
- 12) l-Idonsäure. Fl. Brucinsalz, $Cd + CdBr_2 + H_2O$ (B. 28, 1975).
- 13) Mannitsäure. Ca , Pb , Cu , Ag_2 (A. 118, 259). — I, 830.
- 14) d-Mannonsäure. $Ca + 2H_2O$, $Sr + 3H_2O$, Ba (B. 22, 3219; 23, 379, 800; 24, 1845). — I, 827.
- 15) l-Mannonsäure (Arabinosecarbonsäure). $Ca + 3H_2O$ (B. 19, 3033; 20, 339; 21, 916; 23, 2627; 29, 1862). — I, 828.
- 16) i-Mannonsäure. Ca (B. 23, 376). — I, 828.
- 17) Paraglukonsäure. NH_4 , K , Ca , Ba , Pb_2 (M. 1, 49).
- 18) Talonsäure. $Cd + H_2O$ (B. 24, 3623). — I, 829.
- 19) Säure (aus Glycerinsäure). Ba (A. 196, 102). — I, 830.



C 34,0 — H 5,6 — O 60,4 — M. G. 212.

- 1) Oxyglykonsäure (Hexepinsäure). K_2 (B. 12, 372; 15, 2244; 26, 3060; C. r. 102, 1038).



- 2) Triglykolsäure. $Ca_3 + 2H_2O$, $Ba_3 + 2H_2O$ (J. 1868, 507). — I, 848.

C 31,6 — H 5,3 — O 63,1 — M. G. 228.



- 1) Hexaoxymethylensuperoxyd + $3H_2O$. Sm. 51° (A. 217, 382; B. 18, 3343). — I, 914.

C 64,3 — H 10,7 — N 25,0 — M. G. 112.

- 1) 3,5,5-Trimethyl-4,5-Dihydropyrazol. Sd. 66—69°₂₀. HCl , (2HCl, $PtCl_4$), HBr , + $2HgCl_2$, Pikrat, Maleinsaures Salz (J. pr. [2] 50, 546; [2] 51, 394; [2] 58, 316; B. 27, 772). — IV, 491.
- 2) 5-Methyl-2-Aethyl-4,5-Dihydroimidazol. Sd. 130°₂₅. (2HCl, $PtCl_4$), (HCl , $AuCl_3$), (HCl , $5HgCl_2$), Pikrat (B. 28, 1178). — IV, 491.
- 3) 2-Propyl-4,5-Dihydroimidazol. Sd. 134—140°₂₅. HCl , (2HCl, $PtCl_4$), (HCl , $AuCl_3$), (HCl , $5HgCl_2$), HBr , Pikrat, Harnsaures Salz (B. 28, 1175). — IV, 491.
- 4) Triäthylendiamin. Sd. 210° (J. 1858, 343). — I, 1154.
- 5) Hydracetamid. 2HCl, (2HCl, $PtCl_4$) (A. Spl. 6, 1, 255). — I, 918.
- 6) Bisdimethylasimethylen. Sd. 131° (J. pr. [2] 44, 164; B. 29, 611). — I, 1028.



- 7) Nitril d. Amidoisocapronsäure (B. 14, 1868).

C 51,4 — H 8,6 — N 40,0 — M. G. 140.

- 1) Hexamethylentetramin + $6H_2O$. Sm. 15°. Salze meist bek. Lit. bedeutend. — I, 1167.



C 42,8 — H 7,1 — N 50,0 — M. G. 168.

- 1) Methyläthylmelamin. Sm. 174° (B. 32, 698).
- 2) Trimethylmelamin. Sm. 115° (2HCl, $PtCl_4$) (B. 18, 2763, 2767; 18 [2] 498; J. pr. [2] 33, 293). — I, 1444.
- 3) Isotrimethylmelamin + $3H_2O$. Sm. 179° (und 123—124°); subl. (2HCl, $AuCl_3$), (2HCl, $PtCl_4$) (B. 3, 264; 6, 1372; 18, 2784; 29, 2498). — I, 1444.



- 1) $\alpha\beta$ -Dichlorhexan. Sd. 172—174° (B. 25 [2] 377).
- 2) $\alpha\epsilon$ -Dichlorhexan? Sd. 200—205° (C. 1899 [1] 25).
- 3) $\beta\gamma$ -Dichlorhexan (ϵ -Methylpropyläthylenchlorid). Sd. 163—165° (Bl. 41, 363). — I, 154.
- 4) $\beta\epsilon$ -Dichlorhexan (Diallyldihydrochlorid). Sd. 170—180° (A. ch. [4] 3, 161). — I, 154.
- 5) $\gamma\gamma$ -Dichlor- $\beta\beta$ -Dimethylbutan. Sm. 151° (J. r. 19, 425). — I, 155.

- C₆H₁₂Cl₂**
- 6) $\beta\gamma$ -Dichlor- $\beta\gamma$ -Dimethylbutan (Tetramethyläthylenchlorid). Sm. 160° (B. 6, 35; 26 [2] 13; A. 144, 187). — I, 155.
 - 7) isom. Dichlordiisopropyl (unbek. Constit.). Sd. 160° (Bl. 6, 36; 7, 953). — I, 155.
 - 8) isom. Dichlorhexan (aus Petroleum). Sd. 180—184° (J. 1863, 525). — I, 155.
- C₆H₁₂Br₂**
- 1) $\alpha\beta$ -Dibromhexan. Sd. 98—99°₁₅ (B. 25 [2] 377, 378; 30, 1493).
 - 2) $\alpha\epsilon$ -Dibromhexan (β -Hexylenbromid). Sd. 153—154°₁₀₀ (Soc. 51, 722; 53, 205; B. 30, 637; C. 1899 [1] 25). — I, 178.
 - 3) $\alpha\zeta$ -Dibromhexan. Sd. 240—247° (135—137°₉₀) (B. 26, 2988; 27, 216; Soc. 65, 597; C. 1899 [1] 26).
 - 4) $\beta\gamma$ -Dibromhexan (β -Hexylenbromid). Sd. 195—197°₁₀ (A. 135, 141; 172, 67; B. 11, 1423; J. pr. [2] 51, 308 Anm.). — I, 177.
 - 5) $\beta\epsilon$ -Dibromhexan. Sm. 38—39°; Sd. 210° (J. r. 22, 117; B. 30, 637). — I, 178.
 - 6) $\beta\gamma$ -Dibrom- β -Methylpentan (Dimethyläthyläthylenbromid). Sd. 185 bis 192° u. Zers. (A. 195, 255; J. r. 27, 368; J. pr. [2] 53, 279). — I, 178.
 - 7) $\gamma\gamma$ -Dibrom- $\beta\beta$ -Dimethylbutan. Sm. 187° (B. 26 [2] 13).
 - 8) $\gamma\delta$ -Dibrom- $\beta\beta$ -Dimethylbutan (Pseudobutyläthylenbromid). Fl. (J. 1873, 340; B. 26 [2] 15). — I, 178.
 - 9) $\beta\gamma$ -Dibrom- $\beta\gamma$ -Dimethylbutan (Tetramethyläthylenbromid). Sm. 169 bis 170° (140° u. Zers.) (J. r. 10, 220; 13, 84; A. 169, 124; 209, 85; B. 15, 949; 16, 399; 26 [2] 13, 15). — I, 178.
 - 10) Dibromhexan (aus β -Methyl- $\beta\gamma$ -Pentadien). Fl. (A. 290, 152).
 - 11) isom. Dibromhexan (Hexylenbromid). Sd. 210—212° (J. 1862, 411; A. 124, 293; 165, 9). — I, 178.
 - 12) isom. Dibromhexan. Sd. 190—200° (A. 128, 228).
 - 13) η -Dibromhexan. Sm. 72° (J. pr. [2] 54, 431).
- C₆H₁₂J₂**
- 1) $\alpha\zeta$ -Dijodhexan. Sm. 6—7° (B. 26, 2988).
 - 2) $\beta\epsilon$ -Dijodhexan. Sm. 44°; Sd. 133—134,5°₁₅ (GRINER, thèse; J. pr. [2] 23, 17; A. ch. [4] 13, 129). — I, 195.
 - 3) isom. $\beta\epsilon$ -Dijodhexan? Sd. 132—133°₁₅ (GRINER, thèse). — I, 195.
 - 4) Dijodhexan (Diallyldijodhydrin) (J. r. 10, 399).
- C₆H₁₂S₂**
- 1) Allylpropyldisulfid. Sd. 66—69°₁₀ (B. 25 [2] 910).
 - 2) Dithioacetone (Duplothioacetone). Sd. 183—185° (Z. 1869, 324; B. 8, 532; 14, 758; 16, 1787; 20, 375; 22, 1043; Bl. 40, 69). — I, 993.
 - 3) Vinyläthyläther d. Dimerkaptoäthan. Sd. 215°. + HgCl₂ (B. 19, 3266; 20, 2968; A. 240, 313). — I, 953.
 - 4) Verbindung (aus Zwiebelöl). Sd. 75—83°₁₀ (B. 25 [2] 910).
- C₆H₁₂S₃**
- 1) α -Trithioacetaldehyd. Sm. 101°; Sd. 246—247°. + AgNO₃, + 3 AgNO₃ (B. 11, 1024, 2205; 19, 1827; 22, 2602; 24, 1459, 1064; 26, 2074; 27, 1668; Bl. 36, 129; H. 17, 462). — I, 937.
 - 2) β -Trithioacetaldehyd. Sm. 125—126°; Sd. 245—248°. + AgNO₃, + 3 AgNO₃ (B. 10, 1879, 1904; 11, 1023; 20, 2817; 22, 2600; 26, 2074; 27, 1668). — I, 938.
 - 3) Trithioacetaldehyd (Gemisch d. α - u. β -Verbindungen). Sm. 45—46°; Sd. 205°; Zers. bei 260°. + 2 AgNO₃ (A. 66, 158; 124, 114; B. 3, 589; 4, 258; 9, 1893; 10, 1879; 11, 1024, 2205; 26, 2074). — I, 937.
 - 4) Triäthylentrisulfid? Sm. 145° (B. 19, 697; Soc. 49, 238). — I, 363.
- C₆H₁₂S₄**
- 1) Duplodithioacetone. Sm. 98°; Sd. 243° u. Zers. (B. 20, 2467). — I, 994.
 - 2) Hexamethylentetrasulfid, siehe C₆H₆S₃ Trimethylendisulfid.
- C₆H₁₂N**
- C 72,7 — H 13,1 — N 14,1 — M. G. 99.
- 1) ϵ -Amido- α -Hexen. Sd. 117—118°. (2HCl, PtCl₄) (A. 264, 324; B. 25, 3071). — I, 1145.
 - 2) δ -Dimethylamido- α -Buten (Dimethylpyrrolidin). Sd. 89—92° (G. 15, 485). — IV, 3.
 - 3) γ -Propylamidopropen (Allylpropylamin). Sd. 110—114°. (2HCl, PtCl₄), Oxalat (B. 16, 526). — I, 1142.
 - 4) α -Propylimidopropan (Propylenpropylamin). Sd. 102°₁₀₀ (B. 27 [2] 667).
 - 5) Vinyläthyläthylamin. (HCl, AuCl₃) (B. 15, 1148).
 - 6) Amidohexahydrobenzol. Sd. 134°₆₀. HCl, (HCl, HgCl₂), (2HCl, PtCl₄), (2HCl, PtBr₄), (HCl, AuCl₃ + H₂O), (HCl, AuBr₃ + H₂O), (HBr, AuBr₃), HJ, HNO₃, H₂SO₄ (A. 278, 103; 302, 22; B. 28, 578; C. 1898 [2] 578).

$C_6H_{13}N$

- 7) 1-Amido-1-Methyl-R-Pentamethylen. *Sd.* 114°. HCl , (2 HCl , $PtCl_4$) (*B.* 28, 1236). — IV, 28.
- 8) 3-Amido-1-Methyl-R-Pentamethylen. *Sd.* 42°₁₂ (124°) (*B.* 25, 3518; 30, 1225). — I, 1145.
- 9) 1,2-Dimethyltetrahydropyrrol. *Sd.* 96—97° (98—101°). HCl , (2 HCl , $PtCl_4$), (HCl , $AuCl_3$) (*A.* 264, 319; 279, 353; *B.* 31, 913). — IV, 24.
- 10) isom. 1,2-Dimethyltetrahydropyrrol. *Sd.* 87—87,5° (HCl , $AuCl_3$) (*B.* 31, 280).
- 11) 2,5-Dimethyltetrahydropyrrol. *Sd.* 106—108°₇₄₆. HCl , (2 HCl , $PtCl_4$), Oxalat (*B.* 22, 1858; 23, 1546; 25, 3071; *A.* 264, 328). — IV, 25.
- 12) 1-Methylhexahydropyridin. *Sd.* 107°. HCl , (2 HCl , $PtCl_4$) (*A. ch.* [3] 38, 92, 93; *B.* 14, 659; 16, 2057; 25, 3071; 31, 1555; *A.* 247, 56; 264, 322; *G.* 24 [1] 275; *Ph. Ch.* 16, 216; *Soc.* 55, 750). — IV, 5.
- 13) 2-Methylhexahydropyridin (α -Pipekolin). *Sd.* 116—117°₇₁₄. Salze meist bek. (*A.* 247, 62; 289, 209; *B.* 22, 1053; 27, 76, 857; 29, 46; 29 [2] 1122; 31, 2276; *M.* 15, 35). — IV, 26.
- 14) aktives 2-Methylhexahydropyridin. Salze siehe (*B.* 29, 46). — IV, 26.
- 15) 3-Methylhexahydropyridin (β -Pipekolin). *Sd.* 125—126°. HCl , (2 HCl , $PtCl_4$), (HCl , $AuCl_3$), HJ , (2 HJ , $CdJ_2 + H_2O$), Pikrat (*B.* 18, 911; 20, 2732; 23, 2707; 26, 2573; 28, 1466; *A.* 247, 67; *J. pr.* [2] 45, 25; [2] 48, 17). — IV, 28.
- 16) 1-3-Methylhexahydropyridin. *Sd.* 124°. Bitartrat (*B.* 27, 76, 1409). — IV, 28.
- 17) 4-Methylhexahydropyridin (γ -Pipekolin). *Sd.* 126,5—129°. (2 HCl , $PtCl_4$) (*A.* 247, 69). — IV, 28.

 $C_6H_{13}Cl$

- 1) α -Chlorhexan (norm. Hexylchlorid). *Sd.* 125—128° (130°) (*J.* 1863, 525; *A.* 187, 139; *B.* 16, 745). — I, 154.
- 2) β -Chlorhexan (Methylbutylcarbinolchlorid). *Sd.* 125—126° (122—124°) (*J.* 1864, 509; *A.* 161, 272; 177, 305). — I, 154.
- 3) β -Chlor- β -Methylpentan (Dimethylpropylcarbinolchlorid). *Sd.* 100° u. *Zer.* (*Bl.* 5, 24). — I, 154.
- 4) γ -Chlor- β -Methylpentan (Aethylisopropylcarbinolchlorid). *Sd.* 115 bis 116°₇₅₂ (*J. r.* 23, 166). — I, 154.
- 5) γ -Chlor- γ -Methylpentan (Methyldiäthylcarbinolchlorid). *Sd.* 110° (*Bl.* 5, 24). — I, 154.
- 6) γ -Chlor- $\beta\beta$ -Dimethylbutan (Pinakolinalkoholchlorid). *Sd.* 112,5—114,5° (*J.* 1873, 340; *B.* 16, 398; 26 [2] 14). — I, 154.
- 7) α -Chlor- $\beta\gamma$ -Dimethylbutan. *Sd.* 124° (*Bl.* 6, 36; 7, 953; *B.* 31, 1802). — I, 154.
- 8) β -Chlor- $\beta\gamma$ -Dimethylbutan (Dimethylisopropylcarbinolchlorid). *Sd.* 112°₇₄₉ (118°) (*J. r.* 10, 288; 13, 99; *A.* 196, 124; *Bl.* 6, 36; 7, 953; *B.* 31, 1802). — I, 154.
- 9) isom. Chlorhexan (aus β -Hexen). *Sd.* 123,5° (*M.* 2, 313; *A.* 199, 141). — I, 154.
- 10) isom. Chlorhexan. *Sd.* 116—118° (*A.* 177, 305). — I, 154.
- 11) isom. Chlorhexan. *Sd.* 122—124° (*B.* 5, 216). — I, 154.

 $C_6H_{13}Br$

- 1) α -Bromhexan (norm. Hexylbromid). *Sd.* 155,5°₇₄₄ (*A.* 187, 137). — I, 177.
- 2) β -Bromhexan (sec. Hexylbromid). *Sd.* 143—145° (*A.* 188, 251). — I, 177.
- 3) α -Brom- β -Methylpentan. *Sd.* 142—145°₇₄₅ (*M.* 4, 34). — I, 177.

 $C_6H_{13}J$

- 4) γ -Brom- $\beta\beta$ -Dimethylbutan. *Sm.* 24—25°; *Sd.* 132° u. *Zers.* (*B.* 26 [2] 14).
- 1) α -Jodhexan. *Sd.* 179,5° (*A.* 163, 196; 187, 138; 243, 28; *J.* 1863, 526). — I, 194.
- 2) β -Jodhexan (sec. Hexyljodid). *Sd.* 167°₇₂₁. *Lit.* bedeutend. — I, 194.
- 3) γ -Jodhexan (Aethylpropylcarbinoljodid). *Sd.* 164—166° (*Bl.* 25, 9). — I, 195.
- 4) β -Jod- β -Methylpentan (Dimethylpropylcarbinoljodid). *Sd.* 139—140° (142°) (*A.* 195, 254; 209, 84; *M.* 15, 425). — I, 195.
- 5) γ -Jod- β -Methylpentan (Aethylisopropylcarbinoljodid). *Sd.* 142—147° u. *Zers.* (*J. r.* 23, 166). — I, 195.
- 6) β -Jod- γ -Methylpentan. *Fl.* (*A.* 219, 312). — I, 195.
- 7) γ -Jod- γ -Methylpentan (Methyldiäthylcarbinoljodid). *Sd.* 140—144° u. *Zers.* (*J.* 1872, 350; *J. pr.* [2] 36, 345; *A.* 219, 318). — I, 195.
- 8) γ -Jod- $\beta\beta$ -Dimethylbutan (Methylpseudobutyljodid). *Sd.* 140—144° (*J.* 1873, 339). — I, 195.

$C_6H_{13}J$

- 9) β -Jod- $\beta\gamma$ -Dimethylbutan (Dimethylisopropylcarbinoljodid). *Sd.* 140 bis 142°₇₄₁ (A. 196, 125; *J. r.* 10, 288; 13, 84; B. 28, 2841). — I, 195.
 10) isom. Jodhexan (aus Dichloräthyläther). *Sd.* 100°₇₀ (A. 178, 18). — I, 195.
 11) isom. Jodhexan (aus Fuselöl). *Sd.* 150° (A. 128, 228). — I, 195.
 12) isom. Jodhexan. *Sd.* 154—160° (M. 4, 44).

 $C_6H_{14}O$

- C 70,6 — H 13,7 — O 15,7 — M. G. 102.
 1) α -Oxyhexan (norm. Hexylalkohol). *Sd.* 157,2°_{740,8}. Na (A. 88, 325; 133, 180; 181, 272; 183, 193; 185, 43; 187, 126; 224, 82; B. 16, 743; R. 14, 46). — I, 234.
 2) β -Oxyhexan (Methylbutylcarbinol). *Sd.* 136° (*J.* 1863, 519; A. 135, 139; 181, 272; 185, 151; 177, 307; 178, 22; M. 2, 320; *Bl.* [3] 7, 552; R. 14, 46). — I, 234.
 3) γ -Oxyhexan (Aethylpropylcarbinol). *Sd.* 135° (B. 8, 1019; *Bl.* 25, 7; [3] 7, 552; [3] 9, 677). — I, 234.
 4) α -Oxy- β -Methylpentan (Methylpropyläthol). *Sd.* 146,6° (146,9°) (M. 4, 32, 40). — I, 235.
 5) β -Oxy- β -Methylpentan (Dimethylpropylcarbinol). *Sd.* 122,5—123,5° (117 bis 118°) (Z. 1865, 617; A. 195, 254; 209, 84; *J. r.* 10, 250; B. 26, 2493; *J. pr.* [2] 26, 111; [2] 53, 278). — I, 235.
 6) γ -Oxy- β -Methylpentan (Aethylisopropylcarbinol). *Sd.* 127—127,5°₇₁₁ (*J. r.* 23, 164). — I, 235.
 7) δ -Oxy- β -Methylpentan (Methylisobutylcarbinol). *Sd.* 130—131° (135 bis 137°) (*J. r.* 19, 203, 205; A. 290, 148). — I, 235.
 8) ϵ -Oxy- β -Methylpentan (Isohexylalkohol). *Sd.* 150° (A. 133, 180). — I, 235.
 9) β -Oxy- γ -Methylpentan (Methylbutylcarbinol). *Sd.* 134° (A. 219, 309). — I, 235.
 10) γ -Oxy- γ -Methylpentan (Methyldiäthylcarbinol). *Sd.* 121—122,5° (123°) (Z. 1865, 615; *J. pr.* [2] 26, 111; [2] 36, 340; A. 219, 315, 319; B. 26, 2493). — I, 235.
 11) α -Oxy- β -Äethylbutan (Diäthylcarbincarbinol; Pseudohexylalkohol). *Sd.* 139—143° (B. 23, 195). — I, 235.
 12) γ -Oxy- $\beta\beta$ -Dimethylbutan (Methylpseudobutylcarbinol; Pinakolinalkohol). *Sm.* 4°; *Sd.* 120—121° (*J.* 1873, 339). — I, 236.
 13) α -Oxy- $\beta\gamma$ -Dimethylbutan (Pentylcarbinol). *Sd.* 152—153° (A. 195, 102; B. 6, 147; R. 5, 220). — I, 235.
 14) β -Oxy- $\beta\gamma$ -Dimethylbutan (Dimethylisopropylcarbinol). *Sd.* 117°₇₄₄ (Z. 1871, 275; A. 196, 123; 209, 82; *J. r.* 10, 286; 13, 82; 14, 99; 21, 336; *J. pr.* [2] 26, 111; [2] 44, 310; B. 14, 2065, 2066; 28, 2840). — I, 236.
 15) Methyläther d. α -Oxy- β -Methylbutan. *Sd.* 87,5—88,5°₇₃₁ (*Bl.* [3] 15, 300).
 16) Methyläther d. δ -Oxy- β -Methylbutan (Methylisoamyläther). *Sd.* 92° (A. 81, 80; B. 19, 651). — I, 299.
 17) Äethyläther d. α -Oxybutan (Äethyl-norm. Butyläther). *Sd.* 91,7° (A. 158, 167; 243, 5). — I, 299.
 18) Äethyläther d. α -Oxy- β -Methylpropan (Äethylisobutyläther). *Sd.* 78 bis 80° (A. 93, 118; 276, 160; *Am.* 6, 246). — I, 299.
 19) Äethyläther d. β -Oxy- β -Methylpropan (Äethylpseudobutyläther). *Sd.* 68 bis 69° (73°) (*J.* 1881, 409; *C. r.* 93, 69; C. 1897 [2] 408). — I, 299.
 20) Propyläther d. α -Oxypropan (Propyläther). *Sd.* 90,7° (89,5—90°₇₅₀) (A. 151, 304; 161, 37; 214, 163; B. 26, 2833). — I, 297.
 21) Isopropyläther d. β -Oxypropan (Isopropyläther). *Sd.* 58,5—59° (A. 126, 306; 214, 164). — I, 297.

 $C_6H_{14}O_2$

- C 61,0 — H 11,8 — O 27,2 — M. G. 118.
 1) $\alpha\epsilon$ -Dioxyhexan (δ -Hexylenglykol). *Sd.* 234—235°₇₁₀ (228—233°) (*Soc.* 51, 722; B. 18, 3282). — I, 265.
 2) $\alpha\zeta$ -Dioxyhexan. *Sd.* 235—240° (*Soc.* 65, 598).
 3) $\beta\gamma$ -Dioxyhexan (Methylpropyläthylenglykol). *Sd.* 206—207° (*J. r.* 14, 377). — I, 264.
 4) $\beta\gamma$ -Dioxyhexan? (Hexylenglykol). *Sd.* 207° (B. 11, 1154; 16, 398; A. *ch.* [4] 3, 180). — I, 264.
 5) $\beta\epsilon$ -Dioxyhexan (Diallyldihydrat). *Sd.* 212—215° (219—220°) (A. *ch.* [4] 3, 162; *J. r.* 10, 399; *J. pr.* [2] 23, 18). — I, 264.
 6) $\alpha\gamma$ -Dioxy- β -Methylpentan. *Sd.* 214° (M. 19, 157).

- C₈H₁₄O₂**
- 7) $\alpha\gamma$ -Dioxy- $\beta\beta$ -Dimethylbutan. Sd. 208° (M. 11, 389; 19, 86). — I, 265.
 - 8) $\gamma\delta$ -Dioxy- $\beta\beta$ -Dimethylbutan. Sd. 197° (B. 26 [2] 15).
 - 9) $\beta\gamma$ -Dioxy- $\beta\gamma$ -Dimethylbutan. (Pinakon; Tetramethyläthylenglykol). Sm. 35—38°; Sd. 171—172°. Lit. bedeutend. Pinakonhydrat. Sm. 56° (A. Spl. 3, 377; A. 196, 127). — I, 265.
 - 10) Diäthyläther d. $\alpha\alpha$ -Dioxyäthan (Acetal). Sd. 104° (A. ch. [3] 19, 146; [3] 56, 139; A. 5, 25; 14, 156; 64, 322; 100, 116; 126, 62; 203, 25; 220, 104; 223, 74; 276, 165; J. 1880, 694; 1885, 191; B. 16, 512, 2633; 30, 951, 3053; 31, 1014). — I, 922.
 - 11) Diäthyläther d. $\alpha\beta$ -Dioxyäthan. Sd. 123,5°_{755,5} (A. ch. [3] 55, 431; A. 276, 172). — I, 305.
 - 12) Methylpropyläther d. $\alpha\alpha$ -Dioxyäthan. Sd. 103—105° (A. 218, 46). — I, 923.
- C₈H₁₄O₃**
- C 53,8 — H 10,4 — O 35,8 — M. G. 134.
- 1) $\alpha\beta\delta$ -Trioxyhexan. Sd. 190—192°₃₀ (Bl. [3] 13, 121).
 - 2) $\alpha\beta\epsilon$ -Trioxyhexan (Hexylglycerin). Sd. 181°₁₀ (J. r. 13, 355). — I, 278.
 - 3) $\alpha\beta\gamma$ -Trioxy- β -Methylpentan (Methyläthylglycerin). Sd. 170—176°₅₅ (M. 4, 41). — I, 279.
 - 4) $\beta\delta\epsilon$ -Trioxy- β -Methylpentan (Isohexylglycerin). Sd. 164,5—165,5°_{17—18} (J. pr. [2] 40, 400; A. 233, 358). — I, 278.
 - 5) Dimethyläther d. $\alpha'\alpha'$ -Dioxydiäthyläther. Sd. 126—127° (A. 218, 28). — I, 921.
 - 6) Trimethyläther d. $\alpha\alpha\beta$ -Trioxypropan. Sd. 148° (J. 1864, 495). — I, 963.
 - 7) $\alpha\alpha$ -Diäthyläther d. $\alpha\alpha\beta$ -Trioxyäthan (Glykolacetal). Sd. 167° (B. 6, 150). — I, 963.
 - 8) Dimethylpropyläther d. Trioxymethan (Orthoameisensäuredimethylpropyläther). Sd. 150—155° (B. 16, 1647). — I, 312.
 - 9) Verbindung (Alkohol) (B. 13, 1843).
 - 10) Verbindung (aus Aethylenoxyd). Fl. (M. 15, 674).
- C₈H₁₄O₄**
- C 48,0 — H 9,3 — O 42,7 — M. G. 150.
- 1) $\alpha\beta\epsilon\zeta$ -Tetraoxyhexan? (α -Hexylerythrit). Sm. 95,5° (B. 21, 3344). — I, 281.
 - 2) Tetraoxyhexan (β -Hexylerythrit) (B. 21, 3345). — I, 281.
 - 3) Triäthylenglykol. Sd. 290° (A. ch. [3] 67, 279; [3] 69, 333). — I, 261.
- C₈H₁₄O₅**
- C 43,4 — H 8,4 — O 48,2 — M. G. 166.
- 1) Diglycerin (Pyroglycerin). Sd. 220—230°₁₀ (A. ch. [3] 67, 300). — I, 314.
 - 2) Rhamnit (Alkohol). Sm. 121° (B. 23, 3103). — I, 282.
- C₈H₁₄O₆**
- C 39,6 — H 7,7 — O 52,7 — M. G. 182.
- 1) $\alpha\beta\gamma\epsilon\zeta$ -Hexaoxyhexan (Dulcit; Melampyrit). Sm. 188,5°; Sd. 275 bis 280°₁. + CaCl₂, BaO, PbO, CuO. Lit. bedeutend. — I, 288.
 - 2) d-Idit (B. 28, 1982).
 - 3) l-Idit. Fl. (B. 28, 1979).
 - 4) d-Mannit ($\alpha\beta\gamma\delta\epsilon\zeta$ -Hexaoxyhexan). Sm. 166°; Sd. 276—280°₁. Na (B. 25 [2] 198); CaO (A. ch. [3] 46, 173; [3] 57, 213; J. 1856, 635; B. 14, 1760; 15, 797); SrO (A. 131, 50); Pb (Berz. J. 25, 557; M. 6, 199). Lit. bedeutend. — I, 284.
 - 5) l-Mannit. Sm. 163—164° (B. 20, 2715; 23, 375). — I, 288.
 - 6) i-Mannit (α -Akrit). Sm. 168° (B. 22, 100; 23, 383). — I, 288.
 - 7) Rhamnose (Isodulcit). Sm. 92—93° (122—126° wasserfrei). Na₂. Lit. bedeutend. — I, 289.
 - 8) β -Rhamnose (β -Isodulcit) (Bl. [3] 15, 204).
 - 9) γ -Rhamnose (γ -Isodulcit) (Bl. [3] 15, 204).
 - 10) Isorhamnose (B. 29, 1961, 1966).
 - 11) Sorbit + $\frac{1}{2}$ H₂O. Sm. 110—111° (A. ch. [4] 26, 376; [6] 22, 431; Bl. 34, 218; B. 22, 1048; 22 [2] 264; 23, 3684; 23 [2] 567; 25, 3218; C. 1898 [1] 203). — I, 290.
 - 12) l-Sorbit. Sm. 75° (B. 24, 2144).
 - 13) d-Talit. Fl. (B. 27, 1529).
 - 14) i-Talit. Sm. 66—67° (B. 27, 1530).
- C₈H₁₄O₇**
- C 36,4 — H 7,1 — O 56,5 — M. G. 198.
- 1) Everniin (A. 131, 241). — I, 1103.

$C_6H_{14}N_2$

C 63,2 — H 12,3 — N 24,5 — M. G. 114.

- 1) 1,2-Diamidohexahydrobenzol. Sd. 183—185°₇₃₀. 2HCl, (2HCl, PtCl₄), HBr, Pikrat (A. 295, 211; B. 29, 964). — IV, 481.
- 2) 1,3-Diamidohexahydrobenzol. Sd. 193°₇₃₀. (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃ + 2H₂O) (A. 278, 36).
- 3) 1,4-Diamidohexahydrobenzol. Fl. 2HCl, (2HCl, PtCl₄) (B. 22, 2171; 27, 1449; Am. 16, 449). — I, 1160.
- 4) 1-Amido-2-Methylhexahydropyridin (uns-Methylpiperylhydrazin). Sd. 162—165°. HCl (C. 1896 [1] 1126).
- 5) 1,4-Dimethylhexahydro-1,4-Diazin (1,4-Dimethylpiperazin). Sd. 153 bis 158°. 2HCl, (2HCl, PtCl₄), (2HJ, CdJ₂) (B. 24, 2401, 3247). — I, 1154.
- 6) 2,5-Dimethylhexahydro-1,4-Diazin (2,5-Dimethylpiperazin). Sm. 118°; Sd. 162°₇₆₀. 2HCl, (2HCl, PtCl₄ + 2H₂O), (2HCl, 2AuCl₃), (2HCl + 4HgCl₂), 2HBr, H₂SO₄ + H₂O, 2H₃PO₄, H₂Cr₂O₇, Tartrat + 3H₂O, Pikrat (J. pr. [2] 47, 494, 506; [2] 55, 52; B. 30, 226). — IV, 482.
- 7) isom. 2,5-Dimethylhexahydro-1,4-Diazin. Sm. 114—115°; Sd. 161 bis 162°₇₆₀. 2HCl + H₂O, (2HCl, PtCl₄), (2HCl, 2AuCl₃ + 3H₂O), (2HCl + 5HgCl₂), 2HBr + H₂O, H₂SO₄ + H₂O, H₂Cr₂O₇, 2H₃PO₄ + H₂O, Tartrat + 1/2 H₂O, Pikrat (J. pr. [2] 47, 508; [2] 55, 53). — IV, 483.
- 8) Dipropylendiamin + H₂O. Sd. 203—207° (B. 21, 2359). — I, 1155.
- 9) Aethyl-diäthyl-dendiamin. Sd. 35—37° (B. 30, 2055).
- 10) Diäthyl-dimethylendiamin. Sd. 205—208°. (2HCl, PtCl₄) (J. r. 17, 231). — I, 1151.
- 11) ε-Amido-ε-Imido-β-Methylpentan (Capronamidin). HCl, (2HCl, PtCl₄) (B. 17, 178). — I, 1160.
- 12) α-Aethylamido-α-Aethylimidoäthan (Aethenyl-diäthylamidin). Sd. 165 bis 168° (A. 184, 116). — I, 1159.
- 13) Base (aus β-Brom-α-Amidopropan). Sd. 143—145° (B. 29, 2751).
- 14) Base (aus γ-Brom-α-Amidopropan). Sd. 160—167°. (2HCl, 2AuCl₃), (2HCl, PtCl₄), Pikrat (B. 21, 2678). — I, 1160.

 $C_8H_{14}N_2$

- 1) βγ-Di-Imidoamidomethylhydrazonbutan + 2H₂O (Diacetyl-bisamidoguanidin). Sm. 248—249° u. Zers. 2HCl + 2H₂O, (2HCl, PtCl₄ + 2H₂O), 2HNO₃ (A. 302, 289).

 $C_8H_{14}S$

- 1) α-Merkaptohexan (norm. Hexylmercaptan). Sd. 145—148° (A. 124, 291). — I, 350.
- 2) β-Merkaptohexan (sec. Hexylmercaptan). Sd. 142°. Hg (A. 135, 150). — I, 350.
- 3) Methyläther d. β-Merkapto-β-Methylbutan (Methylisoamylsulfid). Sd. 136—138° (B. 20, 2925). — I, 363.
- 4) norm. Propyläther d. α-Merkaptopropan (norm. Propylsulfid). Sd. 141,5—142,5° (J. 1873, 517; Bl. 48, 109; A. ch. [5] 10, 47; J. pr. [2] 38, 354, 497). — I, 360.
- 5) Isopropyläther d. β-Merkaptopropan (Isopropylsulfid). Sd. 120,5°₇₆₀ (J. pr. [2] 17, 459; [2] 38, 510; B. 8, 533). — I, 361.

 $C_8H_{14}S_2$

- 1) Propyldisulfid. Sd. 192,5° (B. 15, 1940). — I, 361.
- 2) Isopropyldisulfid. Sd. 174,5° (B. 15, 1940). — I, 361.
- 3) Diäthyläther d. αα-Dimerkaptoäthan. Sd. 185—187° u. Zers. (B. 18, 885; 253, 139). — I, 923.
- 4) Diäthyläther d. αβ-Dimerkaptoäthan. Sd. 210—213° (B. 4, 717; 19, 3266). — I, 352.

 $C_8H_{14}Be$ $C_8H_{14}Hg$

- 1) Berylliumpropyl. Sd. 244—246° (J. 1873, 520). — I, 1521.
- 1) Quecksilberpropyl. Sd. 179—182° (189—191°) (J. 1873, 517; J. r. 17, 353). — I, 1526.

 $C_8H_{14}Zn$

- 1) norm. Zinkpropyl. Sd. 146° (148°) (J. 1873, 518; B. 6, 1136; 14, 1873; J. r. 13, 350). — I, 1524.

 $C_8H_{14}N$

- 2) Zinkisopropyl. Sd. 135—137° u. ger. Zers. (J. r. 24, 550). — I, 1524.
- C 71,3 — H 14,8 — N 13,9 — M. G. 101.
- 1) α-Amidohexan (norm. Hexylamin). Sd. 125—128° (128—130°). HCl, (2HCl, PtCl₄) (A. 124, 295; J. 1863, 527; B. 15, 771; 16, 1744; 24, 4021; 25 [2] 637; Am. 20, 208). — I, 1136.
 - 2) β-Amidohexan. Sd. 116°. (2HCl, PtCl₄) (B. 8, 56; 15, 1292; 25 [2] 108; M. 3, 171; J. r. 25, 480). — I, 1136.

$C_6H_{15}N$

- 3) δ -Amido- β -Methylpentan (β -Isohexylamin). Sd. 100—103°. HCl, (2HCl, PtCl₄), Oxalat (A. 290, 150).
- 4) ϵ -Amido- β -Methylpentan (Isohexylamin). HCl, (2HCl, PtCl₄) (A. 133, 181). — I, 1137.
- 5) γ -Amido- γ -Methylpentan (Methyldiäthylcarbinolamin). Sd. 108—110°. (2HCl, PtCl₄) (A. 185, 123; J. pr. [2] 48, 375; B. 26, 137). — I, 1137.
- 6) α -Amido- β -Äethylbutan (Pseudo-hexylamin). Sd. 125,3°. (2HCl, PtCl₄) (B. 23, 192). — I, 1137.
- 7) α -Amido- $\beta\beta$ -Dimethylbutan. Sd. 113—114°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (B. 26, 2491).
- 8) δ -Methylamido- β -Methylbutan (Methylisoamylamin). Sd. 108°. HCl, (2HCl, PtCl₄) (B. 29, 2118).
- 9) α -Äethylamido- β -Methylpropan (Äethylisobutylamin). Sd. 98° (2HCl, PtCl₄) (B. 32, 562).
- 10) α -Propylamidopropan (norm. Dipropylamin). Sd. 109,4—110,4° (HBr, Br), Dioxalat (J. 1868, 695; Bl. 46, 287; [3] 7, 405; A. ch. [6] 19, 412; Soc. 55, 693; B. 27 [2] 579; Am. 20, 62). — I, 1130.
- 11) β -Isopropylamidopropan (Diisopropylamin). Sd. 83,5—84°₇₄₃. HNO₂, (2HCl, PtCl₄) (A. 148, 265; R. 8, 205). — I, 1131.
- 12) α -Methyläthylamidopropan (Methyläthylpropylamin). (2HCl, PtCl₄) (B. 15, 1488).
- 13) Diäthylamidoäthan (Triäthylamin). Sd. 88,8—89°_{768,3}. Salze meist bekannt, Lit. bedeutend. — I, 1126.

 $C_6H_{15}N_3$

C 55,8 — H 11,6 — N 32,6 — M. G. 129.

- 1) Triäthylentriamin. Sd. 216°. 3(2HCl, PtCl₄), 2HBr, 3HBr (J. 1861, 520). — I, 1161.

- 2) 1,3,5-Trimethylhexahydro-1,3,5-Triazin (Trimethylentrimethyltriamin). Sd. 162,5°₇₄₃ (166°). Pikrat (Sm. 127—128°) (A. 288, 252; B. 26 [2] 934; 28, 937; Bl. [3] 13, 404; C. 1896 [2] 24).

- 3) 2,4,6-Trimethylhexahydro-1,3,5-Triazin. Sm. 85°; Sd. 123—124°. Pikrat + C₂H₆O, + $\frac{1}{2}$ AgNO₃ (Bl. [3] 19, 16; [3] 21, 59).

 $C_6H_{15}N_5$

C 45,9 — H 9,5 — N 44,6 — M. G. 157.

- 1) Isobutyldiguanid. Fl. HCl, 2HCl, (Cu, 2HCl + $\frac{1}{2}$ H₂O), (2HCl, PtCl₄ + H₂O), (Cu, 2HNO₃), H₂SO₄ + $1\frac{1}{2}$ H₂O, (Cu, H₂SO₄), H₂CrO₄, Oxalat, Cu (M. 4, 829). — IV, 1311.

- 2) Diäthyldiguanid. H₂SO₄ + 3H₂O (M. 12, 17). — IV, 1310.

 $C_6H_{15}P$

- 1) Diisopropylphosphin. Sd. 118° (B. 6, 294). — I, 1503.

- 2) Triäthylphosphin. Sd. 127,5°₇₄₄ (2HCl, PtCl₄), (2HJ, ZnJ₂), 2 + PtCl₂, 4 + PtCl₂, 2 + PdCl₂, 2 + AuCl₃ (J. 1855, 591; A. Spl. 1, 2; A. 104, 10; 122, 332; B. 4, 207, 354; 26 [2] 931; 29, 1707; 30, 1088; 31, 3056; Z. 1870, 350, 437; G. 23 [1] 100). — I, 1500.

 $C_6H_{15}Al$

- 1) Aluminiumtriäthyl. Sd. 194° (A. 109, 207; 114, 242; A. Spl. 4, 110; R. 4, 80). — I, 1526.

 $C_6H_{15}As$

- 1) Arsentriäthyl. Sd. 140°₇₃₆ (A. 89, 322; 92, 370; 103, 357). — I, 1512.

 $C_6H_{15}B$

- 1) Bortriäthyl. Sd. 95°. + NH₃ (A. 124, 135; J. 1876, 469). — I, 1517.

 $C_6H_{15}Bi$

- 1) Wismuthtriäthyl. Sd. 107°₇₉ (B. 20, 1519; A. 82, 106; 92, 371). — I, 1517.

 $C_6H_{15}Sb$

- 1) Antimontriäthyl. Sd. 158,5°₇₂₀ (A. 75, 315; 103, 358; J. 1860, 371; 1863, 470). — I, 1515.

 $C_6H_{16}O_{14}$

C 23,1 — H 5,1 — O 71,8 — M. G. 312.

- 1) Trichinoyl = (C₆O₆ + 8H₂O). Sm. 95° u. Zers. (A. 124, 34; B. 18, 504, 1842). — III, 356.

 $C_6H_{16}N_2$

C 62,1 — H 13,8 — N 24,1 — M. G. 116.

- 1) $\alpha\zeta$ -Diamidohexan. Sm. 40°; Sd. 192—195°. 2HCl (B. 29, 1167).

- 2) $\beta\epsilon$ -Diamidohexan. Sd. 175,5°₇₃₃. 2HCl, (2HCl, 2AuCl₃), (2HCl, PtCl₄), Carbonat, Oxalat (B. 22, 1858, 3179; 23, 1545; 28, 383). — I, 1157.

- 3) isom. $\beta\epsilon$ -Diamidohexan. Sd. 174,5—175°₇₃₃. (2HCl, PtCl₄) (B. 28, 384).

- 4) $\alpha\delta$ -Diamido- β -Methylpentan. Sd. 175°. (2HCl, PtCl₄), Oxalat (B. 23, 1790). — I, 1158.

- 5) $\alpha\beta$ -Di[Äethylamido]äthan + H₂O. Sd. 148—151°. 2HCl, (2HCl, PtCl₄), (2HCl, AuCl₃), 2HJ (J. 1859, 389; 1861, 521; A. 287, 222; B. 28, 3077).

- 6) α -Amido- β -Diäthylamidoäthan (uns-Diäthyläthylendiamin). Sd. 145°. (2HCl, PtCl₄), (2HCl, 2AuCl₃), Dipikrat (B. 29, 2526).

- 7) $\alpha\beta$ -Di[Dimethylamido]äthan. 2HCl, (2HCl, PtCl₄) (B. 30, 1385).

- $C_6H_{10}N_4$ C 50,0 — H 11,1 — N 38,9 — M. G. 144.
 1) 1,4-Diamido-2,5-Dimethylhexahydro-1,4-Diazin. Sm. 110—111°. 2HCl, Pikrat (J. pr. [2] 47, 507). — IV, 1226.
- $C_6H_{10}Si$ 1) Silikoheptylhydrür. Sd. 107° (A. 164, 327). — I, 1520.
- $C_6H_{10}Sn$ 1) Zinndimethyldiäthyl. Sd. 144—146° (A. 144, 157). — I, 1529.
- $C_6H_{10}N_4$ C 49,3 — H 12,3 — N 38,4 — M. G. 146.
 1) Triäthylentetramin. Sm. 12°; Sd. 266—267°. 4HCl, (4HCl, 2PtCl₄), (4HCl, 4AuCl₃), (4HCl, 8AuCl₃), 4HBr + H₂O (J. 1861, 519; B. 23, 3712). — I, 1166.
 2) Tri[β-Amidoäthyl]amin. Sd. 263°₇₄. 3HCl, (6HCl, 3PtCl₄), (3HCl, AuCl₃), 3HBr, Tripikrat + 2H₂O (B. 29, 2531).
- $C_6H_8S_2$ 1) Trimethylsulfinsulfid (J. pr. [2] 23, 400). — I, 356.
- C_6OCl_4 1) Perchlorphenylenoxyd. Sm. 320° (B. 5, 461; A. ch. [6] 20, 546). — II, 164.
- C_6OCl_6 1) Hexachlor-1-Keto-1,2-Dihydrobenzol. Sm. 106° (B. 27, 546; A. 215, 122; M. 4, 236; A. ch. [6] 20, 559; Bl. [3] 11, 559, 706; [3] 13, 345). — III, 112.
 2) Hexachloroxybenzol (Hexachlor-1-Keto-1,4-Dihydrobenzol). Sm. 46° (M. 4, 607; Bl. [3] 13, 423). — II, 672.
- C_6OCl_8 1) Oktochlor-1-[oder 2-]Keto-1,2,3,4-Tetrahydrobenzol. Sm. 103° (105—106°) (M. 4, 607; A. 261, 247; B. 27, 550; Bl. [3] 13, 491). — III, 110.
 2) isom. Oktochlorketotetrahydrobenzol. Sm. 88—89° (Bl. [3] 13, 492). — III, 111.
 3) isom. Oktochlorketotetrahydrobenzol. Sm. 89,5—90° (Bl. [3] 13, 492). — III, 111.
- C_6OBr_6 1) Hexabromphenol. Sm. 128° (M. 1, 363). — II, 675.
- $C_6O_2Cl_4$ 1) 3,4,5,6-Tetrachlor-1,2-Benzochinon. Sm. 129—130° (B. 20, 1779; 21, 2730). — III, 327.
 2) 2,3,5,6-Tetrachlor-1,4-Benzochinon (Chloranil). Sm. 290°; subl. Lit. bed. — III, 335.
- $C_6O_2Cl_6$ 1) 3,3,4,4,5,6-Hexachlor-1,2-Diketo-1,2,3,4-Tetrahydrobenzol + 2H₂O. Sm. 93—94° u. Zers. Sd. 199°₆₀ (wasserfrei) (B. 21, 2723; 24, 925). — I, 1023.
 2) 2,2,4,4,5,6-Hexachlor-1,3-Diketo-1,2,3,4-Tetrahydrobenzol. Sm. 115°; Sd. 159—160°₁₃₋₁₅ (B. 25, 2688). — I, 1024.
 3) 2,2,3,3,5,6-Hexachlor-1,4-Diketo-1,2,3,4-Tetrahydrobenzol. Sm. 89°; Sd. 182—185°₄₅₋₅₀ (A. 267, 1, 15). — I, 1024.
 4) Diketon (aus β-Oktochlorketotetrahydrobenzol). Sm. 87,5—88,5° (Bl. [3] 13, 492).
- $C_6O_2Br_4$ 1) 3,4,5,6-Tetrabrom-1,2-Benzochinon. Sm. 150—151° (A. 177, 197; B. 20, 1777). — III, 327.
 2) 2,3,5,6-Tetrabrom-1,4-Benzochinon. Sm. 300°; subl. (A. 91, 309; 143, 255; 159, 320; 209, 125; 210, 160; 211, 341; 263, 33; 278, 346; 302, 142; A. Spl. 8, 18; B. 15, 474; Soc. 61, 568). — III, 327.
- $C_6O_2Br_6$ 1) Hexabrom-1,3-Dioxybenzol Sm. 136° (M. 1, 365). — II, 922.
- $C_6O_2Cl_8$ 1) 2,2,4,4,6,6-Hexachlor-1,3,5-Triketohexahydrobenzol. Sm. 48°; Sd. 150—151°₁₈₋₂₀ (B. 22, 1473). — I, 1026.
 2) Anhydrid d. Trichlorakrylsäure. Sm. 39—40° (A. 297, 317).
- $C_6O_2Br_8$ 1) 2,2,4,4,6,6-Hexabrom-1,3,5-Triketohexahydrobenzol. Sm. 146 bis 147° (M. 1, 367; B. 23, 1729). — I, 1026.
- $C_6O_2Br_{10}$ 1) Pentabromäthylester d. αγγγγ-Pentabrom-β-Ketopropan-α-Carbonsäure (P. d. Tribromacetyldibromessigsäure). Sm. 69—70° (A. 219, 97). — I, 596.
- $C_6O_4Cl_4$ 1) 3,3,6,6-Tetrachlor-1,2,4,5-Tetraketohexahydrobenzol. Sm. bei 60° (B. 25, 850; J. pr. [2] 42, 181). — I, 1027.
- $C_6O_4Cl_{10}$ 1) Dekachlordiäthylester d. Oxalsäure. Sm. 144° u. Zers. (A. 37, 66; J. pr. [1] 37, 430). — I, 647.
- $C_6O_4Br_4$ 1) 3,3,6,6-Tetrabrom-1,2,4,5-Tetraketohexahydrobenzol (J. pr. [2] 42, 178). — I, 1027.
- $C_6O_4K_2$ 1) Verbindung (aus Chinon) (Bl. [3] 15, 460). — III, 356.
- $C_6N_4Cl_6$ 1) polym. Nitril d. Trichloressigsäure. Sm. 96° (J. pr. [2] 33, 77; [2] 46, 142; [2] 50, 114). — I, 1455.

- $C_6N_3Br_3$ 1) polym. Nitril d. Tribromessigsäure. Sm. 129—130° (*J. pr.* [2] 47, 304; [2] 50, 102). — I, 1456.
- $C_6N_3S_3$ 1) Cyanurdisulfid (*J. pr.* [2] 33, 120). — I, 1286.
- $C_6Cl_2Br_2$ 1) Dichlortetrabrombenzol. Sm. 277—279° (*B.* 24, 2941). — II, 59.
- $C_6Cl_2J_2$ 1) 1,2,4-Trichlor-3,5,6-Trijodbenzol. Sm. 243—248°. — II, 74.
- $C_6Cl_2Br_2$ 1) Tetrachlordibrombenzol. Sm. 241—242° (*B.* 24, 2944). — II, 59.
- $C_6Cl_2J_2$ 1) 1,2,3,5-Tetrachlor-4,6-Dijodbenzol. Sm. 222—224°. — II, 74.
2) 1,2,4,5-Tetrachlor-3,6-Dijodbenzol. — II, 74.
- C_6Cl_2Br 1) Pentachlorbrombenzol. Sm. 238° u. Zers. (*Bl.* [3] 21, 184).
- C_6Cl_2J 1) Pentachlorjodbenzol. Sm. 207,5—208° (*Bl.* [3] 5, 169). — II, 74.
- $C_6Br_2J_2$ 1) 2,4,6-Tribrom-1,3,5-Trijodbenzol. Sm. 322° (*Bl.* [3] 21, 89).
- $C_6Br_2S_2$ 1) Tetrabromthiophen. Sm. 172° (*B.* 19, 2447). — III, 769.
- C_6Br_2S 1) 3,4-Dibrom-2,5-Di[Tribrommethyl]thiophen. Sm. 114° (*B.* 18, 565). — III, 746.

C_6 -Gruppe mit drei Elementen.

- C_6HOCl_5 1) Pentachloroxybenzol (Pentachlorphenol). Sm. 186—187°; Sd. 309 bis 310°_{754,3}. NH_4 , Na, K, Ag (*A.* 37, 343; 48, 309, 312; *J.* 1865, 525; *B.* 5, 458; 18, 335; 27, 547, 550 Anm.; *M.* 6, 606; *Bl.* [3] 11, 706; [3] 13, 345). — II, 671.
- C_6HOCl_4 1) 2,2,3,4,4,5,6-Heptachlor-1-Keto-1,2,3,4-Tetrahydrobenzol. Sm. 98° (*B.* 11, 2182; 27, 547; *Bl.* [3] 13, 259). — III, 110.
2) 1,1,3,3,4,5,6-Heptachlor-2-Keto-1,2,3,4-Tetrahydrobenzol. Sm. 80° (*B.* 11, 2182; 27, 547). — III, 110.
- C_6HOBr_5 1) Pentabromoxybenzol. Sm. 225° (*A.* 137, 210; *B.* 9, 1509; *Bl.* [3] 19, 757, 758). — II, 675.
2) Tetrabromphenolbrom? Sm. 121° (*M.* 1, 361). — II, 675.
- C_6HOBr_4 1) Verbindung (aus Bromanilsäure). Sm. 110,5° (*A. Spl.* 8, 22).
- $C_6HO_2Cl_3$ 1) 2,3,5-Trichlor-1,4-Benzochinon. Sm. 165—166° (*A.* 69, 318; 146, 10; 210, 153, 174; 228, 325; 263, 28; *A. Spl.* 6, 216; *B.* 2, 633; *J. pr.* [2] 23, 437; [2] 24, 434; [2] 28, 422). — III, 334.
- $C_6HO_2Cl_2$ 1) 2,2,4,4,6-Pentachlor-1,3-Diketo-1,2,3,4-Tetrahydrobenzol (Pentachlorresorcin). Sm. 92,5°; Sd. 160°₂₅ (*A.* 163, 182; *B.* 11, 1441; 23, 3777). — I, 1023.
- $C_6HO_2Cl_2$ 1) 2,2,4,4,5,6,6-Heptachlor-1,3-Diketo-hexahydrobenzol. Sm. 50°; Sd. 170—175°₂₅ (*B.* 24, 912). — I, 1022.
- $C_6HO_2Br_3$ 1) p-Tribrom-1,3-Benzochinon? Zers. bei 190° (*A.* 169, 262; *B.* 11, 2170; *M.* 1, 350). — II, 922.
2) 2,3,5-Tribrom-1,4-Benzochinon. Sm. 147° (*A.* 209, 120). — III, 337.
3) isom. Tribrom-1,4-Benzochinon. Sm. 108° (*A. ch.* [5] 15, 67). — III, 337.
4) isom. Tribrom-1,4-Benzochinon (*A. Spl.* 8, 20; *B.* 10, 111). — III, 337.
- $C_6HO_2Br_2$ 1) Pentabrom-1,3-Dioxybenzol[?]. Sm. 113,5° (*A.* 163, 184; 169, 252; *B.* 11, 2168; *M.* 1, 349). — II, 921.
- $C_6HO_2Cl_2$ 1) 3,5,6-Trichlor-2-Oxy-1,4-Benzochinon. Sm. 194° (*B.* 27, 556). — III, 347.
- $C_6HO_2Cl_2$ 1) Säure (aus 2,2,3,3,5,6-Hexachlor-1,4-Diketo-1,2,3,4-Tetrahydrobenzol). Fl. (*A.* 267, 23). — I, 1024.
- $C_6HO_2Cl_2$ 1) $\alpha\alpha\beta\gamma\epsilon\epsilon\epsilon$ -Heptachlor- δ -Keto- β -Penten- α -Carbonsäure (γ -Trichloracetyl-tetrachlorcrotonsäure). Sm. 117° (*B.* 25, 2694; 26, 510). — I, 621.
- $C_6HO_2Cl_2$ 1) Tetrachloräthylester d. $\alpha\alpha\gamma\gamma\gamma$ -Pentachlor- β -Ketopropan- α -Carbonsäure (Tetra. d. Trichloracetyldichloressigsäure). Sd. 225—230°₄₀ (*A. ch.* [6] 24, 82). — I, 594.
- $C_6HO_2Br_2$ 1) 3,5,6-Tribrom-2-Oxy-1,4-Benzochinon. Sm. 206—207° (*M.* 5, 593). — II, 1017.
- $C_6HO_2Br_2$ 1) 2,2,4,4,6-Pentabrom-5-Oxy-1,3-Diketo-1,2,3,4-Tetrahydrobenzol + H_2O . Sm. 119—120° u. Zers. (*B.* 23, 1726). — I, 1026.
 C 30,1 — H 0,4 — O 40,2 — N 29,3 — *M. G.* 239.
- $C_6HO_2N_5$ 1) 5-Nitro-1,2,3,4-Tetranitrosobenzol. Sm. 158° (*B.* 32, 506).
 C 20,7 — H 0,3 — O 50,7 — N 28,2 — *M. G.* 347.
- $C_6HO_2N_7$ 1) 2,3,4,5,6-Pentanitro-1-Nitrosoamidobenzol? Sm. 224° (*B.* 30, 305).

- $C_6H_5NCl_6$ 1) P-Hexachlor-2-Methylpyridin. Sm. 60° (*J. pr.* [2] 27, 277). — IV, 123.
- $C_6H_2Cl_3Br_3$ 1) 1,3-Dichlor-2,4,6-Tribrombenzol. Sm. 121° (*B.* 15, 1332; *A.* 215, 122). — II, 59.
- $C_6H_2Cl_3Br_2$ 1) 1,3,5-Trichlor-2,4-Dibrombenzol. Sm. 119° (*A.* 215, 119). — II, 59.
- $C_6H_2Cl_3J_2$ 1) 1,2,4-Trichlor-2-Dijodbenzol. Sm. 92–93°. — II, 73.
- $C_6H_2Cl_3J$ 1) 1,2,3,5-Tetrachlor-4-Jodbenzol. Sm. 78–80°. — II, 74.
- 2) 1,2,4,5-Tetrachlor-3-Jodbenzol. Sm. 88–90°. — II, 74.
- $C_6H_2OCl_4$ 1) 2,3,4,6-Tetrachlor-1-Oxybenzol. Sm. 65,5° (*A.* 261, 246; *B.* 27, 549 Anm.). — II, 671.
- 2) isom. 2,3,4,6-2-Tetrachlor-1-Oxybenzol. Sm. 152°; Sd. 278°; NH_4 , Pb , $Cu + \frac{1}{2}H_2O$, Ag (*A. ch.* [6] 20, 536). — II, 671.
- 3) 2,4,4,6-Tetrachlor-1-Keto-1,4-Dihydrobenzol? Sm. 122° (119°) (*M.* 4, 233; *B.* 27, 545). — III, 111.
- $C_6H_2OBr_4$ 1) 2,3,4,6-Tetrabrom-1-Oxybenzol. Sm. 120° (*A.* 137, 209). — II, 674.
- 2) 2,2,4,6-Tetrabrom-1-Keto-1,2-Dihydrobenzol? (*Tribromphenolbrom*). Sm. 118° u. Zers. (131°) (*B.* 29, 2722; *M.* 1, 360; *A.* 302, 141). — II, 674.
- 3) isom. 2-Tetrabrom-1-Oxybenzol. Sm. 128–129° (*J. pr.* [2] 48, 246).
- $C_6H_2OJ_2$ 1) Dijodphenylenoxyd. Zers. bei 200° (*A.* 120, 309; *B.* 11, 217, 557). — II, 164.
- $C_6H_2O_2N_2$ C 44,4 — H 1,2 — O 19,8 — N 34,6 — M. G. 162.
- 1) Dianhydrid d. 1,2,3,4-Tetraoximidobenzol. Sm. 61° (*B.* 20, 1610; 23, 2816). — II, 923.
- $C_6H_2O_2Cl_2$ 1) 2,3-Dichlor-1,4-Benzochinon. Sm. 96° (*G.* 24 [2] 379; 27 [2] 585). — III, 333.
- 2) 2,5-Dichlor-1,4-Benzochinon. Sm. 161° (*A.* 69, 309; 143, 316; 210, 150; *B.* 10, 800; 15, 656; 19, 2010; 20, 2279; *Soc.* 61, 558; *J.* 1882, 777; *G.* 27 [2] 586). — III, 333.
- 3) 2,6-Dichlor-1,4-Benzochinon. Sm. 120° (123–125°) (*A.* 149, 153; 234, 14; *Z.* 1871, 521; *B.* 3, 646; 16, 1445, 1446; *Soc.* 61, 559; *J. pr.* [2] 40, 481; *G.* 27 [2] 586). — III, 333.
- $C_6H_2O_2Cl_4$ 1) 3,4,5,6-Tetrachlor-1,2-Dioxybenzol. Sm. 194–195° (*B.* 20, 1779; 21, 2729). — II, 910.
- 2) 2,4,5,6-Tetrachlor-1,3-Dioxybenzol. Sm. 141° (*B.* 25, 2689). — II, 920.
- 3) 2,3,5,6-Tetrachlor-1,4-Dioxybenzol. Sm. 232° (235°). K_2 , + Anilin, + Hydrazin (*A.* 69, 327; 146, 11; 210, 155; 228, 324; 263, 29; *B.* 19, 2316; *G.* 24 [1] 582; *Am.* 17, 603). — II, 942.
- 4) isom. 2-Tetrachlordioxybenzol (*Z.* 1868, 203; *A.* 146, 35).
- 5) Chlorid d. $\beta\gamma$ -Dichlor- $\alpha\gamma$ -Butadien- $\alpha\delta$ -Dicarbonsäure? (*Chlorid d. α -Dichlormukonsäure*) (*A.* 135, 251). — I, 731.
- $C_6H_2O_2Br_2$ 1) 2,5-Dibrom-1,4-Benzochinon. Sm. 188° (*M.* 1, 346; *A.* 209, 113; *B.* 15, 655). — III, 336.
- 2) 2,6-Dibrom-1,4-Benzochinon. Sm. 131° (*A.* 210, 158; 253, 286; 289, 99). — III, 336.
- 3) 2-Dibrom-1,4-Benzochinon. Sm. 76° (*J. pr.* [2] 24, 464). — III, 337.
- 4) 2-Dibrom-1,4-Benzochinon? Sm. 88° (*A. ch.* [5] 15, 67). — III, 337.
- $C_6H_2O_2Br_4$ 1) 3,4,5,6-Tetrabrom-1,2-Dioxybenzol. Sm. 192–193° (187°) (*A.* 142, 251; 177, 187; *B.* 20, 1777). — II, 911.
- 2) 2,4,5,6-Tetrabrom-1,3-Dioxybenzol. Sm. 167° (163°) (*B.* 11, 1440; *M.* 1, 366). — II, 921.
- 3) 2,3,5,6-Tetrabrom-1,4-Dioxybenzol. Sm. 244° (246°) (*A.* 91, 310; 209, 122; 302, 142; *A. Spl.* 8, 20; *Bl.* [3] 19, 759). — II, 944.
- $C_6H_2O_2J_2$ 1) 2,5-Dijod-1,4-Benzochinon. Sm. 157–159° (*B.* 21, 2555). — III, 339.
- 2) 2,6-Dijod-1,4-Benzochinon. Sm. 177–179° (*J. pr.* [2] 28, 438; [2] 37, 336; *B.* 26, 2377). — III, 339.
- $C_6H_2O_2Cl_2$ 1) Chlorid d. Furan-2,5-Dicarbonsäure. Sm. 80° (*J. pr.* [2] 25, 46). — III, 715.
- 2) Verbindung (aus 2-Trichlor-1,3-Dioxybenzol)? Sm. 60° (*B.* 13, 1307). — II, 920.
- $C_6H_2O_2Cl_6$ 1) 2,2,3,3,4,5-Hexachlor-1-Oxy-2,3-Dihydro-R-Penten-1-Carbonsäure. Sm. 111°. $Ba + C_2H_5O$ (*B.* 21, 2725; 23, 830; *A.* 272, 253). — I, 620.
- 2) 1,1,3,3,4,5-Hexachlor-2-Oxy-2,3-Dihydro-R-Penten-2-Carbonsäure. Sm. 186° u. Zers. $Ba + 2H_2O$ (*B.* 23, 824; *A.* 272, 243). — I, 621.

- $C_6H_2O_4Cl_6$ 3) $\alpha\alpha\beta\gamma\delta\epsilon$ -Hexachlor- δ -Keto- β -Penten- α -Carbonsäure (γ -Dichloracetyl- $\alpha\alpha\beta\gamma$ -Tetrachlorcrotonsäure). Sm. 112° (B. 25, 2690). — I, 621.
- 4) $\alpha\alpha\gamma\delta\epsilon\epsilon$ -Hexachlor- δ -Keto- β -Penten- α -Carbonsäure (γ -Trichloracetyl- $\alpha\alpha\gamma$ -Trichlorcrotonsäure). Sm. 96° (B. 26, 504).
- $C_6H_2O_4Cl_4$ 1) $\alpha\alpha\alpha\gamma\gamma\delta\epsilon\epsilon$ -Oktochlor- β -Ketopentan- ϵ -Carbonsäure (Trichloracetyl-pentachlorbuttersäure). Sm. 139—140°. Ca (B. 24, 913; 25, 2224). — I, 603.
- 2) Trichloräthylester d. $\alpha\alpha\gamma\gamma\gamma$ -Pentachlor- β -Ketopropan- α -Carbonsäure (Tr. d. Trichloracetyldichloressigsäure). Sd. 210—212°₁₀ (A. ch. 6 24, 82). — I, 595.
- $C_6H_2O_4Br_2$ 1) Verbindung (aus Xanthogallol). Sm. 65° (A. 245, 342). — II, 1014.
C 43,4 — H 1,2 — O 38,6 — N 16,8 — M. G. 166.
- $C_6H_2O_4N_2$ 1) Dichinoylimid + 5H₂O (B. 21, 1854). — II, 1033.
C 37,1 — H 1,0 — O 33,0 — N 28,8 — M. G. 194.
- $C_6H_2O_4N_4$ 1) 1,2,3,4-Tetranitrosobenzol. Sm. 93° (B. 32, 505, 507).
- $C_6H_2O_4Cl_2$ 1) 3,6-Dichlor-2,5-Dioxy-1,4-Benzochinon + 2H₂O (Chloranilsäure). Sm. 283—284° (wasserfrei). Na₂ + 4H₂O, K₂ + H₂O, Ba + 3H₂O, Ag₂, Isoamylaminsalz, Phenylhydrazinsalz. Lit. bedeutend. — III, 349.
- 2) Dichlorkomansäure. Sm. 217° (J. pr. 2 27, 293; 2 29, 61). — II, 1735.
- $C_6H_2O_4Br_2$ 1) 3,6-Dibrom-2,5-Dioxy-1,4-Benzochinon (Bromanilsäure). + 2C₆H₄O₂, Na + 5H₂O, Na₂ + 4H₂O, K₂ + 2H₂O (A. 91, 311; 143, 256; 205, 54; 209, 115; 249, 81; 263, 35; B. 20, 1303, 1997, 2040; 21, 2438; 25, 852; Soc. 61, 574, 586). — III, 352.
- $C_6H_2O_4Br_2$ 1) Bromverbindung (d. 3,6-Dibrom-2,5-Dioxy-1,4-Benzochinon). Sm. 184 bis 186° (B. 21, 2439). — III, 353.
C 39,6 — H 1,1 — O 44,0 — N 15,3 — M. G. 182.
- $C_6H_2O_4N_2$ 1) Säure (aus Citrazinsäure) + 4H₂O. 2NH₄, Ag + H₂O, Ag₂ (Soc. 63, 1049).
C 34,3 — H 0,9 — O 38,1 — N 26,7 — M. G. 210.
- $C_6H_2O_4N_4$ 1) 4,6-Dinitro-2-Oxydiazobenzolanhydrid (B. 29, 1532; A. 113, 205). — IV, 1547.
- $C_6H_2O_4Cl_4$ 1) 2,2,5,5-Tetrachlor-3,4-Diketo-1-Oxy-R-Pentamethylen-1-Carbonsäure + 3H₂O. Sm. 216° u. Zers. (NH₄)₂ + H₂O (B. 22, 2842; 23, 1486; 25, 839). — I, 775.
- $C_6H_2O_4Br_2$ 1) Dibromkomensäure + 3H₂O. Zers. bei 105° (J. pr. 2 26, 467). — I, 780.
C 31,8 — H 0,9 — O 42,5 — N 24,8 — M. G. 226.
- $C_6H_2O_4N_4$ 1) p-Dinitro-1,3-Dioxy-p-Diazobenzol. K + H₂O (M. 2, 327). — II, 932.
C 28,3 — H 0,8 — O 37,8 — N 33,1 — M. G. 254.
- $C_6H_2O_4N_6$ 1) 2,4,6-Trinitro-1-Diazobenzolimid (G. 24 1 574). — IV, 1141.
C 31,3 — H 0,9 — O 55,6 — N 12,2 — M. G. 230.
- $C_6H_2O_4N_2$ 1) 3,6-Dinitro-2,5-Dioxy-1,4-Benzochinon (Nitransäure). Zers. bei 170°. (NH₄)₂, (NH₃, O)₂, Na₂, K₂, Ba (A. 211, 343; 215, 139; B. 10, 2147; 12, 519; 16, 2093; 18, 499; 19, 2385; 20, 2028, 2116; 25, 837; Am. 11, 17). — III, 353.
C 26,3 — H 0,7 — O 52,6 — N 20,4 — M. G. 274.
- $C_6H_2O_4N_4$ 1) 2,3,4,6-Tetranitro-1-Oxybenzol. Sm. 130° u. Zers. Na, Ba, Ag (B. 30, 184; 32, 506).
C 24,8 — H 0,7 — O 55,2 — N 19,3 — M. G. 290.
- $C_6H_2O_{10}N_4$ 1) 2,4,5,6-Tetranitro-1,3-Dioxybenzol. Sm. 166°. Ba + 6H₂O (A. 215, 335). — II, 926.
- $C_6H_2NCl_5$ 1) Pentachloramidobenzol. Sm. 232° (235°) (A. 215, 120; B. 15, 1331; J. 1868, 354). — II, 315.
- 2) p-Pentachlor-2-Methylpyridin (J. pr. 2 27, 275). — IV, 123.
- 3) p-Dichlor-4-Trichlormethylpyridin. Sm. 58° (Soc. 71, 1080).
- $C_6H_2NBr_5$ 1) Pentabromamidobenzol. Sm. nicht unter 222° (J. 1875, 344). — II, 317.
- $C_6H_2N_2Cl_4$ 1) 2,5-Dichlor-1,4-Benzochinondichlordiimid. Sm. 134—135° (B. 19, 2011). — III, 333.
- 2) 2,4,6-Trichlordiazobenzolchlorid. + HCl (B. 28, 682; 30, 1155). — IV, 1520.
- $C_6H_2N_2Br_4$ 1) 2,4,6-Tribrom-1-Diazobenzolbromid. + 2C₆H₆O (B. 28, 683; 31, 1265, 2055; J. pr. 2 27, 118). — IV, 1523.
- $C_6H_2N_2Br_6$ 1) 2,4,6-Tribrom-1-Diazobenzoltribromid. Sm. 98,5° (J. pr. 2 27, 118). — IV, 1523.

- $C_6H_3N_2S$ 1) Nitril d. Thiophen-2,5-Dicarbonsäure. Sm. 92—92,5° (B. 19, 190), — III, 760.
- $C_6H_3N_2Br$ 1) 2,4,6-Tribrom-1-Diazobenzolimid. Sm. 59° (J. pr. [2] 27, 116). — IV, 1141.
- C_6H_3ClBr 1) 1-Chlor-2,4,6-Tribrombenzol. Sm. 87—88° (80°) (J. pr. [2] 27, 116; B. 15, 1065; A. 215, 113; M. 18, 219). — II, 59.
- C_6H_3ClJ 1) 1-Chlor-2,4,6-Trijodbenzol. Sm. 162—164° (C. 1897 [1] 1161).
- $C_6H_3Cl_2Br$ 1) 1,3-Dichlor-4,5-Dibrombenzol. Sm. 67—68° (G. 17, 502). — II, 59.
2) 1,4-Dichlor-2,5-Dibrombenzol? Sm. 148° (Am. 19, 366).
- $C_6H_3Cl_2Br$ 1) Trichlorbrombenzol. Sm. 138° (Bl. [3] 21, 185).
- $C_6H_3Cl_2J$ 1) 2,4,5-Trichlor-1-Jodbenzol. Sm. 107°; Sd. 293,5—295°₁₁. — II, 73.
2) 2,4,6-Trichlor-1-Jodbenzol. Sm. 54° (B. 30, 2354).
- C_6H_3BrJ 1) 1-Brom-2-Trijodbenzol. Sm. 206—207°. — II, 74.
- $C_6H_3Br_2J$ 1) 1,4-Dibrom-2-Dijodbenzol. Sm. 161—162°. — II, 74.
- $C_6H_3Br_2J$ 1) 1,2,4-Tribrom-5-Jodbenzol. Sm. 165° (J. pr. [2] 33, 159). — II, 74.
2) 1,3,5-Tribrom-2-Jodbenzol. Sm. 103,5° (105,5°) (J. pr. [2] 27, 119; Am. 18, 304; Soc. 73, 692). — II, 74.
- $C_6H_3OCl_3$ 1) 2,3,5-Trichlor-1-Oxybenzol. Sm. 53—54°; Sd. 252—253° (B. 13, 1908; J. pr. [2] 33, 376). — II, 671.
2) 2,4,6-Trichlor-1-Oxybenzol. Sm. 67—68°; Sd. 243,5—244,5°. NH_4 , $K + \frac{1}{2}H_2O$, $Mg + 2H_2O$, $Ba + 4H_2O$, Pb , $4Pb + PbO$, Ag . Lit. bedeutend. — II, 670.
3) 2,3,5-Trichlor-1-Keto-4-Methyl-R-Penten. Sm. 182—183° (B. 26, 314, 321).
- $C_6H_3OCl_3$ 1) 2-Pentachlor-2-Keto-1-Methyl-2-Dihydro-R-Penten (α -Keton). Sd. 155—156°₄₀₋₄₅ (A. 296, 189).
2) isom. 2-Pentachlor-2-Keto-1-Methyl-2-Dihydro-R-Penten (β -Keton). Sm. 91° (A. 296, 192).
3) 2-Pentachlor-3-Keto-1-Methyl-2-Dihydro-R-Penten (α -Keton). Sd. 160—165°₂ (A. 296, 167).
4) 2-Pentachlor-3-Keto-1-Methyl-2-Dihydro-R-Penten (β -Keton). Sm. 92° (A. 296, 168).
- C_6H_3OBr 1) 5-Brom-2-Furanyläthin (Bromfurfuracetylen). Sm. 65—68°₁₉. Cu (Am. 12, 318). — III, 692.
2) Bromphenylenoxyd. Sm. 195° (A. 124, 250). — II, 164.
- $C_6H_3OBr_3$ 1) 2,4,6-Tribrom-1-Oxybenzol. Sm. 92° (95°). NH_4 , Ca, Zn, Pb, Cu, Ag (A. 43, 212; 52, 340; 137, 208; 161, 340; 205, 66; 278, 347; 302, 141; B. 15, 1297; M. 4, 604; A. ch. [6] 3, 552, 572; G. 16, 526). — II, 674.
- $C_6H_3OJ_3$ 1) 2,4,6-Trijod-1-Oxybenzol. Sm. 156° (A. 120, 307; 131, 232; 137, 214; J. 1865, 524; G. 20, 105; M. 15, 677). — II, 676.
2) Dijodphenoljod. Sm. 157° (B. 22, 2313). — II, 677.
- $C_6H_3O_2Cl$ 1) 2-Chlor-1,4-Benzochinon. Sm. 57° (A. 69, 302; 210, 144; 228, 322; 234, 14; J. 1883, 1004; G. 24 [2] 394). — III, 331.
2) isom. 2-Chlor-1,4-Benzochinon? Sm. 120° (B. 9, 770). — III, 332.
- $C_6H_3O_2Cl_2$ 1) 2-Trichlor-1,2-Dioxybenzol + H_2O . Sm. 104—105°. + $\frac{1}{2}H_2O$ (Sm. 134—135°) (Bl. [3] 13, 719; C. 1898 [1] 1023).
2) 2-Trichlor-1,3-Dioxybenzol. Sm. 83° (J. pr. [2] 17, 336; M. 4, 224; B. 11, 1441; 13, 1307; 23, 3776). — II, 920.
3) 2,3,5-Trichlor-1,4-Dioxybenzol. Sm. 134°. Pb, + Anilin (A. 69, 321; 142, 129; 146, 25; 210, 153; 228, 328; A. Spl. 6, 214; B. 10, 797; G. 24 [2] 389). — II, 942.
4) 2,3,5-Trichlor-1,4-Diketo-1,2,3,4-Tetrahydrobenzol. subl. bei 200° (G. 24 [2] 386). — III, 332.
5) 2,2,5-Trichlor-1,3-Diketo-4-Methyl-2,3-Dihydro-R-Penten. Sm. 64 bis 65° (B. 26, 520).
- $C_6H_3O_2Br$ 1) 2-Brom-1,4-Benzochinon. Sm. 55—56° (A. 209, 102, 106; B. 15, 656). — III, 336.
- $C_6H_3O_2Br_2$ 1) 2-Tribrom-1,3-Dioxybenzol + xH_2O . Sm. 111° (A. 130, 357; M. 2, 474; B. 10, 1578; Am. 18, 123). — II, 921.
2) 2-Tribrom-1,4-Dioxybenzol. Sm. 136° (A. 209, 116). — II, 944.
3) Bromid d. 2-Dibrommethylfuran-5-Carbonsäure. Sm. 102° (Am. 20, 173; B. 27, 1569). — III, 707.
- $C_6H_3O_2J_2$ 1) 2-Trijod-1,3-Dioxybenzol. Sm. 145° (B. 9, 1752; 11, 1443; J. pr. [2] 20, 324). — II, 922.

- $C_6H_3O_3J_3$ 2) isom. Trijod-1,3-Dioxybenzol (Dijodresorcinjod). K (B. 22, 2320). — II, 922.
 $C_6H_3O_3N$ C 52,6 — H 2,2 — O 35,0 — N 10,2 — M. G. 137.
 $C_6H_3O_3N_3$ 1) Nitrophenylenoxyd. Sm. 150° (A. 124, 250).
 C 43,6 — H 1,8 — O 29,1 — N 25,5 — M. G. 165.
 1) 5-Nitro-2-Oxy-1-Diazobenzolanhydrid. Zers. bei 100° (A. 113, 211). — IV, 1547.
 2) Anhydrotrioximidoketotetrahydrobenzol (Anhydrid d. Dichinoyltrioxim). Sm. 181° . Fe (B. 30, 183).
 $C_6H_3O_3N_7$ C 32,6 — H 1,4 — O 21,7 — N 44,3 — M. G. 221.
 1) Cyamelursäure + $2\frac{1}{2}H_2O$. K + H_2O , K_2 + $3H_2O$, Ba_3 + H_2O , Ag_3 (A. 73, 236; 95, 281; J. pr. [2] 9, 30). — I, 1453.
 $C_6H_3O_3Cl_3$ 1) 4,5,6-Trichlor-1,2,3-Trioxybenzol + $3H_2O$. Sm. 177° u. Zers. (wasserfrei). Ba + $6H_2O$, Cu + $6H_2O$ (Soc. 45, 205; B. 20, 2035; Bl. [3] 15, 906; G. 28 [1] 225). — II, 1013.
 2) 3,5,6-Trichlor-1,2,4-Trioxybenzol. Sm. 160° (B. 27, 557). — II, 1017.
 3) 2,4,6-Trichlor-1,3,5-Trioxybenzol + $3H_2O$. Sm. 134° (wasserfrei) (M. 6, 706; Soc. 47, 423; B. 22, 1476; 23, 1732; G. 24 [1] 243). — II, 1020.
 4) Chlorid d. Propen- $\alpha\beta\gamma$ -Tricarbonsäure (Ch. d. Akonitsäure). Sd. 155 bis 157°_{30} (J. pr. [2] 52, 343).
 $C_6H_3O_3Cl_5$ 1) $\alpha\alpha\gamma\gamma\gamma$ -Pentachlor- δ -Keto- β -Penten- α -Carbonensäure. Sm. $122-123^\circ$ (B. 23, 3779; 26, 498). — I, 621.
 $C_6H_3O_3Cl_7$ 1) Dichloräthylester d. $\alpha\alpha\gamma\gamma\gamma$ -Pentachlor- β -Ketopropan- α -Carbonensäure (Di. d. Trichloracetyldichloressigsäure). Sd. $220-223^\circ_{11}$ u. ger. Zers. (A. ch. [6] 24, 82). — I, 595.
 $C_6H_3O_3Br_3$ 1) 4,5,6-Tribrom-1,2,3-Trioxybenzol (A. 142, 250; 245, 329; Soc. 45, 207). — II, 1013.
 2) 2,4,6-Tribrom-1,3,5-Trioxybenzol + $3H_2O$. Sm. $152-153^\circ$ ($149-151^\circ$) (J. 1855, 702; A. 184, 255; M. 4, 605; 6, 705, 885; B. 23, 1732). — II, 1020.
 $C_6H_3O_3Sb$ 1) neutr. 1,2,3-Trioxybenzolester d. Antimonigen Säure (Bl. [3] 7, 795). — II, 1012.
 $C_6H_3O_3N$ C 47,1 — H 2,0 — O 41,8 — N 9,1 — M. G. 153.
 1) 2-Nitro-1,4-Benzochinon. Zers. bei 206° (B. 28, 1387; A. ch. [5] 22, 273). — III, 339.
 $C_6H_3O_3N_3$ C 39,8 — H 1,6 — O 35,4 — N 23,2 — M. G. 181.
 1) 5-Nitro-2,3-Dioxy-1-Diazobenzol-1,2-Anhydrid + $\frac{1}{2}H_2O$. Zers. bei $159-160^\circ$ (Soc. 69, 1334). — IV, 1551.
 2) 2-Nitro-1,3-Dioxy-2-Diazobenzol (M. 2, 328).
 $C_6H_3O_3N_5$ C 34,4 — H 1,4 — O 30,6 — N 33,5 — M. G. 209.
 1) 2,4-Dinitro-1-Diazobenzolimid. Sm. 56° ($57-58^\circ$) (B. 25, 3339; 26, 87, 90; J. pr. [2] 50, 263; G. 24 [1] 563). — IV, 1141.
 2) 4,6- oder 5,7-Dinitro-1,2,3-Benzotriazol. Sm. 198° (B. 30, 543). — IV, 1527.
 $C_6H_3O_3Cl$ 1) 6-Chlor-2,5-Dioxy-1,4-Benzochinon. Sm. 240° u. Zers. (J. pr. [2] 40, 484, 497). — III, 349.
 2) Chlorkomansäure. Sm. 247° (J. pr. [2] 29, 61). — II, 1735.
 $C_6H_3O_3Br$ 1) 2-Brom-1,2-Pyron-5-Carbonensäure (Bromcumalinsäure). Sm. 176° (B. 17, 2396; A. 264, 276). — I, 774.
 $C_6H_3O_3Br_3$ 1) Verbindung (aus Brompropionsäure u. $\alpha\beta$ -Dibromakrylsäure). Sm. 104 bis 105° (Ann. 3, 117). — I, 530.
 $C_6H_3O_3N$ C 42,6 — H 1,8 — O 47,3 — N 8,3 — M. G. 169.
 1) Trioxypikolinsäurechinon + $2H_2O$ (Azoncarbonensäure) (J. pr. [2] 27, 267). — IV, 172.
 $C_6H_3O_3N_3$ C 36,5 — H 1,5 — O 40,6 — N 21,3 — M. G. 197.
 1) 4,6-Dinitro-1,2-Oximidobenzol (Dinitrosonitrooxybenzol?). Sm. 122° . Pikrat (B. 24, 592; J. pr. [2] 45, 147). — II, 701.
 $C_6H_3O_3Cl$ 1) Chlorkomensäure + $1\frac{1}{2}H_2O$. Ag + $\frac{1}{2}H_2O$, Ag $_2$ (A. 80, 80; 83, 354). — I, 780.
 $C_6H_3O_3Cl_3$ 1) 3,6,6-Trichlor-5,5-Dioxy-1,2,4-Triketohexahydrobenzol? Sm. 158° u. Zers. (B. 25, 838, 845). — I, 1027.
 2) 2,2,5-Trichlor-3,4-Diketo-1-Oxy-R-Pentamethylen-1-Carbonensäure. Sm. 171° u. Zers. Pb (B. 21, 2432; 25, 839). — I, 774.

- $C_5H_3O_3Cl_3$ 3) $\beta\epsilon\epsilon$ -Trichlor- $\alpha\gamma\delta$ -Triketopentan- α -Carbonsäure (Trichlortriketo-valeriansäure). Sm. 112—114° (B. 21, 2442). — I, 775.
- $C_6H_3O_3Br$ 1) 6-Brom-2,3,5-Trioxo-1,4-Benzochinon. Pb_2 , Ag_2 (B. 12, 2043). — III, 355.
- 2) Bromkomensäure + $1\frac{1}{2}H_2O$. $Ag + \frac{1}{2}H_2O$ (A. 80, 85; 83, 356; J. pr. [2] 26, 465, 472). — I, 780.
- $C_6H_3O_3Br_2$ 1) 3,6,6-Tribrom-5,5-Dioxy-1,2,4-Triketohexahydrobenzol? (B. 25, 852). — I, 1027.
- $C_6H_3O_3N$ C 38,9 — H 1,6 — O 51,9 — N 7,6 — M. G. 185.
- 1) 3-Nitro-2,5-Dioxy-1,4-Benzochinon. K_2 (B. 22, 1661). — III, 353.
- $C_6H_3O_3N_2$ C 33,8 — H 1,4 — O 45,1 — N 19,7 — M. G. 213.
- 1) 1,2,4-Trinitrobenzol. Sm. 57,5° (A. 215, 361; A. ch. [6] 27, 307; Ph. Ch. 10, 784; R. 9, 186). — II, 82.
- 2) 1,3,5-Trinitrobenzol. Sm. 121—122°. $K + CH_3O + \frac{1}{2}H_2O$ (J. 1879, 394; B. 9, 403; 13, 2346; 16, 1597; 28, 2598; 29, 849; A. 215, 344, 376; Bl. 30, 5; A. ch. [6] 27, 307; R. 13, 148; 14, 65, 92, 150). — II, 82.
- 3) 2,4,6-Trinitroso-1,3,5-Trioxylbenzol. K_2 , Pb_2 (B. 11, 1375). — II, 1021.
- $C_6H_3O_3N_3$ C 31,4 — H 1,3 — O 48,9 — N 18,3 — M. G. 229.
- 1) 2,3,4-Trinitro-1-Oxybenzol (A. 215, 329). — II, 693.
- 2) 2,3,6-Trinitro-1-Oxybenzol. Sm. 117—118°. K , Ba (A. 215, 332). — II, 692.
- 3) 2,4,6-Trinitro-1-Oxybenzol (Pikrinsäure). Sm. 122,5°. Salze fast sämtlich bekannt. Lit. bedeutend. — II, 686.
- 4) 3,4,6-Trinitro-1-Oxybenzol. Sm. 96°. K , $Ba + 4H_2O$ (A. 215, 331). — II, 692.
- 5) 3-Nitro-6-Diazo-2,5-Dioxy-1,4-Benzochinon? $Na + 1$ u. $2H_2O$ (B. 18, 501). — II, 1033.
- $C_6H_3O_3N_4$ C 29,4 — H 1,2 — O 52,2 — N 17,1 — M. G. 245.
- 1) 2,4,6-Trinitro-1,3-Dioxybenzol (Styphninsäure). Sm. 175,5°. Salze meist bekannt. Lit. bedeutend. — II, 925.
- 2) 2,4,6-Trinitrophenylsuperoxyd. Na (C. 1898 [2] 160).
- 3) 3,5-Dinitro-2,6-Dioxypyridin-4-Carbonsäure. Zers. bei 115—120° (Soc. 65, 833).
- $C_6H_3O_3N_5$ C 27,6 — H 1,1 — O 55,2 — N 16,1 — M. G. 261.
- 1) 2,4,6-Trinitro-1,3,5-Trioxylbenzol + H_2O . Sm. 167° (wasserfrei). $K + H_2O$, K_2 , K_3 , Ba_3 (B. 11, 1376; 26, 2185; Am. 15, 611; 16, 32). — II, 1021.
- $C_6H_4NCl_2$ 1) 2,3,4,5-Tetrachlor-1-Amidobenzol. Sm. 118° (A. 196, 237; B. 21, 1533; 27, 548). — II, 315.
- 2) 2,3,4,6-Tetrachlor-1-Amidobenzol. Sm. 88° (A. 196, 236; B. 31, 248). — II, 315.
- 3) 2,3,5,6-Tetrachlor-1-Amidobenzol. Sm. 90° (Z. 1868, 227). — II, 315.
- $C_6H_4NBr_2$ 1) 2,3,4,5-Tetrabrom-1-Amidobenzol. Sm. 122° (J. pr. [2] 56, 55).
- 2) 2,3,4,6-Tetrabrom-1-Amidobenzol. Sm. 115,3° (116—117°) (J. 1875, 343; B. 7, 1564; A. 231, 160; J. pr. [2] 56, 50). — II, 317.
- 3) 2,3,5,6-Tetrabrom-1-Amidobenzol. Sm. 130° (J. pr. [2] 51, 411; [2] 56, 62).
- $C_6H_3N_2Cl_3$ 1) 2,4-Dichlordiazobenzolchlorid. $2 + PtCl_4$ (J. 1866, 455). — IV, 1520.
- $C_6H_3N_2Br_2$ 1) 2,4-Dibromdiazobenzoltribromid (J. 1866, 454). — IV, 1522.
- $C_6H_3N_2J_2$ 1) 2,4-Dijod-1-Diazobenzoljodid (B. 28, 684).
- $C_6H_3N_2Br$ 1) 2,4-Dibrom-1-Diazobenzolimid. Sm. 62° (J. 1868, 454). — IV, 1141.
- $C_6H_3N_2Cl_2$ 1) 2,6,8-Trichlor-7-Methylpurin. Sm. 155—157° (159—161° cor.) (B. 28, 2488; 30, 1847, 2224; 32, 271, 487). — IV, 1247.
- 2) 2,6,8-Trichlor-9-Methylpurin. Sm. 174° (B. 17, 331; 30, 1853, 2224; 31, 2568; 32, 488). — I, 1336.
- $C_6H_2ClBr_2$ 1) 5-Chlor-1,3-Dibrombenzol. Sm. 96° (B. 30, 2350).
- $C_6H_2ClJ_2$ 1) 4-Chlor-1,3-Dijodbenzol. Sd. 221°₇₈ (C. 1897 [1] 1161).
- $C_6H_2Cl_2Br$ 1) 3,5-Dichlor-1-Brombenzol. Sm. 82—84° (B. 30, 2351).
- $C_6H_2Cl_2J$ 1) 2,5-Dichlor-1-Jodbenzol. Sd. 250—251° (B. 27, 768).
- $C_6H_2Cl_4J_2$ 1) 1,2,4-Trijodbenzolhexachlorid. Sm. 145° u. Zers. (B. 25, 3494). — II, 79.
- $C_6H_2Br_2J$ 1) 2,5-Dibrom-1-Jodbenzol. Sm. 180°₇₅. — II, 74.
- $C_6H_2Br_2S$ 1) 2,4,5-Tribrom-3-[p-Dibromäthyl]thiophen. Sm. 86° (A. 267, 150). — III, 745.

- $C_6H_4ON_2$ C 60,0 — H 3,3 — O 13,3 — N 23,3 — M. G. 120.
1) Anhydro-4-Oxydiazobenzol + $4H_2O$. Sm. 38—39° (B. 29, 1531). — IV, 1545.
- $C_6H_4ON_4$ C 48,6 — H 2,7 — O 10,8 — N 37,8 — M. G. 148.
1) Azid d. Pyridin-3-Carbonsäure. Sm. 47—48° (B. 31, 2493).
- $C_6H_4OCl_2$ 1) 2,4-Dichlor-1-Oxybenzol. Sm. 43°; Sd. 209—210°. NH_4 , K + $\frac{1}{2}H_2O$, Pb(OH), Ag (A. 23, 60; A. Spl. 7, 180; J. 1887, 1300; G. 28 [1] 210). — II, 670.
2) 2,6-Dichlor-1-Oxybenzol. Sm. 65°; Sd. 218—220° (A. Spl. 7, 203; B. 16, 1752). — II, 670.
3) 3,5- β -Dichlor-1-Oxybenzol. Sm. 54—55° (B. 11, 1981).
4) isom. Dichlor-1-Oxybenzol (A. 52, 342).
- $C_6H_4OBr_2$ 1) 2,4-Dibrom-1-Oxybenzol. Sm. 40° (35—36°); Sd. 238—239° (A. 52, 329; 137, 205; A. ch. [6] 3, 557; G. 16, 402). — II, 673.
2) 2,6-Dibrom-1-Oxybenzol. Sm. 55—56° (A. 202, 138; 253, 281; B. 15, 2949). — II, 673.
3) 3,4-Dibrom-1-Oxybenzol. Sm. 79—80° (M. 11, 347). — II, 673.
4) 3,5-Dibrom-1-Oxybenzol. Sm. 76,5° (M. 7, 630). — II, 673.
5) isom. β -Dibrom-1-Oxybenzol (A. 52, 339).
6) 5-Brom-2-[β -Bromäthenyl]furan. Sd. 112°₁₄. — III, 692.
- $C_6H_4OJ_2$ 1) 2,4-Dijod-1-Oxybenzol. Sm. 72° (A. 241, 71; B. 20, 3364). — II, 676.
2) isom. β -Dijod-1-Oxybenzol. Sm. 68° (66°) (B. 16, 1899, 1902; 27 [2] 82). — II, 676.
3) isom. Dijod-1-Oxybenzol. Sm. 150° (B. 2, 524). — II, 676.
4) 4-Jod-1-Jodosobenzol. Zers. bei 120° (B. 27, 1791).
- C_6H_4OHg 1) Verbindung (aus 2-Oxyphenylquecksilberchlorid) (B. 32, 764). — IV, 1708.
- $C_6H_4O_2N_2$ C 53,0 — H 2,9 — O 23,5 — N 20,6 — M. G. 136.
1) 1,2-Dinitrosobenzol. Sm. 71° (J. pr. [2] 53, 342).
2) 1,4-Dinitrosobenzol (B. 20, 615). — II, 78.
- $C_6H_4O_2N_4$ C 43,9 — H 2,4 — O 19,5 — N 34,2 — M. G. 164.
1) Diacetylendiarnstoff? Sm. 152—154° (G. 23 [1] 395).
2) 2-Nitro-1-Diazobenzolimid. Sm. 72—73° (52°) (B. 25, 3338; 26, 87, 90; 30, 2288; Am. 20, 386). — IV, 1141.
3) 3-Nitro-1-Diazobenzolimid. Sm. 55° (B. 25, 3338). — IV, 1141.
4) 4-Nitro-1-Diazobenzolimid. Sm. 71° (74°) (J. 1866, 456; B. 25, 3329; 27, 196; 29, 2169; 30, 2288; J. pr. [2] 40, 116; [2] 50, 250; Soc. 63, 257). — IV, 1141.
5) 6-Nitro-1,2,3-Benzotriazol. Sm. 211° (209°). K, Ag (B. 30, 544; A. 115, 251). — IV, 1142.
6) 2,4-Diketo-1,2,3,4-Tetrahydro-1,3,5,8-Benzotetrazin (Alloxazin). Sm. oberh. 310° (B. 28, 1970). — IV, 947.
7) 1,2,3,7-Benzotetrazol-5-Carbonsäure + H_2O (Azimidonikotinsäure). Zers. bei 270°. NH_4 , Ba, Ag (B. 27, 1337). — IV, 1136.
8) Verbindung (aus Cyanmethazonsäure). Sm. 72° (B. 29, 2420).
- $C_6H_4O_2Cl_2$ 1) 4,5-Dichlor-1,2-Dioxybenzol. Sm. 105—106° (G. 28 [1] 223).
2) β -Dichlor-1,3-Dioxybenzol. Sm. 77°; Sd. 249° (J. pr. [2] 17, 328). — II, 920.
3) 2,3-Dichlor-1,4-Dioxybenzol + $2H_2O$. Sm. 144° (wasserfrei) (G. 24, [2] 376).
4) 2,5-Dichlor-1,4-Dioxybenzol. Sm. 166° (172°). + Anilin, + p-Toluidin (A. 69, 312; 210, 148; 228, 328; B. 10, 800; 13, 1428). — II, 942.
5) 2,6-Dichlor-1,4-Dioxybenzol. Sm. 157—158° (164°). + Anilin (A. 149, 154; 228, 328; J. pr. [2] 40, 481). — II, 942.
6) 2,3-Dichlor-1,4-Diketo-1,2,3,4-Tetrahydrobenzol (Chinondichlorid). Sm. 146° (Am. 14, 556; G. 24 [2] 384). — III, 329.
7) 2,5-Dichlor-1,3-Diketo-4-Methyl-2,3-Dihydro-R-Penten. Sm. 80° (81°) (B. 26, 321, 520).
- $C_6H_4O_2Cl_4$ 1) 2,3,5,6-Tetrachlor-1,4-Diketo-hexahydrobenzol. Sm. 226° u. Zers. (Am. 14, 357; G. 24 [2] 385). — III, 329.
2) $\alpha\beta\delta$ -Tetrachlor- $\alpha\gamma$ -Pentadien- α -Carbonsäure. Sm. 145°. Ba + $5H_2O$, Ag (A. 296, 192).
3) $\alpha\alpha\gamma\delta$ -Tetrachlor- β -Methyl- $\alpha\gamma$ -Butadien- δ -Carbonsäure (oder $\alpha\alpha\delta\delta$ -Tetrachlor- γ -Methyl- $\alpha\beta$ -Butadien- δ -Carbonsäure). Sm. 146° (A. 296, 172).

- $C_6H_4O_2Br_2$ 1) 3,5-Dibrom-1,2-Dioxybenzol. Sm. 58—60° (C. 1898 [1] 616, 1024).
 2) 2-Dibrom-1,2-Dioxybenzol. Sm. 92—93° (Bl. [3] 13, 720; C. 1898 [1] 1023).
 3) 2-Dibrom-1,3-Dioxybenzol. Sm. 82—85° (M. 2, 479). — II, 921.
 4) 2-Dibrom-1,3-Dioxybenzol + H_2O . Sm. 110—112° (M. 8, 296; 17, 317). — II, 920.
 5) 2-Dibrom-1,3-Dioxybenzol. Sm. 92—93° (A. 183, 57; B. 8, 64). — II, 921.
 6) 2,5-Dibrom-1,4-Dioxybenzol. Sm. 186° (A. 209, 100, 107; M. 1, 345; B. 12, 1504; 14, 2121, 2539; 15, 654). — II, 943.
 7) 2,6-Dibrom-1,4-Dioxybenzol. Sm. 163—164° (Soc. 61, 562). — II, 944.
 8) isom. 2-Dibrom-1,4-Dioxybenzol (J. pr. [2] 24, 464). — II, 944.
 9) 2,3-Dibrom-1,4-Diketo-1,2,3,4-Tetrahydrobenzol. Sm. 86—87°; (A. 209, 111; J. pr. [2] 42, 182). — III, 329.
 10) 2-Brom-2-Brommethylfuran-2-Carbonsäure. Sm. 175° u. Zers. (Am. 15, 182).
- $C_6H_4O_2Br_4$ 1) 2,3,5,6-Tetrabrom-1,4-Diketohexahydrobenzol. Sm. 170—175° u. Zers. (J. pr. [2] 42, 185). — III, 329.
- $C_6H_4O_2J_2$ 1) 2,6-Dijod-1,4-Dioxybenzol. Sm. 144—145° (142,5°) (J. pr. [2] 28, 438; B. 21, 2555). — II, 945.
 2) 4-Jod-1-Jodobenzol. Zers. bei 232° (B. 27, 1792).
- $C_6H_4O_3S_2$ 1) Verbindung (aus 1,3-Dioxybenzol) (B. 21, 263). — II, 935.
 $C_6H_4O_3N_2$ C 47,4 — H 2,6 — O 31,6 — N 18,4 — M. G. 152.
 1) Verbindung (aus Acetonylacetone). Sm. 128—129° (B. 24, 1305). — I, 1018.
- $C_6H_4O_3N_4$ C 40,0 — H 2,2 — O 26,7 — N 31,1 — M. G. 180.
 1) Barbitursäurecyanid (B. 5, 886).
- $C_6H_4O_3Cl_2$ 1) 2-Dichlor-1,2,3-Trioxybenzol. Sm. 128° (G. 28 [1] 225).
 $C_6H_4O_3Cl_4$ 1) γess-4-Tetrachlor-δ-Keto-β-Penten-α-Carbonsäure (β-Trichloracetyl-β-Chlor-α-Methylakrylsäure). Sm. 135° (B. 26, 512, 1678, 1681).
 2) Methylester d. βδδδ-Tetrachlor-γ-Keto-α-Buten-α-Carbonsäure (M. d. β-Trichloracetyl-β-Chlorakrylsäure). Sm. 71° (B. 26, 506).
- $C_6H_4O_3Br_2$ 1) 2-Dibrommethylfuran-5-Carbonsäure. Sm. 153° (Am. 20, 172; B. 27, 1569).
 2) 2-Dibrom-2-Methylfuran-5-Carbonsäure. Sm. 175° u. Zers. (Am. 15, 182). — III, 707.
 3) Anhydrid d. cis-1,2-Dibrom-R-Tetramethylen-1,2-Dicarbonsäure. Sm. 103—104° (Soc. 65, 968).
- $C_6H_4O_3S$ 1) Thiophen-2-Ketocarbonsäure + H_2O (2-Thiänylglyoxylsäure). Sm. 58—59° (91,5° wasserfrei). Ca + 2 H_2O , Ba + H_2O , Zn + 2 H_2O , Cu + 2 H_2O , Ag + H_2O (B. 18, 537, 545; 19, 637, 2116; Ph. Ch. 10, 16). — III, 757.
 2) 1,2-Phenyleneester d. schwefligen Säure. Sd. 210—211°₇₆₀ (B. 27, 2752).
- $C_6H_4O_3S_2$ 1) 2,5,6-Trioxyphenylen-1,3-Disulfid. Na₂, Ba, Ag (Bl. [3] 15, 410, 421, 1041).
 2) Trioxyphenylenisodisulfid. Ba + 2 H_2O (Bl. [3] 17, 602).
- $C_6H_4O_4N_2$ C 42,8 — H 2,4 — O 38,1 — N 16,7 — M. G. 168.
 1) 1,2-Dinitrobenzol. Sm. 117,9° (116,5°); Sd. 319°_{773,5} (J. 1875, 331; 1876, 375; 1884, 464; B. 7, 870, 1372; 9, 1828; 11, 1155; 24, 3749; 26, 266; G. 19, 227; A. ch. [6] 27, 305; R. 13, 106). — II, 81.
 2) 1,3-Dinitrobenzol. Sm. 91° (89,7°). Sd. 297° (302,8°₇₇₀). 2 + Al_2Cl_6 . Lit. bedeutend. — II, 81.
 3) 1,4-Dinitrobenzol. Sm. 171—172°; Sd. 299°₇₇₇ (J. 1876, 375; B. 7, 870; 20, 615; 21, 430; 24, 3749; Ph. Ch. 10, 784; A. ch. [6] 27, 306; G. 19, 228; R. 13, 108). — II, 82.
 4) 2,4-Dinitroso-1,3-Dioxybenzol + 2 H_2O . Zers. bei 115°. NH_4 , Na, K (B. 8, 631; 22, 1345). — II, 923.
 5) 3,6-Diimido-2,5-Dioxy-1,4-Benzochinon (B. 16, 2094; 18, 503). — II, 1033.
 6) 1,2-Diazin-4,5-Dicarbonsäure (Pyridazindicarbonsäure). Sm. 205° u. Zers. (B. 28, 453). — IV, 836.
 7) 1,4-Diazin-2,5-Dicarbonsäure + 2 H_2O . Sm. 255—256° u. Zers. (282°). Na₂, K₂, Ca + 4 H_2O , Sr + 5 H_2O , Ag₂ (B. 26, 722; J. pr. [2] 47, 487; [2] 51, 464; [2] 55, 254). — IV, 835.

- $C_6H_4O_4N_2$ 8) 1,4-Diazin-2,6-Dicarbonsäure + $2H_2O$. Sm. 217—218° (wasserfrei). $Ag_2 + H_2O$ (*J. pr.* [2] 55, 257). — IV, 836.
- $C_6H_4O_4N_4$ C 36,7 — H 2,0 — O 32,7 — N 28,6 — M. G. 196.
- 1) Verbindung (aus Dichinoyltetroxim). Sm. 68° (*B.* 32, 507).
- $C_6H_4O_4Cl_2$ 1) 3,6-Dichlor-1,2,4,5-Tetraoxybenzol (*A.* 146, 32; *Z.* 1868, 203). — II, 1032.
- 2) $\epsilon\epsilon$ -Dichlor- $\alpha\delta$ -Diketo- β -Penten- α -Carbonsäure. Sm. 150—151° u. Zers. $(NH_4)_2 + H_2O$, Ag_2 (*B.* 22, 1256). — I, 732.
- 3) $\beta\gamma$ -Dichlor- $\alpha\gamma$ -Butadien- $\alpha\delta$ -Dicarbonsäure + $2H_2O$? (α -Dichlormukonsäure). Ca, Ba, Zn, Ag_2 (*A.* 100, 326; 132, 95; 165, 259; *B.* 12, 1272, 1572; *Soc.* 57, 931; 59, 33). — I, 730.
- 4) ρ -Dichlor- $\alpha\gamma$ -Butadien- $\alpha\delta$ -Dicarbonsäure (β -Dichlormukonsäure). Sm. 189°. Ba + H_2O , Pb + H_2O (*Soc.* 57, 931; 59, 33). — I, 731.
- $C_6H_4O_4Cl_4$ 1) Chlorid d. Äpfelsäurechloralid. Sd. über 200° u. Zers. (*A.* 193, 44). — I, 934.
- $C_6H_4O_4Br_2$ 1) Gem. Anhydrid d. Essigsäure u. Mucobromsäure. Sm. 53—54° (*B.* 11, 1673; *Am.* 3, 46). — IV, 615.
- $C_6H_4O_4J_2$ 1) 1,4-Dijodobenzol (*B.* 27, 1794).
- $C_6H_4O_4S$ 1) Thiophen-2,3-Dicarbonsäure. Sm. 270° u. Zers. Na + $3H_2O$, Ba, Pb, Ag_2 (*B.* 20, 2587; *A.* 267, 159). — III, 759.
- 2) Thiophen-2,4-Dicarbonsäure. Zers. bei 280°. Ag_2 (*B.* 20, 2022). — III, 759.
- 3) Thiophen-2,5-Dicarbonsäure. Sm. noch nicht bei 300°. Ca + $3H_2O$, Ba + H_2O , Ag_2 (*B.* 18, 567, 2307, 3020, 3026; 19, 190). — III, 759.
- $C_6H_4O_6N_2$ C 39,1 — H 2,2 — O 43,5 — N 15,2 — M. G. 184.
- 1) 2,3-Dinitro-1-Oxybenzol. Sm. 144°. K + $2H_2O$, Ba (*B.* 11, 2104; *G.* 19, 222). — II, 683.
- 2) 2,4-Dinitro-1-Oxybenzol. Sm. 113—114°. Salze fast sämtlich bekannt. Lit. bedeutend. — II, 684.
- 3) 2,5-Dinitro-1-Oxybenzol. Sm. 104°. K + $2H_2O$, Ba + $2(3)H_2O$ (*B.* 8, 22; 11, 2103; *A.* 315, 324). — II, 685.
- 4) 2,6-Dinitro-1-Oxybenzol. Sm. 63—64° (62°). Salz meist bekannt (*A.* 167, 105; 174, 271; 215, 355; 224, 16; *J.* 1875, 338; *B.* 12, 1346; *Am.* 19, 36). — II, 686.
- 5) 3,4-Dinitro-1-Oxybenzol. Sm. 134°. Ba + $3H_2O$ (*B.* 8, 22; 11, 2104). — II, 686.
- 6) 3,5-Dinitro-1-Oxybenzol. Sm. 122° (*B.* 9, 209). — II, 686.
- 7) 4-Nitroso-2-Nitro-1,3-Dioxybenzol. Zers. bei 200° (*B.* 21, 1405). — II, 924.
- 8) ρ -Nitro-2- $[\beta$ -Nitroäthenyl]furan. Sm. 143—144° (*B.* 18, 1362). — III, 692.
- 9) 5-Nitro-6-Oxypyridin-3-Carbonsäure. Sm. 250° u. Zers. NH_4 , Ba (*B.* 27, 1335). — IV, 153.
- 10) 5-Oximido-2-Oxy-6-Keto-5,6-Dihydropyridin-4-Carbonsäure (Isosnitrosocitrazinsäure) + H_2O (*Soc.* 63, 1047).
- 11) Amid d. 2,3-Diketo-5,6-Dioxy-4-pyridin-4-Carbonsäure (Amid d. Dioxyisonikotinsäure) (*B.* 21, 1249). — II, 424.
- $C_6H_4O_6N_4$ C 34,0 — H 1,9 — O 37,7 — N 26,4 — M. G. 212.
- 1) 2,4-Dinitro-1-Diazobenzol. Nitrat (*J. pr.* [2] 50, 268). — IV, 1526.
- 2) Verbindung (aus 2,4,6-Trinitroso-1,3,5-Trioxybenzol). K_2 (*B.* 26, 2186). — II, 1021.
- $C_6H_4O_6Cl_2$ 1) 2,2-Dichlor-3,4-Diketo-1-Oxy-R-Pentamethylen-1-Carbonsäure. Fl. $(NH_4)_2 + H_2O$ (*B.* 22, 2849). — I, 774.
- $C_6H_4O_6N_2$ C 36,0 — H 2,0 — O 48,0 — N 14,0 — M. G. 200.
- 1) 3,5-Dinitro-1,2-Dioxybenzol. Sm. 164° (*B.* 26, 2183). — II, 912.
- 2) 2,4-Dinitro-1,3-Dioxybenzol. Sm. 142°. $K_2 + \frac{1}{2}H_2O$, Ba, Ag_2 (*M.* 2, 323; 6, 814; 7, 98; *B.* 16, 668, 1101; 21, 3122). — II, 924.
- 3) 4,6-Dinitro-1,3-Dioxybenzol. Sm. 214,5° (212,5°). $(NH_4)_2$, Ba, Ag_2 (*M.* 2, 230; *B.* 16, 552, 668, 872). — II, 925.
- 4) 2,5-Dinitro-1,4-Dioxybenzol. Sm. 135—136° u. Zers. Ba (*A.* 118, 294; 215, 142; *B.* 11, 470). — II, 946.
- 5) 3-Nitro-6-Amido-2,5-Dioxy-1,4-Benzochinon. K_2 (*B.* 18, 500). — II, 1032.

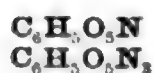
- $C_4H_4O_6N_2$ 6) **Pyrazol-3,4,5-Tricarbonsäure** + $2H_2O$. Sm. 233° u. Zers. (230°) wasserfrei. Na, K, Ag (B. 22, 842; A. 273, 253, 254; 279, 241; J. pr. [2] 52, 48). — IV, 547.
- $C_6H_4O_6N_4$ C 31,6 — H 1,7 — O 42,1 — N 24,6 — M. G. 228.
- 1) **2,4,6-Trinitro-1-Amidobenzol** (Pikramid). Sm. 188° (A. 92, 327; 165, 187; 174, 260; 215, 350; B. 8, 378; 11, 844). — II, 319.
- 2) **3,5-Dinitro-1-Oxynitrosamidobenzol**. Sm. $184-185^\circ$ (B. 29, 2288).
- 3) **3,6-Dinitro-2,5-Diamido-1,4-Benzochinon** (B. 20, 2115). — III, 343.
- $C_6H_4O_6Cl_4$ 1) $\alpha\alpha\delta\delta$ -**Tetrachlor- $\epsilon\epsilon$ -Dioxy- $\beta\gamma$ -Diketopentan- ϵ -Carbonsäure?** (Tetrachlordiacetylglyoxylsäure). Sm. $146-147^\circ$ u. Zers. (B. 22, 2850). — I, 775.
- $C_6H_4O_6N_4$ C 29,5 — H 1,6 — O 55,9 — N 12,9 — M. G. 244.
- 1) **2,4,6-Trinitro-1-Oxyamidobenzol**. Sm. $99-100^\circ$ (J. pr. [2] 35, 359). — II, 453.
- 2) **3,5-Dinitrobenzol-1-Diazosulfonsäure**. K + $2H_2O$ (B. 30, 92).
- $C_6H_4O_6S_2$ 1) **Euthiochronsäure** (Dioxybenzochinondisulfonsäure). Na, + H_2O , K + $2H_2O$, Ba + $4H_2O$, Ag, (A. 114, 318; 146, 46; J. 1863, 391). — II, 953.
- $C_6H_4NCl_3$ 1) **2,3,4-Trichlor-1-Amidobenzol**. Sm. $67,5^\circ$; Sd. 292° (i. D.) (A. 192, 235; 196, 233). — II, 315.
- 2) **2,4,5-Trichlor-1-Amidobenzol**. Sm. $95-96^\circ$; Sd. 270° (A. 137, 125; 196, 232). — II, 315.
- 3) **2,4,6-Trichlor-1-Amidobenzol**. Sm. $77,5^\circ$; Sd. 262° (i. D.). HCl (A. 53, 35; 196, 230; 215, 114; J. pr. [2] 16, 451; B. 15, 1064; 16, 1049; 30, 2643; Soc. 65, 1029; M. 18, 220, 332). — II, 315.
- 4) **3,4,5-Trichlor-1-Amidobenzol**. Sm. 100° (B. 27, 546 Anm.).
- 5) **Trichlorthierölpikolin** (oder $C_6H_4O_2NCl_3$). HCl (A. 105, 343; J. 1876, 781). — IV, 126.
- $C_6H_4NBr_3$ 1) **2,3,5-Tribrom-1-Amidobenzol**. Sm. 91° (J. pr. [2] 56, 60).
- 2) **2,4,5-Tribrom-1-Amidobenzol**. Sm. 80° . HCl, HBr, H_2SO_4 (B. 28, 191; Am. 18, 247).
- 3) **2,4,6-Tribrom-1-Amidobenzol**. Sm. 118° ; Sd. 300° . HCl, HBr (A. 44, 291; 53, 50; 188, 26; J. 1875, 342; B. 2, 122; 4, 961; 7, 1564; 14, 193; 15, 411, 471; 16, 634; 32, 220; J. pr. [2] 27, 98; M. 18, 332). — II, 316.
- 4) **3,4,5-Tribrom-1-Amidobenzol**. Sm. $118-119^\circ$. HCl, HBr, H_2SO_4 (J. 1875, 311; Am. 20, 180). — II, 316.
- $C_6H_4NJ_3$ 1) **2,4,6-Trijod-1-Amidobenzol**. Sm. $185,5^\circ$ (A. 134, 213; B. 11, 111). — II, 318.
- $C_6H_4N_2Cl_4$ 1) **1,4-Benzochinondichlordiimid**. Zers. bei 124° (B. 12, 48). — III, 330.
- 2) **2-Chlordiazobenzolchlorid**. 3 + H_2O (B. 30, 1150). — IV, 1519.
- 3) **3-Chlordiazobenzolchlorid** (B. 30, 1151). — IV, 1519.
- 4) **4-Chlordiazobenzolchlorid**. Zers. bei 70° . 3 + HCl, + $2HgCl_2$, + $2H_2O$, 2 + $PtCl_4$ (B. 27, 2552; 28, 1743, 2756; 29, 949; 30, 1151). — IV, 1519.
- 5) **Verbindung** (aus polym. $\alpha\alpha$ -Dichlorpropionsäurenitril). Fl. (J. pr. [2] 46, 372). — I, 1464.
- $C_6H_4N_2Cl_4$ 1) **2,3,5,6-Tetrachlor-1,4-Diamidobenzol**. Sm. 218° (B. 12, 51). — IV, 580.
- $C_6H_4N_2Br_4$ 1) **1,4-Benzochinondibromdiimid**. Zers. bei 86° (B. 12, 50). — III, 330.
- 2) **4-Bromdiazobenzolbromid**. + Cu_2Br_2 , Acetat (B. 28, 1748; 31, 2056). — IV, 1521.
- $C_6H_4N_2Br_4$ 1) **2,4,5,6-Tetrabrom-1,3-Diamidobenzol**. Sm. 213° (Am. 18, 243, 489). — IV, 569.
- 2) **2,3,4,6-Tetrabromphenylhydrazin**. Sm. 167° (A. 248, 97). — IV, 655.
- 3) **3-Bromdiazobenzoltribromid** (A. 176, 173; J. 1866, 452). — IV, 1521.
- 4) **4-Bromdiazobenzoltribromid** (B. 27, 2552; J. 1866, 456). — IV, 1521.
- $C_6H_4N_2S$ 1) **Bensthiodiazol** (o-Phenylendiazosulfid). Sm. 35° ; Sd. 188°_{150} . ($2HCl$, $PtCl_4$) (A. 277, 219). — IV, 1548.
- 2) **Benzisothiodiazol** (Piazthiol). Sm. 44° ; Sd. 206° (B. 22, 2899; A. 274, 262). — IV, 568.
- $C_6H_4N_2Se$ 1) **Benzisoselenodiazol** (Piaselenol). Sm. 76° (B. 22, 2897). — IV, 568.
- $C_6H_4N_2Cl$ 1) **4-Chlor-1-Diazobenzolimid** (J. 1866, 455). — IV, 1141.
- $C_6H_4N_2Cl_2$ 1) α -**Didehydrochloralimid**. Sm. $106-107^\circ$ (A. ch. [6] 26, 40, 61). — I, 932.
- 2) β -**Didehydrochloralimid**. Sm. 157° (A. ch. [6] 26, 16, 62). — I, 932.

- $C_6H_4N_2Br$** 1) 4-Brom-1-Diazobenzolimid. Sm. 20° (J. 1866, 453). — IV, 1141.
2) 5-Brom-1,2,3-Benzotriazol. Sm. 158—159°. Na, Ag, HCl, (2HCl, PtCl₄) (A. 249, 360). — IV, 1142.
- $C_6H_4N_2J$** 1) 4-Jod-1-Diazobenzolimid (J. 1866, 456). — IV, 1141.
- $C_6H_4N_2Cl_2$** 1) 2,6-Dichlor-7-Methylpurin. Sm. 196—197° (B. 30, 2402; 32, 489). — IV, 1246.
2) 1,3-Tetrazobenzolchlorid. + PtCl₄, + 2AuCl₃ (B. 19, 317; 30, 93). — IV, 1528.
3) 1,4-Tetrazobenzolchlorid. + PtCl₄ (B. 19, 319; 30, 93). — IV, 1528.
- $C_6H_4N_2Cl_2$** 1) 6-Methylamido-2,4-Di[Trichlormethyl]-1,3,5-Triazin. Sm. 115 bis 117° (J. pr. [2] 33, 87). — I, 1456.
- $C_6H_4N_2Br_2$** 1) 6-Methylamido-2,4-Di[Tribrommethyl]-1,3,5-Triazin. Sm. 192° (J. pr. [2] 50, 108).
- $C_6H_4N_2Cl$** 1) 4-Diazotriazobenzolchlorid. 2 + PtCl₄ (B. 21, 1560). — IV, 1528.
- $C_6H_4N_2Br_2$** 1) 4-Diazotriazobenzoltribromid (B. 21, 1560). — IV, 1528.
- C_6H_4ClBr** 1) 2-Chlor-1-Brombenzol. Sd. 204°₇₈₅ (Soc. 73, 254).
2) 3-Chlor-1-Brombenzol. Sd. 196° (J. 1875, 326). — II, 59.
3) 4-Chlor-1-Brombenzol. Sm. 67,4°; Sd. 196,3° (J. 1875, 318; Z. 1866, 201; Bl. [3] 19, 801; [3] 21, 184). — II, 59.
- C_6H_4ClJ** 1) 2-Chlor-1-Jodbenzol. Sd. 229—230° (233°) (J. 1875, 319; A. 176, 43). — II, 73.
2) 4-Chlor-1-Jodbenzol. Sm. 56°; Sd. 227,6° (J. 1866, 455; 1875, 319; B. 29, 467; 31, 1137; A. 176, 33; Bl. [3] 21, 286). — II, 73.
- C_6H_4ClF** 1) 4-Chlor-1-Fluorbenzol. Sd. 130—131° (A. 243, 225). — II, 45.
- $C_6H_4Cl_2J$** 1) 4-Jod-1-Dichlorjodosobenzol (p-Jodphenyljodidechlorid). Sm. 150° (B. 27, 1790).
- $C_6H_4Cl_2J$** 1) 2-Chlor-1-Dichlorjodosobenzol (o-Chlorphenyljodidechlorid). Zers. bei 95—98° (B. 26, 1532). — II, 73.
- $C_6H_4Cl_2P$** 1) 4-Chlorphenyldichlorphosphin. Sd. 253—255° (A. 293, 223). — IV, 1648.
- $C_6H_4Cl_2J_2$** 1) 1,4-Di[Dichlorjodoso]benzol (p-Phenylendijodtetrachlorid). Zers. bei 155—157° (B. 27, 1793).
- $C_6H_4Cl_2P$** 1) 4-Chlorphenylphosphortetrachlorid (A. 293, 224). — IV, 1649.
- C_6H_4BrJ** 1) 2-Brom-1-Jodbenzol. Sd. 257,4°₇₃₄ (J. 1875, 319). — II, 74.
2) 3-Brom-1-Jodbenzol. Sd. 252°_{734,4} (J. 1875, 319). — II, 74.
3) 4-Brom-1-Jodbenzol. Sm. 92°; Sd. 251,5°_{734,4} (J. 1866, 452, 456; 1875, 320; B. 29, 470, 1405). — II, 74.
- C_6H_4BrF** 1) 4-Brom-1-Fluorbenzol. Sd. 152—153° (A. 243, 226). — II, 59.
- C_6H_4JF** 1) 4-Jod-1-Fluorbenzol. Sd. 182—184° (A. 243, 227). — II, 73.
- C_6H_5ON** C 67,3 — H 4,7 — O 14,9 — N 13,1 — M. G. 107.
1) Nitrosobenzol. Sm. 67,5—68° (B. 7, 1638; 12, 510; 26, 473, 483; 27, 1182, 1275, 1349, 1555; 29, 1565; 30, 511, 2280 Anm.; 31, 1465). — II, 78.
2) Amidophenylendioxyd. (2HCl, PtCl₄) (A. 124, 251). — II, 164.
3) Phenocyanin (Phenolblau) oder C₆H₅O₂N (B. 6, 823). — III, 678.
4) Verbindung (aus 4-Amido-1-Oxybenzol). Sm. 228° u. Zers. (M. 10, 127). — I, 722.
5) Verbindung (Base aus Phenylsenfölbromid). Sm. 156° (B. 9, 1264). — II, 382.
- $C_6H_5ON_2$** C 53,3 — H 3,7 — O 11,8 — N 31,1 — M. G. 135.
- C_6H_5OCl** 1) 1-Oxybenzisotriazol (Azimidol). Sm. 157°. Pb (B. 27, 3381). — IV, 656.
1) 2-Chlor-1-Oxybenzol. Sd. 175—176° (A. 173, 303, 331; 176, 39; B. 1, 68; J. pr. [2] 36, 22). — II, 662.
2) 3-Chlor-1-Oxybenzol. Sm. 28,5°; Sd. 214° (A. 176, 45; B. 11, 1161; J. pr. [2] 36, 27). — II, 662.
3) 4-Chlor-1-Oxybenzol. Sm. 37°; Sd. 217°. Na (A. 157, 125; 176, 30; Z. 1866, 706; 1867, 205; B. 1, 68; 6, 1022, 1399; J. pr. [2] 36, 18; G. 24 [1] 238; 28 [1] 210, 216). — II, 662.
- C_6H_5OBr** 1) 2-Brom-1-Oxybenzol. Sd. 194—195° (B. 6, 171; 8, 362; 30, 479; J. 1875, 335). — II, 672.
2) 3-Brom-1-Oxybenzol. Sm. 32—33°; Sd. 236—236,5° (B. 7, 905; 8, 364; J. 1875, 335). — II, 672.
3) 4-Brom-1-Oxybenzol. Sm. 63—64°; Sd. 238° (235—236°) (A. 52, 338; 234, 138; J. 1875, 636; 1883, 900; B. 6, 173; 7, 1176; 28, 978; A. ch. [6] 3, 568). — II, 672.

- C₆H₅OJ**
- 1) 2-Jod-1-Oxybenzol. Sm. 43°; Sd. 186—187°₁₀₀ (Z. 1866, 662; 1868, 323; B. 8, 820; 16, 1897; 20, 3363; A. 241, 68). — II, 676.
 - 2) 3-Jod-1-Oxybenzol. Sm. 40° (B. 20, 3020). — II, 676.
 - 3) 4-Jod-1-Oxybenzol. Sm. 93—94° (92°) (Z. 1865, 427; 1868, 322; J. 1862, 414; A. 137, 213; 241, 76; B. 8, 820; 20, 3021). — II, 676.
 - 4) isom.? Jodoxybenzol. Sm. 64—66° u. 89° (B. 6, 1251).
 - 5) Jodosobenzol. Zers. bei 105—106° (B. 25, 3495; 26, 1307, 1354; 27, 1826; 29, 1568). — II, 77.
- C₆H₅OF**
- 1) 4-Fluor-1-Oxybenzol. Fest. Sd. 186—188° (A. 243, 228). — II, 669.
- C₆H₅OAs**
- 1) Phenylarsenoxyd. Sm. 119—120° (A. 181, 200; B. 14, 912). — IV, 1684.
- C₆H₅OB**
- 1) Anhydrophenylborsäure. Sm. 190°; Sd. oberh. 360° (B. 15, 184). — IV, 1700.
- C₆H₅OSb**
- 1) Antimonphenyloxyd. Sm. 150° (B. 31, 2912). — IV, 1694.
- C₆H₅O₂N**
- C 58,5 — H 4,1 — O 26,0 — N 11,4 — M. G. 123.
- 1) Nitrobenzol. Sm. 5°; Sd. 209,4°_{743,4}. 2 + Al₂Cl₆. Lit. bedeutend. — II, 80.
 - 2) 4-Nitroso-1-Oxybenzol (Chinonoxim). Sm. 126° (121° u. Zers.). Na + 2H₂O, K, Ba, Ag + H₂O (A. 188, 360; B. 7, 811, 967; 8, 622, 894; 13, 1908; 17, 213; 20, 2632; Bl. [3] 19, 515). — II, 677.
 - 3) Pyridin-2-Carbonsäure (Pikolinsäure). Sm. 134,5—136°. subl. NH₄, Mg + 2H₂O, Ca + 1½H₂O, Ba + H₂O, Cd, Cu, HCl, (2HCl, PtCl₄ + 2H₂O) (B. 12, 1992; 29, 2887; J. pr. [2] 34, 242; M. 4, 477; 10, 376; Ph. Ch. 3, 386). — IV, 141.
 - 4) Pyridin-3-Carbonsäure (Nikotinsäure). Sm. 228—229°. Na, K, Ca + 5H₂O, CuOH, Ag, HCl, (2HCl, PtCl₄ + 2H₂O), (2HCl, AuCl₃), (HCl, AuCl₃), HBr, HNO₃ + H₂O. Lit. bedeutend. — IV, 143.
 - 5) Pyridin-4-Carbonsäure (Isonikotinsäure). Sm. 298—299° (unter Druck) (317°). NH₄, Ca + 4H₂O, Cu + 4H₂O, HCl, (2HCl, PtCl₄ + 2H₂O) (M. 1, 28; 2, 422; 3, 865; 17, 369; J. pr. [2] 27, 286; A. 204, 113; 207, 222; B. 12, 2333; 14, 68; 17, 94, 2698; 18, 2968; Ph. Ch. 3, 387). — IV, 146.
 - 6) Verbindung (aus 1,4-Benzochinon) (B. 16, 1556). — III, 330.
- C 40,2 — H 2,8 — O 17,9 — N 39,1 — M. G. 179.
- C₆H₅O.N.**
- 1) 6-[oder 5-]Nitro-4-[oder 7-]Amido-1,2,3-Benzotriazol (B. 30, 544). — IV, 1527.
- C₆H₅O.Cl**
- 1) 4-Chlor-1,2-Dioxybenzol. Sm. 80—81° (G. 28 [1] 222).
 - 2) 2-Chlor-1,2-Dioxybenzol. Pb (B. 31, 1459).
 - 3) 2-Chlor-1,3-Dioxybenzol. Sm. 89°; Sd. 255—256° (J. pr. [2] 17, 322). — II, 919.
 - 4) 2-Chlor-1,4-Dioxybenzol. Sm. 106° (103—104°); Sd. 263°. + 2 Molec. Anilin (A. 51, 155; 69, 307; 210, 137; 228, 321; B. 13, 1427; 15, 654). — II, 241.
 - 5) Chlorid d. 2-Methylfuran-5-Carbonsäure. Sm. 28°; Sd. 202°₇₆₆ (Am. 20, 171).
- C₆H₅O.Cl**
- 1) Tri-Tetrachloracetonhydrat + 6H₂O. Sm. 30—32° (B. 8, 1341).
- C₆H₅O.Br**
- 1) 4[?] -Brom-1,3-Dioxybenzol. Sm. 91° (M. 8, 293). — II, 920.
 - 2) 2-Brom-1,4-Dioxybenzol. Sm. 110—111° (B. 12, 1504; 15, 655; A. 209, 100, 105). — II, 943.
- C₆H₅O.J**
- 1) 2-Jod-1,3-Dioxybenzol. Sm. 167° (A. 171, 311). — II, 922.
 - 2) Jodobenzol. Explodiert bei 227—230° (B. 26, 358, 1310; 29, 1568; 30, 57). — II, 77.
- C₆H₅O.P**
- 1) Phosphinobenzol (B. 25, 1748). — IV, 1651.
- C₆H₅O₂As**
- 1) Anhydrid d. Phenylarsinsäure (A. 201, 205). — IV, 1685.
- C₆H₅O₂B**
- 1) Borsäurephenylester (Phenylborat) (A. Spl. 5, 203). — II, 658.
- C 51,8 — H 3,6 — O 34,5 — N 10,1 — M. G. 139.
- 1) 2-Nitro-1-Oxybenzol (o-Nitrophenol). Sm. 44,3°; Sd. 214°. Salze meist bekannt. Lit. bedeutend. — II, 678.
 - 2) 3-Nitro-1-Oxybenzol. Sm. 96°; Sd. 194°₇₀. Na + 2H₂O, K + 2H₂O, Ba + 2H₂O, PbOH, Ag (B. 7, 179; 8, 1552; 11, 2100; 19, 1946; A. 215, 323; J. r. 21, 479; J. pr. [2] 32, 353; [2] 52, 73; R. 2, 216; Bl. [3] 19, 692). — II, 681.
 - 3) 4-Nitro-1-Oxybenzol. Sm. 114°. Salze fast sämtlich bekannt. Lit. bedeutend. — II, 681.
 - 4) 4-Nitroso-1,3-Dioxybenzol + H₂O. Zers. bei 112—148°. NH₄ + 2H₂O, Na, K + H₂O, Pb, Ag (Bl. 39, 585; B. 16, 1101; 17, 401). — II, 923.

- C₆H₅O₃N**
- 5) 2-[β -Nitroäthenyl]furan. Sm. 74—75° (B. 18, 1362). — III, 692.
 - 6) Pyrrol-2-Ketocarbonsäure + H₂O (α -Pyrrolyglyoxylsäure). Sm. 74 bis 76°; Zers. bei 111—112° (wasserfrei). Ag (B. 16, 2350; G. 22 [2] 7). — IV, 87.
 - 7) 2-Oxypyridin-3-Carbonsäure. Sm. 255° u. Zers. Ag (A. 288, 265; M. 7, 295; Ph. Ch. 3, 387). — IV, 152.
 - 8) 6-Oxypyridin-3-Carbonsäure (p-Oxynikotinsäure). Sm. 301—302° u. Zers. Pb + 2 $\frac{1}{2}$ H₂O (B. 17, 589, 2390). — IV, 152.
 - 9) α -Oxypikolinsäure + H₂O (Oxypyridincarbonsäure). Sm. 267° (wasserfrei). K + H₂O, Ca, Ba + H₂O (J. pr. [2] 27, 289). — IV, 151.
 - 10) β -Oxypikolinsäure + H₂O (Oxypyridincarbonsäure). Sm. 250° u. Zers. HCl, Ba + 2 H₂O (J. pr. [2] 27, 291; [2] 29, 63, 379). — IV, 151.
 - 11) γ -Oxypikolinsäure + H₂O (Oxypyridincarbonsäure). Sm. 258° u. Zers. Ca + 4 H₂O, Ba (J. pr. [2] 29, 7). — IV, 151.
- C₆H₅O₃N₃**
- C 43,1 — H 3,0 — O 28,7 — N 25,2 — M. G. 167.
- 1) 2-Nitro-1-Nitrosamidobenzol 1(2-Nitroisodiazobenzol). Na, Ag (B. 28, 236). — IV, 1524.
 - 2) 4-Nitro-1-Nitrosamidobenzol (4-Nitrophenylnitrosamin). Na + H₂O, Ag, Piperidinsalz (B. 27, 518, 1953; 28, 841; 29, 286, 1383). — IV, 1524.
 - 3) 2-Nitrodiazobenzol. Ag, Chlorid, Nitrat (B. 28, 236; 30, 90; Am. 19, 548). — IV, 1524.
 - 4) 3-Nitrodiazobenzol. Chlorid, Nitrat (B. 27, 2550; 30, 90; G. 25 [1] 336; Am. 19, 549). — IV, 1524.
 - 5) 4-Nitrodiazobenzol. Salze siehe (G. 25 [1] 335; B. 28, 1748, 2761; 29, 287, 1832; 30, 90; Am. 19, 550). — IV, 1524.
- C₆H₅O₃Cl**
- C₆H₅O₃Cl₃**
- 1) β -Chlor-1,2,3-Trioxybenzol. Sm. 143° (G. 28 [1] 224).
 - 1) γ -Trichlor- δ -Keto- β -Penten- β -Carbonsäure (β -Dichloracetyl- β -Chlor- α -Methylakrylsäure). Sm. 105—106° (B. 26, 1680).
 - 2) Chlorid d. Propan- $\alpha\beta\gamma$ -Tricarbonsäure (Ch. d. Tricarballylsäure). Sd. 140°, (B. 22, 2921). — I, 808.
- C₆H₅O₃Cl₂**
- 1) Aethylester d. $\alpha\alpha\gamma\gamma\gamma$ -Pentachlor- β -Ketopropan- α -Carbonsäure (Ae. d. Trichloracetyldichloressigsäure). Sd. 240—244° u. Zers. (A. ch. [6] 24, 82). — I, 595.
 - 2) Verbindung (aus Dichloracetal). Sm. 129° (B. 6, 1071). — I, 923.
- C₆H₅O₃Br**
- 1) β -Acetyl- β -Bromakrylsäure. Sm. 61° (Am. 15, 180).
 - 2) 3-[oder 4-]Brom-2-Methylfuran-5-Carbonsäure. Sm. 150—151°. K, Ca + 3 H₂O, Ba + 4 H₂O, Ag (Am. 15, 176). — III, 707.
 - 3) Anhydrid d. Bromtriacetsäure. Zers. bei 200°. Ba, Ag (Soc. 59, 612). — I, 692.
- C₆H₅O₃Br₃**
- 1) Methyläther d. 2,4,4-[oder 4,4,5-]Tribrom-5-[oder 2-]Oxy-1,3-Diketo-R-Pentamethylen. Sm. 126° (A. 294, 197).
- C₆H₅O₃Br₅**
- 1) Aethylester d. $\alpha\alpha\gamma\gamma\gamma$ -Pentabrom- β -Ketopropan- α -Carbonsäure (Ae. d. Tribromacetyldibromessigsäure). Fl. (A. 213, 147; B. 15, 1381). — I, 596.
- C₆H₅O₃Sb**
- 1) Antimonylbrenskatechinhydroxyd. Salze siehe (C. 1898 [1] 206; 1898 [2] 598).
- C₆H₅O₄N**
- C 46,5 — H 3,2 — O 41,3 — N 9,0 — M. G. 155.
- 1) 3-Nitro-1,2-Dioxybenzol. Sm. 86° (M. 3, 386). — II, 911.
 - 2) 4-[?]Nitro-1,2-Dioxybenzol. Sm. 168°. Ba + 3 H₂O (B. 11, 362; M. 3, 387). — II, 911.
 - 3) 2-Nitro-1,3-Dioxybenzol. Sm. 85° (M. 1, 894). — II, 924.
 - 4) 4-Nitro-1,3-Dioxybenzol. Sm. 115°. Ba + H₂O (M. 1, 894; 8, 426). — II, 924.
 - 5) 2-Nitro-1,4-Dioxybenzol. Sm. 133—134° (J. pr. [2] 48, 179). — II, 945.
 - 6) 2-Oximidomethylfuran-5-Carbonsäure. Sm. 224—226° u. Zers. (Am. 20, 177).
 - 7) Pyrrol- β -Dicarbonsäure. Zers. bei 260°. Ag₂ (B. 19, 1959). — IV, 90.
 - 8) 4,6-Dioxypyridin-2-Carbonsäure. Sm. 260—263°. Ag (Soc. 67, 409). — IV, 159.
 - 9) 4,6-Dioxypyridin-3-Carbonsäure. Sm. bei 310° (B. 31, 1686).
 - 10) 2,6-Dioxypyridin-4-Carbonsäure (Citrazinsäure). Zers. über 300°. NH₄ + H₂O, (NH₄)₂ + H₂O, K₂ (B. 17, 2687; 21, 670; 27 [2] 83; A. 262, 123; Soc. 63, 1035, 1040; 65, 28). — I, 1406.

- C₆H₅O₄N** 11) **Komenaminsäure** + 2H₂O (Dioxypyridincarbonsäure). NH₄, Ba + H₂O (A. 80, 91; J. pr. [2] 24, 283, 285; [2] 27, 268; [2] 29, 13; B. 16, 1263). — IV, 157.
- 12) **Oximidokomansäure** (Dioxypyridincarbonsäure). Zers. bei 200° (J. pr. [2] 29, 378). — IV, 159.
- 13) **6-Oxy-2-Keto-1,2-Dihydropyridin-5-Carbonsäure**. Sm. 197—198°. Pb + H₂O (J. pr. [2] 58, 423).
- 14) **Amid d. Komensäure**. K + H₂O (J. pr. [2] 23, 440; [2] 24, 282). — I, 1398.
- C₆H₅O₄N₃** C 39,3 — H 2,7 — O 35,0 — N 23,0 — M. G. 183.
- 1) **2-Nitro-1-Nitramidobenzol**. Sm. 65,5°. Pb, Ag (B. 28, 401; 30, 1256). — IV, 1529.
- 2) **3-Nitro-1-Nitramidobenzol**. Sm. 92° (B. 28, 401; 29, 2414 Anm.). — IV, 1529.
- 3) **4-Nitro-1-Nitramidobenzol**. Sm. 111—112°. Na, Pb, Ag (B. 28, 400; 30, 1253). — IV, 1529.
- 4) **2,3-Dinitro-1-Amidobenzol**. Sm. 127° (G. 19, 226). — II, 319.
- 5) **2,4-Dinitro-1-Amidobenzol**. Sm. 187,5—188° (182°) (Z. 1870, 233; 1871, 202; J. pr. [2] 1, 145; [2] 34, 427; A. 85, 26; 174, 263; 215, 363; B. 9, 978; 12, 1345; 14, 899; 21, 1542; 30, 1253). — II, 319.
- 6) **2,5-Dinitro-1-Amidobenzol**. Sm. 137° (G. 19, 232). — II, 319.
- 7) **2,6-Dinitro-1-Amidobenzol**. Sm. 138° (A. 174, 237; J. 1875, 345; B. 30, 1256). — II, 319.
- 8) **3,4-Dinitro-1-Amidobenzol**. Sm. 154° (G. 19, 233). — II, 319.
- 9) **3,5-Dinitro-1-Amidobenzol**. Sm. 159° (B. 24, 1654). — II, 319.
- 10) **isom. ?-Dinitro-1-Amidobenzol** (A. 215, 339). — II, 319.
- 11) **3-Nitro-2,5-Diimido-1,4-Dioxybenzol** (B. 22, 1658). — II, 950.
- 12) **Anhydroverbindung d. 2-Nitro-4,6-Diamido-1,3-Dioxybenzol** (B. 22, 1659). — II, 931.
- 13) **Trioximidoketotetrahydrobenzol** (Dichinoyltrioxim). Zers. bei 250°. NH₄ (B. 30, 181).
- 14) **?-Nitro-2-Amidopyridin-3-Carbonsäure** (A. 288, 262). — IV, 833.
- 15) **5-Nitro-6-Amidopyridin-3-Carbonsäure**. Sm. 280° (subl.). Na, K, Ba (B. 26, 2189; 27, 1334). — IV, 834.
- C₆H₅O₄N₃** C 34,1 — H 2,4 — O 30,3 — N 33,2 — M. G. 211.
- 1) **Verbindung** (aus 2,4,6-Trinitroso-1,3,5-Trioxybenzol). NH₃ (B. 26, 2187). — II, 1021.
- C₆H₅O₄Cl** 1) **ε-Chlor-αδ-Diketo-β-Penten-α-Carbonsäure**. Sm. 121° u. Zers. Ag₂ + H₂O (B. 22, 1258). — I, 731.
- 2) **?-Chlor-?-Diketo-R-Pentamethylen-1-Carbonsäure**. Na₂ + 6H₂O (B. 20, 2786). — I, 731.
- C₆H₅O₄Cl₃** 1) **3,3,5-Trichlor-2,4-Dioxy-2,3-Dihydro-R-Penten-2-Carbonsäure**. Sm. 176—177° u. Zers. NH₄ + 2H₂O (B. 20, 2781; 22, 1264). — I, 693.
- 2) **αγ-Lakton d. δδδ-Trichlor-γ-Oxybutan-αβ-Dicarbonsäure** (Trichlormethylparakonsäure). Sm. 97°. Ca + 2H₂O, Ba, Ag (A. 255, 43). — I, 752.
- 3) **Chlorid d. β-Oxypropan-αβγ-Tricarbonsäure** (Trichlorid d. Citronensäure) (J. r. 22, 99). — I, 841.
- C₆H₅O₄Br** 1) **?-Brom-?-Oxymethylfuran-2-Carbonsäure** + H₂O. Sm. 153—154° u. Zers. (wasserfrei) (Am. 15, 183). — III, 713.
- 2) **αγ-Lakton d. δ-Brom-γ-Oxy-α-Buten-αδ-Dicarbonsäure** (L. d. Bromoxyhydromukonsäure). Zers. bei 254° (Soc. 59, 752). — I, 765.
- 3) **αγ-Lakton d. γ-Brom-α-Oxy-β-Methylpropen-αγ-Dicarbonsäure**. Sm. 168° (B. 26, 763).
- C₆H₅O₄Sb** 1) **1,2,3-Trioxybenzolester d. Antimonigen Säure** (Bl. [3] 7, 794; C. 1898 [2] 599). — II, 1012.
- C₆H₅O₄N** C 42,1 — H 2,9 — O 46,8 — N 8,2 — M. G. 171.
- 1) **?-Nitro-1,2,3-Trioxybenzol** + H₂O. Sm. 205° u. Zers. (M. 1, 882). — II, 1015.
- 2) **2-Nitro-1,3,5-Trioxybenzol** (A. 119, 200). — II, 1021.
- 3) **Oxykomenaminsäure** + H₂O (Trioxypyridincarbonsäure) (J. pr. [2] 24, 290; [2] 27, 265). — IV, 171.
- 4) **Anhydrid d. Acetoximidobernsteinsäure**. Zers. bei 104—105° (B. 24, 1212). — I, 661.



5) Anhydrid d. Nitrotriacetsäure. Sm. 210—212° (Soc. 59, 616). — I, 693.
C 36,2 — H 2,5 — O 40,2 — N 21,1 — M. G. 199.

1) 4,6-Dinitro-2-Amido-1-Oxybenzol. Sm. 168—169°. Salze meist bekannt (A. 88, 281; 96, 83; 205, 75; 210, 392; P. 13, 492; J. 1855, 535; 1861, 367; Z. 1868, 377; J. pr. [2] 48, 425; M. 8, 391). — II, 732.

2) 4,6-Dinitro-3-Amido-1-Oxybenzol. Sm. 225°. K, Ba (M. 7, 95). — II, 734.

3) 2,6-Dinitro-4-Amido-1-Oxybenzol. Sm. 170° u. Zers. K (Am. 5, 33). — II, 735.

4) p-Dinitro-p-Amido-1-Oxybenzol. Sm. 202°. K + H₂O (A. 215, 344). — II, 735.

5) p-Dinitro-2-Acetylpyrrol + H₂O. Sm. 106—107° (114° wasserfrei) (B. 18, 1463). — IV, 98.

6) Apotheobromin. Sm. 185° (M. 3, 106). — III, 956.



C 31,7 — H 2,2 — O 35,2 — N 30,8 — M. G. 227.

1) 2,4-Dinitrophenylnitrosohydrazin^p. Sm. 72° (J. pr. [2] 50, 262). — IV, 657.



1) 2-Chlor-3,4-Diketo-1-Oxy-R-Pentamethylen-1-Carbonsäure. Sm. 147° u. Zers. (NH₄)₂ (B. 22, 2848). — I, 774.

2) p-Chlor-p-Dihydrofuran-2,5-Dicarbonsäure. Ag₂ (B. 19, 1275). — I, 773.



1) Aepfelsäurechloralid. Sm. 139—140° (A. 193, 42). — I, 934.



1) Phenylborsäure (Phenyltriborat). Fl. (A. Spl. 5, 203). — II, 658.



C 38,5 — H 2,7 — O 51,3 — N 7,5 — M. G. 187.

1) 4-Oxyisoxazol-4-Methyläther-1,3-Dicarbonsäure + H₂O. Sm. 157 bis 158°. Na + 2H₂O, Ag₂ (B. 24, 864). — I, 765.



C 33,5 — H 2,3 — O 44,7 — N 19,5 — M. G. 215.

1) 4,6-Dinitro-2-Amido-1,3-Dioxybenzol. Sm. 190° (M. 2, 326). — II, 930.

2) Methylester d. p-Dinitropyrrol-2-Carbonsäure. Sm. 115° (B. 22, 2504). — IV, 82.



C 29,6 — H 2,1 — O 39,5 — N 28,8 — M. G. 243.

1) 2,4,6-Trinitro-1,3-Diamidobenzol. Sm. noch nicht bei 250° (B. 17, 260; 21, 1546). — IV, 570.

2) 2,4,6-Trinitrophenylhydrazin. Sm. 175° u. Zers. (186°) (G. 24 [1] 112, 572; J. pr. [2] 50, 271; [2] 51, 111). — IV, 657.



1) 2,3-Dichlor-1-Amidobenzol. Sm. 23—24°; Sd. 252° (A. 169, 217). — II, 315.

2) 2,4-Dichlor-1-Amidobenzol. Sm. 63°; Sd. 245°. HCl, (2HCl, PtCl₄) (A. 121, 268; 182, 96; 196, 219; B. 7, 1602; 16, 1049; 32, 220; Soc. 65, 1029; 69, 850). — II, 315.

3) 2,5-Dichlor-1-Amidobenzol. Sm. 50°; Sd. 251° (A. Spl. 7, 210; A. ch. [4] 15, 252; Z. 1868, 226; A. 196, 215). — II, 315.

4) 2,6-Dichlor-1-Amidobenzol. Sm. 39° (A. 196, 219). — II, 315.

5) 3,4-Dichlor-1-Amidobenzol. Sm. 71°; Sd. 272°. H₂SO₄ (A. 196, 216). — II, 315.

6) 3,5-Dichlor-1-Amidobenzol. Sm. 50,5°; Sd. 259—260° (A. 196, 219; B. 8, 145). — II, 315.

7) 4,6-Dichlor-2-Methylpyridin. Sd. 205—206°. (2HCl, PtCl₄) (Soc. 61, 725; 67, 408). — IV, 123.



1) 2,4-Dibrom-1-Amidobenzol. Sm. 79,5°. HCl, (2HCl, PtCl₄), H₂SO₄ (Z. 1870, 266; J. 1875, 343; A. 53, 47; 121, 267; 165, 169; 272, 220; B. 2, 122; 6, 1491; 7, 1061; 15, 2032; 32, 220; J. pr. [2] 49, 342). — II, 316.

2) 2,5-Dibrom-1-Amidobenzol. Sm. 51—52° (A. 165, 181). — II, 316.

3) 2,6-Dibrom-1-Amidobenzol. Sm. 83—84°; Sd. 262—264°. HCl, (2HCl, PtCl₄) (A. 253, 275; 269, 219). — II, 316.

4) 3,4-Dibrom-1-Amidobenzol. Sm. 80,4° (J. 1875, 305; M. 11, 344; B. 27 [2] 402; G. 25 [1] 95). — II, 316.

5) 3,5-Dibrom-1-Amidobenzol. Sm. 56,5° (J. 1875, 344; B. 15, 1329). — II, 316.

6) p-Dibrom-p-Methylpyridin. Sm. 108°. (2HCl, PtCl₄) (A. 217, 146; B. 15, 1030, 1140). — IV, 114.

- C_4H_5NBr 1) 2,3,4,5-Tetrabrom-1-Aethylpyrrol. Sm. 90° (B. 11, 1812; 22, 2516). — IV, 66.
- $C_6H_5NJ_2$ 1) 2,4-Dijod-1-Amidobenzol. Sm. 95—96°. HCl, (2HCl, PtCl₄), HNO₃, 3 + 2H₂SO₄ (B. 11, 79, 110). — II, 317.
- $C_6H_5N_2Cl$ 1) Diazobenzolchlorid. + SnCl₄, + HgCl₂, + Hg(CN)₂ + H₂O, 2 + PtCl₄, + AuCl₃ (B. 18, 965; 23, 2996; 28, 680, 1743, 2053; 31, 1626). — IV, 1517.
- $C_6H_5N_2Cl_3$ 1) Verbindung (aus polym. $\alpha\alpha$ -Dichlorpropionsäurenitril). Sm. 48° (J. pr. [2] 46, 370). — I, 1464.
- $C_6H_5N_2Br$ 1) Diazobenzolbromid. + Cu₂Br₂ (B. 28, 1752). — IV, 1517.
- $C_6H_5N_2Br_3$ 1) 2,4,6-Tribrom-1,3-Diamidobenzol. Sm. 158°. HCl (Am. 18, 470; B. 27, 20). — IV, 562.
- 2) 2,4,6-Tribromphenylhydrazin. Sm. 146° u. Zers. (A. 248, 96). — IV, 655.
- 3) Dibromid d. Diazobenzolbromid. Sm. 63,5° u. Zers. (Am. 13, 487; B. 22, 2230; 27, 1274). — IV, 1517.
- $C_6H_5N_2J$ 1) Diazobenzoljodid (B. 28, 683).
- $C_6H_5N_2S$ 1) 5-Amidobenzthiodiazol. Sm. 112° (A. 277, 246). — IV, 1548.
- $C_6H_5N_2S_3$ 1) $\alpha\beta\gamma$ -Trirhodanpropan (Allyltrirhodanid). Sm. 126° (B. 2, 637). — I, 1280.
- $C_6H_5N_2Se$ 1) 5-Amidobenzisoselendiazol (Amidopiaselenol). Sm. 149—150° (B. 22, 2897). — IV, 1145.
- $C_6H_5N_4Cl$ 1) 2-Chlor-7-Methylpurin. Sm. 197—198° (200—201° cor.) (B. 31, 2557).
- 2) 2-Chlor-9-Methylpurin. Sm. 134—135° (135—136°) (B. 31, 2569).
- $C_6H_5N_4J$ 1) 2-Jod-7-Methylpurin. Sm. 223° (229° cor.) (B. 31, 2552).
- 2) 2-Jod-9-Methylpurin. Sm. 172—173° (cor.) (B. 31, 2571).
- $C_6H_5N_5Cl_2$ 1) 2,8-Dichlor-6-Amido-7-Methylpurin. Zers. oberh. 270° (B. 31, 111). — IV, 1321.
- 2) 2,6-Dichlor-8-Amido-7-Methylpurin (B. 30, 1856). — IV, 1321.
- 3) 2,8-Dichlor-6-Amido-9-Methylpurin (Dichlormethyladenin). Sm. 260 bis 261° (B. 30, 2249; 31, 108; 32, 267). — IV, 1321.
- 4) ?-Dichloramido-9-Methylpurin. Sm. 314° u. Zers. (B. 32, 268).
- C_6H_5ClS 1) 2-Chlor-1-Merkaptobenzol. Sm. 53—54°. Pb (A. 143, 109). — II, 792.
- C_6H_5ClHg 1) Quecksilberphenylchlorid. Sm. 250° (A. 154, 113; 181, 291; B. 15, 182; 30, 57, 510). — IV, 1704.
- $C_6H_5Cl_2J$ 1) Jodbenzoldichlorid (Phenyljodidichlorid). Zers. bei 80° (J. pr. [2] 33, 155; B. 30, 56). — II, 73.
- $C_6H_5Cl_2P$ 1) Phenyldichlorphosphin (Phosphenylchlorid). Sd. 224,6° (A. 181, 280, 293; 293, 211; B. 10, 628; 13, 1624; 18, 2109; Soc. 37, 347; G. 24 [1] 37). — IV, 1646.
- $C_6H_5Cl_2As$ 1) Phenyldichlorarsin. Sd. 252—255° (250—252°) (B. 14, 913; 15, 2876; 27, 264; A. 201, 198; 282, 327). — IV, 1684.
- $C_6H_5Cl_2B$ 1) Dichlorid d. Phenylborsäure. Sm. bei 0°; Sd. 175° (B. 13, 58; 15, 180). — IV, 1699.
- $C_6H_5Cl_2Sb$ 1) Antimonphenyldichlorid. Sm. 58°; Sd. 290° (B. 31, 2912). — IV, 1694.
- $C_6H_5Cl_2Si$ 1) Siliciumphenyltrichlorid. Sd. 197° (A. 173, 153). — IV, 1701.
- $C_6H_5Cl_4P$ 1) Phenylphosphortetrachlorid. Sm. 73°. + SbCl₅ (A. 181, 294; B. 13, 1627). — IV, 1647.
- $C_6H_5Cl_4As$ 1) Phenylarsentetrachlorid. Sm. 45° (A. 201, 198). — IV, 1684.
- $C_6H_5Cl_4Sb$ 1) Antimonphenyltetrachlorid (B. 31, 2913).
- C_6H_5BrS 1) 4-Brom-1-Merkaptobenzol. Sm. 75°; Sd. 230—231° (A. 156, 327; H. 5, 319; B. 18, 887). — II, 793.
- C_6H_5BrHg 1) Quecksilberphenylbromid. Sm. 275—276° (A. 154, 111; J. pr. [2] 1, 186). — IV, 1704.
- $C_6H_5Br_2P$ 1) Phenyldibromphosphin. Sd. 255—257° (B. 9, 519). — IV, 1647.
- $C_6H_5Br_2As$ 1) Phenyldibromarsin. Sd. 285° u. Zers. (A. 201, 203). — IV, 1684.
- $C_6H_5Br_3S$ 1) 3,4,5-Tribrom-2-Aethylthiophen. Sm. 108° (B. 18, 550). — III, 745.
- 2) 2,4,5-Tribrom-3-Aethylthiophen. Sd. 272—280° (A. 267, 149). — III, 745.
- 3) 3,4-Dibrom-5-Brommethyl-2-Methylthiophen. Sm. 142—144° (B. 18, 2253). — III, 746.
- $C_6H_5Br_4P$ 1) Phenylphosphortetrabromid. Sm. 207° (B. 9, 521). — IV, 1647.
- $C_6H_5Br_6P$ 1) Phenylphosphorhexabromid (B. 9, 521). — IV, 1647.
- C_6H_5JS 1) 4-Jod-1-Merkaptobenzol. Sm. 85—86° (H. 20, 592).

- C_6H_5JHg 1) Quecksilberphenyljodid. Sm. 265—266° (A. 154, 109). — IV, 1704.
 $C_6H_5J_2P$ 1) Phenyldijodphosphin. HJ (A. 181, 342; B. 10, 807). — IV, 1648.
 $C_6H_5J_2As$ 1) Phenyldijodarsin. Fl. (B. 14, 913; 15, 1953). — IV, 1684.
 $C_6H_5SA_3$ 1) Phenylarsensulfid. Sm. 152° (B. 15, 1956). — IV, 1684.
 C_6H_5SSb 1) Antimonphenylsulfid. Sm. 65° (B. 31, 2913). — IV, 1694.
 $C_6H_5ON_2$ C 59,0 — H 4,9 — O 13,1 — N 22,9 — M. G. 122.
1) 4-Nitroso-1-Amidobenzol. Sm. 173—174°. + NaOH + H₂O, H₂SO₄, Oxalat, Pikrat (B. 20, 2475; 21, 684; A. 286, 151). — II, 318.
2) Nitrosamidobenzol (Phenylnitrosamin; Isodiazobenzol). Na, K (B. 27, 522, 1179; 28, 1218; 29, 473, 1385; 31, 582, 1639, 1646). — IV, 1518.
3) norm. Diazobenzol. Salze meist bek. Lit. bedeutend. — IV, 1514.
4) Amid d. Pyridin-2-Carbonsäure. Sm. 107° (103,5°). HCl, (2HCl, PtCl₄) (B. 27, 1786; M. 15, 172). — IV, 142.
5) Amid d. Pyridin-3-Carbonsäure. Sm. 125° (121°) (B. 27, 1787; M. 16, 53). — IV, 144.
6) Verbindung (aus d. Pyridin-3-Carbonsäureamid). Sm. 129—131° (M. 16, 60). — IV, 144.
 $C_6H_5ON_4$ C 48,0 — H 4,0 — O 10,7 — N 37,3 — M. G. 150.
1) 2-Keto-7-Methylpurin + H₂O. Sm. bei 323° u. Zers. (B. 31, 2554; 32, 477).
2) 6-Keto-7-Methylpurin (7-Methylhypoxanthin). Sm. bei 355° u. Zers. (B. 30, 2409; 31, 113, 438, 3269; 32, 475). — IV, 1248.
3) 8-Keto-7-Methylpurin. Sm. 258—259° (266—267° u. Zers.). (HCl, AuCl₃), + AuCl₃ (B. 28, 2491; 32, 273, 476). — IV, 1249.
4) 6-Keto-9-Methylpurin (9-Methylhypoxanthin). Sm. 390° u. Zers. (B. 31, 114; 32, 476). — IV, 1249.
5) 8-Keto-9-Methylpurin. Sm. 233°. HJ (B. 17, 332). — I, 1336.
 C_6H_5OS 1) 2-Merkapto-1-Oxybenzol. Sm. 5—6°; Sd. 216—217°_{750,7} (M. 4, 170; J. pr. [2] 41, 192; G. 22 [2] 618). — II, 913.
2) 4-Merkapto-1-Oxybenzol. Sm. 29—30°, Sd. 166—168°₄₅. Pb (J. pr. [2] 41, 193). — II, 950.
3) 2-Acetylthiophen. Sd. 213,5°. + HgCl₂ (B. 17, 2643; 19, 636, 2115; A. 267, 178). — III, 762.
 $C_6H_5OS_2$ 1) Acetat d. 2-Merkaptothiophen. Sd. 230—232° (B. 20, 1757). — III, 753.
 $C_6H_5OP_2$ 1) Diphosphobenzol (B. 8, 499). — IV, 1646.
 C_6H_5OHg 1) Quecksilberphenyloxydhydrat. Sm. bei 200°. Salze, siehe diese (A. 154, 117; B. 31, 2154; J. pr. [2] 1, 179). — IV, 1704.
 $C_6H_5O_2N_2$ C 52,2 — H 4,3 — O 23,2 — N 20,3 — M. G. 138.
1) Nitroamidobenzol (Phenylnitroamin; Diazobenzolsäure). Sm. 46—46,5°. Na, K, Ba + 2H₂O, Pb, Ag (B. 26, 477, 485; 27, 359, 584, 668, 915, 1277, 1729, 2601; 28, 401; 30, 647, 1248). — IV, 1528.
2) 2-Nitro-1-Amidobenzol. Sm. 71,5°. HCl, HBr (J. 1875, 345; A. 174, 278; 208, 301; 221, 16; B. 5, 114; 7, 1374; 16, 28, 594; 18, 295; 19, 1751; 26, 3084; 27, 364; 28, 150, 1954; J. pr. [2] 52, 73; R. 13, 131). — II, 318.
3) 3-Nitro-1-Amidobenzol. Sm. 114° (109,9°); Sd. 285°. HCl, (2HCl, PtCl₄), HBr, Oxalat, 4 + AgNO₃. Lit. bedeutend. — II, 318.
4) 4-Nitro-1-Amidobenzol. Sm. 147°. HCl, (HCl, PtCl₄), H₂SO₄. Lit. bedeutend. — II, 318.
5) Oxynitrosamidobenzol (β-Phenylnitrosohydroxylamin). Sm. 58—59°. Na, K, Ba, Ag. Hydroxylaminsalz, Phenylhydrazinsalz (B. 27, 1435, 1553; 29, 1885; 31, 578).
6) Diimido-1,2-Dioxybenzol (B. 26, 2184). — II, 912.
7) 4,6-Diimido-1,3-Dioxybenzol. Zers. bei 310—315° (B. 16, 557; 22, 1656; 30, 2096, 2100). — II, 930.
8) 1,2-Dioximido-1,2-Dihydrobenzol. Sm. 142° (J. pr. [2] 53, 343).
9) 1,4-Dioximido-1,4-Dihydrobenzol. Zers. bei 240° (B. 20, 614; 21, 429, 685; R. 13, 109; A. 263, 304). — III, 331.
10) 2,5-Diamido-1,4-Benzochinon. Zers. bei 325—350° (B. 30, 2100).
11) Diamidochinon (Amidoimidooxyphenol?). HCl, H₂SO₄ + 2H₂O (Z. 1867, 343). — II, 725.
12) 2-Oxy-1-Diazobenzol. Salze siehe (B. 1, 67; 28, 3250; 29, 1528; G. 25 [1] 337). — IV, 1544.
13) 4-Oxy-1-Diazobenzol. Salze siehe (B. 1, 67; 8, 894; 9, 1160; 28, 3250; 29, 1530; J. pr. [2] 18, 194; [2] 24, 449). — IV, 1545.

- C₆H₅O₂N₂** 14) 2-Amidopyridin-3-Carbonsäure. Sm. 310° u. Zers. (B. 27, 840; A. 288, 258). — IV, 833.
 15) 6-Amidopyridin-3-Carbonsäure. HCl, (2HCl, PtCl₄), HNO₃, H₂SO₄, Pikrat, Na, K, Ca (B. 27, 1318). — IV, 833.
 16) 3-Amidopyridin-4-Carbonsäure. Sm. 280° u. Zers. HCl, (2HCl, PtCl₄), HNO₃ (M. 16, 703). — IV, 834.
 17) 2-Methyl-1,4-Diazin-5-Carbonsäure. Sm. 200° u. Zers. (J. pr. [2] 47, 480; [2] 51, 464). — IV, 834.
 18) Aethylester d. Dicyanessigsäure. Na, Cu + 3H₂O (B. 23 [2] 567; Am. 18, 739). — I, 1218.
 19) Diacetyldicyanid. Sm. 69° (70°); Sd. 208—209° (A. 120, 336; 124, 315; 287, 348; B. 18, 256; M. 13, 834). — I, 1473.
C₆H₅O₂N₄ C 43,4 — H 3,6 — O 19,3 — N 33,7 — M. G. 166.
 1) s-Di[Cyanacetyl]hydrazin. Sm. 162° (B. 27, 689).
 2) 1,3-Tetrazobenzol. 2Chlorid, 2Sulfat (B. 19, 317; 30, 93). — IV, 1528.
 3) 1,4-Tetrazobenzol. 2Chlorid, Sulfat (B. 19, 319; 30, 93). — IV, 1528.
 4) 2,6-Diketo-1-Methylpurin (1-Methylxanthin) (H. 24, 381; 26, 358, 367; 32, 469). — IV, 1252.
 5) 2,6-Diketo-3-Methylpurin (3-Methylxanthin). Zers. oberh. 360° (B. 31, 1986; 32, 469; H. 26, 368). — IV, 1252.
 6) 2,6-Diketo-7-Methylpurin (Methylxanthin; Heteroxanthin). Sm. bei 380° u. Zers. (341—342°). Na + 5H₂O, Ba, + Ag₂O (B. 18, 3406; 28, 1116; 30, 2403; 31, 117; 32, 469; H. 11, 412; 18, 211; 21, 169; 24, 369; 26, 365; J. pr. [2] 47, 545; G. 25 [2] 320; C. 1896 [2] 289). — III, 953.
 7) 6,8-Diketo-7-Methylpurin. Sm. oberh. 400° (B. 30, 1851; 32, 473). — IV, 1252.
 8) 6,8-Diketo-9-Methylpurin. Zers. bei 390° (B. 32, 253, 473).
 9) 3,3'-Bi[5-Methyl-1,2,4-Oxiazol] (Oxalendiazoximdiäthylenyl). Sm. 164 bis 165° (B. 22, 2950; 24, 815). — I, 1485.
 10) Cyanamid d. Bernsteinsäure + 2H₂O. Sm. 104—105° (wasserfrei). Na₂, Ag₂ + 1/2 H₂O (J. pr. [2] 22, 220). — I, 1440.
C₆H₅O₂Cl₂ 1) Chlorid d. α-Buten-αβ-Dicarbonsäure (Ch. d. Aethylfumarsäure). Fl. (A. ch. [5] 20, 486). — I, 715.
C₆H₅O₂Cl₄ 1) Di[αβββ-Tetrachloräthyläther] d. αβ-Dioxyäthan. Fl. (B. 7, 764). — I, 933.
C₆H₅O₂S 1) Benzolsulfinsäure. Sm. 83—84°. NH₄, Na + 2H₂O, K + 2H₂O, Ba, Zn, Ag. Lit. bedeutend. — II, 108.
 2) Thiophen-2-Methylcarbonsäure (2-Thiénylessigsäure). Sm. 76°. Ba, Ag (B. 19, 3281). — III, 756.
 3) 2-Methylthiophen-3-Carbonsäure. Sm. 144° (140°). Ca + 3 3/4 (4)H₂O, Ba + 5H₂O, Pb, Ag (B. 19, 657, 681; A. 244, 58; 267, 155). — III, 756.
 4) 2-Methylthiophen-5-Carbonsäure. Sm. 142° (137°). Ca + 3 1/4 H₂O, Ag (B. 18, 2253; 19, 656). — III, 756.
 5) ?-Methylthiophen-?-Carbonsäure. Sm. 118—119°. Ca + 2 1/2 H₂O, Ag (B. 20, 2021). — III, 756.
C₆H₅O₂S₂ 1) Benzolthiolsulfonsäure. Na + 1 1/2 H₂O, K + 2H₂O, 3K + 2Cu₂ + 3H₂O, K + Ag (B. 3, 963; 13, 1283; 15, 128; 19, 1241; 20, 2080; 24, 493, 1155, 3877). — II, 161.
C₆H₅O₂Hg₂ 1) Phenyl-1,4-Diquecksilberoxydhydrat (C. 1899 [1] 734). — IV, 1707.
C₆H₅O₂Se 1) Phenylselenigesäure. Ag, HNO₃ (B. 29, 427).
C₆H₅O₂Si 1) Phenylsiliconsäure. Sm. 92° (A. 173, 155). — IV, 1701.
C₆H₅O₃N₂ C 46,7 — H 3,9 — O 31,2 — N 18,2 — M. G. 154.
 1) 4-Nitro-2-Amido-1-Oxybenzol. Sm. 80—90° (142—143° wasserfrei). K, Ag (A. 75, 68; 205, 72; B. 7, 1259; 30, 995, 2132). — II, 731.
 2) 5-Nitro-2-Amido-1-Oxybenzol. Sm. 201—202° (B. 27, 196; Soc. 69, 1325). — II, 731.
 3) 6-Nitro-2-Amido-1-Oxybenzol. Sm. 110—111°. H₂SO₄ (A. 205, 85). — II, 732.
 4) 2-Nitro-4-Amido-1-Oxybenzol + H₂O. Sm. 183° (206° wasserfrei). Na + 2H₂O, K + 1 1/2 H₂O, Ba + 4 H₂O (A. 210, 382). — II, 732.
 5) isom. ?-2-Nitro-4-Amido-1-Oxybenzol. Sm. 126—128° (B. 27, 196). — II, 732.

- $C_6H_5O_3N_2$ 6) **3-Nitro-4-Amido-1-Oxybenzol**. Sm. 148° (135—136° u. Zers.). HCl (*J. pr.* [2] 43, 63; *B.* 27, 195; 30, 2137; 31, 2403). — II, 732.
 7) **?-Nitro-2-Acetylpyrrol**. Sm. 156° (*B.* 18, 1465). — IV, 98.
 8) **?-Nitro-2-Acetylpyrrol**. Sm. 197° (*B.* 18, 1457). — IV, 98.
 9) **2,4,5-Triketo-1-Allyltetrahydroimidazol**(Allylparabansäure). Sm. 140°. Ag (*C.* 1898 [2] 767).
 10) **Säure** (aus Diacetonitril). Ag (*J. pr.* [2] 47, 391). — I, 1454.
 11) **6-Oxy-2-Methyl-1,3-Diazin-4-Carbonsäure** + H_2O . Zers. oberh. 300° (*B.* 25, 1423). — IV, 834.
 12) **Amid d. Furan-2,5-Dicarbonsäure**. Sm. noch nicht bei 240° (*J. pr.* [2] 25, 48). — III, 715.
 13) **Amid d. 2,6-Dioxypyridin-4-Carbonsäure**. NH_4 , Na + $2H_2O$, K, Ba + $2H_2O$ (*B.* 20, 803, 3368; *Soc.* 63, 1036; 65, 29). — I, 1406.
 14) **Amid d. 6-Oxy-2-Keto-1,2-Dihydropyridin-5-Carbonsäure**. Sm. 206° (*J. pr.* [2] 58, 427).
 15) **Acetylamidoisimid d. Maleinsäure**. Sm. 280° (*J. pr.* [2] 51, 391).
 $C_6H_5O_3N_4$ C 39,6 — H 3,3 — O 26,4 — N 30,8 — M. G. 182.
 1) **2,6,8-Triketo-1-Methylpurin** (1-Methylharnsäure). Zers. bei 400°. Mg + $7H_2O$ (*B.* 30, 3092; 31, 3267; 32, 462). — IV, 1254.
 2) **2,6,8-Triketo-3-Methylpurin** + $1\frac{1}{2}H_2O$ (3- α -Methylharnsäure). Sm. über 360° u. Zers. Na + H_2O , Na_2 + $3H_2O$, K + H_2O , K_2 + $3H_2O$, Ca + $3H_2O$, Ba + $3\frac{1}{2}(4)H_2O$ (*B.* 9, 370, 1090; 30, 3090 Anm.; 31, 1981; 32, 461; *M.* 6, 359; 8, 586). — I, 1335.
 3) **2,6,8-Triketo-7-Methylpurin** + H_2O (7- γ -Methylharnsäure). Zers. bei 370—380° (*B.* 28, 2492; 30, 563, 2212; 31, 3267; 32, 462). — IV, 1255.
 4) **2,6,8-Triketo-9-Methylpurin** (9- β -Methylharnsäure). NH_4 (*B.* 17, 332, 1777; 30, 2225; 31, 3267; 32, 461). — I, 1335.
 5) **α -Methylharnsäure** + H_2O (*A.* 298, 184; *B.* 30, 3093; 32, 462).
 $C_6H_5O_3Cl_2$ 1) **Anhydrid d. $\beta\gamma$ -Dichlorbutan- $\beta\gamma$ -Dicarbonsäure** (A. d. s -Dichlor-dimethylbernsteinsäure). Sm. 160° (*J. pr.* [2] 41, 468; [2] 46, 383). — I, 673.
 $C_6H_5O_3Cl_4$ 1) **Anhydrid d. $\alpha\alpha$ -Dichlorpropionsäure**. Sd. 196—200° (*B.* 11, 388; *J. pr.* [2] 42, 78). — I, 473.
 2) **Aethylester d. $\alpha\gamma\gamma\gamma$ -Tetrachlor- β -Ketopropan- α -Carbonsäure** (Aethylester d. Trichloracetylchloroessigsäure). Sd. 153—155°₂₅ (*A. ch.* [6] 24, 79). — I, 595.
 3) **Aethylester d. $\alpha\alpha\gamma\gamma$ -Tetrachlor- β -Ketopropan- α -Carbonsäure** (Aethylester d. Dichloracetdichloroessigsäure). Sd. 150—152°₂₀ (*A. ch.* [6] 24, 80). — I, 595.
 $C_6H_5O_3Br_2$ 1) **Aethylester d. $\alpha\beta$ -Dibrom- γ -Ketopropen- α -Carbonsäure** (Aethylester d. Mucobromsäure). Sm. 50—51°; Sd. 255—260° u. Zers. (*B.* 11, 1672). — I, 615.
 $C_6H_5O_3Br_4$ 1) **2,3,4,5-Tetrabrom-2-Methyltetrahydrofuran-5-Carbonsäure**. Sm. 95° u. Zers. (*Am.* 15, 184). — III, 707.
 2) **Aethylester d. $\alpha\alpha\gamma\gamma$ -Tetrabrom- β -Ketopropan- α -Carbonsäure** (Aethylester d. Dibromacetdibromessigsäure). Fl. (*A.* 213, 146; *B.* 15, 1381). — I, 596.
 $C_6H_5O_3S$ 1) **Benzolsulfonsäure** + $1(1\frac{1}{2})H_2O$. Sm. 43—44° (50—51° wasserfrei). Salze meist bekannt, Lit. bedeutend. — II, 112.
 2) **α -Oxy-2-Thienylessigsäure**. Sm. 115°. Ca, Ba, Ag (*B.* 19, 3281). — III, 757.
 3) **Sulfonsäurephenylester**. Na (*B.* 25, 1875; *J. pr.* [2] 48, 243). — II, 657.
 $C_6H_5O_3S_2$ 1) **4-Merkaptobenzol-1-Sulfonsäure** (*C.* 1895 [2] 495).
 $C_6H_5O_3Hg_2$ 1) **?-Oxyphenyldiquecksilberdioxidhydrat**. Diacetat (*B.* 31, 2154).
 $C_6H_5O_3Hg_3$ 1) **Phenyl-1,2,4-Triquecksilberoxyhydrat** (*C.* 1899 [1] 734). — IV, 1707.
 $C_6H_5O_4N_2$ C 42,3 — H 3,5 — O 37,6 — N 16,5 — M. G. 170.
 1) **5-Nitro-3-Amido-1,2-Dioxybenzol?** Sm. 220—221° (*Soc.* 69, 1334).
 2) **4-Nitro-2-Amido-1,3-Dioxybenzol**. Sm. 170°. (NH_4), Ba, H_2SO_4 (*M.* 2, 324). — II, 930.
 3) **1,4-Dioximido-2,5-Dioxy-1,4-Dihydrobenzol** (*B.* 21, 2377). — III, 348.
 4) **3,6-Diamido-2,5-Dioxy-1,4-Benzochinon** (*B.* 21, 1850). — II, 1033.
 5) **5-Nitro-4,6-Dioxy-2-Methylpyridin**. Sm. noch nicht bei 320° (*Soc.* 71, 840).
 6) **5-Acetoxy-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin** (Acetylisobarbitursäure) (*A.* 251, 241). — I, 1347.

- $C_6H_6O_4N_2$ 7) 5-Acetyl-2,4,6-Triketohexahydro-1,3-Diazin (Acetylbarbitursäure). (B. 15, 2845). — I, 1375.
- 8) 2,4,5,6-Tetraketo-1,3-Dimethylhexahydro-1,3-Diazin + $2H_2O$ (Dimethylalloxan). Zers. bei 100° . + Methylaminbisulfit (A. 215, 257; B. 14, 1913; 30, 565; M. 3, 93). — I, 1400.
- 9) 2-Methylimidazol-4,5-Dicarbonsäure + H_2O . Zers. bei 300° . NH_4 , K, Ca, Ba (A. ch. 6, 24, 529). — IV, 547.
- 10) Methylester d. β -Nitropyrrol-2-Carbonsäure. Sm. 197° (B. 22, 2504). — IV, 82.
- 11) Methylester d. γ -Nitropyrrol-2-Carbonsäure. Sm. 115° (B. 22, 2504). — IV, 82.
- $C_6H_6O_4N_2$ C 36,4 — H 3,0 — O 32,3 — N 28,3 — M. G. 198.
- 1) 3,5-Dinitro-1,2-Diamidobenzol. Sm. 215° (210–211°). HCl (B. 11, 327; 30, 543). — IV, 554.
- 2) 2,4-Dinitro-1,3-Diamidobenzol. Sm. bei 250° u. Zers. (B. 21, 1545). — IV, 569.
- 3) 4,6-Dinitro-1,3-Diamidobenzol. Sm. bei 300° (B. 20, 334; 30, 1667). — IV, 569.
- 4) p-Dinitro-1,4-Diamidobenzol. Sm. 249° . ($2HCl$, $PtCl_4$) (B. 7, 1532).
- 5) 2,4-Dinitrophenylhydrazin. Sm. 198° u. Zers. (194°). HCl, HNO_3 , Na (J. pr. 2, 50, 258; 2, 51, 111; G. 24, 1, 555). — IV, 656.
- 6) Allitursäure (A. 56, 21; 130, 165). — I, 1403.
- 7) Cyanuromalsäure. K (B. 5, 887). — I, 1376.
- $C_6H_6O_4Cl_2$ 1) 3,5-Dichlor-2,4-Dioxy-2,3-Dihydro-R-Penten-2-Carbonsäure. Sm. $176–177^\circ$. NH_4 (B. 20, 2785). — I, 693.
- 2) Säure (aus d. Säure $C_7H_4O_4Cl_2$). Ba (A. 296, 179).
- 3) $\alpha\gamma$ -Lakton d. $\delta\delta$ -Dichlor- γ -Oxybutan- $\alpha\beta$ -Dicarbonsäure (Dichlormethylparakonsäure). Sm. 142° (A. 255, 53; Soc. 71, 614). — I, 752.
- 4) Gem. Anhydrid d. $\alpha\alpha$ -Dichlorpropionsäure u. α -Ketoäthan- α -Carbonsäure. Sd. $160–170^\circ$ (B. 18, 233). — I, 587.
- 5) Dimethylester d. Dichlormaleinsäure. Sd. 225° (J. pr. 2, 31, 5). — I, 703.
- $C_6H_6O_4Cl_2$ 1) 2,6-Di[Dichlormethylen]-1,3,5,7-Tetroxan. Sm. 106° (B. 31, 1933).
- $C_6H_6O_4Cl_2$ 1) 2,6-Di[Trichlormethyl]-1,3,5,7-Tetroxan. Sm. 189° (B. 31, 1931).
- $C_6H_6O_4Br_2$ 1) 2,3-Dibrom-1-Methyl-R-Trimethylen-2,3-Dicarbonsäure. Sm. 240° u. Zers. (B. 26, 761).
- 2) cis-1,2-Dibrom-R-Tetramethylen-1,2-Dicarbonsäure. Sm. 202 bis 205° u. Zers. (B. 26, 2245; Soc. 65, 965).
- 3) Dimethylester d. Dibrommaleinsäure. Sd. 158°_{20} (M. 9, 451). — I, 705.
- $C_6H_6O_4Br_2$ 1) $\alpha\beta\gamma\delta$ -Tetrabrombutan- $\alpha\delta$ -Dicarbonsäure (Tetrabromadipinsäure). Zers. bei 250° (A. 165, 271; 256, 27; Soc. 59, 750). — I, 671.
- $C_6H_6O_4J_2$ 1) Dimethylester d. Dijodfumarsäure. Sm. 126° (B. 26, 846).
- $C_6H_6O_4S$ 1) 2-Oxybenzol-1-Sulfonsäure. Na + $\frac{1}{2}H_2O$, K + $\frac{2}{3}H_2O$, Ba + $2H_2O$, Pb + H_2O (Z. 1867, 199, 643; 1868, 77; 1869, 294; J. pr. 2, 20, 301; M. 1, 664; B. 2, 330; 4, 978; 9, 973; 22, 2, 686; A. 205, 64; 286, 386). — II, 829.
- 2) 3-Oxybenzol-1-Sulfonsäure + $2H_2O$. Na + H_2O , K + H_2O , K_2 + H_2O , Ba + $\frac{1}{2}H_2O$, Pb + $3H_2O$, Cu + $6H_2O$ (Z. 1869, 294; B. 2, 331; 9, 969; A. 177, 90). — II, 830.
- 3) 4-Oxybenzol-1-Sulfonsäure. Fl. Salze fast sämtlich bekannt. Lit. bedeutend. — II, 830.
- 4) isom. p-Oxybenzolsulfonsäure. K + $\frac{1}{2}H_2O$ (A. 202, 349). — II, 831.
- 5) Phenylschwefelsäure. K, Ba + $3H_2O$ (J. 1877, 558; H. 2, 335; B. 9, 55; 11, 1907). — II, 832.
- $C_6H_6O_4S_2$ 1) Benzol-1,3-Disulfinsäure. K_2 , Ba (B. 9, 1595; J. pr. 2, 36, 449). — II, 109.
- $C_6H_6O_4Hg_2$ 1) Phenyl-1,2,4,5-Tetraquecksilberoxydhydrat (C. 1899, 1, 734). — IV, 1707.
- $C_6H_6O_5N_4$ C 33,6 — H 2,8 — O 37,4 — N 26,2 — M. G. 214.
- 1) 4-Oximido-5-Oximidoacetyl-3-Oximidomethyl-4,5-Dihydroisoxazol. Zers. bei 158° (B. 30, 1310).
- $C_6H_6O_5Br_2$ 1) Verbindung (aus Tetrabromadipinsäure). Sm. 223° u. Zers. (Soc. 59, 750).
- $C_6H_6O_5S$ 1) 1,2-Dioxybenzol-3-Sulfonsäure. Sm. $53–54^\circ$. K, Ba + $4H_2O$ (Bl. 3, 11, 103; C. 1898, 1, 617, 1024). — II, 914.

- $C_6H_4O_3S$**
- 2) 1,2-Dioxybenzol-4-Sulfonsäure. Na + H_2O , K, Ba (B. 12, 1260; C. 1898 [2] 521). — II, 914.
 - 3) 1,3-Dioxybenzol-2-Sulfonsäure. Ba (Bl. [3] 7, 713). — II, 935.
 - 4) 1,3-Dioxybenzol-2-Sulfonsäure. K + $2H_2O$ (M. 2, 338). — II, 935.
 - 5) 1,4-Dioxybenzol-2-Sulfonsäure. K, Ba, Zn + $4H_2O$ (A. 114, 301; B. 16, 688). — II, 951.
 - 6) 2-Dioxybenzol-2-Sulfonsäure + H_2O . K + $2H_2O$, Ba + $7H_2O$, Zn + $7H_2O$, Pb + $8H_2O$ (J. 1879, 749). — II, 954.
 - 7) 2-Oxyphenylschwefelsäure. K (B. 11, 1913). — II, 914.
 - 8) 3-Oxyphenylschwefelsäure. K (B. 11, 1911). — II, 935.
 - 9) 4-Oxyphenylschwefelsäure. K (B. 11, 1913). — II, 952.
- $C_6H_4O_6N_2$**
- 1) 6-Nitro-3-Amido-1,2,4,5-Tetraoxybenzol (B. 16, 2094; 18, 500). — II, 1032.
 - 2) 4,5-Dihydropyrazol-3,4,5-Tricarbonsäure. Sm. 220° u. Zers. Ba_3 , Ag_3 (A. 273, 242, 245). — IV, 494.
- $C_6H_4O_6N_4$**
- 1) Oxalantin (Leukotursäure) (A. 56, 2; 111, 133). — I, 1369.
 - 2) Verbindung (Säure aus Dioxyweinsäurediäthylester und Harnstoff). Na_2 (A. 261, 131). — I, 1407.
- $C_6H_4O_6N_6$**
- 1) 2,4,6-Trinitro-1,3,5-Triamidobenzol. Zers. oberh. 300° (Am. 10, 287). — IV, 1124.
 - 2) Triazoessigsäure + $3H_2O$. Sm. 152°. (NH_4)₃, Na_3 , K_3 , Ag_3 (J. pr. [2] 38, 532). — I, 1493.
- $C_6H_6O_8S$**
- 1) 1,2,3-Trioxybenzol-2-Sulfonsäure + $\frac{1}{2}H_2O$. K + $2H_2O$ (Bl. 12, 169; 20, 531; A. 178, 180). — II, 1016.
 - 2) 1,3,5-Trioxybenzol-2-Sulfonsäure. K (A. 178, 191). — II, 1022.
 - 3) 2-Dioxyphenylschwefelsäure (Pyrogallolschwefelsäure). K (B. 11, 1913). — II, 1016.
 - 4) 2-Methylfuran-5-Carbonsäure-2-Sulfonsäure. Ba + $5H_2O$ (Am. 15, 175). — III, 707.
- $C_6H_5O_8S_2$**
- 1) 1,2-Benzoldisulfonsäure. K_2 , Ba (B. 9, 553). — II, 116.
 - 2) 1,3-Benzoldisulfonsäure + $2\frac{1}{2}H_2O$. Salze meist bekannt (A. 188, 159; 203, 69; B. 8, 1478; 9, 583; Am. 9, 77). — II, 116.
 - 3) 1,4-Benzoldisulfonsäure. Salze meist bekannt (Z. 1869, 550; A. 100, 157; B. 8, 1477; C. 1895 [2] 496). — II, 117.
- $C_6H_5O_7N_4$**
- 1) Eulyt. Sm. 101–102.5° (99.5°) (A. 81, 102; Z. 1871, 701; G. 19, 264; Soc. 59, 979; B. 24, 1304). — IV, 710.
- $C_6H_5O_7S_2$**
- 1) 1-Oxybenzol-2,4(2)-Disulfonsäure. Salze meist bekannt (A. 137, 71; 143, 58; 144, 299; Z. 1866, 693; 1868, 270; B. 12, 1260). — II, 833.
 - 2) 1-Oxybenzol-2-Disulfonsäure. K_2 + $3\frac{1}{2}H_2O$, Ba + $4H_2O$, Pb + $4H_2O$ (J. 1879, 749). — II, 833.
- $C_6H_5O_8S_2$**
- 1) 1,2-Dioxybenzol-3,5-Disulfonsäure. K_2 + H_2O , Ba (Bl. [3] 11, 104; C. 1898 [1] 617, 1024). — II, 914.
 - 2) 1,3-Dioxybenzol-2-Disulfonsäure + $2H_2O$. Na_2 + H_2O , K + H_2O ($4H_2O$), Ba + $3\frac{1}{2}H_2O$, Ba_2 + $4(5)H_2O$, Pb + $4H_2O$, Cu + $10H_2O$ (B. 9, 1479; 12, 1267; M. 2, 331). — II, 936.
 - 3) isom. 1,3-Dioxybenzol-2-Disulfonsäure. Ba + $2H_2O$ (B. 8, 290). — II, 936.
 - 4) 1,4-Dioxybenzol- α -Disulfonsäure. Fl. K_2 + $1\frac{1}{2}H_2O$, Ca + $3H_2O$, Ba + $4H_2O$, Pb + $Pb(OH)_2$ (A. 110, 198; B. 7, 973). — II, 952.
 - 5) 1,4-Dioxybenzol- β -Disulfonsäure. K + $4H_2O$, Ba + $3\frac{1}{2}H_2O$, Zn + $6H_2O$, Pb + $3Pb(OH)_2$ (A. 146, 43; B. 16, 690). — II, 952.
 - 6) 1,4-Dioxybenzol- γ -Disulfonsäure. K_2 + H_2O (A. 215, 239; B. 15, 1298). — II, 952.
 - 7) 1,4-Dioxybenzol-2-Disulfonsäure. Na_2 (B. 27 [2] 77).
 - 8) Phenylen-1,2-Dischwefelsäure. K_2 (B. 11, 1911, 1912). — II, 914.
 - 9) Phenylen-1,3-Dischwefelsäure. K_2 , Ba (B. 11, 1911, 1912). — II, 935.
- $C_6H_5O_9N_6$**
- 1) Säure (aus Triazoessigsäure) (J. pr. [2] 38, 557). — I, 1494.
- $C_6H_5O_9S_2$**
- 1) 1,2,3-Trioxybenzol-4,5-Disulfonsäure (Bl. 12, 169; 20, 531). — II, 1016.

- $C_6H_5O_3S_3$ 1) 1,3,5-Benzoltrisulfonsäure + $3H_2O$. $K_3 + 3H_2C$, Ba_3 , $Pb_3 + 4H_2O$, $Ag_3 + 3H_2O$ (A. 174, 243; Am. 9, 329). — II, 117.
- $C_6H_5O_3S_2$ 1) Hydroenthiochronsäure. $Na_2 + 2H_2O$, $K_2 + 2H_2O$ (A. 146, 50). — II, 953.
- $C_6H_5O_3S_3$ 1) 1-Oxybenzol-2,4,6-Trisulfonsäure. Salze meist bekannt (A. 170, 110; 172, 31). — II, 893.
- $C_6H_5O_{11}S_3$ 1) 1,3-Dioxybenzol-2-Trisulfonsäure. $Ba_3 + 3\frac{1}{2}H_2O$, Pb_3 (B. 10, 182). — II, 936.
- $C_6H_5O_{12}N_4$ C 22,1 — H 1,8 — O 58,9 — N 17,2 — M. G. 326.
- $C_6H_5O_{13}S_4$ 1) Dulcitantetranitrat. Sm. 120—130° (Bl. 22, 179; J. 1860, 522).
- $C_6H_5O_{17}S_5$ 1) 1-Oxybenzol-2-Tetrasulfonsäure. K_4 (A. 172, 33). — II, 834.
- $C_6H_5O_{18}N_6$ 1) Thiochronsäure. $K_5 + 4H_2O$ (A. 114, 313; 146, 40). — II, 953.
- $C_6H_5O_{18}N_6$ C 16,0 — H 1,3 — O 64,0 — N 18,7 — M. G. 450.
- 1) Hexanitrat d. i-Inosit. Sm. 120° u. Zers. (B. 7, 106; A. 101, 55; Bl. 48, 61). — II, 1052.
- $C_6H_5O_{20}P_3$ 1) Benzoltetradimetaphosphorsäure. Ba_2 (Bl. [3] 19, 317).
- C_6H_5NCl 1) 2-Chlor-1-Amidobenzol. Sd. 207°. HCl , HNO_3 , Pikrat (A. 176, 36; B. 10, 974; 29, 1896). — II, 314.
- 2) 3-Chlor-1-Amidobenzol. Sd. 230°. HCl , HBr , HNO_3 , H_2SO_4 (A. 176, 45; J. 1863, 424; B. 10, 974; 16, 28). — II, 314.
- 3) 4-Chlor-1-Amidobenzol. Sm. 69,7°; Sd. 230—231° (i. D.). HCl , (2 HCl , $PtCl_4$), HNO_3 , H_2SO_4 , Dioxalat + $\frac{1}{2}H_2O$, 3 + $SiCl_4$ (A. 53, 9; 176, 29, 355; B. 3, 453; 10, 974; 27, 2106; 29, 307 Anm., 1896; J. 1860, 349; Am. 10, 173; Soc. 65, 1029). — II, 314.
- 4) 4-Chlor-2-Methylpyridin. Sd. 162,5—163,5°. (2 HCl , $PtCl_4$) (Soc. 67, 405). — IV, 123.
- 5) 4(?)-Chlor-2-Methylpyridin. Sm. 21°; Sd. 164—165°. HCl , (2 HCl , $PtCl_4$) (J. pr. [2] 27, 278). — IV, 123.
- 6) 2-Chlor-4-Methylpyridin. Sd. 190—195°. 2 + $PtCl_4$ (Soc. 71, 655). — IV, 125.
- 7) Chlorpikolin (unbek. Const.). Sd. 160—170°. (2 HCl , $PtCl_4$) (B. 14, 1162). — IV, 127.
- C_6H_5NBr 1) 2-Brom-1-Amidobenzol. Sm. 31—31,5°; Sd. 250—251° (B. 7, 1179; J. r. 22, 483). — II, 315.
- 2) 3-Brom-1-Amidobenzol. Sm. 18—18,5°; Sd. 251° (B. 8, 364; J. r. 22, 483). — II, 316.
- 3) 4-Brom-1-Amidobenzol. Sm. 63°. HCl , (2 HCl , $PtCl_4$), $HBr + \frac{1}{2}H_2O$, Oxalat (A. 53, 7; 188, 323; 209, 355; B. 7, 1175; 9, 1398; 10, 1082; 14, 1902; 32, 220; Z. 1866, 687; J. 1860, 349; 1875, 342; J. r. 22, 483). — II, 316.
- $C_6H_5NBr_2$ 1) Brommethylat d. 3,5-Dibrompyridin. Zers. bei 250° (A. 210, 99). — IV, 114.
- C_6H_5NJ 1) 2-Jod-1-Amidobenzol. Sm. 56,5°. $HCl + H_2O$, 3 + 2 H_2SO_4 (G. 17, 487). — II, 317.
- 2) 3-Jod-1-Amidobenzol. Sm. 27° (25°) (G. 17, 487; Z. 1866, 218). — II, 317.
- 3) 4-Jod-1-Amidobenzol. Sm. 63° (60°). HCl , (2 HCl , $PtCl_4$), H_2SO_4 , Oxalat (A. 67, 65; J. 1864, 421; Z. 1866, 218, 687; B. 10, 1717; 11, 108; 28, 249; G. 17, 487). — II, 317.
- C_6H_5NF 1) 3-Fluor-1-Amidobenzol. Fl. (2 HCl , $PtCl_4$) (A. 235, 266). — II, 314.
- 2) 4-Fluor-1-Amidobenzol. Sd. 185—189°. HCl , (2 HCl , $PtCl_4$) (A. 243, 223). — II, 314.
- $C_6H_5N_2Cl_2$ 1) 3,5-Dichlor-1,2-Diamidobenzol. Sm. 60,5° (B. 7, 1604). — IV, 554.
- 2) 2,5-Dichlor-1,4-Diamidobenzol. Sm. 164° (B. 19, 2010). — IV, 550.
- 3) 2,6-Dichlor-1,4-Diamidobenzol. Sm. 123,5° (B. 8, 145). — IV, 580.
- 4) 2,5-Dichlorphenylhydrazin. Sm. 105°. HCl (B. 26, 2473; 27, 767). — IV, 655.
- $C_6H_5N_2Cl_4$ 1) Dimolec. Nitril d. $\alpha\alpha$ -Dichlorpropionsäure. Zers. bei 130° (J. pr. [2] 46, 360).
- $C_6H_5N_2Br_2$ 1) 4,5-Dibrom-1,2-Diamidobenzol. Sm. 137° u. Zers. (M. 11, 338). — IV, 554.
- 2) 2,4-Dibrom-1,3-Diamidobenzol. Sm. 135°. HCl , HBr (Am. 18, 482; B. 27, 20; Z. 1865, 555). — IV, 569.

- $C_6H_5N_2Br$ 3) 2,6-Dibrom-1,4-Diamidobenzol. Sm. 138°. 2HCl (B. 25, 3334). — IV, 580.
 4) 2,4-Dibromphenylhydrazin. Sm. 91–92° (A. 272, 219; B. 26, 2192). — IV, 655.
 5) 2,5-Dibromphenylhydrazin. Sm. 97° (A. 248, 96). — IV, 655.
 6) 3,4-Dibromphenylhydrazin. Sm. 104°. HCl, HNO₃, H₂SO₄, Oxalat, Pikrat (A. 272, 215). — IV, 655.
- $C_6H_5N_2J$ 1) 2,4-Dijodphenylhydrazin. Sm. 112° (A. 248, 99). — IV, 655.
 $C_6H_5N_2Cl$ 1) 4-Amidodiazobenzolechlorid. (HCl, AuCl₃) (B. 19, 319). — IV, 1526.
 $C_6H_5N_3Cl$ 1) Trichloralimid. Sm. 146° (Z. 19, 491). — I, 932.
 $C_6H_5N_4S$ 1) 6-Merkapto-7-Methylpurin + H₂O. Sm. 310–311° (cor.) (B. 31, 435, 441; 32, 485). — IV, 1250.
 2) 8-Merkapto-7-Methylpurin. Sm. 248–249° (cor.) (B. 31, 442). — IV, 1251.
- $C_6H_5N_4S_2$ 1) 2,6-Dimerkapto-7-Methylpurin. Zers. oberh. 360° (B. 31, 440; 32 485). — IV, 1254.
- $C_6H_5N_4S_3$ 1) 2,6,8-Trimerkapto-7-Methylpurin + H₂O. Zers. oberh. 320° (B. 31, 442; 32, 485). — IV, 1256.
- $C_6H_5N_5Cl$ 1) 2-Chlor-6-Amido-7-Methylpurin. Sm. 275° u. Zers. (B. 31, 116, 544). — IV, 1321.
- C_6H_5ClP 1) 4-Chlorphenylphosphin. Sm. 17°; Sd. 198–200°. (2HCl, PtCl₄). (A. 293, 234). — IV, 1648.
- $C_6H_5Cl_2S$ 1) 2-Dichlor-2-Aethylthiophen. Sd. 235–237° (B. 18, 551). — III, 745.
 C_6H_5BrJ 1) 2-Jod-1-Brommethylbenzol. Sm. 52–53° (Am. 4, 101; B. 15, 1757).
 C_6H_5BrP 1) 4-Bromphenylphosphin. Sm. 40°; Sd. 195–196° (A. 293, 245). — IV, 1649.
- $C_6H_5Br_2S$ 1) 2-Dibrom-2-Aethylthiophen. Fl. (B. 18, 550). — III, 745.
 2) 2-Dibrom-3-Aethylthiophen. Sd. 215–225° (A. 267, 149). — III, 745.
 3) 3,4[2]-Dibrom-2,5-Dimethylthiophen. Sm. 50° (B. 18, 2253). — III, 746.
 4) 2-Dibrom-2,5-Dimethylthiophen. Sm. 46°; Sd. 246–247° (B. 18, 563). — III, 746.
- C_6H_7ON C 66,1. — H 6,4 — O 14,7 — N 12,8 — M. G. 109.
 1) 2-Amido-1-Oxybenzol. Sm. 170°; subl. HCl, H₂SO₄, Acetat (A. 103, 352; B. 13, 1536; J. pr. [2] 52, 73; [2] 53, 447). — II, 702.
 2) 3-Amido-1-Oxybenzol. Sm. 122–123°. HCl, HBr, HJ, H₂SO₄ (B. 11, 2101; 16, 613; Am. 15, 40; J. pr. [2] 52, 73). — II, 714.
 3) 4-Amido-1-Oxybenzol. Sm. 184° u. Zers. HCl, Acetat, Bitartrat (A. 110, 166; 175, 296; J. 1864, 423; 1867, 615; 305, 288; B. 19, 314; 26, 1847; 27, 1552; 31, 1523; J. pr. [2] 23, 173, 435; [2] 52, 73; [2] 53, 448; G. 25 [2] 384). — II, 715.
 4) isom. 2-Amidooxybenzol. Sm. 151°; subl. bei 230°. H₂SO₄ (B. 13, 1536; J. pr. [2] 24, 10).
 5) Oxyamidobenzol (β-Phenylhydroxylamin). Sm. 80–81°. HCl (B. 27, 1348, 1432, 1548; 29, 494, 2307; 31, 1467, 1500, 2543; C. 1898 [2] 634).
 6) 1-Acetylpyrrol. Sd. 181–182° (B. 16, 2352; 18, 881). — IV, 67.
 7) 2-Acetylpyrrol (Methyl-2-Pyrrolketon). Sm. 90°; Sd. 220°. Ag (B. 10, 1501; 16, 2348; 17, 2945; 18, 1457; 19, 1963). — IV, 97.
 8) 2,6-Dioxy-3-Methylpyridin. Sm. 190–191° (Soc. 63, 880). — IV, 125.
 9) Methyläther d. 2-Oxypyridin. Fl. + HgCl₂ (B. 24, 3149; 28, 1624). — IV, 115.
 10) Methyläther d. 4-Oxypyridin. Sd. 190,5–191°_{735,3}. (2HCl, PtCl₄) (M. 6, 320). — IV, 117.
 11) 2-Keto-1-Methyl-1,2-Dihydropyridin. Sd. 250°. + HgCl₂ (B. 24, 3149; J. pr. [2] 47, 29). — IV, 115.
 12) 4-Keto-1-Methyl-1,4-Dihydropyridin. (2HCl, PtCl₄ + H₂O) (M. 6, 307, 322). — IV, 117.
- $C_6H_7ON_3$ C 52,5 — H 5,1 — O 11,7 — N 30,7 — M. G. 137.
 1) 2,6-Diamido-4-Imido-1-Keto-1,4-Dihydrobenzol (Amidodiimido-phenol; Diamidochinonimid). HCl (Z. 1867, 342; A. 215, 351; B. 30, 542). — II, 725.
 2) uns-Nitrosophenylhydrazin (A. 190, 90; B. 20, 2633). — IV, 655.
 3) 4-Amidodiazobenzol. (Chlorid + HCl, AuCl₃) (B. 17, 607). — IV, 1526.

- $C_5H_7ON_2$ 4) **3-Amidooximidomethylpyridin** (Nikotenyamidoxim). Sm. 128°. 2HCl, (2HCl, PtCl₄) (B. 24, 3440). — IV, 115.
- 5) **Hydrazid d. Pyridin-3-Carbonsäure**. Sm. 158—159°. 2HCl (B. 31, 2493).
- 6) **Verbindung** (aus Cyanoform u. Aethylalkohol. Sm. 219—220° (B. 29, 1173).
- $C_5H_7ON_2$ C 43,6 — H 4,2 — O 9,7 — N 42,4 — M. G. 165.
- 1) **2-Amido-6-Keto-7-Methylpurin** (7-Methylguanin; Epiguanin). Zers. oberh. 390°. Pikrat (B. 30, 2411; 31, 544, 3270; 32, 480; H. 24, 387; 26, 390; C. 1895 [1] 292). — III, 881; IV, 1322.
- C_5H_7OCl 1) **Chlorid d. Sorbinsäure** (A. 110, 138). — I, 532.
- $C_5H_7OCl_2$ 1) **Verbindung** (Trichlormesityloxyd?). Sd. 206—208° (B. 8, 1441). — I, 989.
- $C_5H_7O_2N$ C 57,6 — H 5,6 — O 25,6 — N 11,2 — M. G. 125.
- 1) **4[2]-Amido-1,2-Dioxybenzol**. HCl (B. 11, 363). — II, 912.
- 2) **4-Amido-1,3-Dioxybenzol**. HCl + 2H₂O (A. 164, 6; B. 16, 1101, 1330). — II, 928.
- 3) **5-Amido-1,3-Dioxybenzol** (Phloramin). Sm. 146—152°. HCl + H₂O, HNO₃, H₂SO₄ + 2H₂O (A. 119, 202; M. 14, 419). — II, 929.
- 4) **2-[α-Oximidoäthyl]furan**. Sm. 104°; Sd. 110—111°₁₀ (C. 1898 [1] 327).
- 5) **4,6-Dioxy-2-Methylpyridin**. Sm. 330° u. Zers. (cor.). K + C₂H₅O (Soc. 59, 617; 61, 723; 71, 412; B. 31, 771). — IV, 123.
- 6) **3-Oxy-4-Keto-1-Methyl-1,4-Dihydropyridin** + H₂O. HCl, H₃PO₄ (J. pr. [2] 27, 275; [2] 29, 14). — IV, 119.
- 7) **N-Methyläther d. syn-Furfuraldioxim** + H₂O. Sm. 56° (91—92° wasserfrei) (B. 25, 2575). — III, 725.
- 8) **α-Cyan-β-Buten-α-Carbonsäure?** Sm. 64—65° (M. 18, 733).
- 9) **1-Methylpyrrol-2-Carbonsäure**. Sm. 135° (B. 10, 1866). — IV, 80.
- 10) **2-Methylpyrrol-2-Carbonsäure** (α-Homopyrrolcarbonsäure). Sm. 169,5° (B. 14, 1056). — IV, 85.
- 11) **3-Methylpyrrol-2-Carbonsäure** (β-Homopyrrolcarbonsäure). Sm. 142,4° (B. 14, 1056). — IV, 85.
- 12) **Säure** (aus d. Verbindung C₇H₆O₂N₂) (A. ch. [6] 18, 493). — I, 1223.
- 13) **Lakton d. γ-Oxy-γ-Cyanbutan-α-Carbonsäure**. Sm. 31—33° (A. 238, 298). — I, 1480.
- 14) **Methylester d. Pyrrol-2-Carbonsäure**. Sm. 73° (B. 17, 1152; G. 19, 93). — IV, 80.
- 15) **Methylester d. Pyrrol-3-Carbonsäure**. Sm. 129° (B. 20, 855). — IV, 83.
- 16) **Nitril d. ββ-Diketopentan-γ-Carbonsäure** (Cyanacetylaceton). Sm. 50° (B. 31, 2944).
- 17) **Imid d. β-Buten-βγ-Dicarbonsäure** (I. d. Dimethylfumarsäure). Sm. 118° (113°) (M. 3, 610; A. 234, 48). — I, 1392.
- 18) **Aethylimid d. Maleinsäure**. Sm. 45,5° (G. 18, 483; 26 [1] 438). — I, 1389.
- 19) **Amid d. 2-Methylfuran-5-Carbonsäure**. Sm. 131° (Am. 15, 170). — III, 707.
- 20) **Amid d. Triacetsäureanhydrid**. Sm. 315° u. Zers. (Soc. 59, 617). — I, 692.
- 21) **Phenocyanin**, siehe C₆H₅ON. — III, 678.
- $C_6H_7O_2N_2$ C 47,1 — H 4,6 — O 20,9 — N 27,4 — M. G. 153.
- 1) **4-Nitro-1,2-Diamidobenzol**. Sm. 198° (195°). HCl + H₂O, (2HCl, PtCl₄), HNO₃, H₂SO₄, Oxalat, (2HCN, Pt[CN]₂ + 5H₂O) (A. 85, 27; 115, 249; B. 21, 2305; 28, 1707). — IV, 554.
- 2) **2-Nitro-1,3-Diamidobenzol**. Sm. 161° (B. 7, 1259; J. 1875, 307). — IV, 569.
- 3) **2-Nitro-1,4-Diamidobenzol**. Sm. 137° (134—135°). HCl, 2HCl (B. 17, 149; 28, 1708). — IV, 580.
- 4) **2-Diimido-2-Amido-1,3-Dioxybenzol** + H₂O. HCl (A. 158, 250; B. 12, 2040). — II, 930.
- 5) **Triamido-1,4-Benzochinon?** (B. 26, 2305). — IV, 1317.
- 6) **2-Nitrophenylhydrazin**. Sm. 90°. HCl, H₂SO₄, H₃PO₃ (B. 22, 2801; 27, 2549, 2551; 30, 92). — IV, 656.
- 7) **3-Nitrophenylhydrazin**. Sm. 93°. HCl, H₂SO₄ (B. 22, 2809; 30, 91). — IV, 656.

- $C_6H_7O_3N_3$ 8) 4-Nitrophenylhydrazin. Sm. 157° u. Zers. HCl (B. 26, 1306; 29, 281, 1834; 30, 91). — IV, 656.
 9) α -Nitroso- α -[4-Oxyphenyl]hydrazin (J. pr. [2] 57, 203). — IV, 815.
 10) 5,6-Diamidopyridin-3-Carbonsäure + H_2O . Sm. noch nicht bei 300° HCl, (2HCl, $PtCl_4$), H_2SO_4 , Pikrat (B. 27, 1336). — IV, 1135.
 11) Verbindung (aus d. Verbindung $C_8H_{10}O_3N_2$) (J. pr. [2] 47, 393).
- $C_6H_7O_3N_2$ C 39,7 — H 3,9 — O 17,7 — N 38,7 — M. G. 181.
 1) 8-Amido-2,6-Diketo-7-Methylpurin. Na + 2 H_2O (B. 30, 1859; 32, 483). — IV, 1324.
 2) 6-Amido-2,8-Diketo-7-Methylpurin + H_2O . Zers. oberh. 320° (B. 31, 115; 32, 483). — IV, 1324.
- $C_6H_7O_2Cl_3$ 1) Quercittrichlorhydrin. Sm. 155° (A. ch. [5] 15, 56). — I, 282.
 $C_6H_7O_2Br$ 1) 6-Brom-1-Keto-5-Oxy-1,2,3,4-Tetrahydrobenzol. Sm. 166° u. Zers. Na (A. 278, 42). — II, 906.
 2) 5-Brom-2,3-Dihydro-R-Penten-4-Carbonsäure. Sm. 130° (Soc. 65, 981).
- $C_6H_7O_2Br_3$ 1) 1,2,2-Tribrom-R-Pentamethylen-1-Carbonsäure (Soc. 65, 982).
 $C_6H_7O_2P$ 1) Phenylphosphinige Säure (Phosphenylige Säure). Sm. 70° NH_4 , K + 2 H_2O , Ca, Ba + 4 H_2O , Pb, Fe (A. 181, 303; 270, 135). — IV, 1649.
- $C_6H_7O_2B$ 1) Phenylborsäure. Sm. 204° (216°). Na_2 , Ca, Ag (B. 15, 181; 27, 245). — IV, 1699.
- $C_6H_7O_3N$ C 51,1 — H 4,9 — O 34,0 — N 9,9 — M. G. 141.
 1) p-Amido-1,2,3-Trioxybenzol. HCl (M. 1, 884). — II, 1015.
 2) l-Amido-p-Trioxybenzol. HCl (M. 16, 254).
 3) 4,6-Dioxy-2-Oxymethylpyridin? (Trioxy pikolin). Sm. 179° (Soc. 67, 412). — IV, 124.
 4) 2,6-Dioxy-4-Oxymethylpyridin + H_2O . Sm. 158° (wasserfrei) (Soc. 65, 30). — IV, 127.
 5) 3-Oxy-2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydropyridin + 2 H_2O . HCl + 3 H_2O , HBr + H_2O (Soc. 71, 843).
 6) 4-Oxy-5-Oximidomethyl-2-Methylfuran. anti-Derivat, Sm. 77—78°; syn-Derivat, Sm. 108° (B. 28 [2] 786).
 7) 3,5-Dimethylisoxazol-4-Carbonsäure. Sm. 142° (A. 277, 174). — IV, 87.
 8) Methylester d. α -Cyan- β -Ketopropan- α -Carbonsäure (M. d. Acetylcyanessigsäure). Sm. 46,5°. Na, Ca + 6 H_2O , Ba + 2 H_2O (A. ch. [6] 17, 222). — I, 1222.
 9) Methylester d. γ -Cyan- β -Ketopropan- α -Carbonsäure (M. d. Cyanacetylessigsäure). Sd. 215—216° u. Zers. (A. ch. [6] 23, 160). — I, 1222.
 10) Methylester d. 2-Furanylamidoameisensäure. Sm. 135° (Bl. [3] 17, 424).
 11) Aethylester d. β -Cyan- α -Ketoäthan- α -Carbonsäure (Ae. d. Cyanbrenztraubensäure). Na, Ag (J. pr. [2] 47, 376). — I, 1222.
 12) Imid d. β -Ketobutan- γ -Dicarbonsäure. Sm. 84—87°. Ag (C. 1897 [1] 283).
 13) Verbindung (aus Acetyl- β -Methylbernsteinsäurediäthylester). Sd. 120 bis 130° u. Zers. (B. 25, 1726).
 C 42,6 — H 4,1 — O 28,4 — N 24,9 — M. G. 169.
 1) 4-Nitro-2,6-Diamido-1-Oxybenzol + H_2O . Ba + 2 H_2O , H_2SO_4 + 5 H_2O (A. 154, 202). — II, 736.
 2) Hypokaffein. Sm. 182°. Ba, Ag, Ag_2 (B. 14, 643, 1905; A. 215, 288). — III, 962.
 3) Acetat d. 1-Acetyl-3-Oxy-1,2,4-Triazol. Sm. 137° (115°) (B. 31, 380; D.R.P. 95 268). — IV, 1100.
- $C_6H_7O_3Cl_3$ 1) Aethylester d. $\alpha\alpha\gamma$ -Trichlor- β -Ketopropan- α -Carbonsäure (Ae. d. Chloracetyldichloressigsäure). Sd. 221—223° u. Zers. (A. ch. [6] 24, 62). — I, 595.
 2) Aethylester d. $\gamma\gamma\gamma$ -Trichlor- β -Ketopropan- α -Carbonsäure (Ae. d. Trichloracetylessigsäure). Sd. 217—219° u. Zers. (A. ch. [6] 24, 53, 77; A. 254, 60). — I, 595.
- $C_6H_7O_3Br_3$ 1) Aethylester d. $\alpha\alpha\gamma$ -Dibrom- β -Ketopropan- α -Carbonsäure (Ae. d. Bromacetyldibromessigsäure). Fl. (B. 15, 1380; A. 213, 144). — I, 596.
- $C_6H_7O_3P$ 1) Phenylphosphinsäure (Phosphenylsäure). Sm. 158°. Na + x H_2O , Na_2 + 12 H_2O , K, K_2 , Ca + 2 H_2O , SrH + H_2O , Fe_2 + 2 $\frac{1}{2}$ H_2O , Cu (A. 181, 321; B. 12, 564). — IV, 1650.

- $C_6H_7O_3As$ 1) Phenylarsinsäure. K, CaH, Ca + 2H₂O, Ba, Pb, Cu (A. 201, 203; 208, 9; B. 15, 1954; 27, 265). — IV, 1685.
- $C_6H_7O_3Sb$ 1) Phenylstibinsäure. Zers. oberh. 200°. Ba (B. 31, 2914). — IV, 1694.
- $C_6H_7O_4N$ C 45,9 — H 4,4 — O 40,8 — N 8,9 — M. G. 157.
- 1) 3-Amido-1,2,4,5-Tetraoxybenzol. HCl (B. 22, 1661). — II, 1032.
- 2) Aethyläther d. syn-Oximidobernsteinsäureanhydrid (G. 18, 468). — I, 661.
- 3) Dimethylester d. Cyanmethandicarbonsäure (D. d. Cyanmalonsäure). Fl. Na, Ba + 3H₂O (A. ch. [6] 16, 430). — I, 1224.
- 4) Aethylester d. 5-Keto-2,5-Dihydroisoxazol-4-Carbonsäure. Sm. 168° u. Zers. NH₃, Ag (B. 30, 1085, 1480, 2031; A. 297, 81).
- 5) Acetat d. Succinylhydroxylamin. Sm. 129—130° (G. 25 [2] 29, 264; siehe auch B. 28, 754).
- $C_6H_7O_4N_2$ C 38,9 — H 3,8 — O 34,6 — N 22,7 — M. G. 185.
- 1) 4-Oximido-5-Oximidoacetyl-3-Methyl-4,5-Dihydroisoxazol + H₂O. Sm. 91°. Na, 2 + AgOH (B. 30, 1300).
- 2) 1,2-Diacetyl-3,5-Diketotetrahydro-1,2,4-Triazol (Diacetylurazol). Sm. 206° (C. 1898 [1] 39).
- 3) 5-Nitro-2,4-Diketo-3-Aethyl-1,2,3,4-Tetrahydro-1,3-Diazin + H₂O (Nitroäthyluracil). Sm. 194,5°. Ag (A. 253, 84). — I, 1346.
- 4) 5-Nitro-2,4-Diketo-1,3-Dimethyl-1,2,3,4-Tetrahydro-1,3-Diazin + H₂O (Nitrodimethyluracil). Sm. 154,5° (A. 253, 82). — I, 1346.
- 5) 5-Nitro-2,4-Diketo-3,6-Dimethyl-1,2,3,4-Tetrahydro-1,3-Diazin (Nitrodimethyluracil). Sm. 149° (A. 253, 84). — I, 1350.
- 6) 5-Oximido-2,4,6-Triketo-1,3-Dimethylhexahydro-1,3-Diazin + H₂O (Dimethylviolursäure). Sm. 141°. NH₃ + H₂O, Na + 3(4)H₂O, K, Mg, Ba + 4H₂O, Sr + 2H₂O, Zn, Cd, Pb, Ag (B. 27, 3084; 28, 3142; M. 16, 17).
- 7) Aethylester d. Allantoxansäure (J. r. 11, 19). — I, 1359.
- 8) Aethylester d. 4-Oximido-5-Keto-4,5-Dihydropyrazol-3-Carbonsäure. Sm. 182°. Ag (J. pr. [2] 51, 54). — IV, 535.
- $C_6H_7O_4N_3$ C 33,8 — H 3,3 — O 30,1 — N 32,8 — M. G. 213.
- 1) 2,4-Dinitro-1,3,5-Triamidobenzol. Sm. noch nicht bei 300° (Am. 11, 449). — IV, 1124.
- $C_6H_7O_4Cl$ 1) Chlordihydromukonsäure. Sm. 119—120° (Soc. 57, 940). — I, 714.
- 2) Dimethylester d. Chlorfumarsäure. Sd. 224° (J. pr. [2] 31, 32). — I, 700.
- 3) Monäthylester d. Mucocoxychlorsäure. Sm. 94—95° (Am. 9, 164). — I, 706.
- $C_6H_7O_4Cl_3$ 1) $\gamma\gamma\gamma$ -Trichlor- α -Acetoxylbuttersäure. Sm. 86—87° (M. 12, 563). — I, 562.
- 2) Diacetat d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan (Essigsäurechloral). Sd. 221 bis 222° (A. 171, 73; G. 17, 408). — I, 933.
- $C_6H_7O_4Cl_2$ 1) Verbindung (aus Ameisensäure- α -Chloräthylester u. Chlorameisensäure- $\alpha\beta$ -Dichloräthylester). Sd. 153,5—154,5° (A. 258, 57). — I, 467.
- $C_6H_7O_4Br$ 1) β -Brom- α -Buten- $\alpha\delta$ -Dicarbonsäure (Bromdihydromukonsäure). Sm. 158 bis 160° (A. 256, 18). — I, 714.
- 2) β -Brom- β -Buten- $\alpha\delta$ -Dicarbonsäure + H₂O (isom. Bromdihydromukonsäure). Sm. 183° (A. 165, 265; 256, 18). — I, 714.
- 3) Dimethylester d. Bromfumarsäure. Sm. 30° (B. 12, 2284; Am. 9, 152). — I, 700.
- 4) Dimethylester d. Brommaleinsäure. Sd. 237—238° (B. 12, 2284). — I, 705.
- 5) Monäthylester d. Bromfumarsäure. Sm. 88—89° (Am. 9, 153). — I, 700.
- $C_6H_7O_4Br_3$ 1) β -Tribrombutan- $\alpha\delta$ -Dicarbonsäure (Tribromadipinsäure). Sm. 177—180° (A. 165, 269). — I, 670.
- $C_6H_7O_4P$ 1) Monophenylester d. Phosphorsäure (Phenylphosphorsäure). Sm. 97 bis 98°. Ca, Ba, Cu (Z. 1866, 652; B. 8, 1521; G. 11, 65; A. 224, 157; Bl. [3] 19, 828; C. 1898 [2] 987). — II, 659.
- $C_6H_7O_5N_2$ C 35,8 — H 3,5 — O 39,8 — N 20,9 — M. G. 201.
- 1) 5-Nitro-2,4,6-Triketo-1,3-Dimethylhexahydro-1,3-Diazin (Nitrodimethylbarbitursäure). Sm. 148° (131—132°; 152°). NH₃, Na + 4H₂O,

- K, Mg + 4H₂O, Ca, Ba + 2H₂O, Sr, PbOH, Ag (B. 27, 3085; M. 16, 26 R. 16, 166).
- C₆H₇O₅Cl₃** 1) $\delta\delta\delta$ -Trichlor- γ -Oxybutan- $\alpha\beta$ -Dicarbonsäure (Trichlormethylitamal-säure). Ba (A. 255, 46). — I, 752.
- C₆H₇O₅Br** 2) Trichlorphenomalsäure (A. 142, 140).
1) δ -Brom- γ -Oxy- α -Buten- $\alpha\delta$ -Dicarbonsäure (Bromoxyhydromukonsäure). Ag₂ (Soc. 59, 752). — I, 765.
2) γ -Brom- α -Keto- β -Methylpropan- $\alpha\gamma$ -Dicarbonsäure (Oxalbrombutter-säure). Sm. 138—139° (B. 26, 763).
- C₆H₇O₅P** 1) Mono-2-Oxyphenylester d. Phosphorsäure. Sm. 139° (C. 1898 [2] 987).
C₆H₇O₅N C 38,1 — H 3,7 — O 50,8 — N 7,4 — M. G. 189.
1) Amidokomensäure. HCl + 3H₂O (J. pr. [2] 23, 440; [2] 24, 281). — I, 1216.
2) Verbindung (Säure aus Mucobromsäure). K (B. 15, 1910). — I, 616.
- C₆H₇O₆Cl₃** 1) Verbindung (aus Chlorameisensäuremethylester). Sd. 179,5—180,5° (J. pr. [2] 36, 110, 479). — I, 466.
- C₆H₇O₆Br** 1) β -Brompropan- $\alpha\beta\gamma$ -Tricarbonsäure (Bromtricarballysäure) (J. r. 8, 290). — I, 809.
C 27,6 — H 2,7 — O 42,9 — N 26,8 — M. G. 261.
- C₆H₇O₇N₃** 1) Hydrazinpikrat. Sm. 184° (B. 27, 690).
- C₆H₇O₇Cl** 1) α -Chlor- β -Oxypropan- $\alpha\beta\gamma$ -Tricarbonsäure (Chlorcitronensäure). Fl. (A. 178, 155). — I, 841.
- C₆H₇O₇N** C 30,4 — H 2,9 — O 60,8 — N 5,9 — M. G. 237.
- C₆H₇O₁₁N₃** 1) Citronensäurenitrat. Ba₃, Pb₃ (Bl. 24, 448). — I, 840.
C 24,2 — H 2,4 — O 59,3 — N 14,1 — M. G. 297.
1) Trinitrat d. Anhydrosorbinose. Sm. 40—45° (B. 31, 79).
2) Trinitrat d. Cellulose (C. 1898 [1] 780).
3) Trinitrat d. β -Glucosan (T. d. Lävoglucosan). Sm. 101° (B. 31, 87).
4) α -Trinitrat d. Lävulosan. Sm. 137—139°. Zers. bei 145° (B. 31, 77).
5) β -Trinitrat d. Lävulosan. Sm. 48—52°. Zers. bei 135° (B. 31, 77).
C 18,5 — H 1,8 — O 61,7 — N 18,0 — M. G. 389.
- C₆H₇O₁₃N₅** 1) Quercitpentanitrat (A. 190, 288). — I, 327.
- C₆H₇O₁₆N₅** C 17,8 — H 1,7 — O 63,2 — N 17,3 — M. G. 405.
1) d-Pentanitrat d. Galaktose. Sm. 115—116°. Zers. bei 126° (B. 31, 75).
2) l-Pentanitrat d. Galaktose. Sm. 72—73°. Zers. bei 125° (B. 31, 75).
3) Pentanitrat d. Glykose. Sm. unter 10°. Zers. bei 135° (B. 31, 74).
4) Pentanitrat d. Mannose. Sm. 81—82°. Zers. bei 124° (B. 31, 76).
- C₆H₇NCl₄** 1) Tetrachlordiallylamin. Fl. HCl, Dioxalat (A. 135, 363). — I, 1143.
- C₆H₇NS** 1) 2-Amido-1-Merkaptobenzol. Sm. 26°; Sd. 234° (B. 12, 2363; 13, 20, 1230; 20, 2260; 21, 3105). — II, 795.
2) 3-Amido-1-Merkaptobenzol. Fl. HCl, (2HCl, PtCl₄), Pb (J. pr. [2] 2, 223; [2] 41, 199; B. 8, 1675). — II, 799.
- C₆H₇N₂Cl** 1) 4-Chlor-1,2-Diamidobenzol. Sm. 72° (B. 9, 773). — IV, 554.
2) 4-Chlor-1,3-Diamidobenzol. Sm. 86° (A. 197, 76). — IV, 569.
3) 2-Chlor-1,4-Diamidobenzol. Sm. 64°. 2HCl (A. 303, 11).
4) 2-Chlorphenylhydrazin. Fl. HCl, H₂SO₄ (Soc. 59, 209; 63, 868). — IV, 655.
5) 3-Chlorphenylhydrazin. Sd. 165°. Zers. bei 200—220°. HCl, HNO₃, H₂SO₄ (J. pr. [2] 44, 451; Soc. 63, 869; C. 1898 [2] 1131). — IV, 655.
6) 4-Chlorphenylhydrazin. Sm. 88° (90°) (B. 30, 217; J. pr. [2] 43, 482; Soc. 63, 872; A. 248, 94). — IV, 655.
7) 4-Chlor-6-Amido-2-Methylpyridin? Sd. 175—178°. (2HCl, PtCl₄) (Soc. 65, 69; 67, 225). — IV, 822.
- C₆H₇N₂Br** 1) 4-Brom-1,2-Diamidobenzol. Sm. 63°. HCl, H₂SO₄ (B. 6, 1544; 7, 347; A. 209, 359). — IV, 554.
2) 5-Brom-1,3-Diamidobenzol. Sm. 93—94°. 2HBr (Am. 18, 242, 487). — IV, 569.
3) 3-Bromphenylhydrazin. Fl. (C. 1898 [2] 1132).
4) 4-Bromphenylhydrazin. Sm. 106° (A. 248, 94; B. 26, 2191; 30, 217; J. pr. [2] 49, 541; Am. 21, 30). — IV, 655.
- C₆H₇N₂J** 1) 4-Jodphenylhydrazin. Sm. 103° (A. 248, 98). — IV, 655.
- C₆H₇N₆Cl** 1) 2- oder 6-Chlor-6- oder 2-Hydrazido-7-Methylpurin. Zers. oberh. 200°. Pikrat (B. 31, 120). — IV, 1330.
- C₆H₇N₈S₂** 1) Dithioprussiamsäure. Cu, Ag (A. 179; 151). — I, 1452.

- C₈H₇BrS** 1) *p*-Brom-2-Aethylthiophen. *Sd.* 195° u. *Zers.* (*B.* 19, 684). — III, 745.
2) *p*-Brom-3-Aethylthiophen. *Sd.* 180—190° (*A.* 267, 148). — III, 745.
3) *p*-Brom-2, 5-Dimethylthiophen. *Sd.* 193—194° (*B.* 18, 1637). — III, 746.
- C₈H₇JS** 1) *p*-Jod-2-Aethylthiophen. *Fl.* (*B.* 18, 551). — III, 745.
2) *p*-Jod-2, 5-Dimethylthiophen. *Fl.* (*B.* 18, 1636). — III, 746.
- C₈H₇SP** 1) Phenylphosphinsulfid. *Fl.* (*B.* 10, 811). — IV, 1648.
- C₈H₇S₃As** 1) Phenyltrithioarsinsäure. Na₂ + 6H₂O (*B.* 15, 1960). — IV, 1685.
- C₈H₇ON₂** C 58,1 — H 6,4 — O 12,9 — N 22,6 — M. G. 124.
1) 2,4-Diamido-1-Oxybenzol. *Sm.* 78—80° u. *Zers.* 2HCl, 2HJ, H₂SO₄ + 2H₂O, Oxalat, Pikrat (*A.* 147, 66; 205, 66; *B.* 8, 768; 26, 1848; 26 [2] 493; *Bl.* [3] 9, 595). — II, 722.
2) 2,5-Diamido-1-Oxybenzol. 2HCl (*B.* 30, 2098).
3) 2,6-Diamido-1-Oxybenzol. 2HCl, H₂SO₄ (*A.* 205, 79). — II, 722.
4) 3,4-Diamido-1-Oxybenzol. *Sm.* 167—168° u. *Zers.* 2HCl, H₂SO₄ (*J. pr.* [2] 29, 268; [2] 43, 70; *B.* 31, 2403). — II, 722.
5) 3,5-Diamido-1-Oxybenzol. *Sm.* 168—170° (*M.* 14, 425). — II, 723.
6) 4-Oxyphenylhydrazin. HCl, Oxalat (*J. pr.* [2] 57, 202). — IV, 815.
7) *p*-Amido-2-Acetylpyrrol. (2HCl, PtCl₄) (*B.* 18, 1460). — IV, 98.
8) 2-[α -Oximidoäthyl]pyrrol. *Sm.* 145—146° (*B.* 17, 2944). — IV, 98.
9) 5-Keto-3-Methyl-4,4-Aethylen-4,5-Dihydropyrazol. *Sm.* 197° (*J. pr.* [2] 51, 61). — IV, 822.
10) 6-Amido-4-Oxy-2-Methylpyridin? *Sm.* 194—195° (*Soc.* 65, 68; 67, 222). — IV, 822.
11) 6-Oxy-2,4-Dimethyl-1,3-Diazin. *Sm.* 192° (194°). (2HCl, PtCl₄ + 2H₂O), HNO₃, Ag (*J. pr.* [2] 27, 154; [2] 29, 132; PINNER, Imidoäther 216). — IV, 823.
12) Acetylaceton-Harnstoff (2-Keto-4,6-Dimethyl-2,5-Dihydro-1,3-Diazin). *Sm.* bei 200°. Hg, Ag, HCl, H₂SO₄ (*J. pr.* [2] 48, 491).
13) Anhydrodiacetyläthenylamidin. *Sm.* 253° (*B.* 17, 174). — I, 1160.
14) Nitril d. 5-Keto-2-Methyltetrahydropyrrol-2-Carbonsäure. *Sm.* 141° (*B.* 22, 2369). — I, 1480.
15) Amid d. δ -Cyan- α -Buten- δ -Carbonsäure (*A.* d. Allylcyanessigsäure). *Sm.* 98°; *Sd.* 289° (*J.* 1889, 639). — I, 1250.
C 47,4 — H 5,3 — O 10,5 — N 36,8 — M. G. 152.
- C₈H₇ON₄** 1) Nitril d. α -Nitrosimidopropionsäure. *Fl.* (*A.* 200, 131). — I, 1465.
- C₈H₇OCl₄** 1) Dichlordumasin (Keton). *Sd.* 150—155° (*A.* 110, 22—23). — I, 1009.
2) Chlorid d. Hexinsäure (*A. ch.* [5] 20, 469).
3) Chlorid d. Isohexinsäure. *Fl.* (*A. ch.* [5] 20, 471). — I, 623.
- C₈H₇OBr₂** 1) α -Brompropenyläther d. α -Brom- γ -Oxypropen (β -Dibromallyläther). *Sd.* 212—215° (*B.* 6, 729). — I, 302.
- C₈H₇OBr₄** 1) Dulcitantetrabromhydrin (*A. ch.* [4] 27, 186). — I, 289.
- C₈H₇O₂N₂** C 51,4 — H 5,7 — O 22,8 — N 20,0 — M. G. 140.
1) 3,5-Diamido-1,2-Dioxybenzol. 2HCl (*B.* 26, 2184). — II, 912.
2) 2,4-Diamido-1,3-Dioxybenzol. 2HCl, H₂SO₄ + 1½ H₂O (*B.* 8, 633; 16, 556; 17, 881; 21, 1405). — II, 929.
3) 4,6-Diamido-1,3-Dioxybenzol. 2HCl, H₂SO₄ + 2H₂O (*B.* 16, 555; 21, 3116; 22, 1656; 30, 2102). — II, 929.
4) 2,3-Diamido-1,4-Dioxybenzol. 2HCl (*B.* 19, 2247). — II, 948.
5) 2,5-Diamido-1,4-Dioxybenzol (*B.* 22, 1656; 30, 2101). — II, 948.
6) 5-Acetylimido-3-Methyl-4,5-Dihydroisoxazol. *Sm.* 169° (*J. pr.* [2] 47, 123).
7) 5-Amido-4,6-Dioxy-2-Methylpyridin + 3H₂O. HCl + H₂O (*Soc.* 71, 841). — IV, 823.
8) 1-Acetyl-5-Keto-3-Methyl-4,5-Dihydropyrazol. *Sm.* 140° (*J. pr.* [2] 50, 511). — IV, 506.
9) 2,4-Diketo-3,6-Dimethyl-1,2,3,4-Tetrahydro-1,3-Diazin (Dimethyluracil). *Sm.* 219° (*A.* 229, 23; 253, 67, 73). — I, 1350.
10) 3,5-Dimethylpyrazol-4-Carbonsäure. *Sm.* 290° u. *Zers.* (*A.* 279, 240). — IV, 545.
11) Aethylester d. Pyrazol-1-Carbonsäure. *Sd.* 213°₇₁₁ (*B.* 28, 716). — IV, 498.
12) Nitril d. $\beta\gamma$ -Dioxybutan- $\alpha\delta$ -Dicarbonsäure (*N.* d. Dioxyadipinsäure) (*B.* 17, 1094). — I, 1480.

- $C_6H_8O_2N_2$ 13) Nitril d. $\beta\gamma$ -Dioxybutan- $\beta\gamma$ -Dicarbonsäure (N. d. Dimethyltraubensäure). Sm. 110° u. Zers. (A. 249, 208). — I, 1480.
 14) Amid d. $\alpha\gamma$ -Butadien- $\alpha\delta$ -Dicarbonsäure (A. d. Mukonsäure). Zers. bei 240° (Soc. 57, 372). — I, 1393.
 15) Amid d. 2-Keto-5-Methyl-2,3-Dihydropyrrol-4-Carbonsäure. Zers. bei 250° (Soc. 71, 331).
 16) Imid d. Amidoäthylmaleinsäure (I. d. α -Amido- α -Buten- $\alpha\beta$ -Dicarbonsäure). Sm. 204° (B. 31, 195).
 17) Imid d. γ -Amido- β -Buten- $\alpha\beta$ -Dicarbonsäure. Sm. 274—275°. Ag (C. 1897 [1] 283).
 $C_6H_8O_2N_4$ C 42,9 — H 4,8 — O 19,0 — N 33,3 — M. G. 168.
 $C_6H_8O_2N_6$ 1) 5-Nitro-1,2,3-Triamidobenzol. Zers. bei 260° (B. 30, 543). — IV, 1121.
 C 36,7 — H 4,1 — O 16,3 — N 42,8 — M. G. 196.
 1) 2,2'-Bi[1-Nitroso-4,5-Dihydroimidazol]. Sm. 173° u. Zers. (B. 25, 2133). — I, 1366.
 $C_6H_8O_2Cl_2$ 1) Isomannidchlorid. Sm. 49°; Sd. 143°₄₃ (Bl. 41, 123). — I, 287.
 2) Allylester d. $\alpha\alpha$ -Dichlorpropionsäure. Sd. 176—178° (B. 9, 1878). — I, 473.
 3) Chlorid d. Butan- $\alpha\delta$ -Dicarbonsäure. Sd. 130—132°₁₈ (C. 1896 [2] 1090).
 4) Chlorid d. β -Methylpropan- $\alpha\beta$ -Dicarbonsäure (Ch. d. uns-Dimethylbernsteinsäure). Sd. 190—193° (200—202° u. Zers.) (A. 242, 138, 207). — I, 674.
 $C_6H_8O_2Cl_4$ 1) $\alpha\beta\gamma\delta$ -Tetrachlorbutylester d. Essigsäure. Sd. 220° (A. 179, 41). — I, 915.
 2) Verbindung (aus Pentachloracetal). Sd. 153—159° (B. 8, 642).
 $C_6H_8O_2Br_2$ 1) 1,2-Dibrom-R-Pentamethylen-1-Carbonsäure. Sm. bei 134° (Soc. 65, 102).
 2) Dibromhydrosorbinsäure. Sm. 94—95° (A. 168, 287). — I, 517.
 3) γ -Lakton d. $\alpha\beta$ -Dibrom- γ -Oxypentan- α -Carbonsäure. Fl. (B. 27, 350).
 4) Allylester d. $\alpha\beta$ -Dibrompropionsäure. Sd. 215—220°₇₄₅ (A. 167, 230). — I, 481.
 5) Verbindung (aus $\alpha\beta\epsilon\zeta$ -Tetrabrom- $\gamma\delta$ -Dioxyhexan). Sm. 102° (GRINER, thèse 69). — I, 265.
 $C_6H_8O_2Br_4$ 1) Tetrabromcapronsäure. Sm. 183°. Na + 2H₂O, Ca + 7H₂O, Ba + 1½H₂O (A. 161, 325; 168, 277; 200, 581). — I, 487.
 $C_6H_8O_2J_2$ 1) Aethylester d. $\alpha\beta$ -Dijodcrotonsäure. Fl. (B. 26, 844).
 $C_6H_8O_2S$ 1) Verbindung (aus Thiacetsäure + Aethylacetessigsäureäthylester). Sm. 168° (A. 261, 43). — I, 899.
 $C_6H_8O_2N_2$ C 46,2 — H 5,1 — O 30,7 — N 18,0 — M. G. 156.
 1) 2,4,5-Triketo-1-Methyl-3-Aethyltetrahydroimidazol (Methyläthylparabansäure). Sm. 41° (B. 31, 138; C. 1897 [1] 284).
 2) 4-Oximido-5-Acetyl-3-Methyl-4,5-Dihydroisoxazol (B. 30, 1309).
 3) 1-Nitroso-4,5-Diketo-3-Methylhexahydropyridin (Nitrosoguvacin). Sm. 167—168°. — IV, 61.
 4) 5-Oxy-2,4-Diketo-3-Aethyl-1,2,3,4-Tetrahydro-1,3-Diazin (Aethylisobarbitursäure). Sm. 250° u. Zers. (A. 253, 85). — I, 1348.
 5) 2,4,6-Triketo-5-Aethylhexahydro-1,3-Diazin (Aethylbarbitursäure). Sm. 190° (B. 15, 2845). — I, 1386.
 6) 2,4,6-Triketo-1,3-Dimethylhexahydro-1,3-Diazin (Dimethylbarbitursäure). Sm. 123° K (B. 12, 467; 27, 3084). — I, 1375.
 7) 2,4,6-Triketo-5,5-Dimethylhexahydro-1,3-Diazin (Dimethylbarbitursäure). Sm. 265°; subl. Ag₂ + ½H₂O (B. 14, 1643; 15, 2847; Soc. 39, 543). — I, 1386.
 8) 1-Acetyl-2,4-Diketo-5,5-Dimethylhexahydro-1,3-Diazin (Acetyl- β -Laktylharnstoff). Sm. 180° (M. 17, 176).
 9) Succinylmethylharnstoff. Sm. 147—148° (A. 178, 209). — I, 1382.
 10) 5-Keto-1,4-Dimethyl-4,5-Dihydropyrazol-4-Carbonsäure. Sm. 222° (B. 29, 1018). — IV, 540.
 11) Methylester d. 3-Keto-2,3,4,5-Tetrahydro-1,2-Diazin-5-Carbonsäure. Sm. 209—210° (J. pr. [2] 51, 113). — IV, 540.
 12) Aethylester d. β -Cyan- α -Oximidoäthan- α -Carbonsäure (Oxim d. Cyanbrenztraubensäureäthylesters). Sm. 104° (J. pr. [2] 47, 379). — I, 1222.
 13) Aethylester d. 5-Keto-4,5-Dihydropyrazol-3-Carbonsäure. Sm. 179° (184—185°). Ag₂ (J. pr. [2] 51, 53; Soc. 69, 1395). — IV, 535.

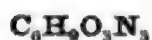
- C₈H₅O₃N₂** 14) Aethylester d. 5-Keto-4,5-Dihydropyrazol-4-Carbonsäure. Sm. 180 bis 181°. N₂H₄, Ag₂ (B. 27, 1660, 2747; 28, 988; Soc. 67, 1011). — IV, 536.
- 15) αβ-Imid d. Propan-αβγ-Tricarbonsäure-γ-Amid (Amidimid d. Tricarballysäure). Sm. 173° (B. 24, 601). — I, 1405.
- 16) Verbindung (aus β-Isonitrosobernsteinsäureäthylester). Sm. 166–167° (G. 18, 468).
C 39,1 — H 4,3 — O 26,1 — N 30,4 — M. G. 184.
- C₈H₅O₃N₄** 1) 5-Amidoformylamido-2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin + 2H₂O (Methylhydroxyxanthin) (A. 231, 251; 253, 80). — I, 1351.
- 2) Aethyläther d. 5-Diazo-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin (Ae. d. Diazouracil) (A. 258, 355). — I, 1347.
- C₈H₅O₃Cl₂** 1) Aethylester d. αα-Dichlor-β-Ketopropan-α-Carbonsäure (Ae. d. Acetyldichloressigsäure). Sd. 205–207° (A. 186, 234; 240, 64; 253, 173; B. 11, 569; A. ch. [6] 24, 74). — I, 595.
- 2) Aethylester d. γγ-Dichlor-β-Ketopropan-α-Carbonsäure (Ae. d. Dichloracetylessigsäure). Sd. 203–205° u. ger. Zers. Cu + 3H₂O (A. ch. [6] 24, 68). — I, 595.
- C₈H₅O₃Br** 1) Anhydrid d. α-Brompropionsäure. Sd. 120° (B. 27, 2949).
- 2) Aethylester d. αα-Dibrom-β-Ketopropan-α-Carbonsäure (Ae. d. Acetdibromessigsäure). Sd. 180°. Cu (Z. 1869, 29; B. 15, 1380; A. 213, 143; 219, 99; 245, 75; 253, 177; 278, 86; B. 29, 1046). — I, 596.
- 3) Aethylester d. αγ-Dibrom-β-Ketopropan-α-Carbonsäure (Aethylester d. Bromacetbromessigsäure). Sm. 45–49°. Cu (A. 278, 85).
- C₈H₅O₃Br** 1) Dibromid [P] d. Dibromacetessigsäureäthylester (A. 186, 233; 213 144; B. 15, 1378).
- C₈H₅O₃S** 1) Aethylester d. Thiophen-2-Sulfonsäure. Fl. (B. 17, 799). — III, 742.
- C₈H₅O₃Hg** 1) Verbindung (aus Acetessigsäureäthylester) (B. 31, 2215).
- C₈H₅O₃N₇** C 41,9 — H 4,6 — O 37,2 — N 16,3 — M. G. 172.
- 1) 3,6-Diamido-1,2,4,5-Tetraoxybenzol. 2HCl (B. 18, 503; 19, 2727). — II, 1033.
- 2) 4-Nitro-5-Keto-4-Aethyl-3-Methyl-4,5-Dihydroisoxazol. Sm. 68° (B. 28, 2098).
- 3) 5-Oxy-2,4,6-Triketo-1,3-Dimethylhexahydro-1,3-Diazin (Dimethyldialursäure). Sm. 170° u. Zers. K, Ba + 2H₂O (M. 3, 105; B. 27, 3082).
- 4) Diacetat d. αβ-Dioximidoäthan (D. d. Glyoxim). Sm. 120° (126°) (B. 17, 1573; 25, 705). — I, 970.
- 5) Aethylester d. 4-Methyl-1,2,3,6-Dioxdiazin-5-Carbonsäure. Sd. 240 bis 242° (B. 28, 2681).
- 6) Verbindung (aus Diacetylbernsteindiäthylester). Sm. 152,5° u. Zers. (B. 25, 1724). — I, 820.
- C₈H₅O₄N₄** C 36,0 — H 4,0 — O 32,0 — N 28,0 — M. G. 200.
- 1) 4-Oximido-3-Methyl-5-[αβ-Dioximidoäthyl]-4,5-Dihydroisoxazol + H₂O. Sm. bei 221° u. Zers. (B. 30, 1299, 1304).
- 2) 1-Methylpseudoharnsäure. Sm. bei 220° u. Zers. (B. 30, 3091).
- 3) 7-Methylpseudoharnsäure + H₂O (B. 30, 561).
- 4) Verbindung (aus α-Nitro-α-Oximidodimethylketon). Sm. 140° u. Zers. (A. 283, 231).
- 5) Verbindung (aus α-Nitrosoxyl-αβ-Diamidopropan). Sm. 189–191° u. Zers. (A. 277, 327; B. 26, 627).
- C₈H₅O₄Cl₂** 1) βγ-Dichlorbutan-αδ-Dicarbonsäure (Dichloradipinsäure). Sm. 200° u. Zers. (Soc. 57, 939). — I, 670.
- 2) βγ-Dichlorbutan-βγ-Dicarbonsäure (s-Dichlordimethylbernsteinsäure). Sm. 185°. Na₂, K₂ + 2H₂O (B. 18, 326, 847; J. pr. [2] 41, 466; [2] 46, 383). — I, 673.
- 3) Dimethylester d. αβ-Dichlorbernsteinsäure. Sm. 31,5–32° (A. 280, 215).
- 4) Dimethylester d. Isodichlorbernsteinsäure. Fl. (A. 280, 222).
- 5) Diacetat d. ββ-Dichlor-αα-Dioxyäthan. Sm. 52°; Sd. 220–222° (Bl. 48, 715). — I, 925.
- 6) Diacetat d. αβ-Dichlor-αβ-Dioxyäthan. Sd. 120°₂₀ (Z. 1870, 380). — I, 413.
- C₈H₅O₄Cl** 1) 2,6-Di[Dichlormethyl]-1,3,5,7-Tetroxan. Sm. 87° (B. 31, 1932).

- $C_6H_5O_4Cl$ 1) Di[$\beta\beta$ -Trichlor- α -Oxyäthyläther] d. $\alpha\beta$ -Dioxyäthan (Chloralglykolat). Sm. 42ⁿ (B. 7, 764; Bl. [3] 2, 256). — I, 933.
- $C_6H_5O_4Br$ 1) $\alpha\gamma$ -Dibrombutan- $\alpha\alpha$ -Dicarbonsäure? Sm. 130—131° (A. 294, 125).
 2) $\gamma\delta$ -Dibrombutan- $\alpha\alpha$ -Dicarbonsäure. Sm. 119—121° (124,5°) (B. 15, 624; A. 216, 58; 294, 121 Anm.). — I, 671.
 3) ?-Dibrombutan- $\alpha\gamma$ -Dicarbonsäure (Dibrom- α -Methylglutarsäure). Sm. 160° u. Zers. (M. 15, 62).
 4) $\alpha\delta$ -Dibrombutan- $\alpha\delta$ -Dicarbonsäure (Dibromadipinsäure). Sm. 191° u. Zers. (A. 155, 249; B. 24, 2231). — I, 670.
 5) $\beta\gamma$ -Dibrombutan- $\alpha\delta$ -Dicarbonsäure (Dibromadipinsäure). Sm. 190° u. Zers. (A. 165, 272; 256, 19; B. 4, 627). — I, 670.
 6) $\alpha\beta$ -Dibrombutan- $\beta\gamma$ -Dicarbonsäure. Sm. 153° u. Zers. (C. 1897 [2] 264; A. 304, 174).
 7) isom. Dibrombutandicarbonsäure. Sm. 115—116° (A. 165, 266).
 8) Dimethylester d. $\alpha\beta$ -Dibrombernsteinsäure. Sm. 62—64° (61—62°) (J. r. 11, 288; B. 12, 2282). — I, 659.
 9) Dimethylester d. Isodibrombernsteinsäure (B. 13, 1671). — I, 660.
 10) Monäthylester d. $\alpha\beta$ -Dibrombernsteinsäure. Sm. 275°. Na + 2H₂O, K + $\frac{1}{2}$ H₂O, Ag + $1\frac{1}{2}$ H₂O (B. 15, 1844). — I, 659.
 11) isom. Monäthylester d. Dibrombernsteinsäure. Sm. 68° (Soc. 59, 739). — I, 659.
- $C_6H_5O_4S$ 12) Aethylenester d. Bromessigsäure. Sd. 205—206°₃₀ (A. 280, 198).
- $C_6H_5O_4N_2$ 1) Tetrahydrothiophen-2,5-Dicarbonsäure. Sm. 162°. Ba, Ag₂ (B. 19, 3275). — III, 760.
 C 38,3 — H 4,2 — O 42,6 — N 14,9 — M. G. 188.
- $C_6H_5O_4N_2$ 1) Dimethylalloxan + H₂O. Zers. bei 100°. + KHSO₅ (B. 14, 1913; M. 3, 93; A. 215, 257).
 2) α -Formylharnstoff- β -[α -Ketopropyl- γ -Carbonsäure] (Formylauccinursäure). Sm. 136—138°. Ag (B. 29, 2047).
 3) Monacetat d. $\alpha\beta$ -Dioximidobuttersäure. Sm. 150° (B. 25, 2160).
 4) Verbindung (d. Sorbinsäure). Sm. 110° (B. 26 [2] 597).
- $C_6H_5O_4S$ 1) Thiobrenztraubensäure. Sm. 87° u. Zers. (A. 188, 325). — I, 897.
- $C_6H_5O_4N_2$ C 35,3 — H 3,9 — O 47,1 — N 13,7 — M. G. 204.
 1) Aethylenoxaminsäure + 2H₂O. Sm. 202—202,5°. Ag₂ (B. 26 [2] 92). — I, 1363.
 2) Oxalyldi[amidoessigsäure] (Oxamiddiessigsäure). Sm. 250° u. Zers. Ag₂ (B. 30, 580).
 3) α -Formylharnstoff- β -[β -Oxy- α -Ketopropyl- γ -Carbonsäure] (Formylmalursäure) Fl. NH₃ + H₂O, Ag (B. 29, 2049).
 C 27,7 — H 3,1 — O 36,9 — N 32,3 — M. G. 260.
- $C_6H_5O_4N_2$ 1) Dinitrodimethylacetylenharnstoff (Dinitrodimethylglykoluril) (R. 7, 20, 248). — I, 1315.
 2) isom. Dinitrodimethylacetylenharnstoff (R. 7, 253). — I, 1316.
- $C_6H_5O_4Cl_2$ 1) Chlorid (aus Citronensäure) (A. 98, 71; Soc. 55, 236). — I, 841.
- $C_6H_5O_4S$ 1) Dimethylthetindicarbonsäure. Sm. 157—158° u. Zers. Na₂ + 3H₂O, Ba, Ag₂ (B. 25, 2450). — I, 877.
- $C_6H_5O_4N_2$ C 32,7 — H 3,6 — O 50,9 — N 12,7 — M. G. 220.
 1) α -Formylharnstoff- β -[$\beta\gamma$ -Dioxy- α -Ketopropyl- γ -Carbonsäure] + H₂O (Formylracemursäure). Sm. 256° u. Zers. (B. 29, 2050).
- $C_6H_5O_4S$ 1) i-Inositachwefelsäure. Ba (Z. 1869, 68). — I, 1052.
- $C_6H_5O_4N_2$ C 30,5 — H 3,4 — O 54,2 — N 11,9 — M. G. 236.
 1) Allophanylweinsäure. Fl. Ag₂ (B. 22, 1578). — I, 1308.
- $C_6H_5O_4P_2$ 1) 1,4-Phenylenester d. Phosphorsäure. Sm. 168—169° (C. 1898 [2] 987).
- $C_6H_5O_4N_2$ C 28,6 — H 3,2 — O 57,1 — N 11,1 — M. G. 252.
 1) Dinitrat d. Dextrin (J. 1860, 521). — I, 1089.
 2) isom. Dinitrat d. Dextrin (J. 1860, 521). — I, 1091.
 3) Dinitrat d. Glykogen (M. 2, 626). — I, 1094.
 C 20,9 — H 2,3 — O 60,5 — N 16,3 — M. G. 344.
- $C_6H_5O_4N_2$ 1) Manitantetranitrat (J. 1864, 583). — I, 328.
 2) Tetranitrat d. Rhamnose. Sm. 135° (B. 31, 71).
 C 21,7 — H 2,4 — O 67,5 — N 8,4 — M. G. 332.
- $C_6H_5O_4N_2$ 1) Dinitrodextrin (M. 2, 634).
 C 15,9 — H 1,8 — O 63,7 — N 18,6 — M. G. 452.
- $C_6H_5O_4N_6$ 1) Dulcithexanitrat. Sm. 85,5° (J. 1860, 522; Bl. 22, 179). — I, 328.

- $C_6H_8O_4N_2$ 2) Mannithexanitrat (Nitromannit). Sm. 108° (112—113°) (*J.* 1847/48, 1145; 1863, 584; 1864, 582; *A. ch.* [3] 46, 354; [5] 6, 125; [5] 10, 267; *A.* 64, 397; 73, 59; 81, 251; *J. r.* 11, 136). — I, 327.
- C_6H_7NCl 1) Chlormethylat d. Pyridin. 2 + $PtCl_4$, + $AuCl_3$ (*H.* 18, 117; *B.* 18, 3438; 21, 1773). — IV, 109.
- 2) Verbindung (aus d. Nitril d. γ -Ketopentan- β -Carbonsäure). Sd. 172 bis 177° (*J. pr.* [2] 39, 191). — I, 1474.
- C_6H_7NBr 1) Brommethylat d. Pyridin + $\frac{1}{2}H_2O$. Sm. 135,5° u. ger. Zers. (*C.* 1897 [2] 592; *B.* 18, 599). — IV, 109.
- $C_6H_7NBr_2$ 1) Monobromid d. Pyridinbrommethylat. Sm. 82—83° (*C.* 1897 [2] 593).
- $C_6H_7NBr_2$ 1) Bromid d. Pyridinbrommethylat. Sm. 66° (*C.* 1897 [2] 592).
- C_6H_7NJ 1) Jodmethylat d. Pyridin. Sm. 117° (*B.* 14, 1498; 18, 3438; *C.* 1896 [1] 554). — IV, 109.
- $C_6H_7NJ_2$ 1) Methyldijodid d. Pyridin. Sm. 91,5° (*C.* 1896 [1] 42).
- $C_6H_7NJ_3$ 1) Methyltrijodid d. Pyridin. Sm. 48—50° (*C.* 1896 [1] 42).
- $C_6H_7NJ_5$ 1) Methylpentajodid d. Pyridin. Sm. 47,5° (44,5°) (*C.* 1896 [1] 42; 1897 [1] 1060; 1897 [2] 592). — IV, 109.
- $C_6H_7NJ_7$ 1) Methylheptajodid d. Pyridin. Sm. 25° (26°) (*C.* 1896 [1] 42; 1897 [1] 1060). — IV, 109.
- $C_6H_7N_2Br$ 1) 4,5-Dibrom-2-Methyl-1-Aethylimidazol. Sm. 38°. (2HCl, $PtCl_4$) (*B.* 16, 537). — IV, 517.
- $C_6H_7N_2S$ 1) 2,5-Diamido-1-Merkaptobenzol. Zn (*A.* 251, 64; 277, 244). — II, 800.
- 2) Acetylaceton+Thioharnstoff (2-Thiocarbonyl-4,6-Dimethyl-2,5-Dihydro-1,3-Diazin). Sm. 210°. HCl, Ag (*J. pr.* [2] 48, 503).
- $C_6H_7N_2S_2$ 1) Sulfid d. 2-Merkapto-4,5-Dihydrothiazol. Sm. 79—81° (*B.* 28, 2932).
- $C_6H_7N_2Cl$ 1) 5-Chlor-1,2,4-Triamidobenzol. HCl (*B.* 30, 1667).
- 2) 5-Chlor-6-Amido-2,4-Dimethyl-1,3-Diazin + $3H_2O$ (Chlorkyanmethin). Sm. 165°. HCl + H_2O , (2HCl, $PtCl_4$) (*B.* 2, 320; 4, 176). — IV, 1128.
- $C_6H_7N_2Cl_2$ 1) p-Trichlor-6-Amido-2,4-Dimethyl-p-Dihydro-1,3-Diazin (Chlorkyanmethindichlorid). subl. bei 200° (*J. pr.* [2] 31, 369). — IV, 1128.
- $C_6H_7N_2Br$ 1) 5-Brom-6-Amido-2,4-Dimethyl-1,3-Diazin + $3H_2O$ (Bromkyanmethin). Sm. 141—142° (*B.* 4, 177; *J. pr.* [2] 27, 156). — IV, 1128.
- $C_6H_7N_2S$ 1) Allylthioharnstoffcyanid (Thiosinamindicyanid). Zers. bei 139° (*Z.* 1869, 259; *C.* 1898 [2] 766). — I, 1322.
- $C_6H_7N_2Cl_3$ 1) 4,6-Di[Methylamido]-2-Trichlormethyl-1,3,5-Triazin. Sm. 206 bis 207° (*J. pr.* [2] 33, 88). — I, 1456.
- $C_6H_7N_2Br_3$ 1) 4,6-Di[Methylamido]-2-Tribrommethyl-1,3,5-Triazin. Sm. 263 bis 264° (*J. pr.* [2] 50, 108).
- $C_6H_7N_{10}S$ 1) Monothiodiprussiämsäure (*A.* 179, 153). — I, 1452.
- $C_6H_7N_{10}S_2$ 1) Dithioammeliid (*B.* 23, 1676). — I, 1449.
- C_6H_7ON C 64,9 — H 8,1 — O 14,4 — N 12,6 — M. G. 111.
- 1) Propylverbindung d. Nitroäthan. Sd. 175—178° (*A.* 243, 126; siehe auch *J. r.* 20, 579). — I, 206.
- 2) Akroleinammoniak + $1\frac{1}{2}H_2O$. (2HCl, $PtCl_4$) (*A.* 47, 122; 114, 43; 130, 185; 155, 283; 158, 222). — I, 958.
- 3) 2-Oximido-1-Methyl-2,3-Dihydro-R-Penten. Sm. 128° (*A.* 275, 374; *C.* 1898 [1] 327).
- 4) 3,4,5-Trimethylisoxazol. Sm. 3,5°; Sd. 171°. + $HgCl_2$, + $AuCl_3$ (*J. r.* 20, 582; *Soc.* 59, 411). — IV, 73.
- 5) 1-Oxy-2,5-Dimethylpyrrol. Fl. (*A.* 236, 302). — IV, 72.
- 6) Aldehyd d. p-Cyanvaleriansäure. Sd. 137° (*A. ch.* [6] 16, 188). — I, 953.
- 7) Nitril d. γ -Ketopentan- β -Carbonsäure (N. d. Methylpropionyllessigsäure). Sd. 193,5°. K (*J. pr.* [2] 38, 339; [2] 39, 191; *Bl.* [3] 5, 773; 51, 176). — I, 1474.
- 8) Nitril d. δ -Keto- β -Methylbutan- δ -Carbonsäure (N. d. Isovalerylameisensäure). Sd. 145—150° (*A.* 131, 74). — I, 1474.
- 9) Amid d. $\alpha\gamma$ -Pentadien- α -Carbonsäure (A. d. Sorbinsäure) (*A.* 110, 138). — I, 1251.
- $C_6H_8ON_2$ C 51,8 — H 6,5 — O 11,5 — N 30,2 — M. G. 139.
- 1) 2,4,6-Triamido-1-Oxybenzol. Salze fast sämtlich bekannt (*A.* 125, 1; 130, 244; 215, 350 Anm.; *Z.* 1867, 338; 1868, 90; *Bl.* [3] 9, 599; *B.* 1, 111; 16, 2400; 26 [2] 493; *M.* 16, 249, 260). — II, 724.

- C₆H₅ON₃**
- 2) **2-Triamido-1-Oxybenzol**. H₂SO₄, Pikrat (*B.* 30, 183).
 - 3) **2-Imido-4-Keto-5,6-Dimethyl-1,2,3,4-Tetrahydro-1,3-Diazin** (Imido-dimethyluracil). Sm. 320°. HNO₃, H₂SO₄ (*A.* 262, 370). — *I*, 1355.
 - 4) **2-Methylimido-4-Keto-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin** (Methylimidomethyluracil). Sm. 312°. HCl + H₂O, HJ, H₂SO₄ (*A.* 262, 369). — *I*, 1348.
 - 5) **Parareducin** (*Bl.* 51, 159). — *III*, 666.
 - 6) **Amid d. 3,5-Dimethylpyrazol-1-Carbonsäure** (3,5-Dimethylpyrazol-harnstoff). Sm. 107—108° (*Bl.* [3] 19, 77).
 - 7) **Isopropenylhydrazid d. Cyanessigsäure**. Sm. 152° (*B.* 27, 688).
- C₆H₅OCl**
- 1) **Chlorid d. β-Penten-γ-Carbonsäure** (Chlorid d. α-Aethylcrotonsäure) (*Z.* 1867, 712). — *I*, 516.
 - 2) **Chlorid d. R-Pentamethylencarbonsäure**. Sd. 139° (*Soc.* 65, 99).
- C₆H₅OCl₂**
- 1) **Aldehyd d. 2-Trichlorpentan-α-Carbonsäure** (Aldehyd d. Trichlorcapronsäure). Sd. 212—214° (*B.* 10, 1053). — *I*, 954.
 - 2) **Verbindung (aus Acetaldehyd)**. Sd. 215—220° (*A.* 179, 35). — *I*, 915.
- C₆H₅O₂N**
- 1) **α-Amido-γ-Keto-β-Aethanoyl-α-Buten** (Amidomethylenacetylaceton). Sm. 144° (*A.* 297, 65).
 - 2) **s-Oximido-δ-Keto-α-Hexen**. Sm. 46° (*B.* 22, 2124). — *I*, 1034.
 - 3) **s-Oximido-δ-Keto-β-Methyl-β-Penten** (Isouitrosomesityloxyd). Sm. 102° (*B.* 22, 529). — *I*, 1009.
 - 4) **5-Keto-3-Methyl-4-Aethyl-4,5-Dihydroisoxazol**. Sm. 50°. Ba + 5½ H₂O, AgH (*A.* 296, 60).
 - 5) **4,5-Diketo-3-Methylhexahydropyridin** (Guvacin). Sm. 271—272° u. Zers. HCl, (2HCl, PtCl₄ + 4H₂O). (HCl, AuCl₃). — *IV*, 61.
 - 6) **γ-Cyanvaleriansäure**. Sm. 95—96°. K (*A.* 233, 113). — *I*, 1220.
 - 7) **Methylester d. α-Cyanisobuttersäure**. Sd. 76—78°₂₀ (*Am.* 18, 743).
 - 8) **Aethylester d. α-Cyanpropionsäure**. Sd. 197—198° (*B.* 21, 3162; *Soc.* 52, 796; 67, 420; *A.* 285, 283). — *I*, 1219.
 - 9) **Isobutylester d. Cyanameisensäure**. Sd. 146° (*J. pr.* [2] 10, 201). — *I*, 1217.
 - 10) **Isobutylester d. Paracyanameisensäure**. Sm. 158° (*J. pr.* [2] 10, 215). — *I*, 1217.
 - 11) **Nitril d. α-Acetoxylobuttersäure**. Sd. 183°₇₆₄ (*Bl.* [3] 13, 237; *C.* 1897 [2] 938).
 - 12) **Nitril d. α-Acetoxylobuttersäure**. Sd. 180—182°₇₆₀ (*C.* 1898 [2] 661).
 - 13) **Nitril d. α-Propionoxylpropionsäure**. Sd. 181—182°₇₆₀ (*Bl.* [3] 13, 236).
 - 14) **Imid d. Butan-βγ-Dicarbonsäure** (s-Dimethylbernsteinsäureimid). Sm. 109—110°; Sd. 260—265° (*B.* 22, 650). — *I*, 1387.
 - 15) **Imid d. Butan-βγ-Dicarbonsäure** (Anti-Dimethylbernsteinsäureimid). Sm. 106°; Sd. 300° (*B.* 22, 389; 23, 642). — *I*, 1387.
 - 16) **Imid d. Butan-βγ-Dicarbonsäure** (Para-Dimethylbernsteinsäureimid). Sm. 78° (*B.* 23, 642). — *I*, 1387.
 - 17) **Imid d. β-Methylpropan-αβ-Dicarbonsäure** (l. d. uns-Dimethylbernsteinsäure). Sm. 106°; subl. bei 60°. K + 2½ H₂O (*B.* 14, 1076; 15, 581; *A.* 242, 205). — *I*, 1387.
 - 18) **Methylimid d. Propan-αβ-Dicarbonsäure**. Sd. 223° (*B.* 30, 3039).
 - 19) **Aethylimid d. Aethan-αβ-Dicarbonsäure** (Aethylimid d. Bernsteinsäure). Sm. 26°; Sd. 234° (*A.* 182, 90; 215, 211). — *I*, 1381.
 - 20) **Bernsteinsäureimidäthyläther?** Sm. 141—146°₂₀ (*Am.* 13, 522). — *I*, 1381.
- C₆H₅O₂N₃**
- 1) **2-Triamido-1,3-Dioxybenzol**. 3HCl + H₂O, (3HCl, SnCl₂ + H₂O) (*A.* 158, 247). — *II*, 930.
 - 2) **2,3,5-Triamido-1,4-Dioxybenzol**. 3H₂SO₄ (*B.* 22, 1658). — *II*, 950.
 - 3) **4-Nitro-1,3,5-Trimethylpyrazol**. Sm. 56—57°; Sd. 245—247°₂₀₁ (*A.* 279, 234; *B.* 28, 717). — *IV*, 523.
 - 4) **4-Aethyläther d. 4-Oximido-5-Keto-3-Methyl-4,5-Dihydropyrazol** (*J. pr.* [2] 50, 513). — *IV*, 507.
 - 5) **2,4-Diketo-6-Methyl-3-Aethyl-1,2,3,4-Tetrahydro-1,3,5-Triazin** (*A.* 27 [2] 427).
 - 6) **α-Cyanacetyl-αβ-Dimethylharnstoff** (*B.* 12, 466). — *I*, 1304.

- $C_8H_8O_2N_2$ 7) Histidin. $HCl + H_2O$, $2HCl$, $Ag_2 + H_2O$ (*H.* 22, 182, 192, 285; 25, 176; 26, 113). — III, 927.
- $C_8H_8O_2N_2$ C 39,3 — H 4,9 — O 17,5 — N 38,2 — M. G. 183.
- 1) Ureid d. β -Cyanpropan- β -Azocarbonsäure (Allophanylazoisobutyronitril). Sm. 127° u. Zers. (*A.* 303, 104).
- $C_8H_8O_2Cl$ 1) 2-Chlor-3-Keto-1-Oxyhexahydrobenzol (*A.* 278, 41). — II, 905.
- 2) β -Chlor- α -Penten- γ -Carbonsäure? (β -Chlor- α -Aethyltetrakrylsäure). Sm. 49,5°; Sd. 215°. Na, Ca + 2H₂O, Mg + 2H₂O, Ba, Zn + 1½ H₂O, Cu, Ag (*A.* 234, 181; 249, 313). — I, 516.
- 3) β -Chlor- β -Penten- γ -Carbonsäure (β -Chlor- α -Aethylcrotonsäure). Sm. 74 bis 75° (*B.* 10, 1177). — I, 516.
- 4) β -Chlor- γ -Methyl- α -Buten- γ -Carbonsäure? (Chlordimethylvinylessigsäure). Sm. 63–64° (*B.* 10, 1178). — I, 518.
- 5) Chloräthulminsäure (*A. ch.* [3] 65, 340).
- 6) Methylester d. γ -Chlor- β -Buten- β -Carbonsäure? (M. d. Chlormethylmethakrylsäure). Sd. 158,5° (*A.* 249, 307). — I, 514.
- 7) Aethylester d. α -Chlorpropen- α -Carbonsäure (Aethylester d. α -Chlorcrotonsäure). Sd. 176–178° (*A.* 164, 101; 173, 301). — I, 507.
- 8) Aethylester d. β -Chlorpropen- α -Carbonsäure (Aethylester d. β -Chlorcrotonsäure). Sd. 184° (179–180°) (*Z.* 1871, 240; *B.* 29, 1655). — I, 508.
- 9) Aethylester d. β -Chlorisocrotonsäure. Sd. 161,4° (159°; 164°) (*Z.* 1869, 273; *B.* 29, 1655; *Bl.* [3] 13, 70). — I, 510.
- 10) Aethylester d. β -Chlorpropen- β -Carbonsäure (Aethylester d. Chlormethakrylsäure). Sd. 155–158° (*J.* 1876, 534). — I, 511.
- 11) Acetat d. γ -Chlor- α -Oxy- β -Buten? (Chlorcrotylester d. Essigsäure). Sd. 168–169°_{741,1} (*A.* 213, 379). — I, 412.
- $C_8H_8O_2Cl_2$ 1) Trichloreapronsäure. Sm. 64° (*B.* 10, 1053). — I, 476.
- 2) Aethylester d. $\alpha\alpha\beta$ -Trichlorbuttersäure. Sd. 212° (*B.* 3, 787). — I, 475.
- 3) Isobutylester d. Trichloressigsäure. Sd. 187–189° (*B.* 3, 784; 16, 789). — I, 471.
- 4) Trichlorbutylester d. Essigsäure. Sd. 217,5°₇₈₀ (*A.* 213, 373; *B.* 14, 2759). — I, 409.
- 5) Acetat d. $\alpha\alpha\alpha$ -Trichlor- β -Oxy- β -Methylpropan. Sd. 191° (*J. pr.* [2] 39, 285; *C.* 1899 [1] 778). — I, 979.
- 6) Dulcitantrichlorhydrin (*A. ch.* [4] 27, 68, 145).
- $C_8H_8O_2Cl_2$ 1) Aethyldichloräthyläther d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan (Pentachloracetal). Sd. 186–189° (*B.* 8, 642). — I, 923.
- $C_8H_8O_2Br$ 1) β -Brom- β -Penten- α -Carbonsäure. Sm. 51–52° (*A.* 304, 191).
- 2) Methylester d. 1-Brom- β -Tetramethylen-1-Carbonsäure. Sd. 117 bis 119°₁₀₀ (*Soc.* 61, 42). — I, 515.
- 3) Aethylester d. α -Brompropen- β -Carbonsäure (Aethylester d. Brommethakrylsäure). Sd. 192–193° (*A. Spl.* 2, 349). — I, 511.
- 4) Verbindung (aus Glycerin). Sd. unter 200° (*A.* 101, 72). — I, 315.
- $C_8H_8O_2N$ C 50,3 — H 6,3 — O 33,6 — N 9,8 — M. G. 143.
- 1) 1-[α -Oximidoäthyl]- β -Trimethylen-1-Carbonsäure. Sm. 157–158° u. Zers. (*Soc.* 59, 868). — I, 619.
- 2) $\beta\delta$ -Lakton d. β -Oxybutan- $\beta\delta$ -Dicarbonsäure- β -Monamid. Sm. 121 bis 124° (*A.* 238, 300). — I, 1395.
- 3) $\beta\delta$ -Lakton d. γ -Oximido- δ -Oxy- β -Methylbutan- β -Carbonsäure. Sm. 134° (*B.* 31, 2730).
- 4) Methylester d. α -Amido- γ -Keto- α -Buten- β -Carbonsäure. Sm. 109° (*A.* 297, 31).
- 5) Monamid d. Iso- α -Methylglutakonsäure + H₂O. Sm. 182–183° (*M.* 15, 67).
- 6) Monamid d. Fumarsäuremonäthylester (Aethylester d. Fumaraminsäure). Sd. 105° (*J. pr.* [2] 38, 481). — I, 1388.
- 7) Methylmonamid d. Fumarsäuremonomethylester (Methylester d. Methylfumaraminsäure). Sm. 150° (*B.* 27 [2] 403; *G.* 25 [1] 99).
- 8) Aethylmonamid d. Maleinsäure. Sm. 125–126° (*G.* 18, 485; 26 [1] 437). — I, 1389.
- 9) Triacetamid (Triacetylamin). Sm. 78–79° (*B.* 3, 848). — I, 1239.
- 10) Verbindung (aus Diacetylbernsteinsäurediäthylester). Sm. 75°; Sd. 185 bis 188° (*B.* 25, 1726). — I, 820.



C 42,1 — H 5,3 — O 28,1 — N 24,5 — M. G. 171.

- 1) 2,4,6-Triamido-1,3,5-Trioxybenzol. 3HCl (B. 26, 2185). — II, 1022.
- 2) 4-Oximido-3-Methyl-5-[α -Oximidoäthyl]-4,5-Dihydroisoxazol. Zers. bei 245–246°. HCl (B. 23, 3578; 28, 2673, 2676; 30, 1287, 1292, 1297, 2421). — I, 971.
- 3) 1,3,5-Trioximidohexahydrobenzol. Zers. bei 140° (B. 19, 159). — II, 1022.
- 4) 5-Amido-2,4,6-Triketo-1,3-Dimethylhexahydro-1,3-Diazin (Dimethyluramil). Sm. bei 200° u. Zers. (2HCl, PtCl₄) (B. 27, 3087; 28, 2475 Anm.).
- 5) Hydrokaffursäure. Sm. 245° (B. 14, 1910; A. 215, 285). — III, 964.
- 6) Trimethylester d. norm. Cyanursäure. Sm. 135°; Sd. 265°. + HgCl₂ (B. 3, 271; 18, 2799, 3264; 19, 2063, 2093; J. pr. [2] 33, 131). — I, 1270.
- 7) Trimethylester d. Isocyanursäure. Sm. 175–176; Sd. 274°. + HgCl₂ (A. ch. [3] 42, 62; B. 3, 272; 14, 2728; 18, 3271; 19, 2096; Bl. [3] 19, 197). — I, 1269.
- 8) Monäthylester d. Diazobernsteinsäuremonamid. Sm. 110–112° u. Zers. (B. 18, 1298). — I, 1496.
- 9) Amid d. Propen- $\alpha\beta\gamma$ -Tricarbonsäure (A. d. Akonitsäure). Zers. bei 260° (B. 22, 1078). — I, 1405.
- 10) Amid d. α -Acetylamido- α -Acetylimidoessigsäure (B. 28, 62).



C 36,2 — H 4,5 — O 24,1 — N 35,2 — M. G. 199.

- 1) Triamid d. 4,5-Dihydropyrazol-3,4,5-Tricarbonsäure. Sm. 230° (A. 273, 243). — IV, 494.



C 28,2 — H 3,5 — O 18,8 — N 49,4 — M. G. 255.

- 1) Ammelid. + AgNO₃ (A. 10, 30; 21, 244; 73, 246; 95, 265; 128, 339; 153, 294; 166, 300; B. 6, 1373; J. pr. [2] 5, 36; Bl. 46, 245). — I, 1450.
- 2) Amid d. Triazoessigsäure. Sm. noch nicht bei 300° (J. pr. [2] 38, 543). — I, 1493.

- 3) Amid d. Pseudodiazoessigsäure. Sm. 132–133° (170°). 2NH₃, Ag₂ + 1½ H₂O (B. 18, 1288; J. pr. [2] 38, 545). — I, 1493.



- 1) Salzsaures Quercitan (A. ch. [5] 15, 54). — I, 283.

- 2) Chloräthylacetessigsäure (A. 186, 241).

- 3) Aethylester d. α -Chlor- β -Ketopropan- α -Carbonsäure (Ae. d. Acetylchloroessigsäure). Sd. 193° u. ger. Zers. Na, Mg, Co, Cu, Ni (B. 11, 569; 12, 1298; 16, 1554; 29, 1044; A. 245, 59; 253, 171; 278, 63, 69; Bl. 47, 889). — I, 594.

- 4) Chlorid d. Bernsteinsäuremonäthylester. Sd. 144°₉₀ (B. 25, 2748). — I, 657.

- 5) Chlorid d. Oxalsäuremonoisobutylester. Sd. 163–165° (A. 254, 28). — I, 584.



- 1) Aldehyd d. $\alpha\alpha\alpha$ -Trichlor- $\beta\delta$ -Dioxypentan- γ -Carbonsäure (Chloralaldol). Fl. (B. 25, 799). — I, 967.

- 2) Monacetat d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthanäthyläther (Chlorolessigäthyläther). Sd. 198° (A. 171, 70; B. 11, 447). — I, 933.

- 3) Propylester d. $\beta\beta\beta$ -Trichlor- α -Oxypropionsäure. Sd. 248–250° (A. 253, 125). — I, 557.

- 4) Phenotrichlorhydrin. Sm. 10° (A. 136, 324). — I, 1056.



- 1) Methylester d. α -Brom- β -Ketobutan- γ -Carbonsäure. Fl. (B. 29, 1047).

- 2) Methylester d. γ -Brom- β -Ketobutan- γ -Carbonsäure. Fl. (B. 29, 1047).

- 3) Aethylester d. α -Brom- β -Ketopropan- α -Carbonsäure (Aethylester d. Acetbromessigsäure). Sd. 210–215° u. Zers. Cu (A. 253, 175; 266, 80; 278, 65, 78; B. 25 [2] 325; 27, 355, 3168; 29, 1044). — I, 594.

- 4) Aethylester d. γ -Brom- β -Ketopropan- α -Carbonsäure (Aethylester d. Bromacetessigsäure). Sd. 125°₁₀. Cu (B. 15, 1379; 16, 296; 25 [2] 325; 27, 355, 3168; 29, 1043; A. 213, 138; 266, 77; 278, 65, 77). — I, 595.



- 1) Aethylester d. α -Jod- β -Ketopropan- α -Carbonsäure (Aethylester d. Acetjodessigsäure). Sd. 125°₂₀ u. ger. Zers. (A. 253, 178; A. ch. [6] 24, 65). — I, 596.

- 2) Aethylester d. γ -Jod- β -Ketopropan- α -Carbonsäure (Aethylester d. Jodacetessigsäure). Sd. 120–122°₂₃ (A. ch. [6] 24, 59). — I, 596.



C 45,3 — H 5,7 — O 40,2 — N 8,8 — M. G. 159.

- 1) γ -Acetyl- γ -Oximidobuttersäure. Sm. 97–97,5°. Ba + 3H₂O (J. pr. [2] 49, 197).

- 2) Monäthylester d. Amidofumarsäure. Fl. K (Bl. [3] 11, 484).

- C₆H₉O₄N** 3) Monäthylester d. $\alpha\beta$ -Imidoäthan- $\alpha\beta$ -Dicarbonsäure (Monäthylester d. Imidobernsteinsäure). Sm. 100°. K (B. 14 1822; 25, 646). — I, 1212.
- 4) Aethylester d. α -Oximido- β -Ketopropan- α -Carbonsäure (Ae. d. Isonitrosoacetessigsäure). Sm. 52—54° (B. 10, 2077; 11, 320; 15, 1050, 1326; 20, 1327; 28, 1790, 2683; Bl. [3] 15, 221). — I, 596.
- 5) Aethylester d. isom. α -Oximido- β -Ketopropan- α -Carbonsäure. Fl. (B. 28, 2685; Bl. [3] 15, 221).
- 6) Aethylimid d. d-Weinsäure. Sm. 171—174° (B. 29, 2715).
- 7) Aethylimid d. Traubensäure. Sm. 179° (173°) (B. 29, 2720; 30, 1576).
- C₆H₉O₄N₂** 8) Oxim d. Triacetsäureanhydrid. Sm. 230—231° (Soc. 59, 614). — I, 692.
C 38,5 — H 4,8 — O 34,2 — N 22,5 — M. G. 187.
- C₆H₉O₄Cl** 1) Kaffursäure. Sm. 210—220° u. Zers. Ba, Ag (B. 14, 1909; A. 215, 280; M. 3, 102). — III, 963.
- 1) Dimethylester d. i-Chlorbernsteinsäure. Sd. 106,5°₁₄ (A. 254, 156; C. 1898 [2] 917). — I, 658.
- 2) Dimethylester d. d-Chlorbernsteinsäure. Sd. 107°₁₃ (110—112°_{10—12}) (B. 28, 1290; 31, 1419; C. 1898 [2] 917).
- 3) Dimethylester d. l-Chlorbernsteinsäure. Sd. 110—112°_{10—12} (C. 1898 [2] 917).
- C₆H₉O₄Br** 4) Aethylester d. α -Chlorformoxylpropionsäure. Sd. 180°₇₁₄ (A. 302, 265).
- 1) γ -Brombutan- $\alpha\alpha$ -Dicarbonsäure. Sm. 107,5° (A. 294, 121).
- 2) α -Brombutan- $\alpha\beta$ -Dicarbonsäure (α -Bromäthylbernsteinsäure). Sm. 111 bis 116° (B. 23, 3421; 24, 2014). — I, 675.
- 3) isom. α -Brombutan- $\alpha\beta$ -Dicarbonsäure (β -Bromäthylbernsteinsäure). Sm. 202,5° (B. 23, 3421; 24, 2014). — I, 675.
- 4) α -Brombutan- $\alpha\delta$ -Dicarbonsäure. Sm. 131° (A. 155, 250). — I, 670.
- 5) β -Brombutan- $\beta\gamma$ -Dicarbonsäure (β -Bromdimethylbernsteinsäure). Sm. 91° (B. 22, 66). — I, 673.
- 6) α -Brom- β -Methylpropan- $\alpha\beta$ -Dicarbonsäure. Sm. 167° (B. 30, 1954).
- 7) Dimethylester d. i-Brombernsteinsäure. Sd. 132—136°₃₀ (A. 242, 157; 254, 162). — I, 658.
- 8) Dimethylester d. d-Brombernsteinsäure. Sd. 129°₂₃ (B. 28, 1291; 31, 1417; C. 1898 [2] 917).
- 9) Dimethylester d. l-Brombernsteinsäure. Sd. 130°₃₂ (B. 28, 2771).
- 10) Monäthylester d. Brombernsteinsäure. Fl. (A. 242, 157). — I, 658.
- C₆H₉O₄J** 1) δ -Jodbutan- $\alpha\beta$ -Dicarbonsäure (Jodäthylbernsteinsäure). Sm. 152° (M. 11, 520). — I, 675.
- C₆H₉O₅N** C 41,1 — H 5,1 — O 45,7 — N 8,0 — M. G. 175.
- 1) Monäthylester d. syn-Oximidobernsteinsäure. Sm. 54,6—54,8°. Ag (G. 20, 171; Ph. Ch. 10, 20). — I, 661.
- 2) Monäthylester d. anti-Oximidobernsteinsäure. Sm. 107° (110—111°). NH₄, Ca + 2H₂O, Ba + H₂O, Zn, Ag (B. 24, 1204; Ph. Ch. 10, 19). — I, 660.
- 3) Monamid d. Propan- $\alpha\beta\gamma$ -Tricarbonsäure (Tricarballylaminsäure). NH₄, Ag₂ (B. 24, 598). — I, 1405.
- C₆H₉O₅Cl** 1) Dimethylester d. β -Chlor- α -Oxybernsteinsäure. Sd. 128—130°₂₀ (C. 1898 [2] 918).
- C₆H₉O₅Br** 1) Bromoxybernsteinäthyläthersäure. Na₂ (B. 16, 401).
- C₆H₉O₅N** C 37,7 — H 4,7 — O 50,2 — N 7,3 — M. G. 191.
- 1) Triglykolamidsäure (Trimethylamin- $\alpha\beta\gamma$ -Tricarbonsäure). Salze meist bekannt (A. 122, 269; 136, 221; 147, 272; 278, 234; J. pr. [2] 49, 484; B. 27 [2] 235). — I, 1192.
- 2) Monamid d. β -Oxypropan- $\alpha\beta\gamma$ -Tricarbonsäure (M. d. Citronensäure). Sm. 138°. Ag₂ (B. 17, 2686). — I, 1406.
- C₆H₉O₅N₂** C 32,9 — H 4,1 — O 43,8 — N 19,2 — M. G. 219.
- 1) Amid d. Triazoessigsäure. Sm. noch nicht bei 300° (J. pr. [2] 38, 543).
- C₆H₉O₅Cl** 1) α -Chlor- α' -Oxyäthyläther- $\alpha\alpha'$ -Dicarbonsäure (Chlorhydroxyätherpropionsäure). Sm. 31,5°; Sd. 183°. Ba + 2H₂O, Pb + 2H₂O, Cu + 2H₂O (J. pr. [2] 41, 515). — I, 832.
- 2) Säure (aus Essigsäureanhydrid, Jod u. Cl₂O) (Z. 1868, 482, 590). — I, 803.
- C₆H₉O₅J** 1) Säure (aus Essigsäureanhydrid, Jod u. Cl₂O) (J. 1868, 507).
- C₆H₉O₁₁N₃** C 24,1 — H 3,0 — O 58,8 — N 14,0 — M. G. 299.
- 1) Trinitrat d. Rhamnose (Nitroisodulcitan). Sm. unter 100° (A. 127, 364; B. 31, 71). — I, 328.

- $C_6H_9O_{11}N_3$ C 22,9 — H 2,8 — O 61,0 — N 13,3 — M. G. 315.
 1) Trinitrat d. i-Inosit (*B.* 7, 106). — I, 1052.
- $C_6H_9O_{10}N_3$ C 17,7 — H 2,2 — O 62,9 — N 17,2 — M. G. 407.
 1) Mannitpentanitrat. Sm. 77–79° (*J.* 1864, 583). — I, 327.
- $C_6H_9NCl_2$ 1) Dichlordiallylamin. Sd. 194° u. Zers. (2HCl, PtCl₄) (*A.* 142, 77; 144, 72). — I, 1143.
- $C_6H_9NBr_2$ 1) Dibromdiallylamin. Fl. (2HCl, PtCl₄) + HgCl₂ (*A. ch.* [3] 56, 129; *A. Spl.* 1, 232). — I, 1143.
 2) Nitril d. $\beta\gamma$ -Dibrom- β -Methylbutan- δ -Carbonsäure. Sm. bei 30° (*M.* 17, 221).
- C_6H_9NS 1) Angelylsenfö. Sd. 190° (*B.* 8, 106; 12, 991). — I, 1284.
 2) 4-Methyl-2-Aethylthiazol. Sd. 160,6–161°_{728,5}. (2HCl, PtCl₄) (*A.* 259, 230). — IV, 73.
 3) 2-Methyl-4-Aethylthiazol. Sd. 169–171°₇₁₉. (2HCl, PtCl₄), Pikrat (*A.* 259, 263). — IV, 73.
 4) 2,4,5-Trimethylthiazol. Sd. 166,5–167,5°_{717,5}. (2HCl, PtCl₄), Pikrat (*A.* 259, 258). — IV, 73.
 5) 3-[α -Amidoäthyl]thiophen. Sd. 185–187°. Acetat (*B.* 20, 1701). — III, 745.
- $C_6H_9NS_2$ 1) Allylimidomethylenäther d. $\alpha\beta$ -Dimerkaptoäthan. (2HCl, SnCl₄) (*A.* 262, 75). — I, 1280.
- $C_6H_9N_2Cl$ 1) p-Chlor-2-Methyl-1-Aethylimidazol. Sd. 217–218°. HCl + H₂O, (2HCl, ZnCl₂), (2HCl, PtCl₄), HJ + H₂O, + J₂, 2 + AgNO₃, + HgCl₂, + 4HgCl₂, Oxalat (*B.* 10, 1193; 12, 1064; 13, 511; 14, 737; 16, 537; 24, 738; *A.* 184, 40; 214, 262, 280). — IV, 517.
 2) isom. p-Chlor-2-Methyl-1-Aethylimidazol (Isochloroxaläthylin). Sd. 220 bis 224° (*B.* 13, 513; *A.* 214, 281). — IV, 517.
 3) Chlormethylat d. 2-Methyl-1,4-Diazin (Ch. d. Methylpyrazin). 2 + PtCl₄ (*J. pr.* [2] 51, 467). — IV, 820.
- $C_6H_9N_2Br$ 1) p-Brom-2-Methyl-1-Aethylimidazol (*B.* 9, 1213; *A.* 214, 282). — IV, 517.
- $C_6H_9N_2J$ 1) 4-Jod-1,3,5-Trimethylpyrazol. Sm. 75° (*B.* 28, 719). — IV, 523.
 2) p-Jod-2-Methyl-1-Aethylimidazol (*A.* 214, 300). — IV, 518.
 3) Jodmethylat d. 2-Methyl-1,4-Diazin (*J. d.* Methylpyrazin). Sm. 129 bis 130° (*J. pr.* [2] 51, 467; [2] 54, 491). — IV, 820.
- $C_6H_9N_2S$ 1) p-Phenylazo-p-Amidothiophen. HCl + $\frac{1}{2}$ H₂O (*B.* 18, 2317). — IV, 1482.
 2) 2-Allylimido-3-Methyl-2,3-Dihydro-1,3,4-Thiodiazol (HJ Sm. 176 bis 177° u. Zers.) (*B.* 27, 628). — IV, 1103.
 3) 2-Allylimido-5-Methyl-2,3-Dihydro-1,3,4-Thiodiazol (HCl, Sm. 172 bis 173°) (*B.* 27, 628). — IV, 1106.
 4) Methylecyanamid d. Allylamidothioameisensäure. Sm. 110° (*B.* 19, 551). — I, 1442.
 5) Allylcyanamid d. Methylamidothioameisensäure. Sm. 77,5° (*B.* 23, 1659). — I, 1443.
- $C_6H_9N_2S_2$ 1) 3,5-Dithiocarbonyl-1-Methyl-4-Allyltetrahydro-1,2,4-Triazol. Sm. 68–70°. HCl (*B.* 29, 860).
- $C_6H_9N_2S_3$ 1) Trimethylester d. Trithiocyanursäure. Sm. 188° (*B.* 13, 1351; 18, 2197). — I, 1285.
- $C_6H_9N_2Se_3$ 1) Trimethylester d. Triselenocyanursäure. Sm. 174° (*B.* 19, 1578). — I, 1289.
- $C_6H_9ClBr_4$ 1) Chlortetrabromhexan (*J.* 1878, 380). — I, 179.
- $C_6H_9Br_3P$ 1) Verbindung (aus Glycerin) (*A.* 101, 73).
- $C_6H_{10}ON_2$ C 57,1 — H 7,9 — O 12,7 — N 22,2 — M. G. 126.
 1) 5-Keto-3,4,4-Trimethyl-4,5-Dihydropyrazol. Sm. 269° (*J. pr.* [2] 52, 43). — IV, 526.
 2) 2-Keto-5-Methyl-4-Aethyl-2,3-Dihydroimidazol. Sm. 270° u. Zers. (*B.* 27, 1038).
 3) 5-Amido-4-Methyl-3-Aethylisoxazol. Sm. 41° (44°); Sd. 180°₂₀. HCl, 2 + ZnCl₂ (*Bl.* [3] 5, 774; *J. pr.* [2] 47, 128; *B.* 24 [2] 553). — IV, 528.
 4) Amid d. α -Cyanvaleriansäure. Sm. 118°; Sd. 281° (*J.* 1889, 638). — I, 1247.
 5) Amid d. α -Cyanisovaleriansäure. Sm. 125°; Sd. 277° (*J.* 1889, 639). — I, 1246.
 6) Cyanamid d. Isovaleriansäure. Ag (*J. pr.* [2] 17, 23). — I, 1438.

- C₈H₁₀ON,** 7) Diäthylamid d. Cyanameisensäure. *Sd.* 219—220° (*A.* 214, 264; *B.* 14, 737). — *I*, 1236.
- 8) Nitril d. γ -Oximido- β -Methylbutan- β -Carbonsäure (Dimethylketoximessigsäurenitril). *Sm.* 99—100°; *Sd.* 230° u. geringer Zers. (*A.* 248, 165). — *I*, 1467.
- C₈H₁₀OCl₂** 1) 2-Chlor-2-[Oxymethyl]-1-[Chlormethyl]-*R*-Tetramethylen. *Sd.* 115 bis 120°₃₀ (*M.* 5, 570). — *IV*, 252.
- 2) $\gamma\gamma$ -Dichlor- β -Ketohehexan. *Sd.* 162—164°₇₈₅ (*J. pr.* [2] 51, 544).
- 3) *P*-Dichlor- γ -Keto- $\beta\beta$ -Dimethylbutan (Dichlorpinakolin). *Sm.* 51°; *Sd.* 178° (*A.* 114, 61). — *I*, 999.
- C₈H₁₀OCl,** 1) Isobutyläther d. $\alpha\beta\beta\beta$ -Tetrachlor- α -Oxyäthan. *Sd.* 215,1°₇₆₃ (*G.* 26, [2] 470).
- C₈H₁₀OBr,** 1) $\beta\gamma$ -Dibrom- δ -Keto- β -Methylpentan (Mesityloxyddibromid). *Fl.* (*A.* 180, 11). — *I*, 1008.
- 2) Aldehyd d. $\beta\gamma$ -Dibrompentan- β -Carbonsäure. *Fl.* + NaHSO₃ + 3H₂O. (*M.* 4, 20). — *I*, 954.
- C₈H₁₀O₂N₂** C 50,7 — H 7,0 — O 22,5 — N 19,7 — *M. G.* 142.
- 1) $\delta\epsilon$ -Dioximido- α -Hexen. *Sm.* 153° (*B.* 22, 2125). — *I*, 1034.
- 2) 1,3-Dioximidohexahydrobenzol + 2H₂O. *Sm.* 156° (wasserfrei). HCl (*A.* 278, 34; 294, 271). — *II*, 906.
- 3) 1,4-Dioximidohexahydrobenzol. *Sm.* 192—200° u. ger. Zers. (*B.* 22, 2170). — *I*, 1034.
- 4) 2,4-Diketo-5-Methyl-1-Aethyltetrahydroimidazol (*Bl.* [3] 13, 487).
- 5) 2,5-Diketo-1,4-Dimethylhexahydro-1,4-Diazin (Sarkosinanhydrid; Methylamidoessigsäureanhydrid). *Sm.* 149—150°; *Sd.* 350°. (HCl, AuCl₃ + 2H₂O), (2HCl, PtCl₄ + 4H₂O) (*B.* 15, 2112; 17, 287). — *I*, 1186.
- 6) 2,5-Diketo-3,6-Dimethylhexahydro-1,4-Diazin (Laktimid). *Sm.* 275° (271°) (*A.* 134, 372; *Am.* 20, 132). — *I*, 1194.
- 7) Aethylester d. Aethylcyanamidoameisensäure. *Sd.* 213° (*J. pr.* [2] 16, 160). — *I*, 1439.
- 8) Amid d. α -Buten- $\alpha\beta$ -Dicarbonsäure (*A.* d. Aethylfumarsäure). *Sm.* 203 bis 204° (*A. ch.* [5] 20, 487). — *I*, 715.
- 9) Amid d. β -Buten- $\alpha\delta$ -Dicarbonsäure (*A.* d. Dihydromuconsäure). *Sm.* 210° u. Zers. (*Soc.* 57, 371). — *I*, 1392.
- 10) Amid d. *cis-R*-Tetramethylen-1,2-Dicarbonsäure. *Sm.* 228° (*Soc.* 65, 584).
- 11) Amid d. 5-Keto-2-Methyltetrahydropyrrol-2-Carbonsäure. *Sm.* 161° (*B.* 23, 706). — *I*, 1395.
- 12) Aethylenamid d. Aethan- $\alpha\beta$ -Dicarbonsäure (Aethylenamid d. Bernsteinsäure) (*B.* 27 [2] 403).
- 13) Verbindung (aus Methylasparagin) (*G.* 19, 425). — *I*, 1379.
- C₈H₁₀O₂N₂** C 42,3 — H 5,9 — O 18,8 — N 32,9 — *M. G.* 170.
- 1) 2,3,5,6-Tetraamido-1,4-Dioxybenzol. 4HCl (*B.* 20, 2117). — *II*, 950.
- 2) Dimethylacetylenharnstoff (Dimethylglykoluril). *Sm.* 210—260° u. Zers. (*R.* 7, 19). — *I*, 1315.
- 3) isom. Dimethylacetylenharnstoff (Dimethylglykoluril). *Sm.* noch nicht bei 290° (*R.* 7, 251). — *I*, 1315.
- 4) 3,3'-Bi[5-Methyl-4,5-Dihydro-1,2,4-Oxdiazol] (Oxalendihydrazoximidiäthyliden). *Sm.* 198° (*B.* 24, 814). — *I*, 1486.
- 5) Trimethylmelanurensäure. *Fl.* HCl, (HCl, AuCl₃) (*B.* 18, 2786). — *I*, 1451.
- 6) Verbindung (aus 1,4-Dioxybenzol u. Hydrazinhydrat). *Sm.* 154° u. Zers. (*J. pr.* [2] 44, 191). — *II*, 939.
- C₈H₁₀O₂Cl,** 1) Diepichlorhydrin. *Sm.* 112—113°; *Sd.* 232—233° (*J. pr.* [2] 55, 86).
- 2) Aethylester d. $\alpha\beta$ -Dichlorbuttersäure. *Sd.* 96°₃₅ (*Am.* 9, 285). — *I*, 475.
- 3) Aethylester d. *P*-Dichlorbuttersäure (*A. ch.* [3] 10, 449). — *I*, 475.
- 4) norm. Butylester d. Dichloressigsäure. *Sd.* 184° (*Bl.* 46, 148). — *I*, 470.
- 5) Isobutylester d. Dichloressigsäure. *Sd.* 182—184° (*A.* 173, 300). — *I*, 470.
- C₈H₁₀O₂Br,** 1) $\alpha\beta$ -Dibrompentan- α -Carbonsäure ($\alpha\beta$ -Dibromcapronsäure). *Sm.* 70,5 bis 71,5° (*A.* 283, 121).
- 2) $\beta\gamma$ -Dibrompentan- β -Carbonsäure (Methyläthylidibrompropionsäure). *Sm.* 97,6° (*M.* 4, 77). — *I*, 486.
- 3) $\beta\gamma$ -Dibrom- β -Methylbutan- α (oder δ)-Carbonsäure. *Sm.* 104—105° (*A.* 296, 175).

- C₆H₁₀O₂Br₂** 4) $\beta\gamma$ -Dibrom- β -Methylbutan- γ -Carbonsäure. Sm. 190—191° (C. 1896 [2] 702, 728; Soc. 69, 1480).
- 5) $\gamma\delta$ -Dibrom- β -Methylbutan- δ -Carbonsäure. Sm. 99° (127°) (B. 6, 1095; A. 208, 47; M. 17, 215). — I, 486.
- 6) Dibromhydroäthylcrotonsäure. Sm. 80,5° (A. 200, 35; B. 6, 1175). — I, 486.
- 7) Isodibromcapronsäure. Fl. (A. 161, 314; 200, 46; 208, 67). — I, 486.
- 8) isom. Dibromcapronsäure (aus Sorbinsäure). Sm. 68° (A. 200, 44; B. 15, 620). — I, 486.
- 9) isom. Dibromcapronsäure (aus Isosorbinsäure) (J. r. 11, 128). — I, 486.
- 10) Aethylester d. $\alpha\beta$ -Dibrombuttersäure. Sd. 113°₂₀ (Am. 9, 281). — I, 483.
- 11) Propylester d. $\alpha\alpha$ -Dibrompropionsäure. Sd. 200—204° (A. 171, 324). — I, 480.
- 12) Propylester d. $\alpha\beta$ -Dibrompropionsäure. Sd. 233° (A. 221, 86). — I, 481.
- 13) $\gamma\delta$ -Dibrombutylester d. Essigsäure (Acetat d. $\gamma\delta$ -Dibrom- α -Oxybutan). Sd. 143—144°₂₅ (B. 27, 2437).
- C₆H₁₀O₂Br₄** 1) $\alpha\beta\gamma\delta$ -Tetrabrom- $\gamma\delta$ -Dioxyhexan. α -Verb. Sm. 174°; β -Verb. Sm. 98 bis 99° (GRINER, thèse 69). — I, 265.
- C₆H₁₀O₂J₂** 1) Diepifodhydrin. Sm. 160° (J. pr. [2] 55, 88).
- C₆H₁₀O₂S** 1) β -Merkaptopropenäthyläther- α -Carbonsäure (β -Thioäthylcrotonsäure?). Sm. 112—113°. Ba + H₂O, Ag (A. 254, 235). — I, 897.
- 2) isom. β -Merkaptopropenäthyläther- α -Carbonsäure (Thioäthylisocrotonsäure). Sm. 91—92° u. Zers. Ba + H₂O, Ag₂ (A. 254, 234). — I, 897.
- 3) Methylester d. Tetrahydrothiophen-2-Carbonsäure. Sd. 206° (B. 20, 519). — III, 765.
- C₆H₁₀O₂S₂** 1) Aethylester d. Disulfodicarbothionsäure. Sm. 55° (J. pr. [2] 15, 45). — I, 885.
- C₆H₁₀O₂S₄** 1) Aethyldioxysulfocarbonat. Sm. 28° (J. 1847/48, 690; A. 72, 5; 75, 122; Z. 1865, 583; B. 3, 773; G. 17, 76). — I, 885.
- C₆H₁₀O₃N₂** C 45,6 — H 6,3 — O 30,4 — N 17,7 — M. G. 158.
- 1) Corrin = (C₆H₁₀O₃N₂)₂ (J. 1872, 1016). — IV, 1633.
- 2) 1-Nitrosohexahydropyridin-2-Carbonsäure (Nitrosopipekolinsäure). Fl. (B. 29, 390). — IV, 45.
- 3) 1-Nitrosohexahydropyridin-3-Carbonsäure. Sm. 111—112° (B. 25, 2770). — IV, 44.
- 4) 1-Nitrosohexahydropyridin-4-Carbonsäure. Sm. 201° (B. 25, 2773). — IV, 45.
- 5) Monäthylester d. $\alpha\beta$ -Imidoäthan- $\alpha\beta$ -Dicarbonsäuremonamid (M. d. Imidosuccinaminsäure). Sm. 116° u. Zers. (B. 14, 1821; 15, 1848; 20, 1820; 25, 646). — I, 1382.
- 6) Monamid d. β -Amidoäthen- $\alpha\alpha$ -Dicarbonsäuremonäthylester. Sm. 169—170° (Soc. 61, 791). — I, 1391.
- 7) Monamid d. Amidofumarsäuremonoäthylester. Sm. 139,5° (Bl. [3] 13, 854; [3] 17, 63).
- 8) isom. Monamid d. Amidofumarsäuremonäthylester? Sm. 118,5° (Bl. [3] 13, 855; [3] 17, 64).
- 9) isom. Monamid d. Amidofumarsäuremonoäthylester (Aethylester d. Amidofumaraminsäure). Sm. 62° (B. 14, 152). — I, 1389.
- 10) Nitrit d. Nitrosooxyhexahydrobenzol. Sm. 150° u. Zers. (A. 278, 110).
- 11) Nitrosoderivat d. Säure C₆H₁₁O₂N (aus Terebinsäure). Sm. 170° (G. 21, 271). — I, 1208.
- C₆H₁₀O₃Cl₂** 1) Mannitandichlorhydrin (J. 1856, 661). — I, 287.
- 2) Aethylester d. $\beta\beta$ -Dichlor- α -Oxyisobuttersäure. Sd. 225—230° (B. 11, 2223). — I, 564.
- 3) Aethylester d. $\beta\beta$ -Dichlor- α -Oxyisobuttersäure. Sd. 208—215° u. Zers. (B. 8, 1336). — I, 564.
- 4) Aethylester d. Dichloroxyessigäthyläthersäure. Sd. 85°₁₀ (A. 254, 20). — I, 552.
- C₆H₁₀O₃Br₂** 1) Dibromid d. Acetessigsäureäthylester? (Z. 1869, 29; B. 15, 1378, 2143; 16, 296; A. 213, 139).
- C₆H₁₀O₃S** 1) Diäthylester d. Thioloxalsäure. Sd. 217° (Soc. 43, 400). — I, 898.
- C₆H₁₀O₄N₂** C 41,4 — H 5,7 — O 36,8 — N 16,1 — M. G. 174.
- 1) $\gamma\delta$ -Dioximidocapronsäure. Sm. 180,5° (J. pr. [2] 49, 199).

- $C_8H_{10}O_4N_2$ 2) Aethylester d. syn- $\alpha\beta$ -Dioximidobuttersäure. Sm. 140° u. Zers. (B. 17, 821). — I, 495.
- 3) Aethylester d. anti- $\alpha\beta$ -Dioximidobuttersäure. Sm. 132° (129,5 bis 130°) (B. 25, 2155; 28, 2732; A. 278, 86). — I, 495.
- 4) Aethylester d. β -Acetylharnstoff- α -Carbonsäure (Ac. d. Acetallophan-säure). Sm. 107° (J. pr. [2] 32, 273). — I, 1307.
- 5) Diäthylester d. Azocarbonsäure. Sd. 106°₁₃ (B. 27, 774; J. pr. [2] 52, 478).
- 6) Nitrat d. Nitrosooxyhexahydrobenzol. Sm. 150° u. Zers. (A. 278, 109).
- 7) Verbindung (aus $\beta\gamma$ -Dimethyl- $\alpha\gamma$ -Butadien). Sm. 72–73° (B. 26 [2] 16). C 35,6 — H 4,9 — O 31,7 — N 27,7 — M. G. 202.
- $C_8H_{10}O_4N_4$ 1) Succinyldiharnstoff (J. pr. [2] 9, 300). — I, 1383.
- 2) Diacetat d. $\alpha\beta$ -Diamido- $\alpha\beta$ -Dioximidoäthan (D. d. Oxalendiamidoxim). Sm. 184–187° (B. 22, 2949). — I, 1485.
- 3) Amid d. Aethan- $\alpha\alpha\beta\beta$ -Tetracarbonsäure. Zers. oberh. 230° (B. 17, 2788). — I, 1408.
- 4) Aethylidenamid d. Oxalsäure (Aethylidendioxamid) (A. 128, 338; 151, 211). — I, 1369.
- $C_8H_{10}O_4N_6$ C 27,9 — H 3,9 — O 24,8 — N 43,4 — M. G. 258.
- 1) $\alpha\beta$ -Di[Imidoamidomethylhydrazon]äthan- $\alpha\beta$ -Dicarbonsäure + 2H₂O (Dioxyweinsäurebisamidoguanidin). Zers. bei 230°. 2HCl + 2H₂O, Ca + 4H₂O, Ag₂ + 2H₂O (A. 302, 291).
- $C_8H_{10}O_4S$ 1) β -Aethylsulfonisocrotonsäure. Sm. 98°. Ag (A. 259, 352). — I, 897.
- 2) α -Thiodilaktylsäure (Diäthylsulfid- $\alpha\alpha'$ -Dicarbonsäure). Sm. 125°. K, Ba, Ag (A. 129, 4; 196, 106; B. 12, 1425; 16, 1046; 29, 1132; J. pr. [2] 29, 393). — I, 894.
- 3) isom. α -Thiodilaktylsäure. Sm. 109° (B. 29, 1132).
- 4) Thiolaktylhydrakrylsäure (Diäthylsulfid- $\alpha\beta$ -Dicarbonsäure). Sm. 72 bis 73° (B. 29, 1141).
- 5) Thiodihydrakrylsäure (Diäthylsulfid- $\beta\beta$ -Dicarbonsäure). Sm. 128°. Ba (B. 29, 1136).
- 6) Dimethylester d. Thiodiessigsäure (D. d. Thiodiglykolsäure). Sd. 252 bis 254° (135°₁₁) (B. 25, 2452; A. 273, 69). — I, 893.
- 7) Aethylester d. Dicarbothionsäure. Sd. 180° u. Zers. (B. 2, 298). — I, 883.
- $C_8H_{10}O_4S_2$ 1) α -Dithiodilaktylsäure. Sm. 141–142°. (NH₄)₂, K₂ + 2H₂O, Ba, Zn, (Pb, PbO), Ag₂ (A. 196, 103; J. pr. [2] 29, 372). — I, 894.
- 2) β -Dithiodilaktylsäure. Sm. 154–155° (J. pr. [2] 29, 377; M. 6, 836). — I, 896.
- 3) Merkaptoessigäthylidenäthersäure (Aethylidendithioglykolsäure). Sm. 107–108° (B. 21, 479). — I, 932.
- 4) Aethylcarbonsulfid (A. 75, 142; 82, 255). — I, 882.
- $C_8H_{10}O_4S_3$ 1) Trithiodilaktylsäure. Sm. 95° (B. 16, 790; J. pr. [2] 29, 376; [2] 47, 173).
- $C_8H_{10}O_5N_2$ C 37,9 — H 5,3 — O 42,1 — N 14,7 — M. G. 190.
- 1) $\delta\delta$ -Dinitro- γ -Keto- β -Methylpentan. Sm. 58° (G. 27 [1] 275; J. pr. [2] 55, 198).
- 2) α -Nitrosimidodipropionsäure (Nitrosodidenlaktamidsäure). Ca + 3H₂O (A. 165, 59). — I, 1196.
- 3) Aethylester d. Isonitramidoacetylessigsäure. Na₂ + H₂O (B. 27, 1508; 28, 1789).
- 4) β -Aethylester d. Harnstoff- α -Carbonsäure- β -Methylcarbonsäure (Ac. d. Glykolallophan-säure). Ba, Pb (A. 135, 232). — I, 1310.
- 5) Aethylester d. Allophanylglykolsäure. Sm. 144° (B. 22, 1575). — I, 1308.
- 6) Amid d. Isozuckersäure. Sm. 226° (B. 19, 1264; 27, 124). — I, 1407.
- 7) Diamid d. β -Oxypropan- $\alpha\beta\gamma$ -Tricarbonsäure (Citrodiaminsäure). Sm. 158°. Ag (B. 17, 2685). — I, 1407.
- 8) β -Nitrat d. γ -Oximido- δ -Keto- β -Oxy- β -Methylpentan? (Isonitroso-acetonnitrat). Fl. (B. 20, 639). — I, 922.
- $C_8H_{10}O_6N_2$ C 34,9 — H 4,8 — O 46,6 — N 13,6 — M. G. 206.
- 1) Dinitrocapronsäure. Sm. 215° u. Zers. NH₄, Na + 4H₂O, Ca + 3H₂O, Ba + 5H₂O, Ag (A. 163, 231; 191, 144, 155; Ph. Ch. 3, 196). — I, 498.

- $C_6H_{10}O_6N_2$ 2) Aethylester d. α -Nitramidoformoxylpropionsäure. Sm. 68°. Ag + H_2O (A. 302, 266).
- $C_6H_{10}O_6N_4$ C 30,8 — H 4,3 — O 41,0 — N 23,9 — M. G. 234.
- $C_6H_{10}O_6S$ 1) Di[Aethylnitroamid] d. Oxalsäure. Sm. 35° (R. 16, 386).
- 1) α -Sulfondipropionsäure (Diäthylsulfon- $\alpha\alpha'$ -Dicarbonsäure). Sm. 155 bis 156° (B. 17, 2822). — I, 894.
- 2) $\alpha\beta$ -Sulfondipropionsäure (Diäthylsulfon- $\alpha\beta$ -Dicarbonsäure). Sm. 131° (B. 29, 1142).
- 3) β -Sulfondipropionsäure (Diäthylsulfon- $\beta\beta'$ -Dicarbonsäure). Sm. 210° (B. 29, 1138).
- $C_6H_{10}O_6N_4$ C 27,1 — H 3,8 — O 48,1 — N 21,0 — M. G. 266.
- 1) $\alpha\beta\epsilon\zeta$ -Tetranitrohexan (Diallyltetranitrit) (B. 2, 279). — I, 211.
- 2) Dimethylester d. Aethylendi[Nitramidoameisensäure]. Sm. 132° (R. 7, 259). — I, 1255.
- $C_6H_{10}O_6S$ 1) Celluloseschwefelsäure (Soc. 67, 82).
- $C_6H_{10}O_{11}S_2$ 1) Cellulosedischwefelsäure. Ba (Soc. 67, 79).
- $C_6H_{10}NCl$ 1) Nitril d. δ -Chlor- β -Methylbutan- δ -Carbonsäure. Sd. 172—173°₃₅ (C. 1898 [2] 661).
- $C_6H_{10}N_2S$ 1) 2-Merkapto-4-[oder 5]-Methyl-5-[oder 4]-Aethylimidazol. Sm. noch nicht bei 320° (B. 27, 1039). — IV, 528.
- 2) 2-Methylimido-3,4-Dimethyl-2,3-Dihydrothiazol. Sm. 96°. HJ + H_2O (B. 20, 3123; A. 249, 49). — IV, 519.
- $C_6H_{10}N_2S_2$ 1) Diäthylisodithiocyansäure (A. 179, 222). — I, 1284.
- $C_6H_{10}N_2S_2$ 1) 5-Aethylimido-3-Thiocarbonyl-4-Aethyl-3,5-Dihydro-1,2,4-Dithiazol. Sm. 29,5°. HCl, HBr, HNO_3 , H_2SO_4 (A. 285, 189).
- 2) 3,5-Diäthyläther d. 3,5-Dimerkapto-1,2,4-Thiodiazol (D. d. norm. Persulfocyansäure). Sm. 190° (i. V.) (J. pr. [2] 38, 379). — I, 1287.
- $C_6H_{10}N_4S$ 1) Verbindung (aus $\alpha\beta$ -Diamidoäthan u. Thiophosgen). Sm. 218—220° (u. 227°). HCl, (HCl, $2HgCl_2$), HNO_3 , H_2SO_4 , + $HgCl_2$ (B. 27, 1663).
- $C_6H_{10}N_4S_2$ 1) Dimethylester d. Dithiomethylmelanurensäure. Sm. 174—175° (B. 18, 2761). — I, 1452.
- $C_6H_{10}N_5Cl$ 1) Cyanurmethylamidoäthylamidochlorid. Sm. 235° (B. 32, 701).
- $C_6H_{11}ON$ C 63,7 — H 9,7 — O 14,2 — N 12,4 — M. G. 113.
- 1) β -Amido- δ -Keto- γ -Methyl- β -Penten (Dihydrotrimethylisoxazol). Sm. 110° (105°); Sd. 225° (Soc. 59, 420; B. 24, 3916; Bl. [3] 7, 783). — I, 1019; IV, 73.
- 2) β -Methylamido- δ -Keto- β -Penten (Methylamidoacetylaceton). Sm. 45°; Sd. bei 200° (B. 31, 1030).
- 3) ϵ -Oximido- α -Hexen (Allylacetoneketoxim). Sd. 187,5° (cor.) (B. 16, 496). — I, 1032.
- 4) labil. δ -Oximido- β -Methyl- β -Penten (lab. Mesityloxim). Sd. 83—84°. HCl (B. 16, 495; 31, 1380; A. 290, 149). — I, 1032.
- 5) stabil. δ -Oximido- β -Methyl- β -Penten. Sm. 49°; Sd. 92°. HCl (B. 31, 1381, 1808).
- 6) α -Oximido- γ -Methyl- β -Penten (Methyläthylakroleinoxim). Sm. 48—49°; Sd. 193—194° (J. r. 19, 309). — I, 970.
- 7) Oximidohexahydrobenzol. Sm. 88° (A. 278, 102).
- 8) 3-Oximido-1-Methyl-R-Pentamethylen. Sm. 81,5°; Sd. 98—99°, (B. 15, 3518). — I, 1032.
- 9) isom. 3-Oximido-1-Methyl-R-Pentamethylen. Fest. Sd. 98—99°, (B. 25, 3518). — I, 1032.
- 10) α -Oximidoäthyl-R-Tetramethylen. Sm. 60—61° (Soc. 61, 50). — I, 1032.
- 11) 5-Keto-1,2-Dimethyltetrahydropyrrol. Sd. 215—217°₄₅ (B. 27, 2314). — IV, 25.
- 12) 3,3,5-Trimethyl-2,3-Dihydroisoxazol. Sd. 162—164° (B. 31, 1380).
- 13) 6-Keto-2-Methylhexahydropyridin. Sm. 84° (B. 22, 1056). — IV, 27.
- 14) 2-Keto-3-Methylhexahydropyridin (β -Methylpiperidin). Sm. 53,5—55°; Sd. 249—250° (B. 24, 2445). — I, 1204.
- 15) 1-Formylhexahydropyridin (Formylpiperidin). Sd. 220—222°. HCl, (2HCl, $PtCl_4$ + H_2O), (HCl, $AuCl_3$), HBr, + $HgCl_2$ (B. 27, 2090; A. 237, 252; M. 9, 700; C. 1895 [2] 780). — IV, 12.
- 16) Leucinimid (A. 116, 201; 119, 17; 134, 369; 159, 328; J. 1870, 800; B. 29, 2109). — I, 1204.

- C₈H₁₁ON** 17) isom. Leucinimid (*Bl.* **30**, 481). — **I**, 1204.
 18) Oxytrialdin. HCl, H₂SO₄ (*A. Spl.* **6**, 5). — **I**, 918.
 19) Nitril d. γ -Oxypentan- γ -Carbonsäure (Nitril d. Diäthoxyessigsäure). Sd. 184° (*B.* **14**, 1974; *C.* **1899** [1] 195). — **I**, 1472.
 20) Nitril d. γ -Oxy- β -Methylbutan- γ -Carbonsäure. Sd. 182°₁₆₄ (*C.* **1899** [1] 195).
 21) Nitril d. δ -Oxy- β -Methylbutan- δ -Carbonsäure (Nitril d. α -Oxyisobutylelessigsäure). Fl. (*B.* **7**, 1109). — **I**, 1472.
 22) Nitril d. β -Oxybutteräthyläthersäure. Sd. 173—174° (*B.* **6**, 389; **12**, 2057; **28**, 2954; **29**, 1425; *A.* **131**, 58). — **I**, 1468.
 23) Isoamyläther d. norm. Cyansäure. Sd. bei 200° u. Zers. (*B.* **3**, 275). — **I**, 1267.
 24) Isoamyläther d. Isocyansäure. Sd. 134—135° (*J.* **1849**, 428; *B.* **12**, 1329—1330). — **I**, 1265.
- C₈H₁₁ON₃** C **51,1** — H **7,8** — O **11,3** — N **29,8** — M. G. **141**.
 1) Sturin oder C₁₂H₂₄O₃N₆. H₂SO₄ + H₂O (*C.* **1896** [2] 103).
 2) 2-Imido-5-Keto-4-Isopropyltetrahydroimidazol + 1/2 H₂O (Oxyisovalerocyamidin) (*Bl.* **39**, 539). — **I**, 1200.
 3) 2-Imido-4-Keto-5-Aethyl-1-Methyltetrahydroimidazol (α -Butyrkreatinin; Methylamido- α -Butyrocyamidin) (*Bl.* **39**, 539). — **I**, 1197.
 4) 2-Aethylimido-5-Keto-3-Methyltetrahydroimidazol (Aethylkreatinin). HCl, (2HCl, PtCl₄), HJ (*A.* **119**, 51; **120**, 257). — **I**, 1191.
 5) Semicarbazon-R-Pentamethylen. Sm. **200**—205° u. Zers. (*B.* **29**, 2963 Anm.).
- C₈H₁₁OCl** 1) Chloroxyhexahydrobenzol. Fl. (*Soc.* **73**, 948).
 2) 2-Chlor-2-[Oxymethyl]-1-Methyl-R-Tetramethylen. Sd. 165—168° (*M.* **5**, 579). — **I**, 252.
 3) *p*-Chlor-*p*-Oxyhexen. Sd. 185—187° (*B.* **16**, 228; *A. ch.* [5] **27**, 62). — **I**, 253.
 4) isom. Chloroxyhexen (Allylchlorpropylalkohol). Sd. 183—187° (*J. pr.* [2] **30**, 390). — **I**, 254.
 5) Aethyläther d. α -Chlor- α -Oxy- β -Buten. Sd. 133—135° (*A.* **162**, 99). — **I**, 960.
 6) Chlorid d. norm. Capronsäure. Sd. 136—140° (151—153°; 145—146°) (*A.* **130**, 364; *B.* **25** [2] 637; *Bl.* [3] **13**, 833; *J. pr.* [2] **58**, 397 Anm.). — **I**, 452.
 7) Chlorid d. Isobutylelessigsäure. Sd. 141—142° (143—145°_{741,5}) (*Bl.* [3] **13**, 833; *G.* **28** [2] 275 Anm.).
 8) Chlorid d. Diäthylelessigsäure. Sd. 134—137° (*B.* **23**, 189). — **I**, 460.
 9) Chlorid d. Dimethyläthylelessigsäure. Sd. 132° (*J. r.* **7**, 228; *A.* **178**, 105). — **I**, 452.
 10) Verbindung (aus norm. Hexan; Keton?). Sd. 145—150° (*B.* **10**, 236). — **I**, 1000.
 11) Verbindung (aus β -Hexylen) (*A.* **213**, 124).
- C₈H₁₁OBr** 1) Bromhexylenalkohol (*B.* **16**, 228).
 2) ζ -Brom- β -Ketohehexan (Methylbrombutylketon). Sd. 214—216°₇₁₈ (*B.* **18**, 3282; *Soc.* **51**, 725; **55**, 332; *A.* **289**, 194). — **I**, 998.
 3) α -Brom- δ -Keto- β -Methylpentan (Methylbromisobutylketon). Sd. 135 bis 140°₁₀₀ (*Soc.* **61**, 73). — **I**, 992.
- C₈H₁₁OJ** 1) 4-Jod-1-Oxyhexahydrobenzol. Fl. (*A.* **278**, 97).
 2) β -[oder γ -]Jod- δ -Keto- β -Methylpentan (Mesityloxydhydrojodid). Fl. (*A.* **188**, 131). — **I**, 1008.
- C₈H₁₁O₂N** C **55,8** — H **8,5** — O **24,8** — N **10,9** — M. G. **129**.
 1) *p*-Nitrohexen. Sd. 210—215° (*B.* **13**, 1820). — **I**, 212.
 2) Nitrohexahydrobenzol. Sd. 197—200° (205,5—206°₇₈₈) (*B.* **28**, 577; *C.* **1898** [2] 578; *A.* **302**, 15).
 3) 1-Nitro-1-Methyl-R-Pentamethylen. Sd. 179—181° (*B.* **28**, 1236; *J. pr.* [2] **56**, 369; *C.* **1897** [2] 346).
 4) β -Nitroso- δ -Keto- β -Methylpentan. Sm. 75—76° (*B.* **31**, 549, 1379).
 5) γ -Oximido- β -Ketohehexan (Isonitrosomethylbutylketon). Sm. 49,5° (*B.* **14**, 2159; *J. pr.* [2] **51**, 506). — **I**, 998.
 6) β -Oximido- γ -Ketohehexan. Fl. (*G.* **28** [2] 271; *J. pr.* [2] **58**, 394).
 7) δ -Oximido- γ -Ketohehexan. Fl. (*G.* **28** [2] 271; *J. pr.* [2] **58**, 394).

- C₈H₁₁O₂N**
- 8) γ -Oximido- δ -Keto- β -Methylpentan (Methylisonitroisobutylketon). Sm. 75° (B. 16, 2091; J. pr. [2] 55, 197). — I, 999.
 - 9) δ -Oximido- γ -Keto- β -Methylpentan. Sm. 94° (J. pr. [2] 55, 197; G. 27 [1] 274).
 - 10) d-Hexahydropyridin-2-Carbonsäure. Sm. 270°. Tartrat, Bitartrat (B. 29, 2885).
 - 11) l-Hexahydropyridin-2-Carbonsäure. Sm. 270° (B. 29, 2889).
 - 12) i-Hexahydropyridin-2-Carbonsäure (Pipokolinsäure). Sm. 259–261° (264°). HCl, (2HCl, PtCl₄ + 2H₂O) (J. pr. [2] 27, 287; B. 24, 640; 29, 390, 2887). — IV, 45.
 - 13) Hexahydropyridin-3-Carbonsäure (Nipekotinsäure). Sm. 249–250° (235°). HCl, (2HCl, PtCl₄), (HCl, AuCl₃), (HCl, 5HgCl₂) (B. 25, 2768; 28, 3153). — IV, 44.
 - 14) Hexahydropyridin-4-Carbonsäure. Sm. noch nicht bei 320°. HCl, (2HCl, PtCl₄) (B. 25, 2772). — IV, 44.
 - 15) isom. β -Hexahydropyridincarbonsäure. Fl. HCl, (HCl, AuCl₃) (G. 21, 530). — IV, 45.
 - 16) l-Methyltetrahydropyrrol-2(?)-Carbonsäure + H₂O (Hygrinsäure). Sm. 164° (wasserfrei). Cu, HCl, (HCl, AuCl₃) (B. 24, 410; 28, 580; 29, 2050). — IV, 44.
 - 17) Säure (aus Terebinsäure). Sm. 204° (G. 21, 271). — I, 1208.
 - 18) Methylester d. γ -Amido- β -Buten- β -Carbonsäure. Sm. 58–59° (60°) (B. 20, 3057, 3322). — I, 1208.
 - 19) Aethylester d. β -Amidopropen- α -Carbonsäure (Ac. d. β -Amidocrotonsäure). Sm. 37° (20°); Sd. 210–215° u. Zers. HCl (B. 11, 1194; 15, 1396; 20, 455, 3055; 32, 544; A. 213, 172; 226, 301; Soc. 61, 859; 67, 215; J. pr. [2] 50, 140; Bl. [3] 13, 71). — I, 1206.
 - 20) Amid d. β -Ketopentan- γ -Carbonsäure (A. d. Aethylacetessigsäure). Sm. 96° (J. 1863, 325; Z. 1871, 246; A. 234, 172; 257, 343). — I, 1355.
 - 21) Amid d. β -Ketopentan- ϵ -Carbonsäure. Sm. 114° (A. 294, 320).
 - 22) Imid d. Propionsäure (Dipropionamid). Sm. 153–154°; Sd. 210–220° (B. 22, 1455; 23, 760). — I, 1245.
 - 23) Aethylimid d. Essigsäure (Aethyldiacetamid). Sd. 185–192° (J. 1854, 566; A. 88, 315). — I, 1239.
 - 24) Verbindung (aus d. $\beta\gamma$ -Dibrompropylamid d. Essigsäure). Sd. 112–113°, (M. 19, 582).
 - 25) Verbindung (aus α -Propionylpropionsäuremethylester u. NH₃). Sm. 82° (75°) (A. 231, 203; 245, 88). — I, 605.
- C₈H₁₁O₂N₂**
- 1) Acekaffin. Sm. 110–112°. HCl (A. 215, 300; J. 1882, 366).
 - 2) 5-Keto-2-Methyl-2-Amidooximidomethyltetrahydropyrrol. Sm. 156°. Cu (B. 22, 2370). — I, 1487.
- C₈H₁₁O₂N₃**
- 1) Amid d. β -[α -Cyanisopropyl]amidoharnstoff- α -Carbonsäure (Allophanylhydrazoisobutyronitril). Sm. 146° (A. 303, 103).
- C₈H₁₁O₂Cl**
- 1) ζ -Chlor- ϵ -Oxy- β -Ketohehexan. Sd. 113–115° (J. r. 19, 512). — I, 269.
 - 2) ϵ -Chlor- ζ -Oxy- β -Ketohehexan. Fl. (C. 1898 [2] 663).
 - 3) Hexandioxydechlorhydrin. Sd. 104–105° (A. ch. [6] 22, 455). — I, 316.
 - 4) γ -Chlorpentan- γ -Carbonsäure (α -Chlordiäthylelessigsäure) (B. 6, 1175). — I, 476.
 - 5) Methylester d. α -Chlorvaleriansäure. Sd. 160°₇₆₄ (C. 1899 [1] 194).
 - 6) Aethylester d. α -Chlorbuttersäure. Sd. 163–164°₇₆₀ (A. 153, 241; C. 1898 [2] 273). — I, 474.
 - 7) Aethylester d. β -Chlorbuttersäure. Sd. 168–169° (A. 203, 27; B. 10, 1749; 11, 348; M. 17, 188; J. r. 11, 252; C. 1898 [2] 273, 663). — I, 474.
 - 8) Aethylester d. γ -Chlorbuttersäure. Sd. 183–184° (186°₇₆₀) (Bl. 45, 341; C. 1898 [2] 273). — I, 474.
 - 9) Aethylester d. α -Chlorisobuttersäure. Sd. 148,5–149° (cor.) (B. 11, 1693). — I, 476.
 - 10) α -Chloräthylester d. Buttersäure. Sd. 149° (A. 225, 278). — I, 926.
 - 11) β -Chloräthylester d. Buttersäure. Sd. 190° (A. 113, 119). — I, 423.
 - 12) Propylester d. d- α -Chlorpropionsäure. Sd. 57°₇ (Soc. 67, 919).

- $C_4H_9O_2Cl$ 13) Propylester d. β -Chlorpropionsäure. *Sd.* 179—181° (*Bl.* [3] 9, 416).
 14) norm. Butylester d. Chloressigsäure. *Sd.* 175° (*Bl.* 46, 147). — I, 468.
 15) Isobutylester d. Chloressigsäure. *Sd.* 170° (*C.* 1897 [2] 659).
 16) Isoamylester d. Chlorameisensäure. *Sd.* 154,3° (*A.* 205, 230). — I, 467.
- $C_4H_9O_2Cl_3$ 1) Monäthyläther d. $\beta\beta\gamma$ -Trichlor- $\alpha\alpha$ -Dioxybutan (Butyrylchloraläthylalkoholat). *Fl.* (*A.* 179, 38). — I, 945.
 2) Diäthyläther d. $\alpha\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan⁹ (Trichloracetal). *Sm.* 83°; *Sd.* 230° u. Zers. (*A.* 150, 253; *J.* 1876, 474; *J. pr.* [2] 24, 109). — I, 923.
 3) Diäthyläther d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan (Trichloracetal). *Sd.* 204,8° (197°) (*J.* 1872, 303, 438; *B.* 16, 602; *Bl.* 32, 304; *G.* 26 [2] 475). — I, 923.
- $C_4H_9O_2Br$ 1) Hexandioxydbromhydrin. *Sd.* 120° (i. V.) (*A. ch.* [6] 22, 456). — I, 316.
 2) Äthylenäther d. β -Brom- $\alpha\alpha$ -Dioxy- β -Methylpropan. *Sd.* 185—190° u. Zers. (*A. ch.* [6] 16, 33). — I, 949.
 3) α -Brom-norm. Capronsäure. *Sd.* 240° (*A. Spl.* 2, 78). — I, 486.
 4) β -Brom-norm. Capronsäure. *Sm.* 34,5—35° (*A.* 283, 122).
 5) γ -Brom-norm. Capronsäure (*A.* 200, 42; *B.* 15, 618). — I, 486.
 6) Bromcapronsäure (aus Isobrenzterebinsäure). *Sm.* 85—86°. *Ag* (*J. r.* 11, 128). — I, 486.
 7) Bromhydroäthylcrotonsäure. *Sm.* 25° (*A.* 200, 24). — I, 486.
 8) β -Brom- β -Methylbutan- γ -Carbonsäure. *Sm.* 87—88° (*C.* 1896 [2] 703, 728; *Soc.* 69, 1481).
 9) Methylester d. β -Brombutan- β -Carbonsäure. *Sd.* 168—170° (*A.* 298, 168).
 10) Methylester d. α -Bromisovaleriansäure. *Sd.* 174° (*A.* 267, 119). — I, 485.
 11) Äthylester d. α -Brombuttersäure. *Sd.* 178° (*A.* 171, 249; *A. Spl.* 2, 77; *B.* 13, 474). — I, 483.
 12) Äthylester d. γ -Brombuttersäure. *Sd.* 196—197° (*Bl.* 46, 65). — I, 483.
 13) Äthylester d. α -Bromisobuttersäure. *Sd.* 163,6° (*A.* 182, 336; *B.* 7, 320; 24, 466). — I, 484.
 14) Propylester d. 1- α -Brompropionsäure. *Sd.* 84—86°₂₄₋₃₂ (*Soc.* 67, 922).
 15) Isobutylester d. Bromessigsäure. *Sd.* 188°₇₋₁₂ (*C.* 1897 [2] 659).
- $C_4H_9O_2Br_3$ 1) Monopropyläther d. $\gamma\gamma\gamma$ -Tribrom- $\alpha\alpha$ -Dioxypropan. *Fl.* (*J.* 1874, 305). — I, 943.
- $C_4H_9O_2J$ 1) Hexandioxydjodhydrin. *Sd.* 128—130° (*A. ch.* [6] 22, 456). — I, 316.
 2) norm. α -Jodecapronsäure (*A.* 200, 44). — I, 491.
 3) β -Jod- β -Methylbutan- γ -Carbonsäure. *Sm.* 80—82° (*C.* 1896 [2] 703, 728; *Soc.* 69, 1481).
 4) Äthylester d. β -Jodbuttersäure. *Sd.* 190—192° u. Zers. (*B.* 6, 30). — I, 491.
- $C_4H_9O_2N$ C 49,7 — H 7,6 — O 33,1 — N 9,6 — M. G. 145.
 1) δ -Oximidopentan- α -Carbonsäure. *Sm.* 103—104° (*A.* 294, 319; *Soc.* 69, 1513).
 2) γ -Oximido- β -Methylbutan- β -Carbonsäure (Dimethylketoximessigsäure). *Sm.* 96—97° u. Zers. *Ag* (*A.* 248, 166). — I, 496.
 3) Methylester d. Butyrylamidoameisensäure. *Sm.* 107—108° (*R.* 8, 293). — I, 1256.
 4) Äthylester d. α -Amido- α -Acetessigsäure. *HCl*, Pikrat (*B.* 27, 1142).
 5) Äthylester d. Acetylamidoessigsäure. *Sm.* 48°; *Sd.* 260°₇₋₁₂ (*B.* 17, 1672; *J. pr.* [2] 52, 437). — I, 1188.
 6) Äthylester d. Acetylmethylamidoameisensäure. *Sm.* —9 bis —8°; *Sd.* 189°₇₋₁₂ (*R.* 9, 142; *B.* 25 [2] 640). — I, 1256.
 7) Äthylester d. α -Nitrosoisobuttersäure. *Fl.* (*A.* 300, 80).
 8) Äthylester d. α -Oximidobuttersäure. *Sm.* 51° (*Bl.* [3] 11, 885).
 9) Äthylester d. β -Oximidobuttersäure. *Fl.* (*B.* 28, 2731).
 10) Äthylester d. Imidooxyessigäthyläthersäure. *Sd.* 175° u. Zers. (*A.* 287, 288).
 11) Monamid d. Butan- $\alpha\delta$ -Dicarbonsäure. *Sm.* 125—130° (*C.* 1896 [2] 1091).
 12) Monamid d. Oxalsäuremonoisobutylester (Isobutylester d. Oxaminsäure). *Sm.* 89—90° (*B.* 13, 507; *Bl.* 21, 358). — I, 1362.

- C₆H₁₁O₃N** 13) Dimethylmonamid d. Oxalsäuremonoäthylester (Aethylester d. Dimethyloxaminsäure). *Sd.* 242—245° (241—242°) (*J.* 1862, 329; *B.* 14, 2130; *A.* 217, 137, *R.* 13, 339). — *I.* 1363.
- 14) Aethylmonamid d. Bernsteinsäure (Aethylsuccinaminsäure). *Ba* (*A.* 182, 92). — *I.* 1377.
- 15) Aethylmonamid d. Oxalsäuremonoäthylester (Aethylester d. Aethyl-oxaminsäure). *Sd.* 244—246° (*A.* 184, 60). — *I.* 1363.
- 16) Diäthylmonamid d. Oxalsäure (Diäthylloxaminsäure). *Sm.* 99—101°. *Ca* + 2H₂O (*J.* 1861, 495; *A.* 127, 53; 214, 270; *B.* 14, 743). — *I.* 1363.
- 17) Isobutylmonamid d. Oxalsäure (Isobutyloxaminsäure). *Ca* (*A. ch.* [6] 13, 532). — *I.* 1363.
- C₆H₁₁O₃N₂** *C* 41,6 — *H* 6,3 — *O* 27,8 — *N* 24,3 — *M. G.* 173.
- 1) Aethylester d. α -Semicarbazonpropionsäure. *Sm.* 206° u. *Zers.* (*A.* 303, 87).
- 2) Amid d. Propan- $\alpha\alpha\gamma$ -Tricarbonsäure. *Sm.* 181° (*J. pr.* [2] 58, 432).
- 3) Amid d. Propan- $\alpha\beta\gamma$ -Tricarbonsäure (*A.* d. Tricarballylsäure). *Sm.* 205—207° u. *Zers.* (*B.* 22, 2923). — *I.* 1405.
- 4) Amid d. Methylsuccinursäure. *Sm.* 205—207° (*A.* 178, 210). — *I.* 1383.
- C₆H₁₁O₃N₃** *C* 35,8 — *H* 5,5 — *O* 23,9 — *N* 34,8 — *M. G.* 201.
- 1) Verbindung (aus Anhydrodimethylalloxansemicarbazid). *Zers.* bei 270° (*B.* 30, 134).
- C₆H₁₁O₃N₄** *C* 28,0 — *H* 4,3 — *O* 18,7 — *N* 48,0 — *M. G.* 257.
- 1) Fulmitriguanurat. *Ag*, (*B.* 8, 522; 9, 784). — *I.* 1462.
- C₆H₁₁O₃Cl** 1) Aethylester d. γ -Chlor- β -Oxybuttersäure. *Sd.* 121—122°, (*C.* 1899 [1] 180).
- 2) Aethylester d. β -Chlor- α -Oxyisobuttersäure. *Fl.* (*B.* 5, 867). — *I.* 564.
- 3) Monacetat d. β -Chlor- $\alpha\alpha$ -Dioxyäthanmonoäthyläther. *Sd.* 170° (*A.* 134, 176). — *I.* 928.
- C₆H₁₁O₃J** 1) Pyroglycerinjodhydrin (*A.* 92, 312). — *I.* 315.
- C₆H₁₁O₄N** *C* 44,7 — *H* 6,8 — *O* 39,7 — *N* 8,7 — *M. G.* 161.
- 1) Nitrocapronsäure. *Sm.* 111,5° (115—116°). *Na* + 3H₂O, *Ba* + 3H₂O, *Ba*, *Ag* (*A.* 167, 45; 191, 159; *Ph. Ch.* 3, 196). — *I.* 497.
- 2) α -Dimethylamidobernsteinsäure. *Sm.* 185° (*C.* 1896 [2] 537).
- 3) α -Imidodipropionsäure (Didenlaktamidsäure). *NH₄*, *Cd* + H₂O, *Pb*, *Zn*, *Cu* + 3H₂O, *HCl* (*A.* 160, 35; 165, 44). — *I.* 1196.
- 4) β -Imidodipropionsäure (β -Dilaktamidsäure). *Pb*, *Ag*, *Ag* + *AgNO₃*, (*Ag*, *HNO₃* + 1 1/2 H₂O) (*B.* 9, 1904; *A.* 156, 41). — *I.* 1197.
- 5) isom. Dilaktamidsäure. *Ca* (*A.* 200, 129). — *I.* 1196.
- 6) Aethylimidodiessigsäure (Aethyldiglykolamidsäure). *Pb*, *Cu* (*A.* 132, 1). — *I.* 1192.
- 7) γ -Oximido- β -Oxypentan- β -Carbonsäure. *Zers.* bei 30°. *Ba*, *Ag* + H₂O (*Bl.* [3] 21, 15).
- 8) Dimethylester d. β -Amidoäthan- α -Carbonsäure- β N-Carbonsäure. *Sm.* 33,5° (*Am.* 15, 218, 504, 510). — *I.* 1380.
- 9) β -Aethylester d. β -Amidoäthan- α -Carbonsäure- β N-Carbonsäure. *Sm.* 59° (*Am.* 15, 513).
- 10) α -Aethylester d. α -Amidoäthan- $\alpha\beta$ -Dicarbonsäure (α -Ac. d. l-Asparaginsäure). *Sm.* 165° u. *Zers.* *HCl*, *Cu* + 2H₂O (*G.* 18, 460, 462). — *I.* 1211.
- 11) β -Aethylester d. α -Amidoäthan- $\alpha\beta$ -Dicarbonsäure (β -Aethylester d. l-Asparaginsäure). *Sm.* 200° u. *Zers.* *HCl*, *Cu* (*G.* 18, 458). — *I.* 1211.
- 12) Monäthylester d. act. Asparaginsäure. *HCl* (*Sm.* 199—200°) (*J. pr.* [2] 38, 473; *A.* 157, 25). — *I.* 1211.
- 13) Aethylester d. α -Amidoformoxylpropionsäure. *Sm.* 65,5° (*A.* 302, 265).
- 14) Diäthylester d. Imidodiameisensäure (*D.* d. Imidodicarbonsäure). *Sm.* 49—50°; *Sd.* 215° (*B.* 23, 2786; *Bl.* 44, 30). — *I.* 1256.
- 15) Acetat d. β -Nitro- α -Oxybutan. *Sd.* 130°, (*C.* 1898 [1] 193).
- C₆H₁₁O₄N₂** *C* 38,1 — *H* 5,8 — *O* 33,9 — *N* 22,2 — *M. G.* 189.
- 1) Reducin (*Bl.* 51, 159). — *III.* 666.
- 2) Amid d. β -Oxypropan- $\alpha\beta\gamma$ -Tricarbonsäure (*A.* d. Citronensäure). *Sm.* 210—215° u. *Zers.* (*B.* 17, 2684; siehe auch *B.* 5, 1101; 8, 736). — *I.* 1407.
- C₆H₁₁O₄N₃** *C* 33,2 — *H* 5,0 — *O* 29,5 — *N* 32,3 — *M. G.* 217.
- 1) Diglykolamidsäurediuramid. *Sm.* 195—200° (*HCl*, *PtCl₄*) (*B.* 5, 1012; 6, 1016). — *I.* 1310.

- $C_6H_{11}O_4N_3$ 2) Tetraamid d. Imidodimalonsäure (Imidomalonylamid) (B. 15, 607). — I, 1372.
- $C_6H_{11}O_4Cl$ 1) Dulcitanchlorhydrin. Sm. 90° (A. ch. [4] 27, 178). — I, 289.
2) Mannitanchlorhydrin (A. ch. [5] 6, 118). — I, 287.
3) Quercitchlorhydrin. Sm. 198–202° (A. ch. [5] 15, 54). — I, 283.
4) Verbindung (aus $\alpha\beta$ -Dioxyäthan). Fl. (M. 16, 4).
- $C_6H_{11}O_4Br$ 1) Dulcitanbromhydrin. Sm. 143° (A. ch. [4] 27, 184). — I, 289.
2) Mannitanbromhydrin (A. ch. [5] 6, 112). — I, 287.
- $C_6H_{11}O_4P$ 1) Diallylester d. Phosphorsäure. Na, K, Ca, Ba, Pb, Ag (C. 1897 [1] 406; 1898 [1] 1263).
- $C_6H_{11}O_5N$ C 40,7 — H 6,2 — O 45,2 — N 7,9 — M. G. 177.
1) Monamid d. $\alpha\beta$ -Dioxyäthan- $\alpha\beta$ -Dicarbonsäuremonäthylester (Aethyl-ester d. Tartraminsäure) (A. 80, 303; J. 1853, 416). — I, 1404.
2) Verbindung (aus Fulminursäure). Fl. + NH_3 (Sm. 152°), + C_6H_7N (J. pr. [2] 32, 106; A. 97, 61). — I, 1460.
- $C_6H_{11}O_5N_3$ C 35,1 — H 5,4 — O 39,0 — N 20,5 — M. G. 205.
1) Thyreoantitoxin (C. 1896 [1] 173).
- $C_6H_{11}O_6N_3$ C 32,6 — H 5,0 — O 43,4 — N 19,0 — M. G. 221.
1) p-Trinitro- β -Methylpentan. Sm. 85,5–86° (Soc. 73, 930).
2) Glycinerester d. Amidoameisensäure. Sm. 215° (A. 244, 42). — I, 1254.
- $C_6H_{11}NS$ 1) Isoamylsenfö. Sd. 183–184° (B. 1, 173, 206). — I, 1282.
2) tert. Amylsenfö. Sd. 166° (J. r. 11, 180). — I, 1282.
3) δ -Rhodan- β -Methylbutan (Isoamylrhodanid). Sd. 197°. 2HBr (A. 69, 222; J. 1847 48, 700; 1868, 652). — I, 1279.
4) 5-Methyl-2-Aethyl-4,5-Dihydrothiazol. Sd. 172° (B. 29, 2612).
- $C_6H_{11}NS_2$ 1) Aethyläther d. 2-Merkapto-5-Methyl-4,5-Dihydrothiazol. Sd. 228 bis 229° (B. 23, 968). — I, 1176.
2) Hexahydropyridin-1-Dithiocarbonsäure (Piperidylidithiocarbaminsäure). Piperidinsalz (Sm. 172°) (A. ch. [3] 38, 90; J. pr. [2] 36, 128; B. 17, 514; 31, 2689). — IV, 13.
- $C_6H_{11}N_2Cl$ 1) Chlormethylat d. 3,5-Dimethylpyrazol. 2 + $PtCl_4$ (A. 279, 230). — IV, 523.
2) Chlormethylat d. 1-Aethylimidazol. 2 + $PtCl_4$, 2 + $ZnCl_2$ (B. 16, 535). — IV, 501.
- $C_6H_{11}N_2J$ 1) Jodmethylat d. 3,5-Dimethylpyrazol. Sm. 252° (A. 279, 230). — IV, 523.
2) Jodmethylat d. 1-Aethylimidazol. Sm. 74–75°. 2 + CdJ_2 (B. 16, 535). — IV, 501.
3) Jodmethylat d. 1,2-Dimethylimidazol (B. 16, 488). — IV, 516.
4) Jodäthylat d. 1-Methylimidazol (A. 271, 36). — IV, 501.
- $C_6H_{11}N_2S$ 1) Methylcyanamid d. Propylamidothioameisensäure. Sm. 115° (B. 23, 1662). — I, 1442.
2) Aethylcyanamid d. Aethylamidothioameisensäure. Sm. 98,2° (B. 23, 1660). — I, 1442.
3) Propylcyanamid d. Methylamidothioameisensäure. Sm. 90,5° (B. 23, 1659). — I, 1442.
- $C_6H_{11}N_2S_2$ 1) Verbindung (aus Methylsenfö u. 2-Methylimidotetrahydrothiazol). Sm. 70° (B. 22, 1150). — I, 1324.
- $C_6H_{11}N_2S$ 1) Dithiodimethylammelinmethylester. Sm. 144° (B. 18, 2762). — I, 1449.
- $C_6H_{11}ClBr_2$ 1) Chlordibromhexan. Sd. 218–220° (B. 16, 229; A. ch. [5] 27, 67). — I, 253.
- $C_6H_{11}ON_2$ C 56,2 — H 9,3 — O 12,5 — N 21,9 — M. G. 128.
1) s-Aethylallylharnstoff (A. 102, 300). — I, 1300.
2) R-Tetramethylenmethylharnstoff. Sm. 116° (B. 21, 2698). — I, 1301.
3) 1-Nitroso-2,5-Dimethyltetrahydropyrrol. Sd. 135°₆₀ (B. 23, 1547). — IV, 26.
4) Amid d. Hexahydropyridin-1-Carbonsäure (Piperidin-harnstoff). Sm. 105–106°. HNO_3 (A. ch. [3] 38, 84; R. 9, 301; Soc. 73, 366). — IV, 13.
5) Nitril d. α -Amidoxylisobutylelessigsäure. Sm. 103–104° (B. 26, 1555).
- $C_6H_{12}OCl_2$ 1) Dichloroxyhexan (Dichlorhexylalkohol). Sd. 205–210° (B. 16, 228, A. ch. [5] 15, 61). — I, 253.
2) Propyläther d. $\alpha\beta$ -Dichlor- α -Oxypropan. Sd. 176°₇₆₂ (Bl. [3] 15, 11)

- $C_6H_{11}OBr_2$ 1) $\varepsilon\delta$ -Dibrom- β -Oxyhexan (Methylcrotylcarbinolbromid). Fl. (A. 201, 45). — I, 252.
 2) $\beta\gamma$ -Dibrom- α -Oxy- β -Methylpentan. Fl. (M. 4, 29). — I, 248.
 3) $\delta\varepsilon$ -Dibrom- β -Oxy- β -Methylpentan. Fl. (A. 185, 154). — I, 248.
 4) $\gamma\delta$ -Dibrom- β -Oxy- $\beta\gamma$ -Dimethylbutan (Dimethylisopropenylcarbinolbromid). Fl. (J. r. 21, 433). — I, 253.
 5) isom. Dibromoxyhexan (Dibromhexylalkohol). Sd. 252—254° (B. 16, 228; A. ch. 5 27, 63). — I, 253.
 6) Aethyläther d. $\alpha\beta$ -Dibrom- α -Oxy- β -Methylpropan (Aethyldibromisobutyläther). Fl. (Z. 1870, 525). — I, 299.
- $C_6H_{11}OS$ 1) Isobutylester d. Methanthiolcarbonsäure (Isobutylester d. Thiolessigsäure). Sd. 148—150° (B. 12, 1062). — I, 875.
 2) Verbindung (d. Propionaldehyd) (B. 10, 1739).
- $C_6H_{11}OS_2$ 1) Oxydithioameisenisoamyläthersäure (Isoamylxanthogensäure). NH_4 , K, Pb, Cu (A. 52, 313, 318; 84, 340). — I, 886.
 2) Aethylester d. Oxydithioameisenpropyläthersäure (Ae. d. Propylxanthogensäure). Sd. 215,6—217,6°_{45,2} (i. D.) (G. 17, 76, 79). — I, 885.
 3) Verbindung (aus Thialdin). Sm. 45—60° (43—56°) (Bl. 38, 129, 131; J. 1866, 422). — I, 919.
- $C_6H_{11}OS_3$ 1) Trithiopyroglycid (A. 124, 241). — I, 315.
 $C_6H_{11}O_2N_2$ C 50,0 — H 8,3 — O 22,2 — N 19,4 — M. G. 144.
 1) $\alpha\delta$ -Dioximidohexan (Propionylpropionaldioxim). Sm. 84—85° (G. 21 [2] 168). — I, 972.
 2) $\beta\gamma$ -Dioximidohexan (Methylpropylglyoxim). Sm. 168° (170—171°) (B. 16, 2185; 22, 2121; J. pr. [2] 51, 507, 546; G. 28 [2] 272). — I, 972.
 3) $\beta\varepsilon$ -Dioximidohexan. Sm. 134—135° (B. 18, 59; 22, 3177). — I, 1033.
 4) $\gamma\delta$ -Dioximidohexan. Sm. 152—159° (G. 28 [2] 272).
 5) $\alpha\delta$ -Dioximido- β -Methylpentan (Methylävalinaldioxim). Na_2 (B. 23, 1788). — I, 972.
 6) $\gamma\delta$ -Dioximido- β -Methylpentan. Sm. 155—158° (J. pr. [2] 55, 197; G. 27 [1] 274).
 7) $\alpha\delta$ -Dioximido- β -Aethylbutan (Aethylsuccinaldioxim). Sm. 134—135° (G. 21 [2] 168). — I, 972.
 8) γ -Nitroimido- $\beta\beta$ -Dimethylbutan (Pinakolinnitrimin). Sd. 81—83°₁₀ (B. 28, 1365).
 9) Diäthyläther d. $\alpha\beta$ -Diimido- $\alpha\beta$ -Dioxyäthan (Oximidodiäthyläther). Sm. 38° (25°); Sd. 172° u. Zers. (B. 11, 1482; A. 287, 283). — I, 1490.
 10) Isovalerylharnstoff. Sm. 191° (A. 94, 102). — I, 1304.
 11) s-Aethylpropionylharnstoff. Sm. 100° (B. 15, 754). — I, 1304.
 12) $\alpha\alpha$ -Di[Acetylamido]äthan (Aldehyd-Aceamid). Sm. 169° (B. 5, 477). — I, 1244.
 13) $\alpha\beta$ -Diformyl- $\alpha\beta$ -Diäthylhydrazin. Sd. 120—130°₃₀ (B. 27, 2278).
 14) Amid d. γ -Oximido- β -Methylbutan- β -Carbonsäure. Sm. 162—164° u. Zers. (A. 248, 165). — I, 1248.
 15) Amid d. δ -Oximido- β -Methylbutan- δ -Carbonsäure (A. d. α -Oximidoisobutylelessigsäure). Sm. 146—147° (B. 26, 1557).
 16) Amid d. Butan- $\alpha\alpha$ -Dicarbonsäure (A. d. Propylmalonsäure). Sm. 182 bis 183° (J. 1889, 639). — I, 1386.
 17) Amid d. Butan- $\alpha\delta$ -Dicarbonsäure (A. d. Adipinsäure). Sm. 220° (J. 1885, 1334). — I, 1386.
 18) Amid d. Butan- $\beta\gamma$ -Dicarbonsäure (A. d. s-Dimethylbernsteinsäure). Sm. noch nicht bei 260° (J. pr. [2] 26, 359). — I, 1387.
 19) Amid d. Piperazin-1,4-Dicarbonsäure (J. pr. [2] 53, 20).
 20) Di[Methylamid] d. Aethan- $\alpha\alpha$ -Dicarbonsäure (D. d. Methylmalonsäure). Sm. 154° (R. 4, 204). — I, 1384.
 21) Di[Methylamid] d. Aethan- $\alpha\beta$ -Dicarbonsäure (s-Dimethylamid d. Bernsteinsäure). Sm. 175° (B. 14, 170; R. 4, 201). — I, 1381.
 22) Tetramethylamid d. Oxalsäure. Sm. 80° (R. 13, 334).
 23) s-Di[Aethylamid] d. Oxalsäure. Sm. 179° (175°) (A. 78, 334; 184, 33; 214, 268; B. 12, 1611; 17, 1034; R. 13, 416). — I, 1365.
 24) uns-Diäthylamid d. Oxalsäure. Sm. 126—127°; Sd. 266—268°; subl. bei 100° (J. 1861, 506; B. 14, 735, 748; A. 214, 260). — I, 1365.
 25) Aethylenamid d. Essigsäure. Sm. 172°. (2HCl, PtCl₄), (HCl, AuCl₃) (B. 21, 2332). — I, 1238.

- $C_4H_{11}O_2N_2$ 26) Monobutyldiamid d. Oxalsäure. subl. Sm. 197–198° (M. 9, 609). — I, 1366.
- $C_4H_{11}O_2N_4$ C 41,9 — H 7,0 — O 18,6 — N 32,5 — M. G. 172.
- 1) $\alpha\alpha'$ -Dinitrosoazopropan (Propylazaurolsäure). Sm. 127,5° (A. 214, 333). — I, 208.
 - 2) 1,4-Dinitroso-2,5-Dimethylpiperazin. Sm. 172° (J. pr. [2] 47, 504; B. 30, 1983). — IV, 483.
 - 3) isom. 1,4-Dinitroso-2,5-Dimethylpiperazin. Sm. 95–96° (J. pr. [2] 47, 513). — IV, 483.
- $C_4H_{11}O_2Cl_2$ 1) $\alpha\beta$ -Dichlor- $\beta\delta$ -Dioxyhexan? Fl. (B. 7, 415; 18, 1351, 2288). — I, 264.
- 2) Diäthyläther d. $\beta\beta$ -Dichlor- $\alpha\alpha$ -Dioxyäthan (Dichloracetal). Sd. 183 bis 184° (A. 149, 372; 150, 134; 179, 34; 279, 300; J. pr. [2] 24, 100; J. 1876, 474; B. 4, 217; 5, 148; 6, 1071; 15, 600). — I, 923.
- $C_4H_{11}O_2S$ 1) Äthylester d. α -Merkaptoisobuttersäure. Cu (J. pr. [2] 33, 109). — I, 896.
- 2) Äthylester d. Merkaptoessigäthyläthersäure. Sd. 187–189° (Bl. 23, 445). — I, 891.
- $C_4H_{11}O_2S_2$ 1) Trithioaldehyddioxyd. Sm. 112–116° (A. 222, 305). — I, 938.
- $C_4H_{11}O_2S_4$ 1) Dithiotrioxymethylen + H_2O . Sm. 80–82°; Sd. 180–185° (A. ch. [5] 17, 307). — I, 912.
- $C_4H_{11}O_3N_2$ C 45,0 — H 7,5 — O 30,0 — N 17,5 — M. G. 160.
- 1) Nitrosoparaldimin. Sd. 170° u. Zers. (B. 23, 744). — I, 918.
 - 2) Anhydrid d. Methylamidoessigsäure. Sm. 143–146°. (2HCl, PtCl₄) (B. 15, 2112).
 - 3) α -Amid d. β -Amidoäthan- α -Carbonsäure- β N-Carbonsäureäthylester. Sm. 120,5° (Am. 15, 513).
 - 4) α -Methylamid d. α -Methylamidoäthan- $\alpha\beta$ -Dicarbonsäure (Methylamidomethylsuccinaminsäure). Sm. 291°. $HNO_3 + H_2O$, Cu + 2 H_2O (G. 19, 424). — I, 1379.
 - 5) β -Äthylamid d. α -Amidoäthan- $\alpha\beta$ -Dicarbonsäure (β -Äthylasparagin). Sm. 258–260° u. Zers. Cu (G. 18, 480). — I, 1379.
 - 6) Triacetodiamid. Sd. 212–217° (A. 103, 327; Z. 1869, 128). — I, 1240.
- $C_4H_{11}O_3N_4$ C 38,3 — H 6,4 — O 25,5 — N 29,8 — M. G. 188.
- 1) Amid d. Triglykolamidsäure. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (A. 140, 267). — I, 1242.
- $C_4H_{11}O_3Cl_2$ 1) Diglycerindichlorhydrin. Sl. 230–235° (A. ch. [3] 67, 303). — I, 314.
- $C_4H_{11}O_3S$ 1) Monothiopyroglycid (A. 124, 241). — I, 315.
- $C_4H_{11}O_3S_2$ 1) Triäthylidensulfon. Sm. 216–217° (A. 222, 302). — I, 938.
- $C_4H_{11}O_4N_2$ C 40,9 — H 6,8 — O 36,3 — N 15,9 — M. G. 176.
- 1) $\alpha\alpha$ -Dinitrohexan. Fl. K, Cu + H_2O , Ag (J. pr. [2] 25, 272; [2] 51, 509; [2] 53, 432; J. 1882, 454; Am. 20, 208). — I, 211.
 - 2) $\beta\gamma$ -Dinitro- $\beta\gamma$ -Dimethylbutan. Sm. 206–208° (B. 28, 1855).
 - 3) Tetramethyläther d. Di[Dioxy-methylen]hydrazin (Azinomethylcarbonat). Sm. 111° (A. 303, 71).
 - 4) Glucoprotein (B. 13, 1033; C. r. 92, 458).
 - 5) Diäthylloxaldihydroxamsäure. Sm. 153°. Na₂, Zn, Cu, Ag₂ (B. 27, 1111).
 - 6) Dimethyläther d. Dimethylloxaldihydroxamsäure (B. 27, 1113).
 - 7) α -Hydrazopropionsäure. Zers. bei 198° (A. 303, 90).
 - 8) Methylester d. Butylnitramidoameisensäure. Fl. (R. 14, 21).
 - 9) Methylester d. iso-Butylnitramidoameisensäure. Fl. (R. 14, 24).
 - 10) Methylester d. sec. Butylnitramidoameisensäure. Fl. (R. 14, 22).
 - 11) Dimethylester d. Äthylendi[amidoameisensäure]. Sm. 132–133° (R. 7, 258; Am. 19, 336). — I, 1255.
 - 12) Diäthylester d. Hydrazindicarbonsäure. Sm. 130°; Sd. 250° u. Zers. (B. 27, 773; J. pr. [2] 52, 476).
- $C_4H_{11}O_4N_4$ C 35,3 — H 5,9 — O 31,4 — N 27,4 — M. G. 204.
- 1) Dimethylester d. s-Dimethyltetrazondicarbonsäure. Sm. 184° (R. 9, 150). — I, 1258.
- $C_4H_{11}O_4N_6$ C 31,0 — H 5,2 — O 27,6 — N 36,2 — M. G. 232.
- 1) Succinendiuramidoxim + 2 H_2O . Sm. 163,5° u. Zers. (B. 22, 2963). — I, 1486.
 - 2) Di[Äthylnitrosohydrazid] d. Oxalsäure (Oxalyldiäthylnitrosohydrazin). Sm. 144–145° u. Zers. (A. 199, 298). — I, 1371.

- $C_6H_{11}O_4Cl_2$ 1) *P*-Dichlor-*P*-Tetraoxyhexan (Divinylglykoldihypochlorit). Sm. 204 bis 206° u. Zers. (GRINER, thèse 74). — I, 281.
2) *P*-Dichlor-*P*-Tetraoxyhexan (Dulcिटdichlorhydrin) (A. ch. [4] 27, 174). — I, 289.
3) *P*-Dichlor-*P*-Tetraoxyhexan (Mannitdichlorhydrin). Sm. 174° u. Zers. (A. ch. [5] 6, 114; Bl. 41, 121; A. 233, 369). — I, 286.
- $C_6H_{11}O_4Br_2$ 1) *P*-Dibrom-*P*-Tetraoxyhexan (Dulcिटdibromhydrin) (A. ch. [4] 27, 182). — I, 289.
2) *P*-Dibrom-*P*-Tetraoxyhexan (Mannitdibromhydrin). Sm. 178° u. Zers. (A. ch. [5] 6, 120). — I, 287.
- $C_6H_{11}O_4S$ 1) Hexylenschwefelsäure. Ba (B. 16, 229; A. ch. [5] 27, 71). — I, 253.
2) Dialylsulfonsäure? K, Ca, Ba (A. ch. [4] 3, 129; [6] 16, 204).
3) δ -Keto- β -Methylbutan- β -Sulfonsäure (Isobutylmethylketonsulfonsäure). Na + H₂O, Ba + 2H₂O (B. 15, 593; A. 299, 217). — I, 1008.
4) Aethylester d. Aethylsulfonessigsäure (J. pr. [2] 15, 223). — I, 891.
5) Aldehyd d. Pentan- β -Carbonsäure- β -Sulfonsäure. Ba (M. 9, 664). — I, 961.
- $C_6H_{11}O_4S_2$ 1) $\beta\beta$ -Isopropenyldisulfonpropan (Tetramethyldimethylenedisulfon). Sm. 220–225° u. Zers. (B. 20, 375). — I, 993.
- $C_6H_{11}O_4S_3$ 1) α -Trithioacetaldehydtetraoxyd. Sm. 283–284° (B. 26, 2077; H. 17, 463).
2) isom.-*P*-Trithioacetaldehydtetraoxyd (Gemisch?). Sm. 228–231° (A. 222, 308; B. 26, 2078). — I, 938.
- $C_6H_{11}O_5N_4$ C 32,7 — H 5,4 — O 36,4 — N 25,5 — M. G. 220.
1) Dinitrotetramethylazoxymethan? Sm. 97° (B. 28, 1367).
2) Verbindung (aus Desoxalsäuretriäthylester) + H₂O (B. 12, 545). — I, 857.
- $C_6H_{11}O_5S$ 1) Mesitylschwefelsäure. Ca + H₂O (P. 44, 479). — I, 977.
2) Pentan- α -Carbonsäure- α -Sulfonsäure + H₂O. NH₄ + H₂O, Ca + 1½ H₂O, Sr + ½ H₂O, Ba + 1(1½) H₂O, Cd + H₂O, Zn + H₂O, Ag (B. 30, 1642).
3) Pentan- β -Carbonsäure- β -Sulfonsäure (α -Sulfo- α -Methylvaleriansäure). Ca + 1½ H₂O, Ba, Ag₂ (M. 9, 667). — I, 903.
4) Diäthylester d. Methancarbonsäuresulfonsäure (D. d. Sulfoessigsäure). Fl. (B. 21, 1550; R. 7, 31). — I, 901.
- $C_6H_{11}O_5S_3$ 1) Trithioaldehydpentaoxyd. Zers. bei 235–245° (A. 222, 306). — I, 938.
C 34,6 — H 5,8 — O 46,1 — N 13,5 — M. G. 208.
- $C_6H_{11}O_6N_2$ 1) Hexaoxymethylen-diamin (B. 18, 3344). — I, 914.
2) Amid d. d-Mannozuckersäure. Sm. 89° u. Zers. (B. 24, 543). — I, 1407.
3) Amid d. l-Mannozuckersäure. Sm. 183–185° u. Zers. (189–190°) (B. 20, 2712; 24, 545). — I, 1407.
4) Amid d. Schleimsäure. Sm. 237–240° u. Zers. (Berz. J. 27, 513; M. 14, 485). — I, 1407.
5) Amid d. Zuckersäure (J. 1859, 290). — I, 1407.
- $C_6H_{11}O_6S_3$ 1) Trimethyltrimethylentrisulfon (Trithioacetaldehydttrisulfon). subl. bei 340°. K, Na + 2H₂O, Ba + 6H₂O, Sr + xH₂O, Ag + H₂O (B. 22, 2606; 26, 2075; 27, 1667). — I, 938.
2) isom.-*P*-Trimethyltrimethylentrisulfon. subl. (B. 25, 240). — I, 939.
- $C_6H_{11}O_6S$ 1) Quercitschwefelsäure (B. 5, 845).
- $C_6H_{11}O_6S_2$ 1) Stärkeschwefelsäure (A. 55, 13). — I, 1086.
- $C_6H_{11}O_6S_3$ 1) Pyroglycerintrisulfonsäure. Ba, Pb, Cu (A. 124, 235). — I, 382.
- $C_6H_{11}O_{16}S_3$ 1) Glykosetriscchwefelsäure. Ba₃ + 2H₂O (J. pr. [2] 20, 26). — I, 1048.
- $C_6H_{11}O_{16}S_4$ 1) d-Galaktosetetraschwefelsäure (J. pr. [2] 20, 29). — I, 1041.
2) Glykosetetraschwefelsäure (J. pr. [2] 20, 18; B. 17, 2457). — I, 1048.
3) Lävulose-tetraschwefelsäure (J. pr. [2] 20, 27). — I, 1055.
- $C_6H_{11}O_{20}S_5$ 1) Dulcitanpentaschwefelsäure. Ba₅ + 6H₂O (J. pr. [2] 20, 15). — I, 336.
- $C_6H_{11}NCl$ 1) Chlormethylat d. l-Dimethylamido-R-Propen. 2 + PtCl₄ + AuCl₃ (A. 268, 162; B. 30, 618). — I, 1147.
2) Chlormethylat d. l-Methyl-*P*-Dihydropyrrol. 2 + PtCl₄ + xH₂O (B. 16, 1542). — IV, 48.
- $C_6H_{11}NBr$ 1) Brommethylat d. l-Dimethylamido-R-Propen. Sm. 178–179° (A. 268, 160; B. 30, 618). — I, 1147.
- $C_6H_{11}NBr_2$ 1) Dibromallyltrimethylammoniumbromid. Sm. 187° (A. 268, 163).

- C₅H₁₁NJ** 1) Jodmethylat d. 1-Methyl- β -Dihydropyrrol. Sm. 286° u. Zers. (B. 16, 1541; G. 15, 492). — IV, 48.
- C₅H₁₁N₂S** 1) Thioharnstoffmethyl-R-Tetramethylen. Sm. 67—68° (B. 21, 2699). — I, 1323.
 2) Valerylthioharnstoff. Sm. 158—159° (Soc. 67, 1045).
 3) Angelylthioharnstoff. Sm. 103° (B. 8, 106; 12, 991). — I, 1323.
 4) α -Aethylallylthioharnstoff. Sm. 47° (41°). (2HCl, PtCl₄) (A. 83, 346; B. 23, 287; 24, 261). — I, 1323.
 5) $\alpha\alpha$ -Dimethyl- β -Allylthioharnstoff. Fl. (C. 1896 [1] 305).
 6) 2-Aethylimido-5-Methyl-4,5-Dihydrothiazol. Sm. 63°; Sd. 230° (B. 24, 263). — I, 1323.
- C₅H₁₁N₂S₂** 1) α -Diäthylamid d. Dithiooxalsäure. Sm. 58° (54°) (B. 12, 1064; A. 262, 360). — I, 1370.
- C₅H₁₁N₂S₂** 1) α -Diäthylthiocarbamindisulfid. Sm. 78—79° (A. 285, 191).
- C₅H₁₁N₂Cl₂** 1) 1,3,5-Trichlor-2,4,6-Trimethylhexahydro-1,3,5-Triazin (Bl. [3] 21, 62).
- C₅H₁₁N₄Br₂** 1) Hexamethylentetramindibromid (B. 18, 3350; 21, 2000; Bl. [3] 11, 552). — I, 1168.
- C₅H₁₁N₄Br₄** 1) Hexamethylentetramintetrabromid (B. 21, 2000). — I, 1168.
- C₅H₁₁N₄J₂** 1) Hexamethylentetramindijodid (B. 21, 2001). — I, 1168.
- C₅H₁₁N₄J₄** 1) Hexamethylentetramintetrajodid (B. 21, 2001; C. 1897 [2] 428). — I, 1168.
- C₅H₁₁N₄S** 1) 3-Thiocarbonyl-5-Aethylimido-4-Aethyltetrahydro-1,2,4-Triazol. Sm. 173°. HCl + H₂O (B. 28, 954). — IV, 1235.
 C 62,6 — H 11,3 — O 13,9 — N 12,2 — M. G. 115.
- C₅H₁₁ON** 1) 4-Amido-1-Oxyhexahydrobenzol. (2HCl, PtCl₄) (B. 27, 1450; Am. 16, 453).
 2) Aethenyläther d. β -Dimethylamido- α -Oxyäthan. Sd. 124°₇₄₀. (HCl, AuCl₃), Pikrat, Pikrolonat (B. 32, 738).
 3) γ -Amido- β -Ketohehexan (Methyl- α -Amidobutylketon). HCl, (2HCl, PtCl₄), Pikrat (B. 28, 2041).
 4) β -Amido- δ -Keto- β -Methylpentan (Diacetonamin). HCl, (2HCl, PtCl₄ + 2H₂O), (2HCl, PtCl₄), H₂SO₄, Oxalat + H₂O, Pikrat (A. 174, 154; 189, 214; 198, 45; B. 7, 1384). — I, 980.
 5) Trimethyl-R-Propenylammoniumhydrat. Salze siehe (A. 268, 161; B. 30, 618). — I, 1147.
 6) α -Propyläther d. α -Imido- $\alpha\beta$ -Dioxypropan (Laktimidopropyläther). HCl. Sm. 68—69° u. Zers. (B. 23, 2947). — I, 1490.
 7) β -Oximidohehexan (Oxim d. Methyl-norm. Butylketon). Sd. 185°₇₅₇ (B. 26, 1426).
 8) γ -Oximido- $\beta\beta$ -Dimethylbutan (Oxim d. Methyl-tert. Butylketon). Sm. 74—75° (B. 15, 2780; 28, 1365; A. ch. [6] 26, 452). — I, 1030.
 9) 4-Aethylmorpholin. Sd. 138—139°₇₅₁. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (A. 301, 14).
 10) 1-Methylhexahydropyridin-N-Oxyd (1-Oxymethylhexahydropyridin). Fl. (2HCl, PtCl₄ + 2H₂O) (B. 25, 3124; 28 [2] 852; 31, 1557). — IV, 6, 21.
 11) Aldehyd d. δ -Amidopentan- α -Carbonsäure. Sd. 116—117°₆₀. HCl (B. 26, 2993).
 12) Aldehyd d. α -Amido- β -Methylbutan- δ -Carbonsäure. Sd. 81°₁₀. HCl, Pikrat (B. 28, 1465).
 13) Aldehyd d. Diäthylamidoessigsäure. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 30, 1506).
 14) Amid d. Pentan- α -Carbonsäure (A. d. norm. Capronsäure). Sm. 100°; Sd. 255° (B. 2, 495; 15, 983; 17, 1411). — I, 1247.
 15) Amid d. Pentan- β -Carbonsäure (A. d. Methylpropyleessigsäure). Sm. 95°. Hg (B. 15, 311). — I, 1247.
 16) Amid d. Pentan- γ -Carbonsäure (A. d. Diäthyleessigsäure). Sm. 105°; Sd. 230—235° (B. 23, 190). — I, 1248.
 17) Amid d. act. β -Methylbutan- α -Carbonsäure (A. d. act. Capronsäure) Sm. 124° (R. 5, 224; 6, 155; Soc. 67, 267). — I, 1247.
 18) Amid d. β -Methylbutan- γ -Carbonsäure (A. d. Methylisopropyleessigsäure). Sm. 129° (R. 5, 232, 237). — I, 1848.

- C₅H₁₁ON** 19) Amid d. β -Methylbutan- δ -Carbonsäure (A. d. Isobutylelessigsäure). Sm. 120° (B. 15, 983; 17, 1411; 31, 2348). — I, 1247.
- 20) Methylamid d. β -Methylpropan- β -Carbonsäure (M. d. Trimethylelessigsäure). Sm. 91°; Sd. 203—204° (R. 6, 240). — I, 1247.
- 21) Diäthylamid d. Essigsäure. Sd. 185—186° (A. 214, 235). — I, 1238.
- C₅H₁₁ON₃** C 50,3 — H 9,1 — O 11,2 — N 29,4 — M. G. 143.
- 1) β -Amidoformylhydrazonpentan. Sm. 100° (B. 29, 611).
- 2) Piperidylharnstoff. Sm. 135,5—136,5 (A. 221, 304). — IV, 480.
- C₅H₁₁OCl** 1) ϵ -Chlor- α -Oxyhexan (Chlorhexylalkohol). Fl. (B. 18, 3283). — I, 247.
- 2) γ -Chlor- β -Oxyhexan. Fl. (M. 2, 319). — I, 248.
- 3) β -Chlor- γ -Oxyhexan. Sd. 170—171° (Bl. 41, 362). — I, 248.
- 4) γ -Chlor- β -Oxy- $\beta\gamma$ -Dimethylbutan. Sm. 55° (J. r. 14, 390; B. 26 [2] 13). — I, 248.
- 5) Chlormethyläther d. δ -Oxy- β -Methylbutan. Sd. 154° (Bl. [3] 11, 881).
- 6) Aethyläther d. α -Chlor- β -Oxybutan (Aethylchlorbutyläther). Sd. 141° (A. 123, 133; 133, 288; B. 28, 3111). — I, 295.
- C₅H₁₁OBr** 1) β -Brom- γ -Oxyhexan. Sd. 188—189° (Bl. 41, 363). — I, 248.
- C₅H₁₃O₂N** C 55,0 — H 9,9 — O 24,4 — N 10,7 — M. G. 131.
- 1) α -Nitrohexan. Sd. 180—183° (Am. 20, 207).
- 2) β -Nitrohexan. Sd. 176°₇₈₈ (B. 25 [2] 108; J. r. 25, 476). — I, 211.
- 3) γ -Nitro- γ -Methylpentan. Sd. 170—172°₇₄₉ (J. pr. [2] 48, 375; B. 26, 136).
- 4) β -Nitro- $\beta\gamma$ -Dimethylbutan. Sd. 170—174° (J. r. 25, 498).
- 5) α -Aethyläther d. α -Imido- $\alpha\beta$ -Dioxy- β -Methylpropan (Oxyisobutylimidoäthyläther). HCl (B. 17, 2009). — I, 1490.
- 6) ϵ -Oximido- α -Oxyhexan. Fl. (A. 289, 191).
- 7) α -Oximido- γ -Oxy- β -Methylpentan. Sd. 140°₉₃ (M. 19, 156).
- 8) α -Oximido- γ -Oxy- $\beta\beta$ -Dimethylbutan. Sd. 137—139°₁₉ (M. 19, 81).
- 9) β -Hydroxylamido- δ -Keto- β -Methylpentan (Diacetonhydroxylamin). Sm. 52°. Oxalat, Pikrat (B. 31, 1376, 1808).
- 10) 4- β -Oxyäthyl]morpholin. Sd. 227° (A. 301, 9).
- 11) Aethyläther d. 2-Oxytetrahydro-1,4-Oxazin (Ae. d. 2-Oxymorpholin). Sd. 253—255° (B. 32, 729).
- 12) Mydatoxin. (2HCl, PtCl₄). — III, 889.
- 13) α -Amido-norm. Capronsäure (act. Leucin). Sm. 170 u. Zers. Salze meist bek. Lit. bedeutend. — I, 1201.
- 14) δ -Amido-norm. Capronsäure. Fl. (M. 15, 33).
- 15) isom. Amidocapronsäure. Sm. 214—215°. HCl, (2HCl, PtCl₄) (B. 31, 2277).
- 16) δ -Amido- α -Methyl-norm. Valeriansäure (α -Methylhomopiperidinsäure). Sm. 168° u. Zers. (2HCl, PtCl₄) (B. 24, 2444). — I, 1204.
- 17) d- α -Amido- γ -Methyl-norm. Valeriansäure (d-Leucin). HCl, Cu (H. 18, 21).
- 18) l- α -Amido- γ -Methyl-norm. Valeriansäure (l-Leucin) (H. 17, 518; 18, 21). — I, 1203.
- 19) i- α -Amido- γ -Methyl-norm. Valeriansäure (i-Leucin; α -Amidoisobutylelessigsäure). HNO₃, Cu (A. 94, 243; J. pr. [2] 1, 10; B. 22, 696; 26, 56; 30, 1978; H. 7, 223; 9, 111; 10, 135; 17, 516; 18, 21; 25, 176). — I, 1203.
- 20) isom. act. Leucin. Sm. 275—276°. Cu (B. 27, 2728; H. 20, 203).
- 21) Amidodiäthylelessigsäure. subl. HCl, Cu, Ag (B. 14, 1975). — I, 1204.
- 22) α -Methylamido-norm. Valeriansäure + H₂O. Zers. bei 110°. HCl, HNO₃, H₂SO₄, Cu + 2H₂O (G. 17, 116). — I, 1199.
- 23) α -Methylamidisovaleriansäure. HCl, (HCl, AuCl₃) (A. ch. [5] 21, 434). — I, 1200.
- 24) α -Aethylamidobuttersäure. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), H₂SO₄, Cu + 2H₂O (A. ch. [5] 20, 188). — I, 1197.
- 25) Diäthylamidoessigsäure. HCl, (2HCl, PtCl₄ + H₂O), Cu + 4H₂O (A. 140, 217; 145, 222). — I, 1187.
- 26) Inn. Anhydrid d. α -Trimethylamidopropionsäure. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HJ (B. 9, 39). — I, 1195.
- 27) Methylester d. Butylamidoameisensäure. Sd. 92°₁₃ (R. 14, 17).
- 28) Methylester d. iso-Butylamidoameisensäure. Sd. 89°₁₈ (R. 14, 19).
- 29) Methylester d. sec. Butylamidoameisensäure. Sd. 83°₁₈ (R. 14, 18).

- C₆H₁₃O₂N** 30) Methylester d. tert. Butylamidoameisensäure. Sm. 26,75—27,75°; Sd. 63,3°₁₁ (R. 14, 20).
 31) Aethylester d. norm. Propylamidoameisensäure. Sm. 186° (J. pr. [2] 21, 125). — I, 1255.
 32) Isoamylester d. Amidoameisensäure. Sm. 60°; Sd. 220° (A. 71, 106). — I, 1253.
 33) Acetat d. β-Dimethylamido-α-Oxyäthan. (2HCl, AuCl₃) (B. 22, 1115). — I, 1171.
 34) Amid d. α-Oxy-norm. Capronsäure. Sm. 140—142° (J. r. 12, 372). — I, 1344.
 35) Amid d. γ-Oxy-norm. Capronsäure. Sm. 74° (A. 256, 153). — I, 1344.
 36) Amid d. γ-Oxyisocapronsäure. Sm. 101° (J. pr. [2] 48, 219).
 37) Amid d. α-Oxy-norm. Butteräthyläthersäure. Sm. 68—70° (A. ch. [5] 17, 542). — I, 1343.
 38) Amid d. β-Oxy-norm. Butteräthyläthersäure. Sm. 75° (71°) (B. 12, 2507; Soc. 59, 479). — I, 1343.
- C₆H₁₃O₂N₃** 39) Paraldimin. Sd. 140°. HCl (B. 23, 747). — I, 918.
 C 45,3 — H 8,2 — O 20,1 — N 26,4 — M. G. 159.
 1) Oxyisovalerocyamin (Bl. 39, 539). — I, 1200.
 2) Propylglykocyamin (B. 25 [2] 46).
 3) Lysatinin. (HNO₃, AgNO₃) (H. 18, 497).
- C₆H₁₃O₂Cl** 1) δ-Chlor-β-ε-Dioxy-β-Methylpentan. Fl. (J. pr. [2] 40, 397). — I, 265.
 2) Chlordioxyhexan (Chlorhexylenglykol). Sd. 155—158°₃₀ (J. r. 19, 506). — I, 264.
 3) Diäthyläther d. β-Chlor-αα-Dioxyäthan (Chloracetal). Sd. 156,8° (A. 104, 115; 146, 193; 192, 106; 279, 300, 307, 308; J. 1876, 336; B. 6, 1202; J. pr. [2] 19, 395; [2] 24, 98; M. 3, 444; 5, 497). — I, 922.
 4) Aethyläther d. α'-Chlor-α'-Oxydiäthyläther (Isochloracetal). Sd. 146° (A. ch. [5] 25, 223). — I, 922.
- C₆H₁₃O₂Br** 1) Diäthyläther d. β-Brom-αα-Dioxyäthan (Bromacetal). Sd. 170° u. Zers. (A. 192, 112; B. 5, 149; 25, 2551). — I, 923.
- C₆H₁₃O₂J** 1) Diäthyläther d. β-Jod-αα-Dioxyäthan. Sd. 190° u. Zers. (B. 30, 1442).
- C₆H₁₃O₃N** C 49,0 — H 8,8 — O 32,6 — N 9,5 — M. G. 147.
 1) γ-Nitro-δ-Oxy-β-Methylpentan. Sd. 119—123°₃₈ (C. 1897 [2] 337; 1898 [1] 439; R. 16, 201).
 2) ε-Nitro-δ-Oxy-β-Methylpentan. Sd. 127—130°₃₈ (C. 1897 [2] 337; R. 16, 201).
 3) α-Amidoxyisobutylelessigsäure. Sm. 151° u. Zers. (B. 26, 1556).
 4) Säure (Amidooxycapronsäure?). Sm. 220—230° u. Zers. (B. 27, 145).
 5) α-Aldehyd d. α-Amidobutan-αδ-Dicarbonensäure. Sm. 103,5° (B. 26, 2996).
 6) Amid d. Dioxyessigdiäthyläthersäure. Sm. 76,5° (81—82°) (Z. 1870, 168; B. 11, 1477). — I, 1356.
 7) Verbindung (aus NH₃ u. Acetessigsäureäthylester) (A. 213, 171; 226, 298). — I, 593.
 C 41,4 — H 7,4 — O 27,4 — N 24,0 — M. G. 175.
- C₆H₁₃O₃N₃** 1) Aethylester d. α-Semicarbazidopropionsäure. Sm. 108° (A. 303, 83).
- C₆H₁₃O₃Cl** 1) Triäthylenglykolchlorhydrin. Sd. 222—232° (A. ch. [3] 67, 292). — I, 261.
- C₆H₁₃O₃Br** 1) Triäthylenglykolbromhydrin. Sd. 250° (A. ch. [3] 67, 286). — I, 261.
- C₆H₁₃O₄N** C 44,2 — H 8,0 — O 39,2 — N 8,6 — M. G. 163.
 1) γ-Nitro-δ-Oxy-γ-Oxymethyl-β-Methylbutan (C. 1898 [1] 439).
 2) Rhamnosamin. 2 + CH₄O, 2 + C₂H₆O (B. 28, 3083).
 3) Sorbosamin (R. 15, 82).
 4) Oxim d. Digitoxose. Sm. 102° (B. 31, 2455).
- C₆H₁₃O₄Cl** 1) Diglycerinmonochlorhydrin. Sd. 270° (A. ch. [3] 67, 303). — I, 314.
- C₆H₁₃O₄P** 1) Diacetonphosphinsäure + H₂O. Sm. 63—64°. (NH₄)₃, (NH₄)₂ + 2H₂O, K, Mg + 6H₂O, Ba + 2(6)H₂O, Pb, Ag (B. 18, 902). — I, 1508.
- C₆H₁₃O₅N** C 40,2 — H 7,3 — O 44,7 — N 7,8 — M. G. 179.
 1) β-Nitro-αγ-Dioxy-β-Oxymethylpentan. Sm. 111—112° (Bl. [3] 15, 1224).
 2) α-Akrosamin. Oxalat (B. 20, 2573). — I, 1047.
 3) Galaktosamin. Sm. 141° u. Zers. (B. 28, 3083).
 4) Glykosamin (Chitosamin). Sm. 110° u. Zers. (127°). HCl, HBr, HIJ, Oxalat (H. 2, 214; 4, 141; 20, 507; 21, 136; B. 17, 243; 19, 51, 156; 20

- 27, 118, 138, 3114; 28, 3083; 31, 2193, 2476; 32, 542; R. 14, 99). — I, 1047.
- $C_6H_{13}O_5N$ 5) Isoglykosamin. Fl. Acetat, Oxalat (B. 19, 1921). — I, 1047.
- $C_6H_{13}O_5N_2$ 6) Rhamnoseoxim. Sm. 127–128° (B. 24, 697; 29, 1380). — I, 290.
C 34,8 — H 6,3 — O 38,6 — N 20,3 — M. G. 207.
- $C_6H_{13}O_6N$ 1) Arabinosesemicarbazid. Sm. 163–164° u. Zers. (C. 1897 [2] 894).
C 36,9 — H 6,7 — O 49,2 — N 7,2 — M. G. 195.
- 1) Chitaminsäure. Zers. über 250°. HCl, HBr, Cu, Ag (B. 27, 142).
- 2) d-Galaktoseoxim. Sm. 175–176° u. Zers. (B. 20, 2674; 24, 698; 30, 3103). — I, 1041.
- 3) Glykoseoxim. Sm. 136–137° (B. 24, 697, 995; 26, 730, 27, 1291). — I, 1047.
- 4) Lävuloseoxim. Sm. 118° (B. 24, 995). — I, 1055.
- 5) d-Mannoseoxim. Sm. 176–184° u. Zers. (B. 22, 612; 24, 699). — I, 1055.
- 6) Amid d. Arabinosecarbonsäure. Zers. bei 160° (B. 19, 3034; 20, 340). — I, 1405.
- 7) Amid d. d-Galaktonsäure. Sm. 172–173° (M. 16, 341).
- $C_6H_{13}O_6P$ 1) Glykosephosphorsäure. Na_2 , Pb_2 , PbO (B. 4, 413). — I, 1048.
- $C_6H_{13}NBr_2$ 1) Trimethyl- α -Bromallylammoniumbromid. Sm. 165° (A. 268, 157). — I, 1142.
- $C_6H_{13}NBr_3$ 1) Trimethyl- $\beta\beta\gamma$ -Tribrompropylammoniumbromid. Sm. 156° (A. 268, 159). — I, 1130.
- $C_6H_{13}NS$ 1) Methyl-diäthylsulfincyanid. + $AgCN$, + $2Hg(CN)_2$ (Bl. [3] 3, 165; B. 31, 2288). — I, 359.
- $C_6H_{13}NS_2$ 1) Thialdin. Sm. 43°. HCl, HBr, HJ, HNO_3 , H_2SO_4 , H_3PO_4 + H_2O , $CNSH$ (A. 61, 1; 103, 93; J. 1856, 518; J. pr. [2] 38, 315; Bl. 38, 129; B. 11, 1384, 1692; 19, 1831; Bl. [3] 21, 62). — I, 919.
- 2) Isoamylamidodithioameisensäure (J. 1859, 379). — I, 1262.
- 3) Methylisobutylamidodithioameisensäure (Methylisobutylaminsalz) (B. 29, 2117).
- $C_6H_{13}NSe_2$ 1) Selenaldin (A. 61, 11). — I, 920.
- $C_6H_{13}N_3S$ 1) Piperidylthioharnstoff. Sm. 167° (A. 221, 305). — IV, 480.
- 2) Verbindung (aus Methylsenföhl u. Aldehydammoniak). Sm. 142–143°. Pikrat (Soc. 61, 517). — I, 1330.
- $C_6H_{13}ClS_2$ 1) Aethyldiäthylendisulfinchlorid. + $2HgCl_2$ (B. 19, 700). — I, 364.
- 2) α -Aethyläther- β -[β -Chloräthyläther] d. $\alpha\beta$ -Dimerkaptoäthan. Fl. (A. 240, 312). — I, 352.
- $C_6H_{13}BrS_2$ 1) Aethyldiäthylendisulfimbromid (Soc. 49, 253).
- $C_6H_{13}JS_2$ 1) Aethyldiäthylendisulfinjodid (B. 19, 700). — I, 364.
- $C_6H_{14}ON_2$ C 55,4 — H 10,7 — O 12,3 — N 21,6 — M. G. 130.
- 1) Isoamylharnstoff. Sm. 89–91° (92–93,5°). HNO_3 (B. 12, 1330; A. 139, 330; Soc. 67, 564). — I, 1299.
- 2) $\beta\beta$ -Dimethylpropylharnstoff (tert. Amylharnstoff). Sm. 145° (B. 23, 2867; 24, 2157). — I, 1299.
- 3) tert. Amylharnstoff (aus Dimethyläthylcarbinolbromid). Sm. 151° (151 bis 152°; 155°) (A. 139, 328; B. 27 [2] 23; Soc. 69, 200). — I, 1299.
- 4) uns-Methylisobutylharnstoff. Sm. 145–146° (B. 29, 2117).
- 5) δ -Methylnitrosamido- β -Methylbutan (Methylisoamylnitrosamin). Sd. 206° (B. 29, 2120).
- 6) Aethylisobutylnitrosamin. Sd. 193° (B. 32, 562).
- 7) norm. Dipropylnitrosamin. Sd. 295° (200–205°) (A. 144, 144; J. 1886, 695). — I, 1130.
- 8) Diisopropylnitrosamin. Sm. 46°; Sd. 194,5° (R. 8, 210). — I, 1131.
- 9) α -Amido- α -Oximidohexan (norm. Hexenylamidoxim). Sm. 48° (B. 25 [2] 637). — I, 1484.
- 10) ϵ -Amido- δ -Oximido- β -Methylpentan (Isocapramidoxim). Sm. 58°. HCl (B. 19, 1500). — I, 1484.
- $C_6H_{14}OS$ 1) norm. Dipropylsulfoxyd. Sm. 14,5–15° (Bl. 48, 110; B. 16, 329). — I, 361.
- $C_6H_{14}OS_2$ 1) α -Aethyläther- β -[β -Oxyäthyläther] d. $\alpha\beta$ -Dimerkaptoäthan. Sd. 278° u. Zers. (A. 240, 311). — I, 352.
- $C_6H_{14}OSn$ 1) Zinndipropyloxyd (Bl. 34, 475). — I, 1529.

- $C_6H_{14}O_2N_2$ C 49,3 — H 9,6 — O 21,9 — N 19,2 — M. G. 146.
 1) α -Nitramidohexan. Sm. 55—56,5° HH_4 , K, Co, Ag (R. 14, 41).
 2) norm. Dipropylnitroamin. Sd. 76—79°₁₀ (R. 9, 79; C. 1898 [2] 888). — I, 1130.
 3) Propylisopropylnitroamin. Sd. 65—68°₁₀ (R. 9, 80). — I, 1131.
 4) Diisopropylnitroamin. Sd. 75—77°₁₀ (R. 9, 82). — I, 1131.
 5) Amidoparalamin. Fl. HCl (B. 23, 750). — I, 919.
 6) Diepihydrinamid. Sd. 255—256°. 2HCl, (2HCl, 4HgCl₂), (2HCl, PtCl₄ + 2H₂O), Pikrat (J. pr. [2] 55, 88).
 7) Lysin (Diamidocaprinsäure?). HCl, 2HCl, (2HCl, PtCl₄ + C₂H₅O), (HNO₃ + AgNO₃), Pikrat (B. 25, 2455; 28, 3189; H. 21, 297; 25, 176; 26, 586; J. pr. [2] 39, 426). — III, 893.
 8) Aethylester d. α -Hydrazidoisobuttersäure. Sd. 93—95°₁₀ (A. 290, 19).
 9) Verbindung (aus Piperazin u. Formaldehyd). Zers. bei 225° (B. 30, 1586).
 $C_6H_{14}O_2N_4$ C 41,4 — H 8,0 — O 18,4 — N 32,2 — M. G. 174.
 1) Arginin. HCl, HNO₃ + $\frac{1}{2}$ H₂O, 2HNO₃, Pikrat, 2 + CuSO₄ + 5 $\frac{1}{2}$ H₂O, 2 + Cu(NO₃)₂ + 3H₂O, + AgNO₃ + $\frac{1}{2}$ H₂O, (HNO₃, AgNO₃) (B. 19, 1177; 24, 2702; 29, 352, 2651; 30, 2882; H. 11, 43; 20, 188; 21, 155; 22, 184, 428, 437; 24, 278; 25, 176, 551; 26, 12, 114). — III, 779.
 2) $\alpha\beta$ -Di[Aethylnitrosamido]äthan. Fl. (B. 28, 3078).
 3) Diäthyläther d. $\alpha\beta$ -Diamido- $\alpha\beta$ -Dioximidoäthan (D. d. Oxalendiamidoxim). Sm. 114—115° (B. 22, 2950). — I, 1485.
 4) Aethyläther d. β -Semicarbasido- α -Imido- α -Oxypropan. 2HCl (A. 303, 83).
 5) Di[Aethylhydrazid] d. Oxalsäure (Oxalyldiäthylhydrazin). Sm. 204° (A. 199, 297). — I, 1370.
 6) Di[uns-Dimethylhydrazid] d. Oxalsäure. Sm. 220° (B. 13, 2172). — I, 1370.
 $C_6H_{14}O_2S$ 1) norm. Dipropylsulfon. Sm. 29—30° (B. 16, 329; Bl. 48, 111). — I, 361.
 $C_6H_{14}O_2S_2$ 2) Diisopropylsulfon. Sm. 36° (J. pr. [2] 17, 459). — I, 361.
 $C_6H_{14}O_2S_2$ 1) Aethylendiäthylsulfoxyd. Sm. 170°. HNO₃ (J. pr. [2] 17, 468; B. 4, 717). — I, 352.
 $C_6H_{14}O_2S_3$ 1) Hexansulfonsäure. Ba (A. 127, 192). — I, 373.
 2) isom. Hexansulfonsäure. Fl. Ba, Pb (Am. 20, 666).
 $C_6H_{14}O_2Se$ 1) Diäthylseleniumhydratessigsäure. Salze siehe diese (G. 24 [2] 177).
 $C_6H_{14}O_2S$ 1) α -Oxy- β -Methylpentan- β -Sulfonsäure. Na (M. 9, 670). — I, 381.
 $C_6H_{14}O_2S$ 2) Schwefelsäuredi-R-Trimethylenester. Fl. (Bl. [3] 11, 870).
 3) Aethylpropylcarbinolschwefelsäure. Ba, Strychninsalz (B. 26, 1203).
 4) Aethylester d. α -Aethoxyläthan- β -Sulfonsäure. Fl. (A. 223, 220). — I, 380.
 5) Schwefelsäuredipropylester. Fl. (J. pr. [2] 13, 162; Bl. [3] 11, 872). — I, 333.
 6) Schwefelsäureäthylisobutylester (J. pr. [2] 15, 40). — I, 333.
 $C_6H_{14}O_2S_2$ 1) $\beta\beta$ -Di[Methylsulfon]butan (Dimethylsulfonmethyläthylmethan). Sm. 74° (H. 14, 60). — I, 926.
 2) $\alpha\alpha$ -Di[Aethylsulfon]äthan (Aethylidendiäthylsulfon). Sm. 75°; subl.; Sd. 320° u. Zers. (B. 19, 2814; A. 253, 140; H. 17, 465). — I, 939.
 3) $\alpha\beta$ -Di[Aethylsulfon]äthan (Aethylendiäthylsulfon). Sm. 136,5° (J. pr. [2] 17, 469; [2] 36, 437; B. 26, 1137; H. 14, 54; 17, 466). — I, 352.
 $C_6H_{14}O_2N_2$ C 37,1 — H 7,2 — O 41,2 — N 14,4 — M. G. 194.
 $C_6H_{14}O_2S_2$ 1) Oxim d. Glykosamin. Sm. bei 127°. HCl (B. 29, 1392; 31, 2198).
 $C_6H_{14}O_2S_2$ 1) Hexandisulfonsäure. Fl. Ba, Pb (Am. 20, 668).
 2) Diäthylester d. Aethan- $\alpha\alpha$ -Disulfonsäure. Fl. — I, 376.
 $C_6H_{14}O_2S_3$ 1) Diäthyltrimethylentrisulfon. Sm. 149° (B. 23, 1875). — I, 914.
 $C_6H_{14}O_2N_2$ C 31,9 — H 6,2 — O 49,5 — N 12,4 — M. G. 226.
 $C_6H_{14}O_2N_2$ 1) Aldehydsalpetersäureäther. Sd. 84—86° (A. 116, 173). — I, 925.
 $C_6H_{14}O_2N_2$ C 23,2 — H 4,5 — O 36,1 — N 36,1 — M. G. 310.
 1) Verbindung (aus Dicyansemicarbazidamidoxim) (A. 295, 166). — IV, 1329.
 $C_6H_{14}O_2S_2$ 1) α -Oxy- β -Methylpentan- $\alpha\beta$ -Disulfonsäure. Ba + 2H₂O (M. 9, 661). — I, 261.
 $C_6H_{14}O_2B_2$ 1) Mannitborsäure. Ba, (Ca, Ba) (Bl. 29, 363). — I, 345.
 $C_6H_{14}O_2S_2$ 1) Mannitdischwefelsäure. (2Pb, 2PbO) (Berz. J. 25, 560). — I, 335.
 $C_6H_{14}O_2S_3$ 1) Hexenyltrischwefelsäure. Ca₃, Ba₃ (B. 25, 1410). — I, 335.
 $C_6H_{14}O_2S_3$ 1) Dulcitrtrischwefelsäure. Ba₃ (J. 1856, 667). — I, 336.

- $C_6H_{14}O_{15}S_3$ 2) Mannittrischwefelsäure. Na_3, K_3, Ba_3, Pb_3 (A. 51, 135). — I, 335.
 $C_6H_{14}O_{18}S_4$ 1) Mannittetraschwefelsäure. Ba_3 (J. pr. [2] 20, 14). — I, 335.
 $C_6H_{14}O_{24}S_6$ 1) Mannithexaschwefelsäure. $Ca_3, Ba_3 + 5H_2O$ (J. pr. [2] 20, 10). — I, 335.
 $C_6H_{14}NCl$ 1) ϵ -Chlor- β -Amidohexan. (2HCl, $PtCl_4$) (A. 264, 327). — I, 1145.
 2) ϵ -Chlor- α -Amido- β -Methylpentan. (2HCl, $PtCl_4$), Pikrat (B. 26, 2573).
 3) δ -Chlor- β -Amido- β -Methylpentan. HCl, Pikrat (B. 30, 1319).
 4) norm. Dipropylchloramin. Sd. 143°_{771} (B. 25, 3623; 26 [2] 188). — I, 1130.
 5) Trimethylallylammoniumchlorid. + $AuCl_3$, + $PtCl_3$, + $PtCl_4$ (A. 268, 143, 149, 174). — I, 1142.
 $C_6H_{14}NBr$ 1) δ -Brom- β -Amido- β -Methylpentan. HBr, Pikrat (B. 30, 1318).
 2) Trimethylallylammoniumbromid (A. 268, 153). — I, 1142.
 $C_6H_{14}NBr_3$ 1) Trimethyl- $\beta\gamma$ -Dibrompropylammoniumbromid. Sm. 173° (A. 268, 146, 155; B. 22, 3318). — I, 1130.
 $C_6H_{14}NJ$ 1) Trimethylallylammoniumjodid (A. 268, 147, 153; Bl. [3] 7, 138). — I, 1142.
 2) Jodmethylat d. 1-Methyltetrahydropyrrol (G. 15, 485). — IV, 3.
 $C_6H_{14}N_2S$ 1) Isoamylthioharnstoff. Sm. 93° ($90-91^\circ$) (J. 1874, 798; B. 3, 264; Soc. 67, 559). — I, 1321.
 2) s-Methylisobutylthioharnstoff. Sm. $77,5^\circ$ (B. 25, 813; Soc. 63, 320). — I, 1321.
 3) s-Methyl-sec. Butylthioharnstoff. Sm. $79-80^\circ$ (Soc. 63, 321). — I, 1321.
 4) s-Aethyl-norm. Propylthioharnstoff. Sm. 52° (B. 23, 284). — I, 1320.
 5) Methyl-diäthylthioharnstoff. Fl. (2HCl, $PtCl_4$), HJ, Pikrat (B. 23, 2195). — I, 1320.
 6) Rhodanwasserstoffisoamyl (B. 10, 494).
 $C_6H_{14}N_4S$ 1) Di[Aethylamid] d. Hydrazo- $\alpha\beta$ -Di[thiocarbonsäure]. Zers. bei 270° . (B. 28, 951).
 $C_6H_{14}Cl_2S$ 1) Diäthyläthylensulfinchlorid. + $PtCl_4$ (A. Spl. 4, 102).
 $C_6H_{14}Cl_2S_2$ 1) Dimethyldiäthylendisulfindichlorid. + $PtCl_4$ (B. 19, 700). — I, 364.
 $C_6H_{14}Cl_2Sn$ 1) Zinndipropylchlorid. Sm. $80-81^\circ$ (Bl. 34, 475). — I, 1529.
 2) Zinndiisopropylchlorid. Sm. $56,5-57,5^\circ$ (Bl. 34, 476). — I, 1529.
 $C_6H_{14}Br_2S$ 1) Diäthyläthylensulfimbromid (A. Spl. 4, 104). — I, 352.
 $C_6H_{14}J_2S_2$ 1) Dimethyldiäthylendisulfindijodid. Sm. $207-208^\circ$ (B. 19, 700, 2659). — I, 364.
 $C_6H_{14}J_2Sn$ 1) Zinndipropyljodid. Sd. $270-273^\circ$ (Bl. 34, 475). — I, 1529.
 2) Zinndiisopropyljodid. Sd. $265-268^\circ$ (Bl. 34, 476). — I, 1529.
 $C_6H_{15}ON$ C 61,5 — H 12,8 — O 13,7 — N 12,0 — M. G. 117.
 1) β -Amido- δ -Oxy- β -Methylpentan (Diacetonalkamin). Sd. $174-175^\circ$. HCl, (2HCl, $PtCl_4$) (A. 183, 293; J. 1882, 499; B. 30, 1318; 31, 1379). — I, 1176.
 2) δ -Amido- β -Oxy- β -Methylpentan. Sd. $171-174^\circ$. Oxalat (A. 290, 151).
 3) α -Propylamido- β -Oxypropan (Oxyisopropylpropylamin). Sm. 30° ; Sd. $174-177^\circ$. (2HCl, $PtCl_4 + 2H_2O$) (B. 16, 532). — I, 1175.
 4) β -Diäthylamido- α -Oxyäthan (Oxyäthyläthylamin; Triäthylalkamin). Sd. 161° . HCl (B. 14, 1878; 15, 1147). — I, 1172.
 5) Isoamylamidooxymethan. Fl. (B. 28 [2] 852).
 6) Aethyläther d. α -Amido- β -Oxybutan. Sd. $139-141^\circ$. HCl, Pikrat (B. 28, 3113).
 7) Aethyläther d. δ -Amido- β -Oxybutan. Sd. 148° . (2HCl, $PtCl_4$) (B. 28, 3119; 29, 1425).
 8) Triäthylaminoxid. Sd. $154-157^\circ_{753}$. HCl, Dioxalat (J. r. 20, 126; B. 31, 2058; 32, 27). — I, 1127.
 9) 1-Methoxyhydrat d. 1-Methyltetrahydropyrrol. Siehe Jodid $C_6H_{14}NJ$ (G. 15, 485). — IV, 3.
 $C_6H_{15}ON_2$ C 49,7 — H 10,3 — O 11,0 — N 29,0 — M. G. 145.
 1) Methylisobutylamidoharnstoff. Sm. 99° (B. 29, 2120).
 $C_6H_{15}OP$ 1) Triäthylphosphinoxid. Sm. $52,9^\circ$; Sd. $242,9^\circ$. + ZnJ_2 , + $CuSO_4$, HCl (A. 104, 18; 120, 194; 137, 119; A. Spl. 1, 7; Z. 1871, 359; B. 1, 80; 29, 1708; 31, 3057). — I, 1501.
 $C_6H_{15}OAs$ 1) Arsentriäthoxyd (A. 89, 325; Z. 1870, 662). — I, 1512.
 $C_6H_{15}OB$ 1) Diäthylborsäureäthylat. Sm. $102-103^\circ$ (J. 1876, 469). — I, 1518.
 $C_6H_{15}OPb$ 1) Bleitriäthoxyd (A. 88, 319; J. 1860, 381). — I, 1530.

- $C_6H_{15}OSb$ 1) Antimontriäthoxyd. HNO_3 , H_2SO_4 , + Sb_2O_3 (A. 88, 323; 97, 332; 105, 310). — I, 1515.
- $C_6H_{15}O_2N$ C 54,1 — H 11,3 — O 24,1 — N 10,5 — M. G. 133.
 1) Aethyl-di[β -Oxyäthyl]amin. Sd. 251—252°₇₅₀. HCl, (2HCl, $PtCl_4$ + H_2O), (HCl, $AuCl_3$), Pikrat (B. 31, 1074).
 2) Diäthyläther d. β -Amido- $\alpha\alpha$ -Dioxyäthan (Amidoacetal). Sd. 163° (2HCl, $PtCl_4$) (B. 21, 617, 1481; 22, 586). — I, 936.
 3) Mytilotoxin. (HCl, $AuCl_3$). — III, 894.
- $C_6H_{15}O_2P$ 1) Diisopropylphosphinsäure. Fl. (B. 6, 294). — I, 1503.
 $C_6H_{15}O_2B$ 1) Bortriäthoxyd. Sd. 125° (A. 124, 139). — I, 1518.
 $C_6H_{15}O_3N$ C 48,3 — H 10,1 — O 32,2 — N 9,4 — M. G. 149.
 1) α -Trimethylamidopropionsäure (α -Homobetaïn). (HCl, $AuCl_3$), (2HCl, $PtCl_4$). — I, 1195.
 2) β -Trimethylamidopropionsäure (β -Homobetaïn). (HCl, $AuCl_3$), (2HCl, $PtCl_4$). — I, 1196.
 3) Tri[β -Oxyäthyl]amin. Sd. 277—279°₁₃₀. HCl, (2HCl, $PtCl_4$), (HCl, $AuCl_3$ + H_2O), Pikrat (A. 121, 227; B. 30, 918, 1492). — I, 1172.
- $C_6H_{15}O_3P$ 1) Triäthylester d. Phosphorigensäure. Sd. 191° (Bl. 18, 101, 148; A. ch. 6 11, 185; A. 92, 348; 175, 8; 256, 272; A. Spl. 6, 269; J. 1876, 206; B. 26 [2] 929; 27, 493; G. 24 [1] 35). — I, 337.
 2) Diisopropylester d. Phosphorigensäure. Sd. 85—86°₁₇. Ag (C. 1899, [1] 249).
 3) Diäthylester d. Aethylphosphinsäure. Sd. 198° (B. 30, 1006).
- $C_6H_{15}O_3Al$ 1) Aluminiumäthylat (Am. 19, 37).
 $C_6H_{15}O_3As$ 1) Triäthylester d. Arsenigensäure. Sd. 165—166° (Bl. 14, 99). — I, 343.
- $C_6H_{15}O_3B$ 1) Triäthylester d. Borsäure. Sd. 120° (A. Spl. 5, 161, 162; A. 60, 252; J. 1856, 574; B. 26 [2] 573). — I, 344.
- $C_6H_{15}O_4P$ 1) Triäthylester d. Phosphorsäure. Sd. 215° (A. 69, 193; 91, 376; 134, 347; 137, 121; 224, 275; 256, 275; A. Spl. 6, 265; B. 26 [2] 929; G. 24 [1] 35). — I, 340.
- $C_6H_{15}O_4As$ 1) Triäthylester d. Arsensäure. Sd. 235—238° (Bl. 14, 99). — I, 344.
 $C_6H_{15}O_5N$ C 39,8 — H 8,3 — O 44,2 — N 7,7 — M. G. 181.
 1) Dulcitolamin. HCl, (2HCl, $PtCl_4$) (A. ch. 4 27, 197). — I, 289.
- $C_6H_{15}O_6N$ C 36,5 — H 7,6 — O 48,7 — N 7,1 — M. G. 197.
 1) Verbindung (aus Dextrose u. Ammoniak). Sm. 122—123° (Am. 17, 192).
- $C_6H_{15}O_6Cl$ 1) Chlorwasserstoffdulcit + $3H_2O$ (A. ch. 4 27, 168). — I, 289.
 $C_6H_{15}O_6Br$ 1) Bromwasserstoffdulcit + $3H_2O$ (A. ch. 4 27, 170). — I, 289.
 $C_6H_{15}O_6J$ 1) Jodwasserstoffdulcit + $3H_2O$. Zers. bei 100° (A. ch. 4 27, 172). — I, 289.
- $C_6H_{15}O_6B$ 1) Borsäuretriäthylenester. Sm. 161,7° (J. pr. [2] 18, 392). — I, 345.
 $C_6H_{15}NCl_2$ 1) Trimethyl- γ -Chlorpropylammoniumchlorid. + $AuCl_3$, 2 + $PtCl_4$ (A. 268, 189). — I, 1122.
- $C_6H_{15}NBr_2$ 1) Trimethyl- γ -Brompropylammoniumbromid (A. 268, 185). — I, 1122.
 $C_6H_{15}NJ_2$ 1) Trimethyl- γ -Jodpropylammoniumjodid. Sm. 151° (A. 268, 170). — I, 1130.
 2) Verbindung (aus Triäthylalkamin) (B. 15, 1147).
- $C_6H_{15}N_2J$ 1) Jodmethylenat d. 1-Amidohexahydropyridin. Sm. 215° u. Zers. (A. 221, 309). — IV, 480.
- $C_6H_{15}ClS$ 1) Triäthylsulfinchlorid. + $HgCl_2$, + $2HgCl_2$, + 4 u. 6 $HgCl_2$, + $PtCl_4$, + $2Hg(CN)_2$ (A. Spl. 4, 91; B. 31, 2285, 2289). — I, 358.
 2) Methyläthylpropylsulfinchlorid. + 2 u. 6 $HgCl_2$ (B. 31, 2285).
 3) Methyläthylisopropylsulfinchlorid. + 2 u. 6 $HgCl_2$ (B. 31, 2285).
- $C_6H_{15}ClPb$ 1) Bleitriäthylchlorid. + $HgCl_2$, 2 + $PtCl_4$ (J. 1860, 380; A. 88, 321). — I, 1530.
- $C_6H_{15}ClSe$ 1) Triäthylseleninchlorid. 2 + $PtCl_4$, 2 + $ZnCl_2$ (J. 1876, 466, 467; 1877, 315; A. 152, 210; 185, 336; G. 24 [2] 178). — I, 352.
- $C_6H_{15}ClSi$ 1) Silicoheptylchlorid. Sd. 143,5° (A. 164, 315). — I, 1519.
 $C_6H_{15}ClSn$ 1) Zinntriäthylchlorid. Sd. 208—210°. + $PtCl_4$, 2 + $PtCl_4$ (A. 114, 363; J. 1860, 376). — I, 1528.
- $C_6H_{15}ClTe$ 1) Triäthyltellurchlorid. Sm. 174° (B. 21, 2043). — I, 382.
 $C_6H_{15}Cl_2As$ 1) Arsentriäthylchlorid. + Hg_2Cl_2 (A. 89, 330; 92, 370). — I, 1512.
 $C_6H_{15}Cl_2Sb$ 1) Antimontriäthylchlorid. + Hg_2Cl_2 (A. 88, 323; 97, 332; J. 1850, 476). — I, 1515.

- $C_6H_{15}BrS$ 1) Triäthylsulfenbromid. + $HgBr_2$, 2 + $HgBr_2$, + 6 $HgBr_2$ (A. Spl. 4, 94; B. 19, 1839; 31, 2288; C. 1898 [2] 267). — I, 358.
 $C_6H_{15}BrP$ 1) Bleitriäthylbromid (A. 88, 322). — I, 1530.
 $C_6H_{15}BrSe$ 1) Triäthylseleninbromid (G. 24 [2] 177).
 $C_6H_{15}BrSi$ 1) Silicoheptylbromid. Sd. 161° (A. 164, 330). — I, 1520.
 $C_6H_{15}BrSn$ 1) Zinntriäthylbromid (A. 84, 327; 114, 363; J. 1860, 376). — I, 1528.
 $C_6H_{15}BrTe$ 1) Triäthyltellurbromid. Sm. 162° (B. 21, 2046). — I, 382.
 $C_6H_{15}Br_2As$ 1) Arsentriäthylbromid (A. 92, 371). — I, 1512.
 $C_6H_{15}Br_2Sb$ 1) Antimontriäthylbromid (J. 1850, 475). — I, 1515.
 $C_6H_{15}JS$ 1) Triäthylsulfinjodid. + BiJ_3 , 3 + 2 BiJ_3 , 2 + 3 BiJ_3 , + 9 H_2O , 2 + CdJ_2 , + HgJ_2 , 2 + HgJ_2 , + TlJ_3 (A. 132, 83; 135, 352; 136, 153; 210, 321; 252, 252, 259; A. Spl. 4, 95; J. pr. [2] 6, 89; G. 21, 191; Bl. [3] 2, 161; B. 25 [2] 641; 27 [2] 245; C. 1898 [2] 267). — I, 358.
 $C_6H_{15}JPb$ 1) Bleitriäthyljodid (A. 88, 318; 122, 66; J. 1860, 380). — I, 1530.
 $C_6H_{15}JSe$ 1) Triäthylseleninjodid. subl. bei 80° (A. 185, 333; J. 1876, 466). — I, 382.
 $C_6H_{15}JSn$ 1) Zinntriäthyljodid. Sd. 234—236°. + 2 NH_3 (A. 84, 326; 114, 248, 361; 122, 55; J. 1880, 939; A. Spl. 8, 64; C. 1898 [2] 282). — I, 1528.
 $C_6H_{15}JTe$ 1) Triäthyltellurjodid. Sm. 90—92° (A. 180, 263; A. ch. [5] 10, 50; B. 21, 2044). — I, 383.
 $C_6H_{15}J_2As$ 1) Antimontriäthyljodid. Sm. 160°; Sd. 190° (A. 89, 328; 92, 365). — I, 1512.
 $C_6H_{15}J_2Sb$ 1) Antimontriäthyljodid (A. 97, 333; J. 1850, 474; 1860, 373). — I, 1515.
 $C_6H_{15}J_3Al$ 1) Aluminiumäthyljodid. Sd. 340—350° (A. 114, 242; R. 4, 80). — I, 1526.
 $C_6H_{15}SP$ 1) Triäthylphosphinsulfid. Sm. 95°; sub. bei 120—145° (A. 104, 23; B. 25, 2440; A. Spl. 1, 21). — I, 1501.
 $C_6H_{15}SAs$ 1) Antimontriäthylsulfid. Sm. etwas über 100° (A. 89, 326). — I, 1512.
 $C_6H_{15}Sbi$ 1) Wismuthtriäthylsulfid. + Bi_2S_3 (A. 92, 375). — I, 1517.
 $C_6H_{15}SSb$ 1) Antimontriäthylsulfid. + Sb_2S_3 (A. 97, 333; J. 1850, 474; 1860, 373). — I, 1515.
 $C_6H_{15}S_3P$ 1) Triäthylester d. Perthiophosphorigen Säure. Sd. 240—280° (B. 5, 7; Bl. 25, 185). — I, 338.
 $C_6H_{15}S_4P$ 1) Perthiophosphorsäuretriäthylester (A. 112, 119). — I, 341.
 $C_6H_{15}PSe$ 1) Triäthylphosphinselenid (A. Spl. 1, 21). — I, 1501.
 $C_6H_{16}ON_4$ C 45,0 — H 10,0 — O 10,0 — N 35,0 — M. G. 160.
 1) Mannitantetramin (J. 1864, 583). — I, 288.
 $C_6H_{16}OS$ 1) Triäthylsulfinoxydhydrat. Salze siehe diese. Lit. bedeutend. — I, 358.
 $C_6H_{16}OPb$ 1) Bleitriäthylsulfinoxydhydrat (A. 88, 319; 122, 66; J. 1860, 381). — I, 1530.
 $C_6H_{16}OSe$ 1) Triäthylseleninnoxidhydrat. Salze siehe (A. 152, 210; 185, 335; J. 1876, 466; 1877, 315). — I, 382.
 $C_6H_{16}OSi$ 1) Triäthylsilicol. Sd. 154° (A. 164, 316). — I, 1519.
 $C_6H_{16}OSn$ 1) Zinntriäthylsulfinoxydhydrat. Sm. 66° (43°); Sd. 271°. Salze siehe (A. 84, 327; 114, 362; 122, 50; J. 1860, 375; A. Spl. 8, 74; B. 4, 19). — I, 1528.
 $C_6H_{16}OTe$ 1) Triäthyltelluroxydhydrat (A. 180, 267). — I, 383.
 $C_6H_{16}O_3N_2$ C 48,6 — H 10,8 — O 21,6 — N 18,9 — M. G. 148.
 1) Hydrazidoacetal (Diäthyläther d. β -Hydrazido- $\alpha\alpha$ -Dioxyäthan). Sd. 90 bis 100°₁₅. Oxalat (B. 27, 178).
 $C_6H_{16}O_3Si$ 1) Siliciumtriäthylat. Sd. 134° (A. 143, 124). — I, 1520.
 $C_6H_{16}O_4Si$ 1) Dimethyldiäthylester d. Kieselsäure. Sd. 143—144° (A. ch. [4] 9, 44). I, 346.
 $C_6H_{16}O_5N_2$ C 36,7 — H 8,2 — O 40,8 — N 14,3 — M. G. 196.
 1) Galaktosaminammoniak. Sm. 113—114° (B. 28, 3083).
 $C_6H_{16}O_5S_2$ 1) Verbindung (aus α -Oxyäthanäthyläther- β -Sulfonsäure). (NH_4)₂, Na₂ + H_2O , Ba + H_2O , Zn + 5 H_2O , Pb, Cu + 4 H_2O (A. 223, 224). — I, 380.
 $C_6H_{16}NCl$ 1) Trimethyl-norm. Propylammoniumchlorid. 2 + $PtCl_4$ + $AuCl_3$ (A. 268, 145). — I, 1129.
 2) Trimethylisopropylammoniumchlorid. 2 + $PtCl_4$ + x H_2O (Bl. [3] 7, 137). — I, 1131.
 3) Dimethyldiäthylammoniumchlorid (A. 180, 178; J. 1883, 620; B. 25 [2] 745). — I, 1127.
 $C_6H_{16}NJ$ 1) Trimethyl-norm. Propylammoniumjodid (A. 268, 145; G. 16, 385). — I, 1129.

- $C_6H_{16}NJ$ 2) Trimethylisopropylammoniumjodid (*Bl.* [3] 7, 137). — I, 1131.
3) Dimethyldiäthylammoniumjodid (*A.* 180, 178). — I, 1127.
- $C_6H_{16}N_2S$ 1) Di[γ -Amidopropyl]sulfid. *Sd.* 247—248°₁₅₃ (*B.* 27, 2174).
- $C_6H_{16}N_2S_2$ 1) Di[γ -Amidopropyl]disulfid. 2HCl, Pikrat (*B.* 23, 90). — I, 1174.
2) Di[β -Amidoisopropyl]disulfid. 2HCl, 2Pikrat (*B.* 31, 2839).
- $C_6H_{16}N_2Se_2$ 1) Di[γ -Amidopropyl]diselenid. 2HCl, Pikrat (*B.* 24, 2136). — I, 383.
- $C_6H_{16}ClP$ 1) Dimethyldiäthylphosphoniumchlorid. 2 + PtCl₄ (*Soc.* 53, 710). — I, 1503.
- $C_6H_{16}ClAs$ 1) Dimethyldiäthylarsoniumchlorid (*A.* 92, 363; 122, 210). — I, 1513.
- $C_6H_{16}BrAs$ 1) Dimethyldiäthylarsoniumbromid (*A.* 92, 363; 122, 209). — I, 1513.
- $C_6H_{16}JP$ 1) Dimethyldiäthylphosphoniumjodid (*Soc.* 53, 710). — I, 1503.
- $C_6H_{16}JAs$ 1) Dimethyldiäthylarsoniumjodid (*A.* 92, 363; 122, 209). — I, 1513.
- $C_6H_{16}J_3As$ 1) Dimethyldiäthylarsoniumtrijodid (*A.* 92, 362; 122, 209). — I, 1513.
- $C_6H_{17}ON$ C 60,5 — H 14,3 — O 13,4 — N 11,7 — M. G. 119.
1) Dimethyldiäthylammoniumhydrat (*A.* 180, 178). — I, 1127.
- $C_6H_{17}OAs$ 1) Dimethyldiäthylarsoniumhydrat. Salze siehe (*A.* 92, 363; 122, 209). — I, 1513.
- $C_6H_{17}O_2N$ C 53,3 — H 12,6 — O 23,7 — N 10,4 — M. G. 135.
1) Trimethyl- β -Oxypropylammoniumhydrat (Isopropylenneurin). Fl. HCl, (2HCl, PtCl₄) (*B.* 13, 1805; *Soc.* 41, 389). — I, 1174.
2) Trimethyl- γ -Oxypropylammoniumhydrat (γ -Homocholin). (HCl, AuCl₃), (2HCl, PtCl₄) (*A.* 268, 175). — I, 1173.
3) isom. Homocholin. (HCl, AuCl₃) (*A.* 268, 184). — I, 1173.
C 47,7 — H 11,2 — O 31,8 — N 9,3 — M. G. 151.
- $C_6H_{17}O_3N$ 1) Trimethyl- $\beta\gamma$ -Dioxypropylammoniumhydrat. Salze siehe diese (*A. ch.* [5] 17, 99). — I, 1177.
2) Dimethyldi-[β -Oxyäthyl]ammoniumhydrat. Salze siehe diese (*B.* 13, 223; 22, 2098). — I, 1172.
- $C_6H_{17}N_2Cl$ 1) Chlormethylat d. β -Amido- α -Dimethylamidopropan. 2 + PtCl₄, + AuCl₃ (*C.* 1898 [2] 632).
- $C_6H_{17}N_2J$ 1) Triäthylazoniumjodid (*A.* 199, 316). — I, 1149.
- $C_6H_{18}O_8S_4$ 1) Trimethylsulfinhyposulfit (*J. pr.* [2] 23, 400). — I, 356.
- $C_6H_{18}O_6N$ 1) Verbindung (aus Milch) = (C₆H₁₈O₆N)_x + HgO (*J.* 1879, 1130). — III, 894.
- $C_6H_{18}O_7Si_2$ 1) Dikieselsäurehexamethylester. *Sd.* 201—202,5° (*A. ch.* [4] 9, 36). — I, 346.
- $C_6H_{19}NB$ 1) Boräthyl + Ammoniak (*A.* 124, 138). — I, 1518.
- $C_6H_{19}N_2Br_2$ 1) Aethylendiäthyldiaminhydrobromid (*J.* 1859, 389; 1861, 521). — I, 1154.
- $C_6H_{19}N_2J_2$ 1) Aethylendiäthyldiamindihydrojodid (*J.* 1859, 387). — I, 1154.
- $C_6H_{19}Cl_2As_2$ 1) Hexamethyldiarsoniumdichlorid. + 2HgCl₂, + PtCl₄ (*B.* 31, 596).
- $C_6H_{19}J_2As_2$ 1) Hexamethyldiarsoniumdijodid. *Sm.* 171° u. Zers. + 2HgJ₂ (*B.* 31, 596).
- C_6ONCl_3 1) Chlorid d. 2,3,5,6-Tetrachlorpyridin-4-Carbonsäure. *Sm.* 47—48° (*Soc.* 71, 1077).
- $C_6O_2NCl_3$ 1) Pentachlornitrobenzol. *Sm.* 146°; *Sd.* 328° u. Zers. (*J.* 1868, 353). — II, 86.
- $C_6O_2NBr_3$ 1) Pentabromnitrobenzol. *Sm.* 248° (*Am.* 12, 292). — II, 89.
- $C_6O_2ClBr_3$ 1) 6-Chlor-2,3,5-Tribrom-1,4-Benzochinon. *Sm.* 292° (*Soc.* 51, 783; 61, 590). — III, 338.
- $C_6O_2Cl_2Br_2$ 1) 3,6-Dichlor-2,5-Dibrom-1,4-Benzochinon. *Sm.* 292° (*B.* 12, 53; 18, 2367; 20, 2280; *M.* 1, 348; *Soc.* 51, 786; 61, 573, 577; *J.* 1886, 1670). — III, 338.
2) 3,5-Dichlor-2,6-Dibrom-1,4-Benzochinon. *Sm.* 291° (*Soc.* 61, 578). — III, 338.
- $C_6O_2Cl_3Br$ 1) 3,5,6-Trichlor-2-Brom-1,4-Benzochinon. subl. bei 160°; *Sm.* 290° (*A. Spl.* 6, 219; *A.* 210, 162; *M.* 1, 348; *Soc.* 61, 592). — III, 338.
- $C_6O_2N_2Br_2$ 1) 1,2,3,5-Tetrabrom-4,6-Dinitrobenzol. *Sm.* 227—228° (*B.* 8, 1427; 21, 1707; *J.* 1879, 394; *Am.* 10, 291). — II, 89.
- $C_6O_2Cl_2Br_2$ 1) 3,6-Dichlor-3,6-Dibrom-1,2,4,5-Tetraketo-hexahydrobenzol. *Sm.* 160° u. Zers. (*J. pr.* [2] 42, 174). — I, 1027.
- $C_6O_2N_3Cl_3$ 1) 1,3,5-Trichlor-2,4,6-Trinitrobenzol. *Sm.* 187° (*Am.* 9, 354). — II, 86.
- $C_6O_2N_3Br_3$ 1) 1,3,5-Tribrom-2,4,6-Trinitrobenzol. *Sm.* 285°; subl. bei 175° (*Am.* 10, 284; 12, 9; 16, 28). — II, 88.

C₆-Gruppe mit vier Elementen.

- C₆HONCl₄** 1) 2,3,5-Trichlor-1,4-Benzochinonchlorimid. Sm. 118°. HCl (*J. pr.* [2] 23, 438; [2] 24, 429; [2] 28, 434). — III, 335.
- C₆HONCl₃** 1) Nitril d. 1,1,3,3,4,5-Hexachlor-2-Oxy-2,3-Dihydro-R-Penten-2-Carbonsäure. Sm. 128° (*B.* 23, 2216). — I, 1475.
- C₆HON₂Cl₃** 1) 2,3,6-Trichlor-4-Oxy-1-Diazobenzolanhydrid. Zers. bei 137° (*J. pr.* [2] 33, 375). — IV, 1546.
- C₆HO₂NCl₄** 1) 2,3,4,5-Tetrachlor-1-Nitrobenzol. Sm. 64,5° (*A.* 192, 239). — II, 86.
2) 2,3,4,6-Tetrachlor-1-Nitrobenzol. Sm. 21–22° (*A.* 192, 238). — II, 86.
3) 2,3,5,6-Tetrachlor-1-Nitrobenzol. Sm. 99°; Sd. 304° u. Zers. (*A.* 192, 236; 225, 207; *J.* 1868, 352). — II, 86.
4) 2,3,5,6-Tetrachlorpyridin-4-Carbonsäure. Sm. 224–225°. Cu + 8H₂O, Ag (*Soc.* 71, 1079).
- C₆HO₂NBr₄** 1) 2,3,4,5-Tetrabrom-1-Nitrobenzol. Sm. 107° (*J. pr.* [2] 56, 55).
2) 2,3,4,6-Tetrabrom-1-Nitrobenzol. Sm. 96° (88°) (*A.* 137, 228; 191, 202; *B.* 8, 1424). — II, 89.
3) 2,3,5,6-Tetrabrom-1-Nitrobenzol. Sm. 168° (*J. pr.* [2] 51, 412).
- C₆HO₂Cl₂Br** 1) 3,5-Dichlor-2-Brom-1,4-Benzochinon. Sm. 168° (*Soc.* 61, 566). — III, 338.
2) 3,6-Dichlor-2-Brom-1,4-Benzochinon. Sm. 160–161° (*Soc.* 61, 564). — III, 338.
- C₆HO₂Cl₂Br₃** 1) 2-Dichlor-2-Tribrom-1,3-Dioxybenzol (*M.* 4, 227). — II, 922.
- C₆HO₂Cl₃Br₂** 1) 2-Trichlor-2-Dibrom-1,3-Dioxybenzol? Sm. 100° (*B.* 13, 1308; *M.* 4, 225). — II, 922.
- C₆HO₂Br₅S** 1) Pentabrombenzolsulfonsäure. Sm. 190° u. Zers. NH₄, K + H₂O, Ca + 4H₂O, Ba + H₂O (*A.* 181, 226; 191, 205; 197, 306). — II, 124.
- C₆HO₄NCl₄** 1) 3,5-Dichlor-2-Nitro-1,4-Benzochinon. Sm. 219–220° u. Zers. (*B.* 18, 1171). — III, 339.
- C₆HO₄NBr₂** 1) 3,5-Dibrom-2-Nitro-1,4-Benzochinon. Sm. 244–246° (*B.* 18, 1174). — III, 339.
- C₆HO₄N₂Cl₃** 1) 1,2,4-Trichlor-2-Dinitrobenzol. Sm. 103,5°; Sd. 335° (*J.* 1868, 351; *A. ch.* [4] 15, 186). — II, 85.
2) 1,3,5-Trichlor-2,4-Dinitrobenzol. Sm. 129,5° (*Am.* 9, 353; 18, 666). — II, 86.
- C₆HO₄N₂Br₃** 1) 1,2,4-Tribrom-3,5-Dinitrobenzol. Sm. 135,5° (*A.* 137, 226; *J.* 1875, 313; 1879, 388; *B.* 28, 190; *Am.* 18, 242). — II, 88.
2) 1,3,5-Tribrom-2,4-Dinitrobenzol. Sm. 192° (*J.* 1875, 317; *B.* 8, 1173; 12, 1822; *Am.* 12, 167; 16, 33; 18, 308, 475). — II, 88.
- C₆HO₄N₂J₃** 1) Trijoddinitrobenzol. Sm. 210–212°. — II, 90.
- C₆HO₅N₂Br₃** 1) 2,4,6-Tribrom-3,5-Dinitro-1-Oxybenzol. Sm. 194°. Na, Ba (*Am.* 16, 30). — II, 699.
- C₆HN₃Cl₃Br** 1) 4,6,7-Trichlor-5-Brom-1,2,3-Benzotriazol. Sm. 246–250°. Na (*A.* 249, 371). — IV, 1142.
- C₆H₂ONCl₃** 1) 2,6-Dichlor-1,4-Benzochinon-4-Chlorimid. Sm. 67–68° (*A.* 234, 18). — III, 334.
2) Chlorid d. 2,6-Dichlorpyridin-4-Carbonsäure. Sd. 156–157°. (*Soc.* 71, 1076).
- C₆H₂ONBr₃** 1) 2,4,6-Tribrom-1-Nitrosobenzol. Sm. 120° (*B.* 31, 562).
- C₆H₂ONBr₅** 1) 3,4,5-Tribrom-2-Dibromacetylpyrrol. Sm. 200 (*B.* 16, 2357). — IV, 98.
- C₆H₂ON₂Cl₂** 1) 3,5-Dichlor-2-Oxy-1-Diazobenzolanhydrid (*B.* 2, 52). — IV, 1546.
- C₆H₂ON₂Cl₄** 1) Amid d. 2,3,5,6-Tetrachlorpyridin-4-Carbonsäure. Sm. 235 bis 236° (*Soc.* 71, 1079).
- C₆H₂ON₂Br₂** 1) 3,5-Dibrom-2-Oxy-1-Diazobenzolanhydrid. Zers. bei 127–128° (*J. pr.* [2] 24, 460). — IV, 1546.
2) 2,6-Dibrom-4-Oxy-1-Diazobenzolanhydrid. Zers. bei 142° (*J. pr.* [2] 27, 108). — IV, 1547.
3) 3,5-Dibrom-4-Oxy-1-Diazobenzolanhydrid. Zers. bei 145° (*J. pr.* [2] 24, 471; *B.* 15, 2493). — IV, 1546.
4) 2-Dibrom-4-Oxy-1-Diazobenzolanhydrid. Zers. bei 152° (*J. pr.* [2] 24, 453; *B.* 29, 1531). — IV, 1546.

- $C_6H_2OCl_3Br$ 1) 2,4,6-Trichlor-2-Brom-1-Oxybenzol (*M.* 4, 235). — II, 676.
2) 2,4,6-Trichlorphenolbrom. Sm. 99° (*M.* 4, 235). — II, 676.
- $C_6H_2OCl_3J$ 1) 2,3,5-Trichlor-4-Jod-1-Oxybenzol. Sm. 79—80° (*J. pr.* [2] 33, 391). — II, 677.
- $C_6H_2OBr_3J$ 1) 1,3,5-Tribrom-2-Jodosobenzol (*Soc.* 73, 693).
 $C_6H_2O_3NCl_3$ 1) 2,3,4-Trichlor-1-Nitrobenzol. Sm. 55—56° (*A.* 192, 235). — II, 85.
2) 2,3,6-Trichlor-1-Nitrobenzol. Sm. 88—89° (*A.* 192, 232). — II, 85.
3) 2,4,5-Trichlor-1-Nitrobenzol. Sm. 57°; *Sd.* 288° (*A.* 137, 123; *J.* 1868, 351; *Z.* 1867, 122). — II, 85.
4) 2,4,6-Trichlor-1-Nitrobenzol. Sm. 68° (*A.* 192, 233; *Am.* 9, 354). — II, 85.
- $C_6H_2O_2NCl_3$ 1) 2,2,3,3,5-Pentachlor-6-Amido-1,4-Diketo-1,2,3,4-Tetrahydrobenzol. Sm. 141—142° (*A.* 267, 47). — I, 1024.
- $C_6H_2O_2NBr_3$ 1) 2,3,5-Tribrom-1-Nitrobenzol. Sm. 81° (119,5°) (*J.* 1875, 314; *J. pr.* [2] 56, 59). — II, 88.
2) 2,3,6-Tribrom-1-Nitrobenzol (*J.* 1875, 314). — II, 88.
3) 2,4,5-Tribrom-1-Nitrobenzol. Sm. 93,5 (*A.* 137, 226; *J.* 1875, 313). — II, 88.
4) 2,4,6-Tribrom-1-Nitrobenzol. Sm. 125,1°; *Sd.* 177°_{II} (*B.* 8, 1172, 1426; 12, 1821; *J.* 1875, 316; 1879, 387; *Am.* 14, 363). — II, 88.
5) 3,4,5-Tribrom-1-Nitrobenzol. Sm. 112° (*J.* 1875, 315; 1880, 477; *J. pr.* [2] 56, 62). — II, 88.
- $C_6H_2O_2N_2Cl_2$ 1) 2,5-Dichlor-1,4-Dinitrosobenzol. Zers. bei 120—130° (*B.* 21, 3319). — II, 78.
- $C_6H_2O_2N_2Br_2$ 1) 2,6-Dibrom-4-Nitro-1-Diazobenzolimid. Sm. 68° (*B.* 25, 3333). — IV, 1141.
- $C_6H_2O_2N_2S_2$ 1) Oxycyanurdisulfid (*J. pr.* [2] 33, 123). — I, 1286.
 $C_6H_2O_2ClBr$ 1) 5-Chlor-2-Brom-1,4-Benzochinon. Sm. 172° (*A.* 210, 160; *B.* 15, 656; *Am.* 13, 424; 14, 562; *J.* 1882, 777). — III, 338.
2) 6-Chlor-2-Brom-1,4-Benzochinon. Sm. 113° (*Am.* 13, 424; 14, 565; *B.* 25 [2] 120; *Soc.* 61, 562). — III, 338.
- $C_6H_2O_2ClBr_3$ 1) 2-Chlor-2-Tribrom-1,4-Dioxybenzol. Sm. 234° (*Soc.* 51, 784). — II, 944.
- $C_6H_2O_2Cl_3Br_2$ 1) 2,5-Dichlor-3,6-Dibrom-1,4-Dioxybenzol. Sm. 234° u. Zers. (*B.* 12, 54; 18, 2368; 20, 2280; *J.* 1886, 1267; *Soc.* 61, 578). — II, 945.
- $C_6H_2O_2Cl_3Br$ 1) 2-Trichlor-2-Brom-1,4-Dioxybenzol. Sm. 229° (*A. Spl.* 6, 219; *A.* 210, 161). — II, 945.
- $C_6H_2O_2Br_3J$ 1) 1,3,5-Tribrom-2-Jodobenzol. Sm. 193° (*Soc.* 73, 693).
 $C_6H_2O_2NCl_3$ 1) 2,4,6-Trichlor-3-Nitro-1-Oxybenzol. Sm. 69°. NH_4 , K + H_2O , Ba + H_2O , Ag (*B.* 18, 1164, 1173). — II, 696.
2) 2,3,5-Trichlor-4-Nitro-1-Oxybenzol. Sm. 146° u. Zers. (*J. pr.* [2] 33, 382). — II, 696.
- $C_6H_2O_2NBr_3$ 1) 3,4,5-Tribrom-2-Nitro-1-Oxybenzol. Sm. 230° (*Am.* 20, 185).
2) 2,4,6-Tribrom-3-Nitro-1-Oxybenzol. Sm. 89° (85°). K + H_2O , Ba + H_2O , Ag (*B.* 18, 614, 1167). — II, 699.
- $C_6H_2O_2N_3Cl$ 1) 3-Chlor-5-Nitro-2-Oxy-1-Diazobenzolanhydrid. Zers. oberh. 100° (*A.* 113, 215). — IV, 1547.
- $C_6H_2O_2N_3Br$ 1) 3-Brom-5-Nitro-2-Oxy-1-Diazobenzolanhydrid. Zers. bei 152—153° (*Soc.* 69, 1327). — IV, 1547.
2) 5-Brom-3-Nitro-2-Oxy-1-Diazobenzolanhydrid. Zers. bei 144° (*Soc.* 73, 688). — IV, 1547.
- $C_6H_2O_2N_3Cl$ 1) 1,2-Anhydrid d. 4-Nitro-1-Oxy-2-Diazo-6-Diazobenzolchlorid. 2 + $PtCl_4$ (*B.* 19, 318). — IV, 1548.
- $C_6H_2O_2Cl_3Br$ 1) 3,3,5-Trichlor-6-Brom-1,1,2,2,4,4-Hexaoxyhexahydrobenzol + $3H_2O$? Sm. 87° (*B.* 22, 2829, 2831). — I, 1026.
- $C_6H_2O_2Cl_3Br$ 1) ααγγδεε-Heptachlor-α-Brom-β-Ketopentan-ε-Carbonsäure (Dichlorbromacetylpentachlorbuttersäure). Sm. 149° (*B.* 24, 915). — I, 603.
- $C_6H_2O_2Br_3S$ 1) 2,3,4,5-Tetrabrombenzol-1-Sulfonsäure. Sm. 168—169°. NH_4 , K + H_2O , Ca + $3H_2O$, Ba + H_2O , Pb + $3H_2O$, Ag + $\frac{1}{2}H_2O$ (*A.* 181, 45; 197, 292). — II, 123.
2) 2,3,4,6-Tetrabrombenzol-1-Sulfonsäure. NH_4 , K, Ca + $8H_2O$, Ba + $1\frac{1}{2}H_2O$, (Pb, PbO + $3H_2O$), Pb + $1\frac{1}{2}H_2O$, Ag + $1\frac{1}{4}H_2O$ (*A.* 181, 217; 186, 299; 191, 199, 223). — II, 124.

- $C_6H_3O_4NCl_3$ 1) 3,5,5-Trichlor-2-Oxy-6-Keto-5,6-Dihydropyridin-4-Carbonsäure (Trichlorcitrazinsäure) (Soc. 63, 1041).
- $C_6H_3O_4NBr_3$ 1) 3,5,5-Tribrom-2-Oxy-6-Keto-5,6-Dihydropyridin-4-Carbonsäure (Tribromcitrazinsäure). + H_2O (Soc. 63, 1042).
- $C_6H_3O_4N_2Cl_2$ 1) 2,6-Dichlor-1,3-Dinitrobenzol. Sm. 104°; Sd. 312° u. Zers. (J. 1868, 348; 1875, 324; 1879, 394; Z. 1870, 234). — II, 85.
2) 4,6-Dichlor-1,3-Dinitrobenzol. Sm. 103° (J. 1875, 323; B. 30, 1666). — II, 85.
3) 3,6-Dichlor-1,4-[oder 1,2]-Dinitrobenzol. Sm. 101°; Sd. 318° (J. 1868, 348; 1875, 325; 1879, 394; Z. 1870, 234). — II, 85.
- $C_6H_3O_4N_2Br_2$ 1) 4,5-Dibrom-1,2-Dinitrobenzol. Sm. 114—115° (B. 8, 1183; M. 11, 336). — II, 87.
2) 2,5-Dibrom-1,3-Dinitrobenzol. Sm. 99—100° (B. 9, 918; Am. 3, 184). — II, 88.
3) 4,5-Dibrom-1,3-Dinitrobenzol. Sm. 71° (B. 8, 1183; M. 11, 337). — II, 87.
4) 1,3-Dibrom-2,6-Dinitrobenzol (J. 1875, 307). — II, 88.
5) 1,3-Dibrom-2-Dinitrobenzol. Sm. 117,4° (J. 1875, 333). — II, 87.
6) 1,4-Dibrom-2-Dinitrobenzol. Sm. 159° (B. 9, 622). — II, 88.
- $C_6H_3O_4N_2J_2$
 $C_6H_3O_4ClBr$ 1) 6-Chlor-3-Brom-2,5-Dioxy-1,4-Benzochinon + H_2O . $Na_2 + 4H_2O$, $K_2 + 2H_2O$, Ag, (A. 210, 163; B. 12, 54; 18, 2370; 22, 2829; Soc. 51, 785; 61, 584, 591; J. pr. [2] 40, 486). — III, 353.
- $C_6H_3O_4ClJ$ 1) 6-Chlor-3-Jod-2,5-Dioxy-1,4-Benzochinon. Zers. bei 275° (J. pr. [2] 40, 487). — III, 353.
- $C_6H_3O_4Cl_3P$ 1) Pentachlorphenylphosphorsäure + H_2O . Sm. 203° u. Zers. (224°) (B. 24, 927; A. 267, 18; Bl. [3] 13, 419). — II, 672.
- $C_6H_3O_4N_2Cl_2$ 1) 2,4-Dichlor-3,6-Dinitro-1-Oxybenzol. Sm. 105—106°. $K + \frac{1}{2}H_2O$, $Ca + 3H_2O$, $Ba + 2H_2O$ (B. 25 [2] 120). — II, 696.
- $C_6H_3O_4N_2Br_2$ 1) 3,5-Dibrom-2,6-Dinitro-1-Oxybenzol. Sm. 147—148° (146—146,5°). K , $Ba + 2(3)H_2O$ (Am. 16, 33; B. 25 [2] 120). — II, 699.
- $C_6H_3O_4N_2Cl$ 1) 1-Chlor-2,4,6-Trinitrobenzol. Sm. 83°. + C_6H_6 (A. 92, 326; J. 1879, 394; J. pr. [2] 1, 150; B. 8, 378; 11, 844). — II, 84.
- $C_6H_3O_4N_2J$ 1) 1-Jod-2,4,6-Trinitrobenzol. Sm. 164° (A. 215, 361). — II, 90.
- $C_6H_3O_4N_2S_2$ 1) Diazoderivat d. 1,3-Diamidobenzol-2-Disulfonsäure (B. 8, 290). — IV, 579.
- $C_6H_2NCl_3Br_3$ 1) 3,5-Dichlor-2,4,6-Tribrom-1-Amidobenzol. Sm. 219,5° (A. 215, 122). — II, 317.
- $C_6H_2NCl_3Br_2$ 1) 2,4,6-Trichlor-3,5-Dibrom-1-Amidobenzol. Sm. 238,5° (A. 215, 119). — II, 317.
- $C_6H_2NCl_3Br$ 1) 2,3,5,6-Tetrachlor-4-Brom-1-Amidobenzol. Sm. 227° (A. 215, 118).
- $C_6H_2N_2ClBr_3$ 1) 2,4,6-Tribrom-1-Diazobenzolchlorid. $\frac{1}{3}HCl$, $HCl + 4H_2O$ (B. 30, 1156, 2348). — IV, 1523.
2) 2,4,6-Chlordibrom-1-Diazobenzolbromid (B. 30, 2350).
- $C_6H_2N_2ClBr_2$ 1) Dibromid d. 2,4,6-Tribrom-1-Diazobenzolchlorid. Zers. bei 100° (J. pr. [2] 27, 114). — IV, 1523.
- $C_6H_2N_2Cl_2Br_2$ 1) 2,4,6-Chlordibrom-1-Diazobenzolchlorid + $4H_2O$ (B. 30, 2352).
- $C_6H_2N_2Cl_4Br_2$ 1) 2,4,6-Trichlor-1-Diazobenzolchloriddibromid. Sm. 136° (B. 30, 2354). — IV, 1520.
- $C_6H_2N_2Cl_4J_2$ 1) 2,4,6-Trichlor-1-Diazobenzolchloriddijodid (B. 30, 2354). — IV, 1520.
- $C_6H_2N_2Cl_3J$ 1) 2,4,6-Trichlor-1-Diazobenzoljodiddichlorid. Sm. 156° (B. 30, 2354).
- $C_6H_2N_2Br_3J$ 1) 2,4,6-Tribrom-1-Diazobenzoljodid. + CdJ_2 , 2 + CdJ_2 (B. 30, 2353). — IV, 1523.
- $C_6H_2Cl_3Br_3J$ 1) 1,3,4-Tribrombenzol-6-Jodidechlorid (J. pr. [2] 33, 159). — II, 74.
2) 1,3,5-Tribrombenzol-2-Jodidechlorid. Sm. 100° (Soc. 73, 693).
- $C_6H_3ONCl_3$ 1) 2-Chlor-1,4-Benzochinonchlorimid. Sm. 87° (A. 234, 16). — III, 332.
- $C_6H_3ONCl_4$ 1) 3,4,5,6-Tetrachlor-2-Amido-1-Oxybenzol. Sm. 244° u. Zers. (B. 21, 2724). — II, 728.
- $C_6H_3ON_2Br_3$ 1) 2,4,6-Tribromdiazobenzol. Salze siehe diese (J. pr. [2] 27, 102, 111, 118; B. 28, 683; 30, 1156, 2348; 31, 2055). — IV, 1523.
2) 3,5-Dibrom-2-Oxy-1-Diazobenzolbromid + $\frac{1}{2}H_2O$ (J. pr. [2] 24, 463). — IV, 1546.

- C_6H_5ON, Br_2 3) *p*-Dibrom-4-Oxy-1-Diazobenzolbromid + H_2O . 2 + $PtCl_4$ (*J. pr.* [2] 24, 453). — IV, 1546.
- C_6H_5OClBr 1) 2-Chlor-4,6-Dibrom-1-Oxybenzol. Sm. 76° . Ba + $2\frac{1}{2}H_2O$ (*B.* 25, [2] 111). — II, 675.
- $C_6H_5OCl_2Br$ 1) 2,6-Dichlor-4-Brom-1-Oxybenzol. Sm. $66,5^\circ$ (*Soc.* 61, 560). — II, 675.
2) 2,4-Dichlor-6-Brom-1-Oxybenzol. Sm. 68° ; Sd. 268° u. Zers. Na + H_2O , K + $2H_2O$, Ba + $2H_2O$ (*G.* 17, 495). — II, 675.
- $C_6H_5O_2NCl_2$ 1) 2,4-Dichlor-1-Nitrobenzol. Sm. 33° (*A.* 182, 97; *J.* 1875, 323). — II, 85.
2) 2,5-Dichlor-1-Nitrobenzol. Sm. $54,5^\circ$; Sd. 266° (*J.* 1868, 347; 1875, 324; 1877, 424; *A.* 182, 103). — II, 85.
3) 3,4-Dichlor-1-Nitrobenzol. Sm. 43° (*A.* 176, 41; 196, 221). — II, 84.
4) 3,5-Dichlor-1-Nitrobenzol. Sm. $65,4^\circ$ (*B.* 7, 1604; 8, 143; *J.* 1875, 323). — II, 85.
5) 2,5-Dichlor-4-Oximido-1-Keto-1,4-Dihydrobenzol. Zers. bei 138° ($155-160^\circ$) (*B.* 21, 3319; *A.* 303, 13). — III, 333.
6) 3,5-Dichlor-4-Oximido-1-Keto-1,4-Dihydrobenzol. Zers. bei 140° (*B.* 21, 3318). — III, 334.
7) 4,6-Dichlorpyridin-2-Carbonsäure. Sm. $101-102^\circ$. Ba + $2H_2O$ (*Soc.* 67, 408). — IV, 143.
8) *p*-Dichlorpyridin-2-Carbonsäure + H_2O . Sm. 180° u. Zers. NH_4 , Na, K (*J. pr.* [2] 27, 282). — IV, 143.
9) 2,6-Dichlorpyridin-3-Carbonsäure. Sm. 138° (144°). Ca, Ba (*J. pr.* [2] 34, 262; [2] 58, 425). — IV, 146.
10) 2,6-Dichlorpyridin-4-Carbonsäure. Sm. 210° . Ag (*B.* 17, 2694; *Soc.* 71, 1075). — IV, 147.
- $C_6H_5O_2NCl_2$ 1) Amid d. $\alpha\alpha\beta\gamma\delta\epsilon$ -Hexachlor- δ -Keto- β -Penten- α -Carbonsäure (Amid d. Dichloracetyltetrachlorcrotonsäure). Sm. 181° (*B.* 25, 2691). — I, 1356.
- $C_6H_5O_2NBr_2$ 1) 2,4-Dibrom-1-Nitrobenzol. Sm. $61,6^\circ$ (*A.* 165, 176; *J.* 1875, 306; *B.* 7, 1562; 8, 1423). — II, 87.
2) 2,5-Dibrom-1-Nitrobenzol. Sm. 84° (*A.* 133, 52; 137, 168; 231, 169; *J.* 1875, 308; *B.* 5, 632; 8, 1422; *Am.* 3, 184). — II, 87.
3) 2,6-Dibrom-1-Nitrobenzol. Sm. $82,6^\circ$ (84°) (*J.* 1875, 307; *A.* 269, 219). — II, 87.
4) 3,4-Dibrom-1-Nitrobenzol. Sm. 58° ; Sd. 296° (cor.) (*J.* 1875, 305; *A.* 164, 179; *B.* 7, 1563; *M.* 11, 332; 14, 324). — II, 87.
5) 3,5-Dibrom-1-Nitrobenzol. Sm. $104,5^\circ$ (*J.* 1875, 307; 1877, 424). — II, 87.
6) 1,4-Dibrom-*p*-Nitrobenzol. Fl. (*Am.* 3, 184).
7) 3,5-Dibrom-4-Oximido-1-Keto-1,4-Dihydrobenzol (*B.* 21, 674, 3318; *A.* 277, 102). — III, 336.
- $C_6H_5O_2NJ_2$ 1) 1,2-Dijod-*p*-Nitrobenzol. Sm. $112,5^\circ$ (*G.* 17, 492). — II, 90.
2) 2,4-Dijod-1-Nitrobenzol. Sm. $168,4^\circ$ (*J.* 1875, 325; 1880, 478). — II, 90.
- $C_6H_5O_2N_2Cl$ 1) Verbindung (aus d. Chlorid d. α -Cyan- β -Phenylakrylsäure). Zers. oberh. 250° (*A. ch.* [6] 29, 459). — II, 1417.
- $C_6H_5O_2N_2Cl_2$ 1) 3,4,6-Trichlor-2-Nitro-1-Amidobenzol. Sm. 124° (*A.* 196, 235). — II, 321.
2) 2,4,6-Trichlor-3-Nitro-1-Amidobenzol. Sm. 98° (*B.* 15, 1063; *A.* 215, 110). — II, 321.
- $C_6H_5O_2N_2Br_2$ 1) 3,4,5-Tribrom-2-Nitro-1-Amidobenzol. Sm. 130° (*Am.* 20, 184).
2) 4,5,6-Tribrom-2-Nitro-1-Amidobenzol. Sm. $161,4^\circ$ (*J.* 1875, 349). — II, 322.
3) 2,4,5-Tribrom-3 oder 6-Nitro-1-Amidobenzol. Sm. 130° (*Am.* 20, 187).
4) 2,4,6-Tribrom-3-Nitro-1-Amidobenzol. Sm. $102,5^\circ$ (*J.* 1875, 347; *B.* 17, 266; *J. pr.* [2] 49, 544; *Am.* 17, 701). — II, 322.
5) isom. *p*-2,4,6-Tribrom-3-Nitro-1-Amidobenzol. Sm. $214-215^\circ$ (*B.* 7, 351; *Am.* 20, 472). — II, 322.
6) 2,3,6-Tribrom-4-Nitro-1-Amidobenzol. Sm. 131° (*J. pr.* [2] 56, 56).
- $C_6H_5O_2N_2S$ 1) 5-Nitrobenzthiodiazol. Sm. $136-137^\circ$ (*A.* 277, 245). — IV, 1548.
- $C_6H_5O_2ClBr_2$ 1) *p*-Chlor-*p*-Dibrom-1,3-Dioxybenzol. Sm. 86° (*M.* 4, 227). — II, 922.
2) *p*-Chlor-*p*-Dibrom-1,3-Dioxybenzol. Sm. 105° (*J. pr.* [2] 17, 325). — II, 922.

- C₆H₃O₃Cl₂Br 1) ?-Dichlor-?-Brom-1,3-Dioxybenzol. Sm. 100° (*J. pr.* [2] 17, 330). — II, 922.
 2) 2,5-Dichlor-?-Brom-1,4-Dioxybenzol + H₂O. Sm. 124—126° (133,5° wasserfrei) (*Soc.* 61, 565). — II, 945.
 3) 2,6-Dichlor-?-Brom-1,4-Dioxybenzol. Sm. 135° (*Soc.* 61, 567). — II, 945.
- C₆H₃O₃BrJ₂ 1) ?-Brom-?-Dijod-1,3-Dioxybenzol (*M.* 4, 605). — II, 1021.
- C₆H₃O₃NCl₂ 1) 4,6-Dichlor-2-Nitro-1-Oxybenzol. Sm. 121—122°. NH₄, Na, K, Mg + 2H₂O, Ca + H₂O, Ba + 2H₂O, Zn + 2H₂O, PbOH (*A.* 157, 164; *A. Spl.* 7, 185, 195; *Z.* 1871, 520, 678; *B.* 2, 52; 6, 370; 7, 405; *Soc.* 55, 61). — II, 695.
 2) 2,5-Dichlor-4-Nitro-1-Oxybenzol. Sm. 115—116° (*B.* 21, 3319). — II, 695.
 3) 2,6-Dichlor-4-Nitro-1-Oxybenzol. Sm. 125°. Salze meist bekannt (*Z.* 1871, 518; *A. Spl.* 7, 198; *A.* 234, 8; *J.* 1873, 408; *Soc.* 51, 787; *B.* 7, 926). — II, 695.
 4) ?-Dichlor-?-Nitrooxybenzol. Sm. 95°. K (*Z.* 1871, 679). — II, 696.
 5) 3,6-Dichlor-5-Amido-2-Oxy-1,4-Benzochinon + 3H₂O (Chloranilaminsäure). NH₄ + 4H₂O, Ag (*Berz. J.* 25, 849; *A.* 48, 321). — III, 352.
 6) Dichlor- α -Oxypikolinsäure + H₂O. Sm. 282° u. Zers. Ca (*J. pr.* [2] 27, 288). — IV, 151.
- C₆H₃O₃NCl₄ 1) Amid d. 3,3,4,5-Tetrachlor-2-Oxy-1-Keto-2,3-Dihydro-R-Penten-2-Carbonsäure? Sm. 198—200° u. Zers. (*B.* 23, 2219). — I, 1393.
- C₆H₃O₃NBr₂ 1) 4,6-Dibrom-2-Nitro-1-Oxybenzol. Sm. 117,5°. K, Ca + 7H₂O (*A.* 137, 207; *J.* 1875, 336; 1877, 548; *Z.* 1867, 203; 1868, 323; *Soc.* [2] 10, 865; 55, 61; *J. r.* 10, 354; *J. pr.* [2] 49, 544; *Bl.* [3] 19, 759). — II, 698.
 2) 4,6-Dibrom-3-Nitro-1-Oxybenzol. Sm. 90—91° (*B.* 25, [2] 120). — II, 698.
 3) ?-Dibrom-3-Nitro-1-Oxybenzol. Sm. 91°. K + H₂O, Ba + 6H₂O, Ag (*B.* 18, 613). — II, 698.
 4) 2,6-Dibrom-4-Nitro-1-Oxybenzol. Sm. 141°. K + 2H₂O, Ba + 10H₂O, Ag (*Soc.* [2] 10, 859; *Z.* 1867, 204; 1868, 323; *J.* 1876, 448; *B.* 17, 2731; *J. pr.* [2] 49, 544; [2] 52, 418; *A.* 205, 95; 289, 94; *Bl.* [3] 19, 759). — II, 698.
 5) ?-Dibrom-4-Nitroso-1,3-Dioxybenzol + 2H₂O. Zers. bei 138—150° (*Bl.* 39, 590). — II, 927.
 6) 3,6-Dibrom-5-Amido-2-Oxy-1,4-Benzochinon. NH₄ (*A.* 91, 313). — III, 353.
- C₆H₃O₃NJ₂ 1) 4,6-Dijod-2-Nitro-1-Oxybenzol. Sm. 98°. Na + H₂O, K (*J.* 1867, 617). — II, 700.
 2) isom. Dijod-3-[?]-Nitro-1-Oxybenzol. Na + 2H₂O, K + 1½H₂O (*A.* 198, 268). — II, 701.
 3) 2,6-Dijod-4-Nitro-1-Oxybenzol. Sm. 156,5°. Na + 2H₂O, K (*A.* 174, 108; 205, 91; *Z.* 1868, 324; *J.* 1867, 617). — II, 701.
- C₆H₃O₃N₂Cl₃ 1) Amid d. 3,3,5-Trichlor-2-Keto-6-Oxy-2,3-Dihydropyridin-4-Carbonsäure (*B.* 20, 3370; 27, 3449). — I, 1406.
- C₆H₃O₃N₂Br₃ 1) Amid d. 3,3,5-Tribrom-2-Keto-6-Oxy-2,3-Dihydropyridin-4-Carbonsäure? (*B.* 20, 3370). — I, 1407.
- C₆H₃O₃N₂S 1) Diazotriazobenzolsulfonsäure (*B.* 21, 3414). — IV, 1537.
- C₆H₃O₃Cl₃S 1) 1,2,4-Trichlorbenzol-?-Sulfonsäure. Ca + 2H₂O, Ba + 2H₂O, Pb + 2H₂O (*A.* 182, 231; *J.* 1868, 350). — II, 119.
- C₆H₃O₃Br₃S 1) 2,3,5-Tribrombenzol-1-Sulfonsäure. K + H₂O, Ba + H₂O (*A.* 181, 39). — II, 123.
 2) 2,4,5-Tribrombenzol-1-Sulfonsäure + 3H₂O. Sm. 80° (140° wasserfrei). NH₄ + H₂O, K + H₂O, Ca + 6H₂O, Ba + 2(3)H₂O, Pb + 4H₂O (*A.* 186, 288, 303; 191, 188; 197, 282). — II, 122.
 3) 2,4,6-Tribrombenzol-1-Sulfonsäure + H₂O. Sm. 95° (145° wasserfrei). NH₄ + H₂O, K + H₂O, Ca + 4(8)H₂O, Ba + 9H₂O, Pb + 9H₂O, Ag + H₂O (*A.* 186, 271, 290; 191, 193, 207). — II, 123.
 4) 3,4,5-Tribrombenzol-1-Sulfonsäure. NH₄, K, Ca + 2½H₂O, Ba + 3H₂O, Pb + 3½H₂O (*A.* 181, 29). — II, 122.

- $C_6H_3O_3Br_3S$ 5) isom. Tribrombenzolsulfonsäuren (A. 181, 207; 186, 154; 187, 364). — II, 123.
- $C_6H_3O_4NBr_2$ 1) 4,6-Dibrom-2-Nitro-1,3-Dioxybenzol. Sm. 117° (M. 1, 895). — II, 927.
- $C_6H_3O_4NJ_2$ 2) 2-Dibrompyrrol-2-Dicarbonsäure (B. 20, 2601). — IV, 91.
- $C_6H_3O_4N_2Cl$ 1) 2-Dijod-2-Nitro-1,3-Dioxybenzol (A. 174, 111). — II, 927.
- 1) 4-Chlor-1,2-Dinitrobenzol. 4 Modificationen. Sm. 37,1° u. 38,8° (B. 9, 760; 15, 597). — II, 84.
- 2) 2-Chlor-1,3-Dinitrobenzol. Sm. 43°; Sd. 315° (J. 1868, 346; 1877, 425; A. ch. [4] 15, 231). — II, 84.
- 3) 4-Chlor-1,3-Dinitrobenzol. Sm. 50°; Sd. 315° u. Zers. (J. 1868, 345; 1877, 425; Z. 1870, 232, 274; B. 15, 1233). — II, 84.
- 4) 5-Chlor-1,3-Dinitrobenzol. Sm. 53° (B. 24, 1655). — II, 84.
- 5) 2-Chlor-1,4-Dinitrobenzol. Sm. 60° (A. 303, 10).
- $C_6H_3O_4N_2Br$ 1) 3-Brom-1,2-Dinitrobenzol. Sm. 101,5°; Sd. 320° (G. 19, 231). — II, 86.
- 2) 4-Brom-1,2-Dinitrobenzol. Sm. 59,4° (J. 1875, 332; 1877, 424; B. 11, 1159). — II, 86.
- 3) 2-Brom-1,3-Dinitrobenzol? Sm. 119° (Am. 19, 36).
- 4) 4-Brom-1,3-Dinitrobenzol. Sm. 72° (A. 137, 167; 197, 258; B. 5, 117, 791; J. 1870, 523; 1876, 383). — II, 87.
- 5) 2-Brom-1,3-Dinitrobenzol. Sm. 87° (B. 8, 1183). — II, 87.
- $C_6H_3O_4N_2J$ 1) 3-Jod-1,2-Dinitrobenzol. Sm. 138° (G. 19, 231). — II, 90.
- 2) 4-Jod-1,2-Dinitrobenzol. Sm. 74,4° (G. 19, 234; A. 303, 339). — II, 90.
- 3) 2-Jod-1,3-Dinitrobenzol. Sm. 113,7° (J. 1875, 322; 1878, 478). — II, 90.
- 4) 4-Jod-1,3-Dinitrobenzol. Sm. 88,5° (J. 1875, 322; 1880, 478). — II, 90.
- $C_6H_3O_4N_2Cl_2$ 1) 3,4-Dichlor-2,6-Dinitro-1-Amidobenzol. Sm. 127–128° (A. 196, 227). — II, 321.
- $C_6H_3O_4Cl_3S$ 1) 2-Trichlor-1-Oxybenzol-2-Sulfonsäure (Z. 1871, 679). — II, 835.
- $C_6H_3O_4BrS$ 1) 2-Bromthiophen-2,3-Dicarbonsäure. Sm. 240° u. Zers. Pb (A. 267, 164). — III, 759.
- $C_6H_3O_5NS$ 1) 2-Nitrothiophen-2-Ketocarbonsäure. Sm. 92° (B. 18, 541). — III, 758.
- $C_6H_3O_5N_2Cl$ 1) 4-Chlor-2,6-Dinitro-1-Oxybenzol. Sm. 80,5°. NH_4 , $Na + 3H_2O$, K , $Ba + H_2O$, $Pb + H_2O$, $Cu + 2H_2O$, Ag (A. 157, 156; J. 1875, 339; 1879, 512; Z. 1867, 207; 1870, 234; B. 6, 369, 649; 13, 35; 32, 154). — II, 694.
- 2) 4-Chlor-2-Dinitro-1-Oxybenzol. Sm. 79–80°. $K + 1\frac{1}{2}H_2O$ (B. 13, 34–35). — II, 695.
- 3) 6-Chlor-2,4-Dinitro-1-Oxybenzol. Sm. 96° (110–111°). $NH_4 + H_2O$, $Na + 1\frac{1}{2}H_2O$, $K + H_2O$, $Mg + 7(10)H_2O$, $Ca + 7H_2O$, $Ba + 9H_2O$, $Cu + 8H_2O$, $Ag + H_2O$ (A. 109, 286; 173, 312; 279, 32; A. Spl. 7, 196; Z. 1871, 338, 517, 679; B. 6, 369; 7, 405; M. 6, 527; Soc. 69, 1328). — II, 694.
- 4) isom. Chlordinitrooxybenzol. Sm. 70°. Na , $Ba + 3H_2O$ (Z. 1870, 234). — II, 695.
- 5) isom. Chlordinitrooxybenzol. Sm. 80° u. 114°. $NH_4 + H_2O$, $K + H_2O$, $Ba + 2H_2O$ (A. 157, 161; siehe auch A. 173, 318; 176, 186). — II, 695.
- $C_6H_3O_5N_2Br$ 1) 2-Brom-4,6-Dinitro-1-Oxybenzol. Sm. 118,2°. NH_4 , $Na + 1\frac{1}{2}H_2O$, $K + 1\frac{1}{2}H_2O$, $Ca + 12H_2O$, $Ba + 3\frac{1}{2}H_2O$, $Pb + 2H_2O$ (Z. 1868, 324; Soc. [2] 10, 857, 865; J. 1875, 335, 337, 427; G. 14, 235; Soc. 69, 1326; 73, 683; B. 6, 650; 7, 922; 32, 162 Anm.). — II, 697.
- 2) 3-Brom-2-Dinitro-1-Oxybenzol. Sm. 91,5°. K (J. 1875, 340). — II, 697.
- 3) 4-Brom-2,6-Dinitro-1-Oxybenzol. Sm. 85,6°. K , $Ca + 8H_2O$, Ba , Ag (A. 137, 204; J. 1875, 336, 339; 1877, 548; 1878, 550; Am. 3, 184; B. 6, 650; 7, 922; 25 [2] 746; Soc. 73, 687). — II, 698.
- $C_6H_3O_5N_2J$ 1) 2-Jod-4,6-Dinitro-1-Oxybenzol. Sm. 106°. K (B. 6, 651; Z. 1868, 325). — II, 700.
- 2) 4-Jod-2,6-Dinitro-1-Oxybenzol. Sm. 112,9°. K (J. 1875, 340; B. 6, 650). — II, 700.

- $C_6H_3O_2N_2S$ 1) 2-Nitro-1-Diazobenzol-4-Sulfonsäure (B. 21, 3221). — IV, 1537.
2) 4-Nitro-1-Diazobenzol-3-Sulfonsäure + H_2O (B. 22, 847). — IV, 1537.
- $C_6H_3O_2Cl_2S$ 1) 3,5,6-Trichlor-1,4-Dioxybenzol-2-Sulfonsäure. K + H_2O (A. 146, 55). — II, 952.
- $C_6H_3O_2N_2Cl$ 1) 2-Chlor-4,6-Dinitro-1,3-Dioxybenzol. Sm. 181—182° (J. pr. [2] 40, 495; [2] 41, 90). — II, 926.
- $C_6H_3O_2N_2Br$ 1) 6-Brom-2,4-Dinitro-1,3-Dioxybenzol. Sm. 67° (Am. 18, 245).
2) 2-Brom-4,6-Dinitro-1,3-Dioxybenzol. Sm. 192,5° (193° u. Zers.). $(NH_4)_2 + H_2O$, $Na_2 + 2H_2O$, $K_2 + 1\frac{1}{2}H_2O$, Ba + $3H_2O$ (Bl. 39, 591; B. 16, 555, 1101; Am. 18, 130). — II, 927.
3) 2-Bromdinitro-1,3-Dioxybenzol. Ba (Am. 20, 189).
4) 2-Brom-2-Dinitro-2-Dioxybenzol. K, K₂ (J. 1875, 354; G. 4, 416). — II, 953.
- $C_6H_3O_2N_3S$ 1) 2,4,6-Trinitro-1-Meraptobenzol. Sm. 114—115° u. Zers. K. — II, 795.
- $C_6H_3O_2Cl_3S$ 1) Trichlorid d. Benzol-1,3,5-Trisulfonsäure. Sm. 184° (Am. 9, 335). — II, 117.
- $C_6H_3O_2Cl_3P$ 1) Phosphat d. 2,2,3,3,4,5-Hexachlor-1-Oxy-2,3-Dihydro-R-Penten-1-Carbonsäure. Sm. 150° (B. 23, 829). — I, 620.
2) Phosphat d. 1,1,3,3,4,5-Hexachlor-2-Oxy-2,3-Dihydro-R-Penten-2-Carbonsäure + $2\frac{1}{2}H_2O$. Sm. 170° (215° u. Zers. wasserfrei) (B. 23, 828). — I, 621.
- $C_6H_3O_2Br_2S_2$ 1) Tribrombenzoldisulfonsäure. K₂ (A. 188, 183). — II, 123.
- $C_6H_3O_2ClS$ 1) 2-Chlor-1,4-Dioxy-2-Benzochinon-2-Sulfonsäure. K + $2H_2O$ (A. 146, 56). — II, 952.
- $C_6H_3O_2N_3S_2$ 1) 3-Nitro-1-Diazobenzol-2-Disulfonsäure (B. 8, 289). — IV, 1537.
- $C_6H_3O_2N_3S$ 1) 1,3,5-Trinitrobenzol-2-Sulfonsäure + $2H_2O$. Sm. 100° (u. 185° zum zweiten Male). Na + $2H_2O$ (J. pr. [2] 32, 117). — II, 127.
- $C_6H_3O_{10}N_2S$ 1) 2,4,6-Trinitro-1-Oxybenzol-3-Sulfonsäure. K + H_2O , Ba + $3H_2O$ (A. 177, 97). — II, 837.
- $C_6H_3NClBr_2$ 1) 3-Chlor-2,4,6-Tribrom-1-Amidobenzol. Sm. 123,5° (A. 215, 112). — II, 317.
- $C_6H_3N_2ClBr_2$ 1) 2,4-Dibrom-1-Diazobenzolchlorid + H_2O . 2 + PtCl₄ (B. 30, 2342; J. 1866, 454). — IV, 1522.
2) 3,5-Dibrom-1-Diazobenzolchlorid. HCl + $4H_2O$, $\frac{1}{3}HCl$ (B. 30, 2347). — IV, 1522.
3) 2,4-Chlorbrom-1-Diazobenzolbromid (B. 30, 2343). — IV, 1523.
- $C_6H_3N_2ClI_2$ 1) 2,4-Dijod-1-Diazobenzolchlorid (B. 28, 682). — IV, 1524.
- $C_6H_3N_2ClS$ 1) Verbindung (aus 2,4-Dinitro-1-Meraptobenzol). Sm. 103,5° (A. 197, 82). — II, 795.
- $C_6H_3N_2Cl_2Br$ 1) 2,4-Dichlor-1-Diazobenzolbromid (B. 30, 2343). — IV, 1520.
- C_6H_4ONCl 1) 4-Chlor-1-Nitrosobenzol. Sm. 87° (B. 28, 249).
2) 1,4-Benzochinonchlorimid. Sm. 84,7—85° (J. pr. [2] 8, 2; [2] 19, 316; [2] 23, 435; B. 13, 1903). — II, 330.
3) Chlorid d. Pyridin-3-Carbonsäure. HCl (A. 196, 169). — IV, 144.
- $C_6H_4ONCl_2$ 1) 2,4,6-Trichlor-3-Amido-1-Oxybenzol. Sm. 95° (B. 18, 1166). — II, 727.
2) 2,3,5-Trichlor-4-Amido-1-Oxybenzol. Sm. 159° u. Zers. HCl, H_2SO_4 (J. pr. [2] 23, 438; [2] 24, 426; B. 11, 1981; 13, 1907). — II, 727.
3) 2,2-Dichlor-3-Imido-1-Keto-4-Methyl-2,3-Dihydro-R-Penten. Sm. 187,5° (B. 26, 324, 1677).
4) 2,3,5-Trichlor-4-Keto-1-Methyl-1,4-Dihydropyridin. Sm. 222° (A. 267, 143). — IV, 117.
- $C_6H_4ONCl_3$ 1) $\alpha\gamma\delta\epsilon\epsilon$ -Pentachlor- α -Imido- δ -Keto- β -Methyl- β -Penten. Sm. 110° (B. 26, 1678).
- C_6H_4ONBr 1) 2-Brom-1-Nitrosobenzol. Sm. 97,5—98° (B. 31, 1519 Anm.).
2) 4-Brom-1-Nitrosobenzol. Sm. 92—92,5° (B. 28, 1222).
- $C_6H_4ONBr_2$ 1) 2,4,6-Tribrom-3-Amido-1-Oxybenzol. Sm. 115° (B. 18, 1168). — II, 729.
2) 2-Tribrom-3-Amido-1-Oxybenzol. Sm. 106° (J. pr. [2] 52, 421).
3) isom. 2-Tribrom-2-Amido-1-Oxybenzol. Sm. 121° (Am. 15, 44). — II, 730.

- C_6H_5ONBr 4) 2,4,6-Tribromphenylhydroxylamin. Sm. 132° u. Zers. (B. 31, 562).
5) 3,4,5-Tribrom-2-Acetylpyrrol. Sm. 179° (B. 18, 1765; 20, 2605). — IV, 97.
- C_6H_5ONJ 1) 4-Jod-1-Nitrosobenzol. Sm. 102—103° (B. 28, 249).
- $C_6H_5ON_2Cl$ 1) 2,4-Dichlordiazobenzol. 2 Chlorid + $PtCl_4$, Bromid, Bromid + Br_2 , Nitrat (J. 1866, 455; B. 30, 2343). — IV, 1520.
2) Amid d. 2,6-Dichlorpyridin-4-Carbonsäure. Sm. 200° (Soc. 71, 1076).
- $C_6H_5ON_2Br$ 1) 2,4-Dibromdiazobenzol. Salze siehe (J. 1866, 454; B. 30, 2342, 2540). — IV, 1522.
2) 2,6-Dibromdiazobenzol. Salze siehe (A. 253, 280; B. 30, 2542). — IV, 1522.
- $C_6H_5ON_2S$ 1) 5-Oxybenzisothiodiazol (p-Oxypiashtiol). Sm. 157—158° (B. 25, 501). — IV, 568.
- $C_6H_5ON_2Cl$ 1) 2,6-Dichlor-8-Keto-7-Methylpurin. Sm. 268° (278° cor.) u. Zers. (B. 28, 2490; 30, 1847, 2212; 32, 271, 490). — IV, 1249.
2) 2,6-Dichlor-8-Keto-9-Methylpurin. Sm. 274° (280—281° cor.) (B. 17, 330; 32, 270, 490). — I, 1335.
- C_6H_5OClJ 1) 2-Chlor-1-Jodosobenzol. Explodiert bei 83—85° (B. 26, 1532; 27, 1827). — II, 77.
- $C_6H_5OCl_2Hg$ 1) Oxyphenylendiquecksilberdichlorid. Zers. bei 258° (B. 32, 763). — IV, 1710.
- $C_6H_5OCl_2P$ 1) Dichlorid d. 4-Chlorphenylphosphinsäure. Sd. 284—285° (A. 293, 225). — IV, 1652.
- C_6H_5OBrJ 1) 4-Brom-1-Jodosobenzol. Zers. bei 185° (B. 26, 361; 27, 1827). — II, 77.
- $C_6H_5OBr_2S$ 1) 2-Dibromacetylthiophen (B. 19, 2894). — III, 763.
- $C_6H_5O_2NCl$ 1) 2-Chlor-1-Nitrobenzol. Sm. 32,5°; Sd. 245,5°₂₃₃ (Z. 1866, 621; 1870, 231; J. 1868, 344; A. 182, 107; B. 29, 1878; C. 1898 [2] 238). — II, 83.
2) 3-Chlor-1-Nitrobenzol. Sm. 44,4°; Sd. 235,6° (J. 1863, 424; 1866, 457; 1875, 317; A. 182, 102; B. 4, 463; 7, 1765; 8, 1417, 1621; 9, 766; 13, 1071; 27, 2106; J. pr. [2] 36, 25; R. 13, 138). — II, 83.
3) 4-Chlor-1-Nitrobenzol. Sm. 83°; Sd. 238,5°₂₃₃ (A. 121, 358; 182, 105; A. ch. [4] 15, 222; J. 1866, 457; 1868, 343; Z. 1870, 231; B. 15, 1002; 27, 2106; R. 13, 139; C. 1898 [2] 238). — II, 83.
4) 2-Chlor-4-Oximido-1-Keto-1,4-Dihydrobenzol. Sm. 141° u. Zers. (B. 21, 3316; A. 277, 100; 279, 30; 303, 5). — III, 332.
5) Hypochlorit d. 4-Oximido-1-Keto-1,4-Dihydrobenzol. Explodiert bei 70° (B. 19, 281). — II, 678.
6) 4-Chlorpyridin-2-Carbonsäure. Sm. 194—195° u. Zers. K (Soc. 67, 406). — IV, 143.
7) p-Chlorpyridin-2-Carbonsäure. Sm. 180° u. Zers. $Ca + H_2O$, Ba (J. pr. [2] 34, 252). — IV, 142.
8) p-Chlorpyridin-2-Carbonsäure + H_2O . Sm. 168° (wasserfrei). Ba + $2H_2O$ (J. pr. [2] 27, 284). — IV, 142.
9) 5-Chlorpyridin-3-Carbonsäure. Sm. 235°. NH_4 (J. pr. [2] 54, 352). — IV, 146.
10) 6-Chlorpyridin-3-Carbonsäure. Sm. 199° u. Zers. (B. 17, 2392). — IV, 146.
- $C_6H_5O_2NCl$ 1) 3-Chlor-5,6-Dioxy-2-Dichlormethylpyridin + $4H_2O$. Sm. 193 bis 194° (B. 22, 1267). — IV, 124.
- $C_6H_5O_2NCl_2$ 1) Amid d. $\alpha\gamma\gamma\gamma$ -Pentachlor- δ -Keto- α -Penten- α -Carbonsäure (Amid d. γ -Dichloracetyl- $\alpha\alpha\gamma$ -Trichlorcrotonsäure). Sm. 166° (B. 23, 3780; 26, 498). — I, 1356.
- $C_6H_5O_2NBr$ 1) 2-Brom-1-Nitrobenzol. Sm. 41—41,5°; Sd. 261° (A. 156, 316; J. 1875, 302; G. 11, 396; B. 4, 461; 5, 115; 7, 1179; 29, 788, 1880; J. pr. [2] 48, 195; R. 13, 141). — II, 86.
2) 3-Brom-1-Nitrobenzol. Sm. 56,4°; Sd. 256,5° (J. 1863, 423; 1875, 302; 1877, 423; B. 4, 642; 6, 1543; 7, 417, 870; 8, 364; 27, 1931; A. 231, 165; R. 13, 143; Am. 19, 366). — II, 86.
3) 4-Brom-1-Nitrobenzol. Sm. 125°; Sd. 255—256°. Lit. bedeutend. — II, 86.
4) 2-Brom-4-Oximido-1-Keto-1,4-Dihydrobenzol (B. 21, 317). — III, 336.

- $C_6H_4O_2NBr$ 5) 4-Brompyridin-3-Carbonsäure + $2H_2O$. Sm. 183° (wasserfrei). NH_4 , $Na + H_2O$, $K + 1\frac{1}{2}H_2O$, $Ca + 2H_2O$, $Ba + 4H_2O$, $Co + H_2O$, $Ni + 2H_2O$, Ag , HBr (*M.* 10, 710; *B.* 19, 2768; *J. pr.* [2] 47, 414). — IV, 146.
- $C_6H_4O_2NBr_2$ 1) Methylester d. 3,4,5-Tribrompyrrol-2-Carbonsäure. Sm. 209 bis 210° (*B.* 17, 1153; 20, 2605). — IV, 82.
- $C_6H_4O_2NJ$ 1) 2-Jod-1-Nitrobenzol. Sm. $49,4^\circ$ (48°) (*J.* 1875, 321; *R.* 13, 145; *B.* 29, 1880). — II, 89.
2) 3-Jod-1-Nitrobenzol. Sm. 34° (36°); Sd. bei 280° (*J.* 1862, 251; 1879, 388; *Z.* 1866, 218; *R.* 13, 146; *A.* 303, 338). — II, 89.
3) 4-Jod-1-Nitrobenzol. Sm. $171,5^\circ$ (*A.* 137, 168; *Z.* 1866, 218; *J.* 1875, 320; *B.* 27, 429; *R.* 13, 147). — II, 89.
- $C_6H_4O_2NF$ 1) 4-Fluor-1-Nitrobenzol. Sm. $26,5^\circ$; Sd. 205° (*A.* 235, 263; 243, 222). — II, 83.
- $C_6H_4O_2N_2Cl_2$ 1) 3,4-Dichlor-2-Nitro-1-Amidobenzol. Sm. $95-96^\circ$ (*A.* 196, 226). — II, 320.
2) 3,5-Dichlor-2-Nitro-1-Amidobenzol. Sm. 79° (*A.* 196, 228). — II, 320.
3) 4,5-Dichlor-2-Nitro-1-Amidobenzol. Sm. 175° (*A.* 196, 226). — II, 320.
4) 4,6-Dichlor-2-Nitro-1-Amidobenzol. Sm. 100° (*A.* 196, 230; 215, 111; *B.* 7, 1603; 8, 820; 15, 1064). — II, 320.
5) 5,6-Dichlor-2-Nitro-1-Amidobenzol. Sm. $162-163^\circ$ (*A.* 196, 221). — II, 320.
6) 2,6-Dichlor-3-Nitro-1-Amidobenzol. Sm. $67-68^\circ$ (*J.* 1875, 352; *A.* 196, 222). — II, 321.
7) 2,5-Dichlor-4-Nitro-1-Amidobenzol. Sm. 153° (*A.* 196, 224). — II, 321.
8) 2,6-Dichlor-4-Nitro-1-Amidobenzol. Sm. 188° (*J.* 1875, 323; *B.* 8, 143; *A.* 196, 230). — II, 321.
9) 3,5-Dichlor-4-Nitro-1-Amidobenzol. Sm. 175° (*A.* 196, 228). — II, 320.
10) 2,5-Dichlor-1,4-Dioximido-1,4-Dihydrobenzol (*B.* 21, 3319). — III, 333.
11) 3,6-Dichlor-2,5-Diamido-1,4-Benzochinon? (*Berz. J.* 25, 850; *A.* 52, 347; 210, 180, 183; *J. pr.* [2] 40, 371). — III, 342.
- $C_6H_4O_2N_2Cl_4$ 1) Nitril d. $\alpha\alpha\delta\delta$ -Tetrachlor- $\beta\gamma$ -Dioxybutan- $\beta\gamma$ -Dicarbonsäure. Sm. $135-137^\circ$ u. Zers. (*A.* 254, 98). — I, 1481.
- $C_6H_4O_2N_2Br_2$ 1) 3,5-Dibrom-2-Nitro-1-Amidobenzol. Sm. 186° (*A.* 269, 218). — II, 322.
2) 4,5-Dibrom-2-Nitro-1-Amidobenzol. Sm. $204-205^\circ$ (*M.* 11, 341). — II, 321.
3) 4,6-Dibrom-2-Nitro-1-Amidobenzol. Sm. $127,3^\circ$ (*J.* 1875, 347; *B.* 7, 349). — II, 322.
4) 2,6-Dibrom-4-Nitro-1-Amidobenzol. Sm. $206-207^\circ$ ($202,5^\circ$) (*J.* 1875, 346; *B.* 7, 1564; 15, 474; *J. pr.* [2] 49, 544). — II, 322.
5) 2,5-Dibrom- ρ -Nitro-1-Amidobenzol. Sm. 75° (*B.* 9, 622). — II, 322.
6) 3,6-Dibrom-2,5-Diamido-1,4-Benzochinon (*A.* 91, 312). — III, 353.
7) ρ -Dibrom-4-Oxy-1-Diazobenzol. Salze siehe (*J. pr.* [2] 24, 453; *B.* 29, 1531). — IV, 1546.
- $C_6H_4O_2N_2J_2$ 1) 2,4-Dijod-3-Nitro-1-Amidobenzol. Sm. $145,5^\circ$ (*B.* 11, 113). — II, 322.
2) 2,6-Dijod-4-Nitro-1-Amidobenzol. Sm. $243-244^\circ$ (*B.* 11, 114). — II, 322.
- $C_6H_4O_2N_2S_2$ 1) 1,3-Dithionylamidobenzol. Sm. 44° (*A.* 274, 259). — IV, 574.
2) 1,4-Dithionylamidobenzol. Sm. $115-116^\circ$ (*A.* 274, 261). — IV, 588.
3) Rhodanid d. Bernsteinsäure. Fl. (*Soc.* 67, 565).
- $C_6H_4O_2N_3Cl$ 1) 2-Nitrodiazobenzolchlorid (*B.* 30, 90). — IV, 1524.
2) 3-Nitrodiazobenzolchlorid. Zers. bei 118° (*B.* 27, 2550; 30, 90; *G.* 25 [1] 336). — IV, 1524.
3) 4-Nitrodiazobenzolchlorid. Zers. bei 85° . $2 + PtCl_4$ (*G.* 25 [1] 335; *B.* 29, 287; 30, 90). — IV, 1524.
- $C_6H_4O_2N_3Br$ 1) 4-Nitrodiazobenzolbromid (*B.* 28, 1748). — IV, 1524.
- $C_6H_4O_2N_3Br_3$ 1) 3-Nitrodiazobenzoltribromid (*J.* 1866, 456; *B.* 27, 2550).

- $C_6H_4O_2ClBr$ 1) 2-Chlor-5-Brom-1,4-Dioxybenzol. Sm. 171—172° (A. 210, 160; B. 15, 656). — II, 944.
2) 2-Chlor-6-Brom-1,4-Dioxybenzol. Sm. 154—155° (Soc. 61, 562). — II, 944.
- $C_6H_4O_2ClJ$ 1) 2-Chlor-1-Jodobenzol. Explod. bei 230° (B. 26, 1534). — II, 78.
2) 4-Chlor-1-Jodobenzol (B. 29, 1572).
- $C_6H_4O_2ClP$ 1) 1,2-Dioxybenzolchlorphosphin. Sm. 30°; Sd. 140°₆₅ (B. 27, 2569). — II, 910.
2) Anhydro-4-Chlorphenylphosphinsäure (Phosphinochlorbenzol). Sm. 211° (A. 293, 229). — IV, 1652.
- $C_6H_4O_2ClSb$ 1) Antimonylbrenzkatechinchlorid (C. 1898 [1] 206).
- $C_6H_4O_2Cl_2Br$ 1) 2,3-Dichlor-5,6-Dibrom-1,4-Diketohexahydrobenzol. Sm. 202 bis 203° u. Zers. (Am. 14, 559). — III, 329.
- $C_6H_4O_2Cl_2S$ 1) Chlorid d. 2-Chlorbenzol-1-Sulfonsäure. Sm. 28,5° (A. 186, 325; B. 10, 320; 14, 1437). — II, 119.
2) Chlorid d. 3-Chlorbenzol-1-Sulfonsäure. Fl. (A. 180, 110). — II, 119.
3) Chlorid d. 4-Chlorbenzol-1-Sulfonsäure. Sm. 53°; Sd. 141°₁₅ (A. 180, 107; B. 8, 1071; 25, 2260). — II, 119.
- $C_6H_4O_2Cl_2P$ 1) Dichlorid d. 4-Chlorphenylphosphorsäure. Sd. 265° (B. 6, 944). — II, 669.
- $C_6H_4O_2Cl_2P_2$ 1) 1,3-Dioxybenzol-bis-Chlorphosphin. Sd. 240°₅₆ (B. 27, 2566). — II, 917.
2) 1,4-Dioxybenzol-bis-Chlorphosphin. Sm. 65°; Sd. 200°₆₅ (B. 27, 2568). — II, 941.
- $C_6H_4O_2BrJ$ 1) 4-Brom-1-Jodobenzol. Explodiert bei 240° (B. 26, 361). — II, 78.
- $C_6H_4O_2BrP$ 1) Anhydro-4-Bromphenylphosphinsäure (p-Phosphinobrombenzol). Sm. 185—186° (A. 293, 242). — IV, 1652.
- $C_6H_4O_2BrSb$ 1) Antimonylbrenzkatechinbromid (C. 1898 [1] 206).
- $C_6H_4O_2Br_2S$ 1) Methylester d. p-Dibromthiophen-2-Carbonsäure. Sm. 80° (B. 18, 2312). — III, 755.
- $C_6H_4O_2JSb$ 1) Antimonylbrenzkatechinjodid (C. 1898 [1] 206).
- $C_6H_4O_2FSb$ 1) Antimonylbrenzkatechinfluorid (C. 1898 [1] 207).
- $C_6H_4O_2NCl$ 1) 4-Chlor-2-Nitro-1-Oxybenzol. Sm. 86—87°. NH_4 , Na + H_2O , Ba + 4 H_2O , Ag (A. 173, 317; A. Spl. 7, 190; J. 1879, 512; 1880, 625; B. 7, 1601). — II, 693.
2) 5-Chlor-2-Nitro-1-Oxybenzol. Sm. 38,9°. Na, Ba + H_2O , Ag (B. 9, 769; 11, 1162). — II, 693.
3) 6-Chlor-2-Nitro-1-Oxybenzol. Sm. 70°. K, Ca + H_2O , Ba + H_2O , Ag (A. 173, 307). — II, 693.
4) 2-Chlor-3-Nitro-1-Oxybenzol. Sm. 120° (B. 26, 2466). — II, 693.
5) 4-Chlor-3-Nitro-1-Oxybenzol. Sm. 126—127° (Soc. 69, 1322).
6) 6-Chlor-3-Nitro-1-Oxybenzol. Sm. 118—119° (Soc. 69, 1325).
7) 2-Chlor-4-Nitro-1-Oxybenzol. Sm. 110—111°. K + H_2O , Ca + 4 H_2O , Ba + 7 H_2O , Ag (A. 173, 309; 234, 3; Z. 1871, 339, 591). — II, 693.
8) p-Chlor-2-Oxypyridin-3-Carbonsäure. Sm. 302°. Ba (J. pr. [2] 34, 260). — IV, 152.
9) 6-Chlor-2-Oxypyridin-4-Carbonsäure. NH_4 , $(NH_4)_2$, Ba + 9 H_2O , Ag, Ag₂ (Soc. 71, 1073).
10) β-Chlor-β-Oxypikolinsäure. Sm. 257° u. Zers. Ca + 4 H_2O (J. pr. [2] 27, 290). — IV, 151.
11) γ-Chlor-β-Oxypikolinsäure. Sm. noch nicht bei 315° (J. pr. [2] 34, 254). — IV, 151.
12) Chlor-γ-Oxypikolinsäure + H_2O . Sm. 224° wasserfrei. Ca + $\frac{1}{2}$ (2) H_2O , HCl (J. pr. [2] 29, 2, 13). — IV, 151.
- $C_6H_4O_2NBr$ 1) 4-Brom-2-Nitro-1-Oxybenzol. Sm. 88°. Na, K + 2 H_2O , Ba, Ag (Z. 1867, 203; 1868, 323; J. 1877, 547; B. 6, 170; 11, 1160; Soc. 73, 683). — II, 696.
2) 5-Brom-2-Nitro-1-Oxybenzol. Sm. 44°. Na, Ca + 2 H_2O , Ba + H_2O (B. 11, 1160). — II, 697.
3) 6-Brom-2-Nitro-1-Oxybenzol. Sm. 67—68°. K, Ba + 2 H_2O , Ag (Soc. 73, 685).

- $C_6H_4O_3NBr$ 4) 2-Brom-3-Nitro-1-Oxybenzol. Sm. 147°. Na + H_2O , K + $2H_2O$, Ba + $4H_2O$, Ag (B. 16, 612, 615; 18, 612). — II, 697.
 5) 2-Brom-4-Nitro-1-Oxybenzol. Sm. 102°. Ba + $6H_2O$, Pb, Ag (Z. 1867, 204; 1868, 323; G. 14, 238; Soc. 73, 684, 685). — II, 697.
 6) 2-Brom-6-Oxypyridin-3-Carbonsäure. Sm. 296° (B. 17, 2398). — IV, 153.
- $C_6H_4O_3NJ$ 1) 5-Jod-2-Nitro-1-Oxybenzol. Sm. 90—91°. K (B. 7, 462). — II, 700.
 2) 6-Jod-2-Nitro-1-Oxybenzol. Sm. 66—67°. K + H_2O (B. 7, 462). — II, 700.
 3) 2-Jod-3-Nitro-1-Oxybenzol. Sm. 134° (B. 26, 2467). — II, 700.
 4) 4-Jod-3-Nitro-1-Oxybenzol. Sm. 156° (J. pr. [2] 43, 72). — II, 700.
 5) 2-Jod-4-Nitro-1-Oxybenzol. Sm. 154—155°. K + $\frac{1}{2}H_2O$ (B. 7, 462). — II, 700.
 6) isom.-2-Jod-4-Nitro-1-Oxybenzol. Sm. 93° (Z. 1868, 324). — II, 700.
 7) 2-Jodoso-1-Nitrobenzol. Zers. bei 100° (B. 26, 1809). — II, 90.
 8) 3-Jodoso-1-Nitrobenzol (B. 26, 1312, 1807; 27, 1827). — II, 90.
 9) 4-Jodoso-1-Nitrobenzol (B. 26, 362, 1807). — II, 90.
- $C_6H_4O_3N_2Br_2$ 1) 3,4-Dibrom-5-Nitro-2-Acetylpyrrol. Sm. 206° (B. 20, 2596). — IV, 98.
 2) 2-Dibrom-2-Nitro-2-Acetylpyrrol. Sm. 175° (B. 20, 2606). — IV, 98.
- $C_6H_4O_3N_2S$ 1) 2-Nitro-1-Thionylamidobenzol. Sm. 52° (A. 274, 225). — II, 356.
 2) 3-Nitro-1-Thionylamidobenzol. Sm. 63.5° (A. 274, 225). — II, 356.
 3) 4-Nitro-1-Thionylamidobenzol. Sm. 70° (A. 274, 225). — II, 356.
 4) 1-Diazobenzol-2-Sulfonsäure. K₂ + $\frac{1}{2}H_2O$ (B. 29, 1075; Am. 20, 458). — IV, 1534.
 5) 1-Diazobenzol-3-Sulfonsäure. Zers. bei 60° (A. 177, 88; Am. 17, 456). — IV, 1534.
 6) 1-Diazobenzol-4-Sulfonsäure. Na₂ (A. 120, 144; 190, 76; J. pr. [2] 20, 263; Am. 15, 391; B. 15, 2184; 28, 2004; 29, 145, 291, 751). — IV, 1534.
 7) 1-Isodiazobenzol-4-Sulfonsäure. Ag₂ (B. 29, 1386). — IV, 1535.
- $C_6H_4O_3ClP$ 1) 1,2-Dioxybenzoxoychlorphosphin. Sm. 35°; Sd. 162°₃₈ (B. 27, 2571). — II, 910.
- $C_6H_4O_3Cl_2S$ 1) 1,2-Dichlorbenzol-2-Sulfonsäure. Ca + $2H_2O$, Ba + $2H_2O$, Pb + $2H_2O$ (A. 176, 41; 182, 94). — II, 118.
 2) 1,3-Dichlorbenzol-2-Sulfonsäure. Ca + $2H_2O$, Ba + H_2O , Pb + $3H_2O$ (A. 182, 97). — II, 119.
 3) 1,4-Dichlorbenzol-2-Sulfonsäure. Sm. über 100°. NH₄ + H_2O , Na + H_2O , K + H_2O , Mg + $6H_2O$, Ba, Pb + $3H_2O$, Ag (A. 182, 94; Z. 1868, 226). — II, 119.
- $C_6H_4O_3Br_2S$ 1) 2,3-Dibrombenzol-1-Sulfonsäure. K, Ca + $2H_2O$, Ba + $3H_2O$, Pb + $3H_2O$ (A. 188, 152). — II, 120.
 2) 2,4-Dibrombenzol-1-Sulfonsäure + H_2O . Sm. 80° (110° wasserfrei). NH₄, K, Ca + $3H_2O$, Ba + $2(\frac{1}{2})H_2O$, Pb + $3H_2O$, Ag (A. 191, 185, 232). — II, 121.
 3) 2,5-Dibrombenzol-1-Sulfonsäure + $3H_2O$. Sm. 98° (128° wasserfrei). Salze meist bek. (A. 167, 117; 168, 81; 181, 206; 186, 129, 139, 312, 321; 187, 350; B. 10, 1539). — II, 121.
 4) 3,4-Dibrombenzol-1-Sulfonsäure + $3H_2O$. Sm. 67.5—68.5°. NH₄, K, Ca, Ba + $2(3)H_2O$, Pb + $2H_2O$, Ag (A. 186, 145, 148; 197, 263). — II, 121.
 5) 3,5-Dibrombenzol-1-Sulfonsäure + H_2O . Sm. 84—86°. NH₄, K, Ca + $3\frac{1}{2}H_2O$, Ba + $3\frac{1}{2}H_2O$, Pb + $1\frac{1}{2}H_2O$ (A. 120, 158; 181, 25, 201; M. 2, 193). — II, 121.
- $C_6H_4O_4NBr$ 1) 2-Brom-3-Nitro-1,2-Dioxybenzol. Sm. 109—110° (C. 1898 [1] 617, 1024).
 2) 2-Brom-4-Nitro-1,2-Dioxybenzol. Sm. 138—140°. Ba (C. 1898 [1] 617, 1024).
 3) 2-Brom-4-Nitro-1,3-Dioxybenzol. Sm. 147°. Ba + $4H_2O$ (A. 164, 7). — II, 927.
 4) 2-Brom-4,6-Dioxypyridin-3-Carbonsäure. Zers. bei 250° (B. 31, 1687).
- $C_6H_4O_4NJ$ 1) 2-Jodo-1-Nitrobenzol. Explodiert bei 210° (B. 26, 1810). — II, 90.
 2) 3-Jodo-1-Nitrobenzol. Explodiert bei 215° (B. 26, 1313). — II, 90.

- $C_6H_4O_4NJ$
 $C_6H_4O_4N_2S$ 3) 4-Jodo-1-Nitrobenzol. Explodiert bei 212—213° (B. 26, 1808). — II, 90.
 1) 2,4-Dinitro-1-Merkaptobenzol. Sm. 131°. — II, 794.
 2) isom. Dinitromerkaptobenzol. Sm. 195° (Am. 8, 90). — II, 794.
 3) isom. Dinitromerkaptobenzol. Sm. 275—280° (B. 9, 978; 10, 1686).
- $C_6H_4O_4N_2Cl$ 1) 5-Chlor-2,4-Dinitro-1-Amidobenzol. Sm. 174° (B. 30, 1666).
 2) 4-Chlor-2,6-Dinitro-1-Amidobenzol. Sm. 144,7° (J. 1875, 352; B. 30, 1262). — II, 320.
 3) 4-Chlor-2-Nitro-1-Nitramidobenzol. Sm. 107—108° (B. 28, 402; 29, 2414 Ann.; 30, 1262). — IV, 1530.
- $C_6H_4O_4N_2Br$ 1) 6-Brom-2,4-Dinitro-1-Amidobenzol. Sm. 153—154° (J. 1875, 350; B. 15, 1235; M. 11, 347). — II, 321.
 2) 4-Brom-2,6-Dinitro-1-Amidobenzol. Sm. 160° (B. 9, 919; Soc. 73, 688). — II, 321.
 3) isom. Bromdinitroamidobenzol. Sm. 178,4° (J. 1875, 333). — II, 321.
- $C_6H_4O_4Cl_2S$ 1) 4,6-Dichlor-1-Oxybenzol-2-Sulfonsäure. K (J. 1876, 447; Z. 1871, 678). — II, 835.
 2) 2,6-Dichlor-1-Oxybenzol-4-Sulfonsäure. K, Ba + 2H₂O (A. 147, 76; Z. 1871, 516). — II, 835.
- $C_6H_4O_4Cl_2S_2$ 1) Chlorid d. Benzol-1,2-Disulfonsäure. Sm. 105° (B. 9, 553). — II, 116.
 2) Chlorid d. Benzol-1,3-Disulfonsäure. Sm. 63° (J. pr. [2] 2, 418; [2] 49, 382; B. 9, 584; 16, 483; 19, 2424). — II, 117.
 3) Chlorid d. Benzol-1,4-Disulfonsäure. Sm. 131° (139°; 136,5°) (B. 9, 584; Am. 9, 332; C. 1895 [2] 496). — II, 117.
- $C_6H_4O_4Cl_2P_2$ 1) 1,3-Dioxybenzol-bis-Oxychlorphosphin. Sd. 263°₁₁₈ (B. 27, 2567). — II, 918.
 2) 1,4-Dioxybenzol-bis-Oxychlorphosphin. Sm. 123°; Sd. 270°₇₀ (B. 27, 2568). — II, 941.
- $C_6H_4O_4Br_2S$ 1) 4,6-Dibrom-1-Oxybenzol-2-Sulfonsäure. K, K₂, Ba, Cd + 1½ H₂O, Pb (A. 156, 110; B. 11, 855). — II, 836.
 2) 2,6-Dibrom-1-Oxybenzol-4-Sulfonsäure + H₂O. K + H₂O, K₂ + 2H₂O, Ba + 2(4)H₂O (A. 120, 161; 156, 105; Bl. 47, 881). — II, 836.
- $C_6H_4O_4J_2S$ 1) 2,6-Dijod-1-Oxybenzol-4-Sulfonsäure + 3H₂O. Sm. 120° (wasserfrei). Na + 2H₂O, K + 2H₂O, K₂, Ba + 3H₂O, Zn + 6H₂O (J. pr. [2] 37, 215, 334). — II, 836.
- $C_6H_4O_4NBr$ 1) Bromoxykamenaminsäure + 2H₂O (J. pr. [2] 27, 266). — IV, 172.
- $C_6H_4O_4N_2Br_2$ 1) p-Nitro-2-[α,β-Dibrom-β-Nitroäthyl]furan. Sm. 110—111° (B. 18, 1362). — III, 692.
- $C_6H_4O_4N_2S$ 1) p-Dinitro-2-Acetylthiophen. Sm. 166—167° u. Zers. (B. 18, 541). — III, 763.
- $C_6H_4O_4N_2S$ 1) 4-Nitro-3-Diazobenzolimid-1-Sulfonsäure. K (B. 21, 3413). — IV, 1142.
- $C_6H_4O_4Cl_2S$ 1) p-Dichlor-1,3-Dioxybenzol-p-Sulfonsäure. Ba (J. pr. [2] 17, 334). — II, 936.
- $C_6H_4O_4J_2S$ 1) p-Dijod-1,3-Dioxybenzol-p-Sulfonsäure. K (Bl. [3] 7, 713). — II, 936.
- $C_6H_4O_4N_2S_2$ 1) Diazobenzol-2,4-Disulfonsäure. NH₄, K, Ca + 2H₂O, Ba + 2H₂O, Pb + 3H₂O (A. 198, 5). — IV, 1536.
 2) Diazobenzol-3,4-Disulfonsäure. K (A. 198, 24; B. 9, 553). — IV, 1536.
 3) Diazobenzol-3,5-Disulfonsäure. NH₄, K, Ba + 3H₂O, Pb + 3H₂O (A. 188, 174; 190, 223). — IV, 1536.
- $C_6H_4O_4Cl_2P_2$ 1) Chlorid d. Phospho-β-Dichlormukonsäure (Soc. 59, 27). — I, 731.
- $C_6H_4O_4Br_2S_2$ 1) 1,3-Dibrombenzol-p-Disulfonsäure (B. 8, 290). — II, 122.
 2) 1,4-Dibrombenzol-p-Disulfonsäure. K₂, Ba + 4½ H₂O (A. 187, 366). — II, 122.
- $C_6H_4O_4N_2S$ 1) 1,2-Dinitrobenzol-4-Sulfonsäure. NH₄, K + 1½ H₂O, Ba + 3H₂O, Pb + 3H₂O (A. 188, 143; B. 9, 554). — II, 126.
 2) 1,3-Dinitrobenzol-4-Sulfonsäure + 3H₂O. Sm. 106—108°. Na + H₂O, K, Ca + 2H₂O, Ba + H₂O, Zn + 6H₂O, Pb + 3H₂O (J. pr. [2] 34, 117). — II, 126.
 3) 1,3-Dinitrobenzol-p-Sulfonsäure (B. 9, 555). — II, 126.
- $C_6H_4O_4N_2S_2$ 1) 4-Oxy-1-Diazobenzolanhydrid-p-Disulfonsäure. K₂ + H₂O (A. 215, 238). — IV, 1549.

- $C_6H_4O_2N_2S$ 1) 2-Dinitro-1-Oxybenzol-4-Sulfonsäure + $3H_2O$. K + $\frac{1}{2}H_2O$, K_2 + $2H_2O$, Ba + xH_2O , Pb + xH_2O (A. 202, 348, 358). — II, 837.
2) 2-Dinitro-1-Oxybenzol-2-Sulfonsäure (B. 7, 1323). — II, 837.
- $C_6H_4O_2N_4S$ 1) 3,5-Dinitro-2-Oxy-1-Diazobenzolschwefligsäure. K_2 + $2H_2O$ (B. 30, 92). — IV, 1550.
- $C_6H_4O_2Cl_2S_2$ 1) 2-Dichlor-1,4-Dioxybenzol-2-Disulfonsäure. $(NH_4)_2$ + $2H_2O$, K_2 + $2H_2O$, Pb, + Pb(OH)₂ (A. 114, 324; J. 1863, 392). — II, 953.
- $C_6H_4O_2Br_2S_2$ 1) 2-Dibrom-1,4-Dioxybenzol-2-Disulfonsäure. K_2 + $2H_2O$, Ba + H_2O (A. 263, 38). — II, 953.
- $C_6H_4O_{10}N_2S_2$ 1) Dinitrobenzoldisulfonsäure. Na_2 + $3H_2O$, K_2 + H_2O , Ca + H_2O , Ba + $2H_2O$, Pb + $3H_2O$, Cu + $3H_2O$ (B. 8, 289). — II, 126.
- $C_6H_4NClBr_2$ 1) 2-Chlor-4,6-Dibrom-1-Amidobenzol. Sm. 95° (A. 215, 115). — II, 317.
2) 4-Chlor-2,6-Dibrom-1-Amidobenzol (A. 53, 38). — II, 317.
- $C_6H_4NCl_2Br$ 1) 2,6-Dichlor-4-Brom-1-Amidobenzol. Sm. $93,5^\circ$ (A. 188, 22). — II, 317.
- $C_6H_4N_2ClBr$ 1) 2-Chlordiazobenzolbromid (B. 28, 1749). — IV, 1519.
2) 4-Bromdiazobenzolchlorid. $3 + HCl$, $2 + PtCl_4$, + $AuCl_3$, Acetat, + $2C_6H_5(OH)$ (B. 30, 1149; 31, 2055). — IV, 1521.
- $C_6H_4N_2ClBr_3$ 1) 4-Chlordiazobenzoltribromid. Sm. 106° (J. 1866, 456; B. 27, 2552; 28, 2756). — IV, 1520.
- $C_6H_4N_2ClJ$ 1) 4-Joddiazobenzolchlorid. $2 + PtCl_4$ (B. 30, 1150). — IV, 1523.
- $C_6H_4N_2Br_2J_2$ 1) 4-Bromdiazobenzolbromiddijodid. Sm. 79° (B. 28, 2761). — IV, 1521.
- $C_6H_4N_2Br_3J$ 1) 4-Bromdiazobenzoldibromiddijodid. Sm. $106-107^\circ$ u. Zers. (B. 28, 2761).
- $C_6H_4Cl_2BrJ$ 1) 4-Brom-1-Jodbenzoldichlorid. Zers. bei $119-120^\circ$ (J. pr. [2] 33, 158). — II, 74.
- $C_6H_4Cl_2BrP$ 1) 4-Bromphenyldichlorphosphin. Sd. $271-272^\circ$ (A. 293, 237). — IV, 1649.
- $C_6H_4Cl_3Br_2P$ 1) 4-Chlorphenylphosphordichloriddibromid. Sm. 216° (A. 293, 225). — IV, 1649.
- $C_6H_4Cl_4BrP$ 1) 4-Bromphenylphosphortetrachlorid. Sm. 55° (A. 293, 238). — IV, 1649.
- C_6H_5ONCl 1) 4,6-Dichlor-2-Amido-1-Oxybenzol. HCl, H_2SO_4 (A. Spl. 7, 189). — II, 727.
2) 2,6-Dichlor-4-Amido-1-Oxybenzol. Sm. $165-166^\circ$. HCl, HBr, HNO_3 , H_2SO_4 + $3H_2O$, Oxalat (A. Spl. 7, 202; A. 234, 12). — II, 727.
3) 2-Dichlor-4-Amido-1-Oxybenzol. Sm. 175° (B. 8, 896). — II, 727.
- $C_6H_5ONCl_4$ 1) 2-Tetrachlor-2-Amido-3-Keto-1-Methyl-2-Dihydro-R-Penten. Sm. 137° (A. 296, 167).
- $C_6H_5ONBr_2$ 1) 3,5-Dibrom-2-Amido-1-Oxybenzol. Sm. $52,5^\circ$ (J. pr. [2] 24, 479). — II, 729.
2) 4,6-Dibrom-2-Amido-1-Oxybenzol. Sm. $91-92^\circ$ (J. pr. [2] 32, 69). — II, 729.
3) 2,6-Dibrom-4-Amido-1-Oxybenzol. Sm. 190° ($191,5-192,5^\circ$). HCl, ($2HCl, SnCl_2$) (J. pr. [2] 24, 470; [2] 32, 68; B. 15, 2493; 16, 2845; 17, 2731; 21, 674; A. 289, 95). — II, 729.
4) 2-Dibrom-2-Acetylpyrrol. Sm. $143-144^\circ$ (B. 16, 2356). — IV, 97.
5) Methyläther d. 2-Dibrom-4-Oxypyridin. Sm. $192-193^\circ$ (196°) (B. 12, 987; M. 6, 308). — IV, 118.
- $C_6H_5ONJ_2$ 1) 2,6-Dijod-4-Amido-1-Oxybenzol. Sm. $221,5^\circ$ (J. pr. [2] 28, 437). — II, 730.
- C_6H_5ONS 1) Thionylamidobenzol. Sd. 200° (A. 274, 201). — II, 355.
- $C_6H_5ON_2Cl$ 1) 2-Oxydiazobenzolchlorid. Zers. bei 152° . $2 + PtCl_4$ (B. 1, 67; 29, 1528; G. 25 [1] 337). — IV, 1544.
2) 3-Oxydiazobenzolchlorid (B. 29, 1528).
3) 4-Oxydiazobenzolchlorid. + $HgCl_2$ + H_2O , + $2CdCl_2$, $2 + PtCl_4$ (B. 1, 67; 8, 894; 9, 1160; 29, 1528; J. pr. [2] 24, 449). — IV, 1545.
- $C_6H_5ON_2Br$ 1) 4-Bromdiazobenzol. Salze meist bek. Lit. bedeutend. — IV, 1521.
2) 4-Bromisodiazobenzol (4-Brom-1-Nitrosamidobenzol?). K, Ag (B. 28, 232, 830; 30, 216). — IV, 1521.
3) 2-Oxydiazobenzolbromid. + Cu_2Br_2 (B. 29, 1530). — IV, 1544.
4) 4-Oxydiazobenzolbromid. + Cu_2Br_2 , $2 + PtBr_4$ (B. 29, 1530; J. pr. [2] 24, 450). — IV, 1545.

- $C_6H_5ON_2J$ 1) 4-Joddiazobenzol. Salze siehe (B. 30, 1150, 2539; J. 1866, 456). — IV, 1523.
2) 4-Oxydiazobenzoljodid. $+HgJ_2, 2+CdJ_2$ (B. 29, 1529). — IV, 1545.
- $C_6H_5ON_2Cl$ 1) 2-Chlor-6-Keto-7-Methylpurin. Zers. oberh. 310°. $Ba+3H_2O$ (B. 30, 2406). — IV, 1250.
- C_6H_5OClS 1) 2-Chloracetylthiophen. Sm. 47°; Sd. 259° (B. 18, 540). — III, 762.
2) 2-Chlor-2-Acetylthiophen. Sm. 52° (B. 19, 693). — III, 762.
3) Chlorid d. 2-Methylthiophen-3-Carbonsäure. Sd. 218—220° (B. 19, 659). — III, 756.
- C_6H_5OClHg 1) 2-Oxyphenylquecksilberchlorid. Sm. 152,5° (B. 31, 2155; 32, 762; Bl. [3] 11, 267). — IV, 1708.
2) 4-Oxyphenylquecksilberchlorid. Sm. 224—225° (B. 31, 2155; 32, 762; Bl. [3] 11, 267; C. 1899 [1] 203). — IV, 1709.
- $C_6H_5OCl_2P$ 1) Dichlorid d. Phenylphosphorigensäure. Sd. 214—216° (90°₁₁) (A. 218, 89; 239, 310; B. 27, 2560). — II, 659.
2) Dichlorid d. Phenylphosphinsäure. Sd. 258° (A. 181, 301). — IV, 1651.
- $C_6H_5OCl_2As$ 1) Dichlorid d. Phenylarsinsäure. Sm. bei 100° (A. 201, 202). — IV, 1685.
- $C_6H_5OCl_3P$ 1) Tetrachlorid d. Phenylphosphorsäure (A. 239, 312; 253, 109). — II, 659.
- C_6H_5OBrS 1) 2-Bromacetylthiophen. Fl. (B. 19, 2891). — III, 763.
2) 5-Brom-2-Acetylthiophen. Sm. 94° (B. 19, 689; 28, 1806). — III, 763.
- $C_6H_5OBr_2As$ 1) Dibromid d. Phenylarsinsäure (A. 201, 202). — IV, 1685.
- C_6H_5OJS 1) 5-Jod-2-Acetylthiophen. Sm. 129° (B. 19, 692). — III, 763.
- $C_6H_5O_2NCl_2$ 1) 3-Chlor-5,6-Dioxy-2-Chlormethylpyridin $+2H_2O$. Sm. 193—194° (B. 22, 1269). — IV, 124.
- $C_6H_5O_2NCl_4$ 1) Nitril d. $\beta\beta\beta\beta$ -Tetrachlor- α -Acetoxyisobuttersäure. Sm. 45 bis 47° (A. 254, 109). — I, 1471.
2) Amid d. $\gamma\delta\delta\delta$ -Tetrachlor- δ -Keto- β -Penten- β -Carbonsäure (A. d. β -Trichloracetyl- β -Chlor- α -Methylakrylsäure). Sm. 117—118° (B. 26, 1678).
- $C_6H_5O_2NBr_2$ 1) 3,3-Dibrom-2-Keto-6-Oxy-5-Methyl-2,3-Dihydropyridin. Sm. 145° u. Zers. (B. 26, 1560; 27, 1272). — IV, 125.
2) Aethylimid d. Dibrommaleinsäure. Sm. 93—94° (B. 22, 2516). — I, 1391.
- $C_6H_5O_2NS$ 1) 4-Nitro-1-Merkaptobenzol. Sm. 77°. Na (B. 18, 331; 29, 2362; J. pr. [2] 41, 200). — II, 794.
2) Amid d. Thiophen-2-Ketocarbonsäure (A. d. Thiänylglyoxylsäure). Sm. 88° (B. 19, 2119). — III, 758.
- $C_6H_5O_2N_2Cl$ 1) Chlornitroamidobenzol (Phenylchlornitroamin). Fl. (B. 27, 377).
2) 4-Chlor-1-Nitramidobenzol. Sm. 81—82°. K, Pb, Ag (B. 29, 2414 Anm.; 30, 1261). — IV, 1529.
3) 4-Chlor-2-Nitro-1-Amidobenzol. Sm. 115° (A. 182, 99; J. 1875, 351; B. 27, 377; 30, 1261). — II, 320.
4) 5-Chlor-2-Nitro-1-Amidobenzol. Sm. 124—125° (J. 1875, 351; B. 9, 1826). — II, 320.
5) 4-Chlor-3-Nitro-1-Amidobenzol. Sm. 102,5—103°. HCl, (2HCl, PtCl₄) (B. 20, 1379). — II, 320.
6) 6-Chlor-3-Nitro-1-Amidobenzol. Sm. 117—118° (A. 182, 101; B. 20, 1379). — II, 320.
7) 2-Chlor-4-Nitro-1-Amidobenzol. Sm. 104—105° (A. 182, 108; B. 27, 377). — II, 320.
8) 3-Chlor-4-Nitro-1-Amidobenzol. Sm. 156—157° (A. 182, 106). — II, 320.
9) 2-Chlor-1,4-Dioximido-1,4-Dihydrobenzol (B. 21, 3317; A. 303, 9). — III, 333.
10) Chlordioxy-1,4-Benzochinondimid. subl. bei 258—260° u. Zers. (J. pr. [2] 40, 482). — III, 334.
11) Anhydroverbindung d. 2-Chlor-4,6-Diamido-1,3-Dioxybenzol (J. pr. [2] 40, 496). — II, 930.
12) 6-Chlor-2-Amidopyridin-4-Carbonsäure. Ag (Soc. 71, 1075). — IV, 834.
- $C_6H_5O_2N_2Cl_3$ 1) Acetylchloraldiformamid (A. ch. [6] 27, 324). — I, 1244.
- $C_6H_5O_2N_2Br$ 1) 4-Brom-1-Nitramidobenzol. Sm. 101,5—102°. K, Ba, Ag (B. 28, 402, 830; 30, 1260). — IV, 1529.

- $C_6H_5O_2N_2Br$ 2) 4-Brom-2-Nitro-1-Amidobenzol. Sm. 111,4° (A. 171, 59; 209, 357; J. 1875, 328, 347; B. 6, 796; 30, 1260). — II, 321.
3) 5-Brom-2-Nitro-1-Amidobenzol. Sm. 151,4° (B. 6, 1542; J. 1875, 307, 333, 348). — II, 321.
4) 6-Brom-2-Nitro-1-Amidobenzol. Sm. 73—74° (Soc. 73, 686).
5) 4-Brom-3-Nitro-1-Amidobenzol. Sm. 131—132°. HCl, H_2SO_4 (B. 17, 266; Am. 17, 616). — II, 321.
6) 6-Brom-3-Nitro-1-Amidobenzol. Sm. 139—140°. HCl, H_2SO_4 (Am. 17, 699).
7) 2-Brom-4-Nitro-1-Amidobenzol. Sm. 104,5° (J. 1875, 305, 350; B. 10, 1709). — II, 321.
8) 3-Brom-4-Nitro-1-Amidobenzol. Sm. 172° (J. pr. [2] 43, 201). — II, 321.
9) 4-Bromphenylhydroxynitrosamin. Sm. 87° (81—82°). K, Ag (B. 28, 1222; 31, 587).
- $C_6H_5O_2N_2J$ 1) 4-Jod-2-Nitro-1-Amidobenzol. Sm. 122° (B. 11, 109). — II, 322.
2) 5-Jod-2-Nitro-1-Amidobenzol. Sm. 174° (G. 19, 234). — II, 322.
3) 2-Jod-4-Nitro-1-Amidobenzol. Sm. 105,5° (B. 11, 114). — II, 322.
4) 5-Jod-2-Nitro-1-Amidobenzol. (J. 1875, 353). — II, 322.
- $C_6H_5O_2N_2S$ 1) 3,5-Diketo-1-Methyl-3,4,5,6-Tetrahydro-2,4,6-Benzthiotriazol (Aethenylthiouramil). Sm. 220—221°. NH_4 , Na + 2 H_2O , Ba, Ag (A. 288, 167; M. 16, 732). — IV, 542.
- $C_6H_5O_2N_4Cl$ 2) Azid d. Benzolsulfonsäure. Fl. (J. pr. [2] 58, 174).
1) 8-Chlor-2,6-Diketo-3-Methylpurin + H_2O (8-Chlorxanthin). Zers. bei 340—345° (B. 31, 1982). — IV, 1252.
2) 8-Chlor-2,6-Diketo-7-Methylpurin. Zers. bei 340° (C. 1898 [2] 1192).
3) 2-Chlor-6,8-Diketo-9-Methylpurin. Sm. 320° (B. 32, 251).
4) 2[oder 3]-Nitro-4-Amidodiazobenzolchlorid + H_2O (B. 29, 2285; 30, 985). — IV, 1527.
- $C_6H_5O_2N_4Br$ 1) 2-Brom-2,6-Diketo-1-Methylpurin (Brom-1-Methylxanthin). (H. 26, 369).
- $C_6H_5O_2ClS$ 1) 4-Chlorbenzol-1-Sulfinsäure. Sm. 88—89°. Na + 2 H_2O , Ca, Ba, Pb (A. 143, 113; 145, 323; 146, 243). — II, 109.
2) Chlorid d. Benzolsulfonsäure. Sd. 246—247° u. Zers. (A. 87, 299 Anm.; 136, 157; 145, 321; 214, 219; J. 1852, 434; Z. 1866, 106; B. 5, 876; 15, 1118; 25, 2257; J. pr. [2] 37, 213; [2] 49, 380). — II, 113.
- $C_6H_5O_2Cl_2P$ 1) Dichlorid d. Phenylphosphorsäure. Sd. 241—243° (B. 8, 1521; A. 253, 110). — II, 659.
- $C_6H_5O_2BrS$ 1) 4-Brombenzol-1-Sulfinsäure. Sm. 103° (H. 16, 545). — II, 110.
2) Bromid d. Benzolsulfonsäure. Sd. 140—141° (A. 141, 372; C. 1897 [2] 1139). — II, 113.
- $C_6H_5O_2JS$ 1) Jodid d. Benzolsulfonsäure. Sm. 42—45° (B. 24, 485). — II, 113.
- $C_6H_5O_2NCl_2$ 1) Monamid d. β -Dichlormukonsäure. Sm. 200° u. Zers. (Soc. 57, 934). — I, 1393.
- $C_6H_5O_2NS$ 1) Nitrosophenylsulfon. Sm. 156—157° (J. pr. [2] 41, 394). — II, 114.
2) 2-Nitro-2-Acetylthiophen. Sm. 122,5° (B. 17, 2646; 18, 540). — III, 763.
3) 2-Nitro-2-Acetylthiophen. Sm. 86° (B. 17, 2646; 18, 541). — III, 763.
4) α -Oximido-2-Thiönylessigsäure. Sm. 145—146° u. Zers. Ba + $1\frac{1}{2}H_2O$, Ag (B. 18, 539; 19, 2120; 24, 48; Ph. Ch. 10, 15). — III, 758.
- $C_6H_5O_2N_2Cl$ 1) 6-Chlor-4-Nitro-2-Amido-1-Oxybenzol. Sm. 160°. NH_4 , Ba + 4 H_2O , Pb, HCl, H_2SO_4 (A. 109, 291; 173, 315; Z. 1871, 339; Soc. 69, 1328). — II, 736.
- $C_6H_5O_2N_2Br$ 1) 6-Brom-4-Nitro-2-Amido-1-Oxybenzol. Sm. 162—163° (Soc. 69, 1326).
2) 4-Brom-6-Nitro-2-Amido-1-Oxybenzol. Sm. 141—142° (Soc. 73, 687).
- $C_6H_5O_2N_2S$ 1) α -2-Nitrophenylthionylhydrazin. Sm. 128° (B. 27, 2551). — IV, 661.
2) α -3-Nitrophenylthionylhydrazin. Sm. 185° (B. 27, 2549). — IV, 661.
3) 1-Diazobenzolimid-3-Sulfonsäure. Ba (B. 21, 3410, 3416). — IV, 1142.
4) 1-Diazobenzolimid-4-Sulfonsäure. Ba + 2 H_2O , Phenylhydrazinsalz + H_2O (B. 20, 1529; 26, 87, 91). — IV, 1142.
- $C_6H_5O_2ClS$ 1) 2-Chlorbenzol-1-Sulfonsäure (A. 186, 325; B. 10, 320; 14, 1437). — II, 118.

- $C_6H_5O_2ClS$ 2) 3-Chlorbenzol-1-Sulfonsäure. K, Ca, Ba + 2H₂O, Cu + 5H₂O (A. 180, 108). — II, 118.
- 3) 4-Chlorbenzol-1-Sulfonsäure. Salze meist bekannt (A. 143, 102, 184; 145, 324; 180, 106; A. Spl. 6, 376; B. 8, 1113). — II, 118.
- $C_6H_5O_2BrS$ 1) 2-Brombenzol-1-Sulfonsäure. NH₄, K + H₂O, Ca + 1(2)H₂O, Pb + 3H₂O, Ag (A. 177, 101; 181, 203; 186, 307; B. 7, 1352; 10, 318). — II, 119.
- 2) 3-Brombenzol-1-Sulfonsäure. K + H₂O, Ca + H₂O, Ba + 2H₂O, Zn + 6H₂O, Pb + 2H₂O, Cu, Ag (A. 177, 92; 186, 136; B. 2, 405; 7, 1352; 8, 819; Z. 1869, 549). — II, 119.
- 3) 4-Brombenzol-1-Sulfonsäure. Sm. 88°. Salze fast sämtlich bekannt (A. 156, 291; 180, 93; Z. 1869, 549; B. 7, 1352; 8, 594). — II, 119.
- 4) isom. Brombenzolsulfonsäure. K, Ba (B. 14, 1360). — II, 120.
- 5) isom. Brombenzolsulfonsäure. K + H₂O, Ba (A. 181, 206). — II, 119.
- $C_6H_5O_2JS$ 1) 2-Jodbenzol-1-Sulfonsäure. K + H₂O, Ba (A. 186, 325; B. 10, 320; 28, 94). — II, 124.
- 2) 3-Jodbenzol-1-Sulfonsäure. Na + H₂O (B. 28, 93).
- 3) 4-Jodbenzol-1-Sulfonsäure. NH₄, K, Ca, Pb (J. 1872, 588; B. 10, 1135; 28, 91). — II, 124.
- $C_6H_5O_2FS$ 1) 4-Fluorbenzol-1-Sulfonsäure (B. 10, 1136; 12, 580). — II, 118.
- $C_6H_5O_4NCl_4$ 1) Imid d. $\alpha\alpha\beta\beta$ -Tetrachlor- $\beta\gamma$ -Dioxybutan- $\beta\gamma$ -Dicarbonsäure (I. d. Tetrachlordimethyltraubensäure). Sm. 239—240° (A. 254, 102). — I, 1404.
- $C_6H_5O_4NS$ 1) 3-Nitrobenzol-1-Sulfonsäure. Sm. 95° (98°). Na + 2H₂O, K, Ba + 2½(4)H₂O, Ag, Phenylhydrazinsalz (B. 20, 1240; 25, 75, 3477; A. 278, 242). — II, 110.
- 2) 4-Nitrobenzol-1-Sulfonsäure. Sm. 120° (B. 20, 1240). — II, 110.
- 3) 2-Methylthiazol-4,5-Dicarbonsäure. Sm. 169°. Ba + 2H₂O (A. 259, 268). — IV, 91.
- $C_6H_5O_4NS_2$ 1) 3-Nitrobenzol-1-Thionsulfonsäure. Sm. 164°. Ba + 2½H₂O (A. 278, 240).
- $C_6H_5O_4N_2Cl$ 1) 6-Chlor-1,4-Dioximido-2,5-Dioxy-1,4-Dihydrobenzol (J. pr. [2] 41, 89). — III, 349.
- $C_6H_5O_4N_2Br$ 1) 3-Brom-5-Nitro-4,6-Dioxy-2-Methylpyridin (Soc. 71, 841).
- $C_6H_5O_4N_2S$ 1) 1-Oxybenzisotriazol-6-Sulfonsäure (Azimidolsulfonsäure). Na + H₂O, Na₂ + H₂O (B. 27, 3384). — IV, 736.
- $C_6H_5O_4N_4Br$ 1) p-Bromdinitro-p-Diamidobenzol (unbek. Constit.) (J. 1875, 354). — IV, 600.
- $C_6H_5O_4ClS$ 1) 2-Chlor-1-Oxybenzol-p-Sulfonsäure + H₂O. Salze meist bekannt (A. 173, 331). — II, 834.
- 2) 2-Chlor-1-Oxybenzol-p-Sulfonsäure. K, Ca + 2H₂O (A. 173, 340). — II, 834.
- 3) 2-Chlor-1-Oxybenzol-p-Sulfonsäure. K (A. 157, 128, 150). — II, 834.
- 4) 4-Chlor-1-Oxybenzol-p-Sulfonsäure + H₂O. Sm. 75—76°. Salze meist bekannt (A. 157, 133). — II, 834.
- $C_6H_5O_4BrS$ 1) 2-Brom-1-Oxybenzol-4-Sulfonsäure + 2H₂O. Na, K (A. 156, 108; Bl. 47, 880). — II, 835.
- 2) 4-Brom-1-Oxybenzol-2-Sulfonsäure. K, Ba, Cu (A. 156, 114). — II, 835.
- $C_6H_5O_4JS$ 1) 2-Jodosobenzol-1-Sulfonsäure. Na (B. 28, 94).
- $C_6H_5O_5NS$ 1) 2-Nitrobenzol-1-Sulfonsäure. NH₄, K, Ba + H₂O, Pb + 3H₂O (A. 177, 76). — II, 125.
- 2) 3-Nitrobenzol-1-Sulfonsäure. Salze meist bekannt (A. 120, 163; 165, 164; 177, 66; Z. 1871, 234; Ph. Ch. 1, 77, 86). — II, 125.
- 3) 4-Nitrobenzol-1-Sulfonsäure. NH₄, K, Ca + 2H₂O, Ba + 3H₂O, Pb + 2H₂O (A. 177, 73). — II, 125.
- $C_6H_5O_5N_2S$ 1) 2-Nitrobenzol-anti-1-Diazosulfonsäure. K (B. 30, 91). — IV, 1524.
- 2) 2-Nitrobenzol-syn-1-Diazosulfonsäure. K (B. 30, 91). — IV, 1524.
- 3) 3-Nitrobenzol-anti-1-Diazosulfonsäure. K (B. 30, 91). — IV, 1524.
- 4) 3-Nitrobenzol-syn-1-Diazosulfonsäure. K (B. 30, 91). — IV, 1524.
- 5) 4-Nitrobenzol-anti-1-Diazosulfonsäure + 4H₂O. K, Ag (B. 29, 1832; 30, 90). — IV, 1526.
- 6) 4-Nitrobenzol-syn-1-Diazosulfonsäure. K (B. 29, 1832; 30, 90). — IV, 1526.

- $C_6H_5O_3JS$ 1) *p*-Jod-1,3-Dioxybenzol-*p*-Sulfonsäure. $K_2 + 3H_2O$ (M. 2, 340). — II, 936.
- $C_6H_5O_6NS$ 1) 4-Nitro-1-Oxybenzol-2-Sulfonsäure + $3H_2O$. Salze meist bekannt (Z. 1871, 322; J. 1872, 603—604; B. 5, 852; A. 205, 38, 45). — II, 836.
2) 2-Nitro-1-Oxybenzol-4-Sulfonsäure + $3H_2O$. Salze meist bekannt (Z. 1867, 602, 641; 1871, 321; J. 1872, 605—606; A. 147, 71; 180, 105; J. pr. [2] 13, 171; B. 2, 332; 21, 3221). — II, 837.
3) 3-Nitro-1-Oxybenzol-4-Sulfonsäure. K (B. 29, 2450).
- $C_6H_5O_6N_3S$ 1) Amid d. 1,2-Dinitrobenzol-4-Sulfonsäure. Sm. 238° (A. 188, 148; B. 9, 554). — II, 126.
2) Amid d. 1,3-Dinitrobenzol-4-Sulfonsäure. Sm. 154° (J. pr. [2] 34, 124). — II, 126.
- $C_6H_5O_6BrS$ 1) *p*-Brom-*p*-Methylfuran-2-Carbonsäure-*p*-Sulfonsäure. Sm. 150 bis 151°. K, Ca + $3H_2O$, Ba + $4H_2O$, Ag (Am. 15, 176).
- $C_6H_5O_6BrS_2$ 1) 4-Brombenzol-1,2-Disulfonsäure. Ba + $3H_2O$, Pb + H_2O (A. 198, 28). — II, 120.
2) 2-Brombenzol-1,3-Disulfonsäure. $(NH_4)_2$, $K_2 + 4H_2O$, Ba + $2\frac{1}{2}H_2O$, Pb + $2\frac{1}{2}H_2O$ (A. 188, 177). — II, 120.
3) 4-Brombenzol-1,3-Disulfonsäure. $K_2 + H_2O$, Ba + $4H_2O$, Ag_2 (A. 190, 227; 198, 10; B. 7, 1311; 24, 3805). — II, 120.
4) isom. Brombenzoldisulfonsäure. K_2 (M. 2, 194). — II, 120.
- $C_6H_5O_7NS$ 1) 4-Nitro-1,3-Dioxybenzol-*p*-Sulfonsäure + $1\frac{1}{2}H_2O$. Sm. 124—125°. Ba + $2(4)H_2O$, Ba₃ + H_2O (M. 4, 610). — II, 936.
- $C_6H_5O_7ClS_2$ 1) 4-Chlor-1-Oxybenzol-2,6-Disulfonsäure (J. 1876, 447). — II, 835.
2) 4-Chlor-1-Oxybenzol-*p*-Disulfonsäure (A. 157, 153). — II, 835.
- $C_6H_5O_7BrS_2$ 1) 2-Brom-1-Oxybenzol-4,6-Disulfonsäure. K_2 , Ba + $2H_2O$, Pb, Ag_2 (B. 11, 852). — II, 835.
2) isom. Bromoxybenzoldisulfonsäure (B. 15, 1298).
- $C_6H_5O_8NS_2$ 1) 1-Nitrobenzol-2,4-Disulfonsäure. $(NH_4)_2$, $K_2 + \frac{1}{2}H_2O$, Ba + $5H_2O$, Pb + $4H_2O$ (A. 188, 165). — II, 126.
2) 1-Nitrobenzol-3,5-Disulfonsäure. Salze meist bekannt (A. 188, 162). — II, 126.
3) isom. Nitrobenzoldisulfonsäure. Pb + H_2O (B. 8, 289). — II, 126.
- $C_6H_5O_8JS_2$ 1) *p*-Jod-1,3-Dioxybenzol-*p*-Disulfonsäure. K (M. 2, 340). — II, 936.
- $C_6H_5O_9NS_2$ 1) *p*-Nitro-1-Oxybenzol-*p*-Disulfonsäure. Ba + $2H_2O$ (B. 8, 289). — II, 837.
2) *p*-Nitroso-1,3-Dioxybenzol-*p*-Disulfonsäure. K_2 (M. 9, 1127). — II, 936.
- $C_6H_5O_{10}NS_2$ 1) *p*-Nitro-1,3-Dioxybenzol-*p*-Disulfonsäure. K_2 (M. 9, 1129). — II, 937.
- C_6H_5NClBr 1) 2-Chlor-4-Brom-1-Amidobenzol. Sm. 69°. HCl (A. 156, 312; 188, 14; B. 29, 307 Anm.). — II, 317.
2) 2-Chlor-5-Brom-1-Amidobenzol. Sm. 44,5°. HCl + H_2O , H_2SO_4 (Am. 14, 561). — II, 317.
- C_6H_5NClJ 1) *p*-Chlor-*p*-Jod-2-Methylpyridin. Sm. 111° (J. pr. [2] 27, 279). — IV, 123.
- C_6H_5NClP 1) Phosphazobenzolchlorid. Sm. 136—137° (B. 27, 491).
- $C_6H_5NCl_3P$ 1) Trichlorphosphanil (Am. 19, 354).
- $C_6H_5N_2ClBr_2$ 1) Diazobenzolchloriddibromid. Sm. 61° (B. 28, 2760). — IV, 1517.
- $C_6H_5N_2ClJ_2$ 1) Diazobenzolchloriddijodid. Sm. 67° (B. 28, 2759). — IV, 1517.
- $C_6H_5N_2Cl_2Br$ 1) Dichlorid d. Diazobenzolbromid. Sm. 63° (B. 28, 2760). — IV, 1517.
- $C_6H_5N_2Cl_2J$ 1) Diazobenzolchloridchlorojodid. Sm. 86—87° u. Zers. (B. 28, 2759). — IV, 1517.
- $C_6H_5N_2BrJ_2$ 1) Dijodid d. Diazobenzolbromid (B. 28, 2759). — IV, 1517.
- $C_6H_5N_2Br_2J$ 1) Dibromid d. Diazobenzoljodid. Zers. bei 77° (B. 28, 2759).
- $C_6H_5N_2ClS$ 1) 2-Chlor-6-Merkapto-7-Methylpurin. Zers. bei 250° (B. 31, 434). — IV, 1251.
- $C_6H_5Cl_2Br_2P$ 1) Phenylphosphordichloriddibromid. Sm. 208° (A. 181, 298). — IV, 1648.
- $C_6H_5Cl_2Br_4P$ 1) Phenylphosphordichloridtetrabromid (A. 181, 301). — IV, 1648.
- $C_6H_5Cl_2SP$ 1) Phenylphosphorsulfiddichlorid. Sd. 270° u. Zers. (B. 9, 1053; 13, 463). — IV, 1648.
- C_6H_5ONCl 1) 4-Chlor-2-Amido-1-Oxybenzol. HCl (A. Spl. 7, 193). — II, 726.
2) 2-Chlor-3-Amido-1-Oxybenzol. Sm. 85—87° (B. 26, 2466). — II, 727.

- C_6H_5ONCl 3) 2-Chlor-4-Amido-1-Oxybenzol. Sm. 153°. HCl , H_2SO_4 + $2H_2O$, Oxalat + $\frac{1}{2}H_2O$, Tartrat (Z. 1871, 339; A. 234, 6; 279, 33). — II, 727.
- C_6H_5ONBr 1) 4-Brom-2-Amido-1-Oxybenzol. Sm. 88° (128°) (B. 11, 1751; 26, 2469; J. pr. [2] 32, 61). — II, 728.
2) 2-Brom-4-Amido-1-Oxybenzol. Sm. 158° u. Zers. (163° u. Zers.). HCl , HJ (J. pr. [2] 32, 65; B. 27, 1931; 30, 480). — II, 728.
3) 4-Bromphenylhydroxylamin. Sm. 91—92° (B. 28, 1221; 32, 220).
4) 2-Brom-2-Acetylpyrrol. Sm. 107—108° (B. 16, 2354). — IV, 97.
- C_6H_5ONJ 1) 2-Jod-3-Amido-1-Oxybenzol. Sm. bei 100° (B. 26, 2468). — II, 730.
2) 4-Jodphenylhydroxylamin. Sm. 104—105° (B. 28, 249).
3) 2-Jod-1-Acetylpyrrol? (B. 15, 2585). — IV, 67.
- $C_6H_5ON_2S$ 1) Thionylphenylhydrazin. Sm. 105° (B. 22, 2228; A. 270, 114). — IV, 661.
2) 4-Amido-1-Thionylamidobenzol. Sm. 67° (B. 31, 995).
3) 2-Oxy-1-Thiodiazobenzol. + H_2S . (Zers. bei 69—70°) (B. 28, 2351). — IV, 1544.
4) 4-Oxy-1-Thiodiazobenzol. + H_2S (Sm. 74—75° u. Zers.) (B. 28, 3250). — IV, 1545.
- $C_6H_5ON_3Cl$ 1) 4-Hydroxylamidodiazobenzolchlorid. 2 + $PtCl_4$, + $AuCl_3$ (B. 20, 2476; 32, 247). — IV, 1527.
- $C_6H_5ON_3Cl_5$ 1) Verbindung (aus Chloralhydrat). Sm. 225° u. Zers. (G. 19, 491). — I, 932.
- $C_6H_5ON_4S$ 1) 6-Merkapto-2-Keto-7-Methylpurin + H_2O . Sm. 343° (cor.) u. Zers. (B. 31, 439). — IV, 1254.
- $C_6H_5ON_5Cl$ 1) 2-Chlor-6-Amido-8-Keto-7-Methylpurin + H_2O (B. 31, 109). — IV, 1323.
2) 2-Chlor-6-Amido-8-Keto-9-Methylpurin. Zers. oberh. 360° (B. 31, 107). — IV, 1323.
- $C_6H_5O_2NBr$ 1) 2-Brom-3-Oxy-4-Keto-1-Methyl-1,4-Dihydropyridin (J. pr. [2] 29, 18). — IV, 119.
- $C_6H_5O_2N_2Cl_2$ 1) Dichlor-2-Diamido-1,4-Dioxybenzol (A. 210, 185). — II, 949.
2) α -Amid d. Dichlormukonsäure. Zers. bei 250° (Soc. 57, 370). — I, 1393.
3) β -Amid d. Dichlormukonsäure. Sm. 232° u. Zers. (Soc. 57, 370). — I, 1393.
- $C_6H_5O_2N_2Br_2$ 1) Nitril d. $\alpha\delta$ -Dibrom- $\beta\gamma$ -Dioxybutan- $\alpha\delta$ -Dicarbonsäure (Dibromdiacetyldicyanhydrin). Sm. 177° u. Zers. (C. 1898 [1] 24).
- $C_6H_5O_2N_2S$ 1) 5-Nitro-2-Amido-1-Merkaptobenzol. Sm. 83—84° (A. 277, 242). — II, 802.
2) 2-Thiocarbonyl-4,5-Diketo-1-Allyltetrahydroimidazol (Allylthioparabansäure). Sm. 89—90° (Z. 1869, 260; C. 1898 [2] 766). — I, 1370.
- $C_6H_5O_2N_3Cl$ 1) 5-Chlor-2-Nitro-1,3-Diamidobenzol. Sm. 192—194° (A. 192, 233). — IV, 570.
- $C_6H_5O_2N_3Br$ 1) 5-Brom-2-Nitro-1,3-Diamidobenzol. Zers. bei 163° (J. 1875, 353; G. 4, 423). — IV, 570.
2) 5-Brom-2-Nitro-1,4-Diamidobenzol. Sm. noch nicht bei 156° (J. 1875, 353). — IV, 580.
3) 4-Brom-2-Nitrophenylhydrazin. Sm. 130°. HCl , H_2SO_4 (B. 22, 2816). — IV, 657.
- $C_6H_5O_3ClP$ 1) 4-Chlorphenylphosphinige Säure. Sm. 130—131°. NH_4 , Ba + H_2O , Cu + $4H_2O$, Phenylhydrazinsalz (A. 293, 225). — IV, 1650.
- $C_6H_5O_3BrP$ 1) 4-Bromphenylphosphinige Säure. Sm. 143°. NH_4 , K , Ca , Ba + H_2O , Pb , Cu , Anilinsalz, Phenylhydrazinsalz (A. 293, 238). — IV, 1650.
- $C_6H_5O_3NCl_3$ 1) Verbindung (aus Thierölpikolin). HCl (J. 1876, 781). — IV, 126.
- $C_6H_5O_3N_2Cl_2$ 1) 5,5-Dichlor-2,4,6-Triketo-1,3-Dimethylhexahydro-1,3-Diazin (Dichlordimethylbarbitursäure). Sm. 157° (B. 27, 3083).
- $C_6H_5O_3N_2Br_2$ 1) 5,5-Dibrom-2,4,6-Triketo-1,3-Dimethylhexahydro-1,3-Diazin (Dimethyldibrombarbitursäure). Sm. 175—180° (B. 12, 467). — I, 1375.
- $C_6H_5O_3N_2S$ 1) Benzolsyndiazosulfonsäure (Phenylazosulfonsäure). K + H_2O (B. 27, 1726, 2099, 2586, 3527; 30, 85). — IV, 1519.
2) Benzolantidiazosulfonsäure. NH_4 , K + H_2O , Ag (B. 27, 1245, 1726, 2099, 2586, 3527; 29, 1835; 30, 377; A. 190, 73; 199, 304). — IV, 1518.
- $C_6H_5O_3N_3Cl_3$ 1) Trichlortrimethylester d. norm. Cyanursäure. Sm. 184°; Sd. über 300° (B. 19, 2008). — I, 1271.

- $C_6H_5O_3ClP$ 1) 4-Chlorphenylphosphinsäure. Sm. 184—185°. Ba, Ag, Ag₂ (A. 293, 228). — IV, 1652.
- $C_6H_5O_3Cl_2Br$ 1) Aethylester d. $\alpha\alpha$ -Dichlor- $\gamma\gamma$ -Dibrom- β -Ketopropan- α -Carbonsäure (Ae. d. Dichlordibromacetyllessigsäure). Fl. (B. 16, 1551). — I, 596.
- $C_6H_5O_3Cl_2P$ 1) Tri[β -Trichloräthylester] d. Phosphorigensäure. Sd. 263° (Bl. 48, 787). — I, 338.
- $C_6H_5O_3BrP$ 1) 4-Bromphenylphosphinsäure. Sm. 202°. K, Ba + H₂O, Ag, Ag₂ (A. 293, 241). — IV, 1652.
2) β -Bromphenylphosphinsäure. Sm. 265°. Ag₂ (A. 293, 244). — IV, 1652.
- $C_6H_5O_3SHg_2$ 1) Monoacetat d. Thiophendiquecksilberdioxydhydrat. Zers. bei 270° (B. 32, 759). — IV, 1713.
- $C_6H_5O_3Na_3$ 1) β -Nitrophenylarsinige Säure (B. 27, 269). — IV, 1685.
- $C_6H_5O_3N_2Cl$ 1) Amid d. 3,3-Dichlor-2-Keto-5,6-Dioxy-2,3,4,5-Tetrahydropyridin-4-Carbonsäure + H₂O. Zers. bei 98°. + NH₃, + C₆H₅N, Phenylhydrazinsalz (B. 27, 3451).
- $C_6H_5O_3N_2S$ 1) β -Dinitro-2-Aethylthiophen. Fl. (B. 18, 552). — III, 745.
2) 2-Oxy-1-Diazobenzolschwefligsäure + H₂O. K (B. 2, 51; A. 221, 314). — IV, 1549.
3) 4-Oxy-1-Diazobenzolschwefligsäure. K (B. 2, 51). — IV, 1549.
4) anti-Diazobenzol-2-Sulfonsäure. K + $\frac{1}{2}$ H₂O (B. 29, 1077).
5) syn-Diazobenzol-2-Sulfonsäure. Na, K + $\frac{1}{2}$ H₂O (B. 29, 1076).
6) anti-Diazobenzol-4-Sulfonsäure. Na, (B. 28, 2006; 29, 743).
7) syn-Diazobenzol-4-Sulfonsäure. Na, + 4H₂O (B. 28, 2004; 29, 743, 1064).
8) Isodiazobenzol-4-Sulfonsäure. K + H₂O, Ag₂ (B. 29, 1386).
9) Amid d. 2-Nitrobenzol-1-Sulfonsäure. Sm. 186° (A. 177, 78; Am. 17, 455). — II, 125.
10) Amid d. 3-Nitrobenzol-1-Sulfonsäure. Sm. 161° (A. 177, 71; Am. 17, 455). — II, 125.
11) Amid d. 4-Nitrobenzol-1-Sulfonsäure. Sm. 131° (A. 177, 75; Am. 17, 455). — II, 126.
12) Nitroamid d. Benzolsulfonsäure. Sm. 100° u. Zers. K (B. 25, 1093). — II, 114.
- $C_6H_5O_4N_3S_3$ 1) Persulfocycanglykolsäure. Sm. 177° u. Zers. Ca + 3 $\frac{1}{2}$ H₂O, Ba + 3H₂O, Zn + H₂O, Cu + 6H₂O (J. pr. [2] 38, 381). — I, 1287.
- $C_6H_5O_4N_4Hg$ 1) Methylester d. Quecksilberdiazooessigsäure. Sm. 123° u. ger. Zers. (B. 28, 218).
- $C_6H_5O_4ClP$ 1) 4-Chlorphenylphosphorsäure. Sm. 80—81°. Ba (B. 5, 877; 6, 944). — II, 669.
- $C_6H_5O_4Cl_2P$ 1) Tri[$\beta\beta\beta$ -Trichloräthylester] d. Phosphorsäure. Sm. 73—74° (Bl. 48, 787). — I, 340.
- $C_6H_5O_5NP$ 1) β -Nitrophenylphosphinsäure. Sm. 132°. Zers. oberh. 200°. Ca + $\frac{1}{2}$ H₂O, BaH + 2H₂O, Ba + 2H₂O, Pb, Ag₂ (A. 188, 276). — IV, 1652.
- $C_6H_5O_5Na_3$ 1) β -Nitrophenylarsinsäure. Ca + H₂O, Ba, Cu + H₂O, Ag₂ (B. 27, 266). — IV, 1685.
- $C_6H_5O_5N_2S$ 1) 2-Nitro-1-Amidobenzol-4-Sulfonsäure. NH₄, K + H₂O, Ba + 2 $\frac{1}{2}$ H₂O, Pb + 2H₂O (A. 180, 102; 205, 96; B. 18, 294; 21, 3220). — II, 574.
2) 3-Nitro-1-Amidobenzol-4-Sulfonsäure. K (B. 29, 2448).
3) 3-Nitro-1-Amidobenzol-6-Sulfonsäure. Ca + 4H₂O, Ba + 2H₂O (A. 205, 102; Ph. Ch. 11, 611). — II, 575.
4) 4-Nitro-1-Amidobenzol-2-Sulfonsäure. Ca + H₂O (B. 24, 3789). — II, 575.
5) 4-Nitro-1-Amidobenzol-3-Sulfonsäure. K, Ba + 1 $\frac{1}{2}$ H₂O (A. 186, 132; B. 21, 2581). — II, 575.
6) 2-Oxy-1-Diazobenzol-5-Sulfonsäure (J. pr. [2] 8, 53). — IV, 1549.
7) 4-Oxy-1-Diazobenzol-3-Sulfonsäure (J. pr. [2] 8, 52). — IV, 1549.
- $C_6H_5O_5N_3Cl$ 1) 5-Chlor-5-Nitro-2,4,6-Triketo-1,3-Dimethylhexahydro-1,3-Diazin (Dimethylehlordilitursäure). Zers. bei 150° (M. 16, 785).
- $C_6H_5O_5N_3Br$ 1) 5-Brom-5-Nitro-2,4,6-Triketo-1,3-Dimethylhexahydro-1,3-Diazin (Dimethylbromdilitursäure). Sm. 152° (M. 16, 786).
- $C_6H_5O_6NP$ 1) 4-Nitrophenylphosphorsäure. Sm. 112° (A. 224, 159). — II, 683.
- $C_6H_5O_6N_2S$ 1) 1-Oxynitramidobenzol-4-Sulfonsäure? Na + H₂O, Ba, Ag (B. 28, 2949). — IV, 1535.

- $C_6H_5O_6N_2S_2$ 1) Benzol-anti-1-Diazosulfonsäure-4-Sulfonsäure. $K_2 + H_2O$ (B. 28, 867; 30, 79). — IV, 1536.
- $C_6H_5O_6N_2P$ 1) *p*-Diazophenylphosphinsäurenitrat + $2H_2O$. Sm. 188°. $Na_2 + 2H_2O$, $K_2 + H_2O$, Ba + $3H_2O$, Pb, Ag_2 (A. 188, 288). — IV, 1653.
- $C_6H_5O_6N_2S_2$ 1) 3-Nitro-1-Amidobenzol-*p*-Disulfonsäure. Ba + $2H_2O$ (B. 8, 289). — II, 575.
- $C_6H_5O_6N_2S_2$ 1) Amid d. Dinitrobenzoldisulfonsäure (B. 8, 289). — II, 127.
- $C_6H_5NClBr_2$ 1) Chlormethylat d. 3,5-Dibrompyridin. $2 + PtCl_4$ (A. 210, 99). — IV, 114.
- C_6H_5NCIS 1) 4-Chlor-3-Amido-1-Merkaptobenzol. Sm. 130°. HCl (B. 14, 1435, 1438). — II, 802.
- $C_6H_5NCIS_2$ 1) *p*-Chlor-*p*-Amido-*p*-Dimerkaptobenzol. (SH:SH:Cl:NH₂ = 1:2:3:5?) (B. 14, 1437). — II, 954.
- $C_6H_5NCl_2P$ 1) Dichlorid d. Phenylamidophosphorigen Säure (Am. 6, 90). — II, 356.
- $C_6H_5NCl_2As$ 1) Phenylamidoarsendichlorid. Sm. 86–87° (A. 261, 282). — II, 357.
- C_6H_5NBrHg 1) Quecksilber-4-Amidophenylbromid. Sm. 182° u. Zers. (G. 24 [2] 460). — IV, 1705.
- $C_6H_5NBr_2As$ 1) Phenylamidoarsendibromid. Sm. 111–113° (A. 261, 288). — II, 357.
- C_6H_5NJHg 1) Quecksilber-4-Amidophenyljodid. Sm. 165° (G. 24 [2] 459). — IV, 1705.
- C_6H_5NSAs 1) *p*-Amidophenylarsensulfid. Sm. 188°. $3 + 2HCl$, $3 + H_2SO_4$ (B. 27, 271). — IV, 1686.
- $C_6H_5N_2Cl_2Br_2$ 1) Dimolec. Nitril d. α -Chlor- α -Brompropionsäure. Fest (J. pr. [2] 46, 377). — II, 1464.
- $C_6H_7ONBr_2$ 1) 1-Acetylpyrrolidibromid (B. 10, 1503).
- C_6H_7ONS 1) 2-[α -Oximidoäthyl]thiophen. Sm. bei 110° (B. 17, 2644). — III, 762.
- 2) N-Methyläther d. syn-2-Oximidomethylthiophen. Sm. 120° (B. 25, 2588). — III, 761.
- 3) Amid d. 2-Methylthiophen-3-Carbonsäure. Sm. 122–123° (119°) (A. 244, 58). — III, 756.
- $C_6H_7ON_2Cl$ 1) 5-Chlor-6-Oxy-2,4-Dimethyl-1,3-Diazin. HNO_3 (J. pr. [2] 31, 371). — IV, 823.
- $C_6H_7ON_2Br$ 1) 5-Brom-6-Oxy-2,4-Dimethyl-1,3-Diazin. Ag, HBr (J. pr. [2] 27, 156; [2] 31, 367; B. 20, 2361). — IV, 823.
- $C_6H_7O_2NCl_2$ 1) Nitril d. $\delta\delta$ -Dichlor- β -Oxy- γ -Ketopentan- β -Carbonsäure. Sm. 82 bis 83° (J. pr. [2] 46, 366). — I, 1476.
- $C_6H_7O_2NS$ 1) *p*-Nitro-2,5-Dimethylthiophen. Fl. (B. 18, 1638). — III, 746.
- 2) 1-Amidobenzol-3-Sulfinsäure. Zers. bei 210°. Ag (A. 278, 252). — II, 566.
- 3) 2-Methylthiazol-4-Methylcarbonsäure. Sm. 121° (A. 261, 40). — IV, 85.
- 4) 2,4-Dimethylthiazol-5-Carbonsäure. Sm. 227° u. Zers. Ag, HCl (A. 259, 265). — IV, 85.
- 5) α -Amido-2-Thiänylessigsäure. Zers. bei 235–240°. HCl, Cu + H_2O (B. 19, 2122). — III, 756.
- 6) Amid d. Benzolsulfonsäure. Sm. 149° (153°). Ag (A. 87, 299; 140, 294; 141, 373; 159, 11; 221, 206; J. 1852, 434; B. 15, 1118; 24, 3695; 26, 2941; Am. 17, 456; J. pr. [2] 58, 176). — II, 114.
- $C_6H_7O_2NS_2$ 1) 1-Amidobenzol-3-Thiolsulfonsäure. Sm. 167°. Ba, Pb, Ag (A. 278, 249). — II, 577.
- $C_6H_7O_2N_2Cl$ 1) 2-Chlor-4,6-Diamido-1,3-Dioxybenzol (J. pr. [2] 40, 495; [2] 41, 90). — II, 930.
- 2) 2-Chlor-3,6-Diamido-1,4-Dioxybenzol. HCl (J. pr. [2] 40, 489). — II, 948.
- $C_6H_7O_2N_2S_2$ 1) 4-Nitro-1-Thiodiazobenzolhydrosulfid. Sm. 86°. Hg (B. 29, 279). — IV, 1525.
- $C_6H_7O_2SP$ 1) Phenylthiophosphinsäure (B. 9, 1053). — IV, 1653.
- $C_6H_7O_2NS$ 1) 1-Amidobenzol-2-Sulfonsäure + $\frac{1}{2}H_2O$. NH_4 , K + $\frac{1}{2}H_2O$, Ba, Pb + $\frac{1}{2}H_2O$, Cu, Ag (A. 177, 98; 186, 128, 307; 286, 385; Ph. Ch. 3, 406; J. pr. [2] 52, 73; [2] 55, 286; B. 30, 654 Anm., 2276). — II, 568.
- 2) 1-Amidobenzol-3-Sulfonsäure + $\frac{1}{2}H_2O$. Ba + $6H_2O$, Pb (J. 1850, 418; A. 120, 163; 165, 165; 177, 82; 181, 209; 286, 379; M. 3, 244; Ph. Ch. 3, 406; B. 15, 2577; J. pr. [2] 52, 73). — II, 568.

- $C_6H_7O_3NS$ 3) 1-Amidobenzol-4-Sulfonsäure + $2H_2O$. NH_4 + $1\frac{1}{2}H_2O$, Na + $2H_2O$, K + $1\frac{1}{2}H_2O$, Ba + $3\frac{1}{2}H_2O$, Cu + $4H_2O$, Anilinsalz. Lit. bedeutend. — II, 568.
- 4) Phenylsulfaminsäure (Phenylamidossulfonsäure). NH_4 , Na, K, Ba + $2H_2O$, Anilinsalz, o-Toluidinsalz, m-Toluidinsalz, p-Toluidinsalz (B. 19, 1158; 23, 1654; 27, 1244; 28, 3161; 30, 654, 2276; 31, 988). — II, 570.
- 5) Sulfanilidsäure? NH_4 (B. 8, 1442). — II, 570.
- 6) Benzsulphhydroxamsäure (Oxyamid d. Benzolsulfonsäure). Sm. bei 126° . Na, K (B. 29, 1560, 2324).
- 7) Methylbetain d. Pyridin-2-Sulfonsäure (B. 19, 36). — IV, 115.
- 8) Amid d. 4-Oxybenzol-1-Sulfonsäure. Sm. $176-177^\circ$ (R. 16, 424).
- $C_6H_7O_3NB_3$
 $C_6H_7O_3N_2Br$ 1) Phenylamid d. Borsäure (A. Spl. 5, 209). — II, 356.
- $C_6H_7O_3N_2S$ 1) 5-Brom-2,4,6-Triketo-5-Aethylhexahydro-1,3-Diazin (Bromäthylbarbitursäure) (B. 15, 2846). — I, 1386.
- 2) 5-Uramido-2-Methylthiazol-4-Carbonsäure. NH_4 , Na + $2H_2O$, Ba (M. 16, 734).
- 3) Amid d. Diazobenzol-3-Sulfonsäure. Nitrat (A. 221, 205). — IV, 1534.
- $C_6H_7O_3J_4P$ 1) Phosphit d. $\alpha\beta$ -Dijod- γ -Oxypropen. Sm. $48-49^\circ$ (B. 8, 398; 17, 1133). — I, 338.
- $C_6H_7O_3SP$ 1) Monophenylester d. Thiophosphorsäure. Fl. (B. 31, 1106).
- $C_6H_7O_4NBr_2$ 1) Aethylester d. ?-Dibrom- α -Oximido- β -Ketopropan- α -Carbonsäure. Fl. (Bl. 13, 15, 225).
- 2) Aethylester d. isom. ?-Dibrom- α -Oximido- β -Ketopropan- α -Carbonsäure. Fl. (Bl. 13, 15, 225).
- $C_6H_7O_4NS$ 1) 2-Amido-1-Oxybenzol-4-Sulfonsäure + $\frac{1}{2}H_2O$ (A. 205, 51; J. 1882, 1010; Ph. Ch. 11, 612). — II, 838.
- 2) 4-Amido-1-Oxybenzol-2-Sulfonsäure. Ba (J. pr. 2, 8, 51; A. 205, 49, 62; Ph. Ch. 11, 613; B. 17, 1867; 27, 1938; 28, 2351; Am. 16, 513). — II, 838.
- 3) 2-Acetylpyrrol-2-Sulfonsäure. K (B. 18, 879). — IV, 98.
- $C_6H_7O_4N_2Cl$ 1) Diacetat d. α -Chlor- $\alpha\beta$ -Dioximidoäthan (D. d. Chloramphiglyoxim). Sm. 114° (B. 25, 710). — I, 271.
- 2) Diacet d. α -Chlor- $\alpha\beta$ -Dioximidoäthan (D. d. Chlorantiglyoxim). Sm. 90.5° (B. 25, 711). — I, 271.
- $C_6H_7O_4N_3S$ 1) Amid d. 2-Nitro-1-Amidobenzol-4-Sulfonsäure. Sm. $206-207^\circ$ (155 bis 156°) (B. 24, 3788; A. 180, 104). — II, 575.
- 2) Amid d. 4-Nitro-1-Amidobenzol-2-Sulfonsäure. Sm. 210° (B. 24, 3790). — II, 575.
- $C_6H_7O_5NS$ 1) 4-Amido-1,3-Dioxybenzol-2-Sulfonsäure (M. 4, 613; B. 17, 1870). — II, 937.
- $C_6H_7O_5N_2S$ 1) 2-Nitro-1-Hydrazidobenzol-4-Sulfonsäure (B. 21, 3222). — IV, 735.
- 2) 3-Nitro-1-Hydrazidobenzol-4-Sulfonsäure. HCl (B. 29, 2450). — IV, 735.
- 3) α -[3-Nitrophenyl]hydrazin- β -Sulfonsäure. K + H_2O (B. 30, 91).
- 4) α -[4-Nitrophenyl]hydrazin- β -Sulfonsäure. Na + $2H_2O$, Ba + H_2O (B. 25 [2] 119). — IV, 735.
- $C_6H_7O_6NS_2$ 1) 1-Amidobenzol-2,4-Disulfonsäure + $2H_2O$. Salze meist bekannt (A. 100, 164; 188, 170; 190, 226; 198, 2, 17; B. 9, 552; 15, 2577; 21, 3412; 24, 3806; M. 3, 242). — II, 577.
- 2) 1-Amidobenzol-3,4-Disulfonsäure + $4H_2O$. $(NH_4)_2$ + H_2O , K, K_2 + H_2O , Ba + H_2O ($\frac{1}{2}H_2O$), PbH, Pb + H_2O (B. 9, 552; A. 198, 21). — II, 570.
- 3) 1-Amidobenzol-3,5-Disulfonsäure + $3H_2O$. NH_4 + xH_2O , $(NH_4)_2$ + H_2O , K + H_2O , K_2 , BaH + $5H_2O$, Ba + $3\frac{1}{2}H_2O$, PbH + $6H_2O$, Pb + $3\frac{1}{2}H_2O$, Ag₂ (A. 188, 167). — II, 570.
- $C_6H_7O_6N_2S_2$ 1) Amid d. 1-Nitrobenzol-3,5-Disulfonsäure. Sm. 242° (A. 188, 165). — II, 126.
- $C_6H_7O_7NS_2$ 1) 4-Amido-1-Oxybenzol-2-Disulfonsäure. NH_4 + H_2O , K + H_2O , Pb + H_2O (B. 15, 1298; A. 215, 237). — II, 832.
- $C_6H_7O_8NS_2$ 1) 2-Amido-1,3-Dioxybenzol-2-Disulfonsäure + $3H_2O$. Zers. bei 240° (M. 9, 1130). — II, 937.
- $C_6H_7O_8N_2S_2$ 1) α -[3-Nitrophenyl]hydrazin- $\alpha\beta$ -Disulfonsäure. K_2 + $2H_2O$ (B. 30, 91). — IV, 735.

- $C_6H_5O_2N_2S_2$ 2) α -[4-Nitrophenyl]hydrazin- $\alpha\beta$ -Disulfonsäure. K_2 , K_3 (B. 29, 1831; 30, 90). — IV, 736.
- C_6H_5ONCl 1) Chlormethylat d. 3-Oxypyridin. $2 + PtCl_4$ (B. 17, 1897). — IV, 116.
- C_6H_5ONJ 1) Jodmethylat d. 3-Oxypyridin (B. 17, 1896). — IV, 116.
- $C_6H_5ON_2S$ 1) 2-Imido-4-Keto-3-Allyltetrahydrothiazol. HCl (B. 15, 326; M. 2, 778). — I, 1328.
- 2) 2-Acetylamido-4-Methylthiazol (Acetylsulfocyanpropimin). Sm. 134°. $Na + 8H_2O$ (B. 16, 347; 20, 3125). — IV, 520.
- 3) 2-Thiocarbonyl-5-Keto-1-Allyltetrahydroimidazol (Allylthiohydantoïn). Sm. 108° (B. 24, 3286). — I, 1329.
- 4) Methyläther d. 2-Merkapto-4-Keto-6-Methyl-3,4-Dihydro-1,3-Diazin $+ xH_2O$ (M. d. Thiomethyluracil). Sm. 219—220°; subl. Ag (A. 236, 12). — I, 1354.
- $C_6H_5ON_2Se$ 1) 2-Acetylamido-4-Methylselenazol. Sm. 122° (A. 250, 306). — IV, 520.
- $C_6H_5O_2NCl$ 1) 4-Chlor-5-Keto-4-Methyl-3-Aethyl-4,5-Dihydroisoxazol. Sd. 123°₃₀ (B. [3] 21, 14).
- 2) 2-Chlortetrahydropyridin-2-Carbonsäure. Sm. 265—270° u. Zers. HCl , Cu (J. pr. [2] 27, 283). — IV, 143.
- $C_6H_5O_2NCl_2$ 1) Acetat d. $\beta\beta\gamma$ -Trichlor- α -Oximidobutan. Sm. 63—64° (G. 21 [2] 8). — I, 969.
- $C_6H_5O_2NBr$ 1) 4-Brom-5-Keto-4-Methyl-3-Aethyl-4,5-Dihydroisoxazol. Sm. 41° (Bl. [3] 5, 777; [3] 21, 14; B. 24 [2] 553). — IV, 529.
- $C_6H_5O_2N_2S$ 1) 2-Thiocarbonyl-4,5-Diketo-1-Methyl-3-Aethyltetrahydroimidazol (Methyläthylthioparabansäure). Sm. 62° (B. 31, 138).
- 2) 1,3-Phenylenthionaminsäure (A. 274, 260). — IV, 574.
- 3) 2-Amido-4-Methylthiazol-5-Methylcarbonsäure. Sm. 259—260° u. Zers. HCl (A. 285, 207).
- 4) Aethylester d. 2-Amidothiazol-4-Carbonsäure. Sm. 173° (A. 261, 26). — IV, 537.
- 5) Amid d. 1-Amidobenzol-3-Sulfonsäure. Sm. 142° (135°). HCl (A. 177, 72; 221, 204). — II, 568.
- 6) Hydrazid d. Benzolsulfonsäure. Sm. 104—106° u. Zers. HCl , Na (J. pr. [2] 58, 166).
- $C_6H_5O_2N_3Cl_3$ 1) 2,6-Diketo-4-[$\alpha\alpha\beta$ -Trichlorpropyl]hexahydro-1,3,5-Triazin (Butyrchloralbiuret) (B. 20, 2348). — I, 1314.
- $C_6H_5O_2N_4S$ 1) 2-Diacetyl-5-Imido-3-Thiocarbonyltetrahydro-1,2,4-Triazol (Diacetylimidothiourazol). Zers. bei 291° (B. 28, 950). — IV, 1235.
- $C_6H_5O_2Cl_2S_2$ 1) Chloraldithioglykol. Sm. 116° (B. 21, 1476).
- $C_6H_5O_2NCl$ 1) Acetylepichlorhydrinecyanat. Sm. 79° (B. 11, 2137). — I, 307.
- 2) Monamid d. Chlorfumarsäuremonäthylester (Aethylester d. Chlorfumaraminsäure). Sm. 102° (B. 14, 151; Soc. 53, 702; Bl. [3] 11, 483; [3] 13, 853; [3] 17, 62). — I, 1389.
- $C_6H_5O_2NCl_2$ 1) Acetat d. $\beta\beta\beta$ -Trichlor- α -Acetylamido- α -Oxyäthan (Chloraldiacetamid). Sm. 117—118° (B. 10, 170). — I, 1244.
- $C_6H_5O_2NP$ 1) 2-Amidophenylphosphinsäure. $Na_2 + 3H_2O$, Pb , Cu , Ag_2 (A. 188, 282). — IV, 1652.
- 2) Monamid d. Phenylphosphorsäure. Ag (Am. 15, 201). — II, 659.
- $C_6H_5O_2NaS$ 1) 2-Amidophenylarsinsäure. (HCl , $SnCl_2 + 4H_2O$) (B. 27, 268).
- 2) Phenylamid d. Arsensäure. Na (J. 1863, 414). — II, 357.
- $C_6H_5O_2N_2S$ 1) 1,2-Diamidobenzol-3-Sulfonsäure $+ 1\frac{1}{2}H_2O$. HCl , (HCl , $SnCl_2$), HBr , $H_2SO_4 + H_2O$, $H_2SO_4 + \frac{1}{2}H_2O$ (A. 188, 148). — IV, 567.
- 2) 1,2-Diamidobenzol-4-Sulfonsäure. $Na + H_2O$ (B. 21, 3221). — IV, 568.
- 3) 1,2-Diamidobenzol-2-Sulfonsäure. $Ca + 3H_2O$, $Ba + 5\frac{1}{2}H_2O$ (A. 205, 98). — IV, 567.
- 4) 1,3-Diamidobenzol-4-Sulfonsäure (B. 29, 2449). — IV, 579.
- 5) 1,3-Diamidobenzol-2-Sulfonsäure. $Ca + 5\frac{1}{2}H_2O$, $Ba + 6H_2O$ (A. 205, 104; J. 1882, 1010). — IV, 579.
- 6) 1,4-Diamidobenzol-2-Sulfonsäure (B. 22, 849). — IV, 595.
- 7) 3-Hydrazidobenzol-1-Sulfonsäure $+ 2H_2O$ (B. 21, 3409). — IV, 734.
- 8) 4-Hydrazidobenzol-1-Sulfonsäure $+ \frac{1}{2}H_2O$. NH_4 , $Na + 1\frac{1}{2}H_2O$, $Ba + 5H_2O$, $Zn + 4H_2O$, $Pb + 2H_2O$ (Z. 1871, 482; A. 190, 74; 239, 216; 278, 297; B. 18, 3172; 28, 867; 30, 218). — IV, 734.

- $C_6H_5O_3N_2S$ 9) α -Phenylhydrazin- β -Sulfonsäure. NH_4 , $K + H_2O$ (B. 27, 1245; 30, 377; Z. 1871, 481; A. 190, 97). — IV, 734.
 10) 2-Imido-4-Ketotetrahydrothiazol-5-[Aethyl- α -Carbonsäure] (Thiohydantoïn- α -Propionsäure). Sm. 224—225°. Ba, CuOH, HCl (B. 6, 1106; M. 18, 56, 64). — I, 1391.
 11) Aethylester d. 2-Imido-4-Ketotetrahydrothiazol-5-Carbonsäure. Sm. 175° u. Zers. (A. 285, 203).
- $C_6H_5O_3N_2S_2$ 1) 2,5-Diamidobenzol-1-Thiosulfonsäure (A. 251, 63). — II, 800.
 $C_6H_5O_3N_2S$ 1) β -Methylthiopseudoharnsäure. Zers. bei 290—350° (A. 288, 173).
 $C_6H_5O_3ClBr$ 1) Aethylester d. α -Chlor- α -Brom- β -Ketopropan- α -Carbonsäure (A. d. Chlorbromacetylessigsäure). Fl. (A. 245, 62; B. 29, 1045). — I, 596.
- $C_6H_5O_4NCl_3$ 1) Aethylester d. $\beta\beta\beta$ -Trichlor- α -Oxyäthylloxaminsäure. Sm. 121° (B. 24, 1805). — I, 1362.
- $C_6H_5O_4NBr$ 1) Aethylester d. ?-Brom- α -Oximido- β -Ketopropan- α -Carbonsäure. Fl. (B. 28, 2687; Bl. [3] 15, 223).
 2) Aethylester d. isom. ?-Brom- α -Oximido- β -Ketopropan- α -Carbonsäure. Fl. (B. 28, 2687; Bl. [3] 15, 223).
- $C_6H_5O_4N_2Cl_4$ 1) Amid d. $\alpha\alpha\delta\delta$ -Tetrachlor- $\beta\gamma$ -Dioxybutan- $\beta\gamma$ -Dicarbonsäure (A. d. Tetrachlordimethyltraubensäure). Sm. 183° (A. 254, 105). — I, 1405.
- $C_6H_5O_4N_2S$ 1) α -[2-Oxyphenyl]hydrazin- β -Sulfonsäure. K (A. 221, 315). — IV, 1550.
 2) α -[4-Oxyphenyl]hydrazin- β -Sulfonsäure. K (A. 221, 316). — IV, 1550.
- $C_6H_5O_4N_2S_2$ 1) Amid d. Benzol-1,2-Disulfonsäure. Sm. 233° (B. 9, 553). — II, 116.
 2) Amid d. Benzol-1,3-Disulfonsäure. Sm. 229° (B. 8, 1113; 9, 584). — II, 117.
 3) Amid d. Benzol-1,4-Disulfonsäure. Sm. 288° (B. 9, 584). — II, 117.
- $C_6H_5O_5N_2S_2$ 1) Carboimidocarbamin + Dithioglykolsäure. Sm. 149° u. Zers. (B. 14, 731). — I, 1259.
- $C_6H_5O_6N_2S_2$ 1) 1,3-Diamidobenzol-?-Disulfonsäure. $Sn + H_2O$ (B. 8, 290). — IV, 579.
 2) 3-Hydrazidobenzol-1,?-Disulfonsäure. Ba (B. 21, 3411). — IV, 735.
 3) 4-Hydrazidobenzol-1,3-Disulfonsäure. Ba (B. 21, 3413). — IV, 735.
 4) α -Phenylhydrazin- $\alpha\beta$ -Disulfonsäure. K_2 (B. 30, 372, 374). — IV, 735.
 5) α -Phenylhydrazin- $\beta\alpha^4$ -Disulfonsäure (α -4-Sulfophenylhydrazinsulfonsäure). K_2 (B. 28, 866; 30, 377). — IV, 735.
- $C_6H_5O_6N_2S_3$ 1) α -Phenylhydrazin- $\alpha,\beta,4$ -Trisulfonsäure. $K + 3H_2O$ (B. 28, 868). — IV, 735.
- $C_6H_5O_{12}N_4Cl_4$ 1) Nitrodichlorhydrin d. Dulcit. Sm. 108° (A. ch. [4] 27, 192). — I, 328.
 2) Nitrodichlorhydrin d. Mannit. Sm. 145° (A. ch. [5] 6, 126). — I, 328.
- $C_6H_5O_{12}N_4Br_2$ 1) Nitrodibromhydrin d. Dulcit. Sm. 110° (A. ch. [4] 27, 193). — I, 328.
 2) Nitrodibromhydrin d. Mannit. Sm. 148° (A. ch. [5] 6, 127). — I, 328.
- $C_6H_5NCl_2Br$ 1) Chlorid d. Pyridinbrommethylat (C. 1897 [2] 592).
 $C_6H_5NCl_2J$ 1) Tetrachlorid d. Pyridinjodmethylat. Sm. 185° (C. 1897 [2] 592).
 $C_6H_5NBr_2J$ 1) Bromid d. Pyridinjodmethylat. Sm. 61—62° (C. 1897 [2] 591).
 $C_6H_5N_2ClBr$ 1) ?-Chlorbrom-2-Methyl-1-Aethylimidazol. Fl. ($2HCl$, $PtCl_4$), (HBr , Br_2), $+ Br_2$, $2 + AgNO_3$ (B. 10, 1198; 16, 537; A. 214, 289, 290). — IV, 517.
- $C_6H_5N_2ClBr_2$ 1) ?-Chlorbrom-2-Methyl-1-Aethylimidazoldibromid. Sm. 132—133° (A. 214, 289). — IV, 518.
- $C_6H_5ONCl_2$ 1) Nitril d. Dichloroxyessigisobutyläthersäure. Sd. 195—197° (A. 229, 175). — I, 1470.
- $C_6H_5ONBr_2$ 1) 1,2-Dibrom-5-Oximido-1-Methyl-R-Pentamethylen. Zers. bei 100° (A. 275, 375).
- C_6H_5ONS 1) 2-Methyl-4-[(β -Oxyäthyl)]thiazol. Fl. ($2HCl$, $PtCl_4$), (HCl , $AuCl_3$) (B. 27, 1012). — IV, 73.
- $C_6H_5ONS_2$ 1) Acetylimidomethylenäther d. $\alpha\beta$ -Dimerkaptopropan. Sm. 59,5° (A. 262, 80). — I, 1280.
- $C_6H_5ON_2P$ 1) Diamid d. Phenylphosphinsäure. Sm. 189° (A. 293, 214). — IV, 1651.
- $C_6H_5O_2NBr_2$ 1) Imid d. α -Brompropionsäure. Sm. 148° (A. 142, 71). — I, 1245.
- $C_6H_5O_2NS_2$ 1) Amid d. 2,5-Dimethylthiophen-3-Sulfonsäure. Sm. 135° (B. 29, 2564). — III, 746.
 2) Amid d. ?-Dimethylthiophen-?-Sulfonsäure. Sm. 258° u. Zers. (B. 29, 2563). — III, 746.

- $C_6H_5O_2NS_2$ 3) Amid d. ?-Dimethylthiophen-?-Sulfonsäure. Sm. 264° (B. 29, 2563). — III, 746.
- $C_6H_5O_2N_2Cl_3$ 1) $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Di[Acetylamido]äthan (Trichloräthylidendiacetamid) (Z. 1871, 714; B. 6, 110; 10, 1651). — I, 1244.
- $C_6H_5O_2N_2P$ 1) Diamid d. Phenylphosphorsäure. Sm. 185—190° u. Zers. (Am. 16, 126). — II, 659.
- $C_6H_5O_2N_2S$ 1) 5-Amido-6-Merkapto-2,4-Diketo-1,3-Dimethyl-1,2,3,4-Tetrahydro-1,3-Diazin(Dimethylthiouramil). Zers. bei 200—300° (A. 288, 174).
- $C_6H_5O_2NCl_2$ 1) Monamid d. $\beta\gamma$ -Dichlorbutan- $\gamma\gamma$ -Dicarbonsäure (Dichlordimethylsuccinaminsäure). NH_4 (J. pr. [2] 41, 469). — I, 1386.
- $C_6H_5O_2NJ_2$ 1) α -Amid d. $\alpha\alpha$ -Dijodäthan- α -Carbonsäure- β -Carbonsäureäthylester (Aethylester d. Dijodsuccinaminsäure). Sm. 134° (B. 19, 2462). — I, 1377.
- $C_6H_5O_2N_3S$ 1) 2-Amidophenylhydrazin-4-Sulfonsäure. $HCl + H_2O$ (B. 21, 3223). — IV, 1126.
- $C_6H_5O_2NBr_2$ 1) Verbindung (aus Trimethyluracil) (A. 244, 10). — I, 1351.
- $C_6H_5O_2N_3S_2$ 1) Amid d. 1-Amidobenzol-2,4-Disulfonsäure. Sm. 235° (B. 24, 3806). — II, 571.
- $C_6H_5O_2SP$ 1) 2-Acetylthiophen + Phosphorsäure. Sm. 92—96° (B. 31, 1301).
- $C_6H_5O_2N_3S$ 1) 2,4,6-Triketo-1,3-Dimethylhexahydro-1,3-Diazin-5-Aminsulfonsäure (Dimethylthionursäure). $NH_4 + 2H_2O$, Ba (B. 27, 3086).
- $C_6H_5O_2N_3S_2$ 1) Verbindung (aus d. Nitril d. Essigsäure). $+ H_2O$ (B. 26, 2834).
- $C_6H_5O_2N_3S_3$ 1) Triamid d. Benzol-1,3,5-Trisulfonsäure. Sm. 310—315°. Hg_2 , Ag_2 (Am. 9, 339). — II, 118.
- $C_6H_5O_2Cl_3S_3$ 1) Trichlortrimethyltrimethylentrisulfon. Sm. 270° u. Zers. (B. 27, 1678).
- $C_6H_5O_2Br_3S_3$ 1) Tribromtrimethyltrimethylentrisulfon. Sm. 240° u. Zers. (B. 27, 1677).
- $C_6H_5N_2ClBr_2$ 1) Chloroxaläthylindibromid (A. 214, 284).
- $C_6H_5N_2BrS$ 1) 5-Brom-2-Methylimido-3,4-Dimethyl-2,3-Dihydrothiazol. Sm. 114° (B. 20, 3126; A. 249, 50). — IV, 520.
- C_6H_5ONCl 1) Chlornitrosohexahydrobenzol. Sm. 152—153° u. Zers. (A. 278, 108).
2) Chlorid d. Hexahydropyridin-1-Carbonsäure. Sd. 237—238° (A. 237, 249). — IV, 12.
- $C_6H_5ONCl_2$ 1) Diäthylamid d. Trichloressigsäure. Sm. 27° (R. 6, 236). — I, 1241.
2) Verbindung (aus Perchloraceton u. Diäthylamid). Sm. 90° (A. ch. [6] 9, 217). — I, 1241.
- $C_6H_5ON_2Br_2$ 1) Bromid d. 5-Amido-4-Methyl-3-Aethylisoxazol (B. 24 [2] 553; Bl. [3] 5, 777). — IV, 528.
- $C_6H_5ON_2S$ 1) 5-Keto-2-Thiocarbonyl-1,4,4-Trimethyltetrahydroimidazol (Trimethylthiohydantoïn). Sm. 53° (B. 24, 3286). — I, 1329.
2) 2-Aethylimido-4-Keto-5-Methyltetrahydrothiazol (Methyläthylthiohydantoïn). Fl. (B. 31, 137).
3) Amid d. 5-Keto-2-Methyltetrahydropyrrol-2-Thiocarbonsäure. Sm. 220° u. Zers. (B. 22, 2370). — I, 1395.
- $C_6H_5ON_2S_2$ 1) 3-Thiocarbonyl-5-Keto-2,4-Diäthyltetrahydro-1,2,4-Thiodiazol (Aethylsenföloxyd). Sm. 42° (45°). HCl , $(2HCl, 3HgCl_2)$, $(2HCl, AuCl_3)$, HBr , HJ (B. 6, 323; A. 285, 184). — I, 1282.
- $C_6H_5O_2NCl$ 1) Aethylester d. α -Chlor- β -Amidopropen- α -Carbonsäure (Ae. d. α -Chlor- β -Amidocrotonsäure). Sd. 95—97°₂₅ (A. ch. [6] 24, 64). — I, 1208.
2) Aethylester d. γ -Chlor- β -Amidopropen- α -Carbonsäure (Ae. der γ -Chlor- β -Amidocrotonsäure). Sd. 91—93°₂₅ (A. ch. [6] 24, 56). — I, 1207.
3) Nitril d. Chlordioxyessigdiäthyläthersäure. Sd. 159,5—161,5° (A. 229, 176). — I, 1476.
- $C_6H_5O_2NCl_2$ 1) Verbindung (aus Acetamid u. Butyrychloral). Sm. 158° (A. 179, 40; B. 10, 1785; 25, 1690). — I, 1237, 1244.
2) Verbindung (aus Acetamid u. Butyrychloral). Sm. 170° (B. 25, 1690; A. 179, 40). — I, 1237, 1244.
- $C_6H_5O_2N_2S$ 1) Oxy-sulfocyanidiäthylester. Sm. unter 100° (A. 82, 279). — I, 1260.
- $C_6H_5O_2ClP$ 1) Diacetonphosphorchlorür. Sm. 35—36°; Sd. 235°₇₄₅ (B. 18, 899). — I, 1508.
- $C_6H_5O_2Cl_2Se$ 1) Di[β -Ketopropyl]selenidichlorid (Dichlorselenoaceton). Sm. 82° (B. 30, 2826).
- $C_6H_5O_2Cl_3P$ 1) Diacetonphosphorchlorid. Sm. 115° (B. 18, 901). — I, 1508.
- $C_6H_5O_2N_2Br_2$ 1) Verbindung (aus Acetylaceton-Harnstoff). Zers. bei 143—145° (J. pr. [2] 48, 494).

- $C_6H_{10}O_{12}Cl_2P_2$ 1) Phospho- β -Dichlormukonsäure + $4H_2O$. Sm. 185° u. Zers. $(NH_4)_6 + 5H_2O$, K_2 , $Ba_2 + H_2O$ (Soc. 59, 27, 28). — I, 731.
- $C_6H_{10}NJS$ 1) Jodmethylat d. 2,4-Dimethylthiazol. Zers. oberh. 250° (A. 250, 268). — IV, 70.
- $C_6H_{10}N_2ClJ$ 1) Jodmethylat d. p-Chlor-1,2-Dimethylimidazol (A. 184, 73). — IV, 516.
- $C_6H_{11}ONBr_2$ 1) Allylacetoximdbromid (B. 16, 497).
- $C_6H_{11}ONS$ 1) Thionyl- ϵ -Amido- α -Hexen. Sd. 156 — 158° (B. 26, 2159).
2) Aethylester d. Allylamidothioameisensäure. Sd. 210 — 215° (B. 2, 119; A. 52, 30). — I, 1261.
- $C_6H_{11}ON_5S$ 1) I[oder 2]-Nitroso-5-Aethylimido-3-Thiocarbonyl-4-Aethyltetrahydro-1,2,4-Triazol. Sm. 135 — 145° (B. 28, 954). — IV, 1235.
- $C_6H_{11}OClBr_2$ 1) Chlordibrom-p-Oxyhexan. Fl. (J. pr. [2] 30, 393). — I, 254.
- $C_6H_{11}OClS$ 1) Isoamylester d. Chlorthiolameisensäure. Sd. 193° (J. pr. [2] 30, 416; [2] 32, 243). — I, 874, 883.
- $C_6H_{11}O_2NCl_2$ 1) Aethylester d. $\alpha\alpha$ -Dichlor- α -Aethylamidoessigsäure. Sm. bei 50° (A. 184, 76). — I, 1363.
2) Verbindung (aus Chlorepicchlorhydrin) (A. ch. [6] 9, 171). — I, 307.
- $C_6H_{11}O_2NS$ 1) Isobutylester d. Thiooxaminsäure. Sm. 58° (J. pr. [2] 10, 201). — I, 1364.
- $C_6H_{11}O_3NS$ 1) Aethylester d. Carboxyäthylamidothioameisensäure. Sm. 44 — 45° . K (Soc. 69, 334; J. pr. [2] 9, 466; [2] 10, 119). — I, 1227.
- $C_6H_{11}O_3N_2Cl$ 1) Amid d. δ -Chlor- γ -Oxybutan- $\alpha\alpha$ -Dicarbonsäure. Sm. 117 — 118° (B. 32, 721).
- $C_6H_{11}O_3Cl_3S$ 1) Isoamylester d. Trichlormethansulfonsäure. Fl. Zers. bei 150° (A. 113, 38). — I, 370.
- $C_6H_{11}O_7N_3S$ 1) Alloxanäthylamindisulfit + H_2O (A. 248, 147). — I, 1400.
- $C_6H_{11}O_{17}Cl_8S_4$ 1) Chlorid d. Glukosetetraschwefelsäure (J. pr. [2] 20, 18).
- $C_6H_{11}N_7BrS$ 1) 5-Brom-2-Dimethylamido-4,5-Dihydro-1,3-Thiazin. HBr (Sm. 207 bis 208^\circ) (C. 1896 [1] 305; 1896 [2] 26).
- $C_6H_{11}N_2JS$ 1) Methyläther d. 2-Merkapto-1-Methylimidazol-3-Jodmethylat. Sm. 173° (B. 22, 1357). — IV, 505.
- $C_6H_{12}ONCl$ 1) β -Chlor- γ -Nitroso- $\beta\gamma$ -Dimethylbutan. Sm. 121° u. Zers. (B. 27, 454; 31, 1466).
2) Aethyläther d. γ -Chlor- α -Imido- α -Oxybutan (β -Chlorbutyrimidoäthyläther). HCl (B. 17, 2007). — I, 1489.
- $C_6H_{12}ON_2S$ 1) α -Oxy- α -Aethyl- β -Allylthioharnstoff. Sm. 66 — 67° (A. 298, 127).
- $C_6H_{12}OClJ$ 1) Propyläther d. p-Chlorjod- α -Oxypropan. Sd. 200 — 210° u. Zers. (B. 21, 2973). — I, 297.
2) Isopropyläther d. p-Chlorjod- α -Oxypropan. Sd. 208 — 212° u. Zers. (B. 21, 2972). — I, 297.
- $C_6H_{12}O_2NCl$ 1) Chlorparaldimin. Fl. (Bl. [3] 21, 61).
2) Verbindung (aus Epichlorhydrin). ($2HCl$, $PtCl_4$) (A. 148, 125). — I, 308.
- $C_6H_{12}O_2NBr$ 1) p-Brom- β -Nitrohexan (J. r. 25, 478).
2) Verbindung (aus Epibromhydrin) (J. 1856, 601). — I, 308.
- $C_6H_{12}O_2N_2S$ 1) Aethylester d. α -Aethylthioharnstoff- β -Carbonsäure. Sm. 79 — 80° (Soc. 69, 330).
2) Amid d. α -Thiodilaktylsäure (B. 29, 1134).
3) Amid d. isom. α -Thiodilaktylsäure (B. 29, 1135).
- $C_6H_{12}O_2N_4S$ 1) Thiohydantoin + sym-Dimethylharnstoff. HCl (B. 13, 791). — I, 1328.
2) Verbindung (aus Hexamethylentetramin) (J. pr. [2] 46, 10). — I, 1168.
- $C_6H_{12}O_3NCl$ 1) Aethylester d. Amidooxychloroessigäthyläthersäure (A. 287, 289).
- $C_6H_{12}O_3N_3S$ 1) Verbindung (aus Aceton) (A. 203, 238). — I, 986.
- $C_6H_{12}O_4N_3S$ 1) Cystin. + $3HgCl_2$. Lit. bedeutend. — I, 895.
- $C_6H_{12}O_4ClBr$ 1) p-Chlorbrom-p-Tetraoxyhexan (Chlorbromhydrin d. Dulcit) (A. ch. [4] 27, 190). — I, 289.
- $C_6H_{12}NClBr_2$ 1) Chlormethylat d. 2,3-Dibrom-1-Dimethylamido-R-Trimethylen. $2 + PtCl_4 + AuCl_3$ (A. 268, 165). — I, 1147.
- $C_6H_{13}ONBr_2$ 1) 2,3-Dibrom-R-Trimethylentrimethylammoniumhydrat. Sm. 187° (A. 268, 163). — I, 1147.
2) Brommethylat d. p-Brom- α -Dimethylamido- β -Ketopropan (B. 31, 2685).
- $C_6H_{13}ONS$ 1) Isoamylester d. Amidothioameisensäure. Fl. (A. 84, 337). — I, 1260.

- C₆H₁₃ONS** 2) Isoamylester d. Amidothiolumeisensäure. Sm. 107° (*J. pr.* [2] 30, 416; [2] 32, 247). — **I**, 1252.
- C₆H₁₃O₂ClS** 1) Diäthylthetinchlorid. 2 + PtCl₄ (*J.* 1878, 683; *B.* 31, 2290). — **I**, 876.
- C₆H₁₃O₂ClSe** 1) Diäthylchloroseleniumessigsäure. 2 + PtCl₄ (*G.* 24 [2] 176).
- C₆H₁₃O₂BrS** 1) Diäthylthetinbromid. 2 + PtCl₄ (*J.* 1878, 683). — **I**, 876.
2) Bromid d. Dimethylthetinäthylester. 2 + PtCl₄ (*J.* 1878, 685). — **I**, 876.
- C₆H₁₃O₂BrSe** 1) Diäthylbromseleniumessigsäure. Sm. 74° (*G.* 24 [2] 174).
- C₆H₁₃O₄NS** 1) δ-Oximido-β-Methylbutan-β-Sulfonsäure. Zers. bei 185–190°. Na, Ba + 2H₂O (*A.* 299, 218).
- C₆H₁₃O₄ClS₂** 1) αα-Di[Aethylsulfon]-α-Chloräthan. Sm. 102–103° (*A.* 253, 146). — **I**, 932.
- C₆H₁₃O₄BrS₂** 1) αα-Di[Aethylsulfon]-α-Bromäthan. Sm. 115° (*B.* 19, 2814; *A.* 253, 141). — **I**, 932.
- C₆H₁₃O₄JS₂** 1) αα-Di[Aethylsulfon]-α-Jodäthan. Sm. 128–129° (*A.* 253, 147). — **I**, 932.
- C₆H₁₃NClBr** 1) Trimethyl-α-Bromallylammoniumchlorid. 2 + PtCl₄, + AuCl₃ (*A.* 268, 158). — **I**, 1142.
- C₆H₁₃N₂ClS** 1) Allylthioharnstoffäthylchlorid. Fl. 2 + PtCl₄ (*A.* 94, 104). — **I**, 1322.
- C₆H₁₃N₂JS** 1) Allylthioharnstoffäthyljodid. Sm. 72° (*A.* 94, 103; *Z.* 1869, 259). — **I**, 1322.
- C₆H₁₁ONCl** 1) Methylmorpholinmethylechlorid. + AuCl₃ (*B.* 22, 2091). — **I**, 1172.
2) Chlormethylat d. α-Dimethylamido-β-Ketopropan (Koprinchlorid). 2 + PtCl₄, + AuCl₃ (*M.* 7, 242; *C.* 1898 [2] 631). — **I**, 1230.
3) Trimethyl-α-Oxyallylammoniumchlorid. 2 + PtCl₄ (*A.* 268, 195).
- C₆H₁₁ONBr** 1) Trimethyl-α-Bromallylammoniumhydrat. Salze siehe (*A.* 268, 157). — **I**, 1142.
2) Brommethylat d. α-Dimethylamido-β-Ketopropan (*B.* 31, 2683).
- C₆H₁₁ONJ** 1) Jodmethylat d. α-Dimethylamido-β-Ketopropan. Sm. 168° (*B.* 28, 2224).
2) Jodmethylat d. 4-Methylmorpholin. Sm. bei 240° (246°) (*B.* 22, 2091; 32, 738; *A.* 301, 8, 13). — **I**, 1172.
- C₆H₁₁O₂NJ** 1) Methylesterjodid d. Trimethylamidoessigsäure (*A.* 182, 180). — **I**, 1187.
- C₆H₁₁O₂Cl₂Si** 1) Dichlorid d. Dipropylkieselsäure. Sd. 185–188° (*J.* 1874, 498). — **I**, 346.
- C₆H₁₁O₂NP** 1) Oxim d. Diacetonphosphinsäure. Sm. 169–170° u. Zers. (*B.* 18, 906). — **I**, 1509.
- C₆H₁₁NClBr₂** 1) Trimethyl-βγ-Dibrompropylammoniumchlorid. + AuCl₃ (*A.* 268, 156; *B.* 22, 3318). — **I**, 1130.
- C₆H₁₁NCl₂B** 1) Dipropylamidodichlorborin. Sd. 99°₄₅ (*B.* 29, 715).
- C₆H₁₁N₂Br₂S₂** 1) Dihydrobromid d. Aethylenäther d. α-Merkapto-α-Imidoäthan (*B.* 24, 788). — **I**, 1243.
- C₆H₁₅ONCl₂** 1) Trimethyl-γ-Chlor-β-Oxypropylammoniumchlorid. + AuCl₃ (Sm. 159–162°), 2 + PtCl₄ (*M.* 7, 249). — **I**, 1174.
2) isom. Trimethylchloroxypropylammoniumchlorid. + AuCl₃ (Sm. 162°), 2 + PtCl₄ (*A.* 268, 192). — **I**, 1173.
3) isom. Trimethylchloroxypropylammoniumchlorid. + AuCl₃ (Sm. 192°), 2 + PtCl₄ (*A.* 268, 194). — **I**, 1174.
- C₆H₁₅ON₂Cl** 1) Chlormethylat d. β-Oximido-α-Dimethylamidopropan. Sm. 212°. 2 + PtCl₄, + AuCl₃ (*C.* 1898 [2] 632).
2) Umlagerungsprodukt (d. β-Oximido-α-Dimethylamidopropanmethylechlorid). 2 + PtCl₄, + AuCl₃ (*C.* 1898 [2] 632).
- C₆H₁₅OClSi** 1) Siliciumtriäthylchlorhydrin. Sd. 146–148° (*A.* 164, 309). — **I**, 1519.
- C₆H₁₅O₂NS** 1) Diäthylamid d. Aethansulfonsäure. Sd. 254°₇₇₀ (*R.* 5, 277). — **I**, 1233.
- C₆H₁₅O₂ClSi** 1) Verbindung (aus Orthosilicopropionsäureäther). Sd. 148–153° (*A.* 164, 307). — **I**, 1518.
- C₆H₁₅O₂S₂P** 1) Triäthylester d. Dithiophosphorsäure (*A.* 112, 197). — **I**, 341.
- C₆H₁₅O₂PSe₂** 1) Triäthylester d. Diselenphosphorsäure. Fl. (*A.* 124, 58). — **I**, 341.
- C₆H₁₅O₃NS** 1) β-Amido-β-Methylpentan-δ-Sulfonsäure. Sm. noch nicht bei 310° (*B.* 30, 1322).
2) β-Diäthylamidoäthan-α-Sulfonsäure. Sm. 151° (*J. pr.* [2] 31, 417). — **I**, 1172.

- $C_6H_{15}O_3NS$ 3) Anhydrotriäthylsulfaminsäure. Sm. $91,5^\circ$ (B. **16**, 1267). — **I**, 1178.
 $C_6H_{15}O_3ClSi$ 1) Chlorid d. Triäthylkieselsäure. Sd. $136-138^\circ$ (A. ch. [4] **9**, 11). — **I**, 346.
 $C_6H_{15}O_3ClTi$ 1) Äthyltitansäurechlorid. HCl (J. 1875, 462). — **I**, 347.
 $C_6H_{15}O_3SP$ 1) Triäthylester d. Thiophosphorsäure. Fl. (A. **119**, 291; B. **5**, 4; Z. 1869, 413). — **I**, 347.
 $C_6H_{15}O_4NS_2$ 1) Di[β -Methylsulfonäthyl]amin. Fl. HCl, (2HCl, $PtCl_4$) (B. **27**, 3048).
 $C_6H_{15}O_6ClS_2$ 1) Verbindung (aus Propansulfonsäure u. Chlorpropansulfonsäure). Ba + $\frac{1}{2}H_2O$ (B. **16**, 328).
 $C_6H_{15}O_7NS_3$ 1) Verbindung (aus Äthansulfonsäure). Sm. $81,5^\circ$ (A. **174**, 314). — **I**, 368.
 $C_6H_{15}NClBr$ 1) Trimethyl- γ -Brompropylammoniumchlorid. + $AuCl_3$, 2 + $PtCl_4$ (A. **268**, 186). — **I**, 1130.
 $C_6H_{15}NClJ$ 1) Trimethyl- γ -Jodpropylammoniumchlorid. + $AuCl_3$, 2 + $PtCl_4$ (A. **268**, 171). — **I**, 1130.
 $C_6H_{15}N_2ClS$ 1) Methyldiäthylthioharnstoffhydrochlorid. 2 + $PtCl_4$ (B. **23**, 2195). — **I**, 1320.
 $C_6H_{15}N_2JS$ 1) Methyldiäthylthioharnstoffhydrojodid (B. **23**, 2195). — **I**, 1320.
 $C_6H_{16}ONCl$ 1) Trimethyl- β -Oxypropylammoniumchlorid. 2 + $PtCl_4$ (B. **13**, 1805). — **I**, 1174.
 2) Trimethyl- γ -Oxypropylammoniumchlorid. + $AuCl_3$, 2 + $PtCl_4$ (A. **268**, 176). — **I**, 1173.
 3) isom. Trimethyl- β -Oxypropylammoniumchlorid. + $AuCl_3$ (A. **268**, 184). — **I**, 1173.
 $C_6H_{16}ON_2S$ 1) Di[γ -Amidopropyl]sulfoxyd. 2HCl, Pikrat (B. **27**, 2175).
 $C_6H_{16}O_2NCl$ 1) Trimethyl- $\beta\gamma$ -Dioxypropylammoniumchlorid. 2 + $PtCl_4$, + $AuCl_3$ (B. **2**, 187; A. ch. [5] **17**, 99). — **I**, 1177.
 2) Dimethyldi[β -Oxyäthyl]ammoniumchlorid. + $AuCl_3$, 2 + $PtCl_4$ + H_2O (B. **22**, 2089). — **I**, 1172.
 $C_6H_{16}O_2NJ$ 1) Trimethyl- $\beta\gamma$ -Dioxypropylammoniumjodid. Sm. $133-134^\circ$ (B. **32**, 756).
 $C_6H_{16}O_3N_2S$ 1) Di[γ -Amidopropyl]sulfon. 2HCl, Pikrat (B. **27**, 2176).
 2) Dimethylamid d. Diäthylsulfaminsäure. Sd. 229° u. Zers. (B. **15**, 1611; A. **222**, 125, 136). — **I**, 1178.
 $C_6H_{16}N_4J_2S_2$ 1) Thioharnstoff + Äthyljodid (B. **8**, 41).
 $C_6H_{21}N_2JS$ 1) Zinntriäthyljodid + 2 Molec. Ammoniak (A. **122**, 54). — **I**, 1528.
 $C_6H_{22}O_{10}N_4S_2$ 1) Verbindung (aus Hexamethylentetramin) (J. pr. [2] **46**, 14). — **I**, 1168.
 $C_6O_2NCl_4J$ 1) 1,2,3,5-Tetrachlor-4-Jod-6-Nitrobenzol. — **II**, 91.
 2) 1,2,4,5-Tetrachlor-3-Jod-6-Nitrobenzol. — **II**, 91.
 $C_5O_2ClBr_3S$ 1) Chlorid d. Pentabrombenzolsulfonsäure. Sm. $153-154^\circ$ (A. **197**, 311). — **II**, 124.

C_6 -Gruppe mit fünf Elementen.

- C_6HONBr_3S 1) 2,3,4,6-Tetrabrom-1-Thionylamidobenzol. Sm. 78° (A. **274**, 222). — **II**, 356.
 $C_6HO_2ClBr_4S$ 1) Chlorid d. 2,3,4,5-Tetrabrombenzol-1-Sulfonsäure. Sm. 120° (A. **181**, 46; **197**, 295). — **II**, 124.
 2) Chlorid d. 2,3,4,6-Tetrabrombenzol-1-Sulfonsäure. Sm. $96,5^\circ$ (A. **181**, 219; **186**, 300; **191**, 201, 227). — **II**, 124.
 $C_6HO_3N_2Br_3S$ 1) 2,4,6-Tribrom-1-Diazobenzol-3-Sulfonsäure (A. **197**, 291). — **IV**, 1537.
 C_6HO_4NClBr 1) 3-Chlor-5-Brom-2-Nitro-1,4-Benzochinon. Sm. $227-228^\circ$ (B. **25** [2] 121). — **III**, 339.
 $C_6HO_4NBr_4S$ 1) 2,3,4,5-Tetrabrom-1-Nitrobenzol-6-Sulfonsäure + H_2O . Sm. 171 bis 173° (wasserfrei). NH_4 , K + H_2O , Ca + $2H_2O$, Ba + $4H_2O$, Pb + $2H_2O$ (A. **197**, 297). — **II**, 130.
 2) 2,3,4,6-Tetrabrom-1-Nitrobenzol-5-Sulfonsäure + $4H_2O$. K + $\frac{1}{2}H_2O$, Ba + $9H_2O$ (A. **191**, 202). — **II**, 130.
 $C_6HO_7N_2Br_3S$ 1) 2,4,6-Tribrom-1,3-Dinitrobenzol-1-Sulfonsäure + $3H_2O$. Sm. 216° (wasserfrei). NH_4 + H_2O , K + H_2O , Ca + $\frac{7}{4}H_2O$, Ba + $9H_2O$, Pb + $9H_2O$ (A. **191**, 239). — **II**, 130.

- $C_6H_5ONClBr$, 1) 2,6-Dibrom-1,4-Benzochinon-4-Chlorimid. Sm. 78° (B. 16, 2845; 26, 2262; A. 289, 94). — III, 337.
- C_6H_5ONClJ , 1) 2,6-Dijod-1,4-Benzochinon-4-Chlorimid. Sm. 123° (J. pr. [2] 28, 438). — III, 339.
- $C_6H_5ONBr_3S$, 1) 2,4,6-Tribrom-1-Thionylamidobenzol. Sm. $74-75^\circ$ (A. 274, 220). — II, 356.
- $C_6H_5ON, ClBr$, 1) 3-Chlor- β -Brom-4-Oxy-1-Diazobenzolanhydrid. Zers. bei 150° (2HCl, PtCl₄) (A. 234, 32). — IV, 1547.
- $C_6H_5O_2NClJ$, 1) 1-Chlor-2,4-Dijod- β -Nitrobenzol. Sm. $94-95^\circ$ (C. 1897 [1] 1161).
- $C_6H_5O_2NClJ$, 1) 1,4-Dichlor-2-Jod- β -Nitrobenzol. Sm. 82° (B. 27, 768).
- $C_6H_5O_2NBrJ$, 1) β -Brom- β -Dijod-1-Nitrobenzol. Sm. $117-118^\circ$. — II, 91.
- $C_6H_5O_2NBrJ$, 1) α -Dibromjodnitrobenzol. Sm. $107-108^\circ$. — II, 91.
- $C_6H_5O_2NBrJ$, 2) β -Dibromjodnitrobenzol. Sm. $98-100^\circ$. — II, 91.
- $C_6H_5O_2NBr_3S$, 1) Amid d. Pentabrombenzolsulfonsäure. Zers. bei $245-250^\circ$ (A. 181, 228; 191, 205; 197, 312). — II, 124.
- $C_6H_5O_2ClBr_3S$, 1) Chlorid d. 2,3,5-Tribrombenzol-1-Sulfonsäure. Sm. 86° (A. 181, 40). — II, 123.
- 2) Chlorid d. 2,4,5-Tribrombenzol-1-Sulfonsäure. Sm. $86,5^\circ$ (A. 186, 289, 304; 191, 191; 197, 284). — II, 123.
- 3) Chlorid d. 2,4,6-Tribrombenzol-1-Sulfonsäure. Sm. 63° (63,5 bis 64) (A. 186, 277, 295; 191, 196, 212). — II, 123.
- 4) Chlorid d. 3,4,5-Tribrombenzol-1-Sulfonsäure. Sm. 127° (A. 181, 31). — II, 122.
- 5) Chloride isom. Tribrombenzolsulfonsäuren. Sm. 56° ; 72° ; 120 bis 121° (A. 181, 208; 186, 155). — II, 122, 123.
- $C_6H_5O_2N, Br_3S$, 1) 2,6-Dibromdiazobenzol-4-Sulfonsäure (A. 120, 156). — IV, 1537.
- 2) 4,6-Dibromdiazobenzol-3-Sulfonsäure (B. 21, 3417). — IV, 1536.
- $C_6H_5O_2N, Br_4S$, 1) Amid d. 2,3,4,5-Tetrabrom-1-Nitrobenzol-6-Sulfonsäure. Zers. bei 260° (A. 197, 302). — II, 130.
- 2) Amid d. 2,3,4,6-Tetrabrom-1-Nitrobenzol-5-Sulfonsäure (A. 191, 203). — II, 130.
- $C_6H_5O_2Cl_2Br_2S$, 1) Chlorid d. 1,4-Dibrombenzoldisulfonsäure. Sm. 161° (A. 187, 367). — II, 122.
- $C_6H_5O_2NBr_3S$, 1) 4,5,6-Tribrom-1-Nitrobenzol-2-Sulfonsäure. $NH_4 + H_2O$, K + H_2O , Ca + $3H_2O$, Ba + $4H_2O$, Pb + H_2O (A. 181, 40). — II, 122.
- 2) 2,4,6-Tribrom-1-Nitrobenzol-3-Sulfonsäure + $2H_2O$. Sm. 202° (wasserfrei). K, Ba + H_2O , Pb + $9H_2O$, (Pb, PbO + $6H_2O$) (A. 186, 278, 296; 191, 196, 215). — II, 130.
- 3) 2,5,6-Tribrom-1-Nitrobenzol-3-Sulfonsäure. Sm. 125° (140 bis 141) wasserfrei. NH_4 , K, Ca + $4\frac{1}{2}H_2O$, Ba + $3H_2O$, Pb + $6H_2O$, Ag + H_2O (A. 197, 284). — II, 122.
- $C_6H_5O_2NCl_2S$, 1) Chlorid d. 3-Chlor-1-Nitrobenzol- β -Disulfonsäure (B. 14, 1436). — II, 127.
- $C_6H_5O_2N, Br_3S$, 1) 2,4-Dibrom-1-Diazobenzol-3,5-Disulfonsäure. K (A. 188, 183). — IV, 1537.
- $C_6H_5O_2N, Br_3S$, 1) Amid d. 2,4,6-Tribrom-1,3-Dinitrobenzol-5-Sulfonsäure. Sm. $255-260^\circ$ u. Zers. (A. 191, 243). — II, 130.
- $C_6H_5O_2N, Cl_2S$, 1) Chlorid d. Dinitrobenzoldisulfonsäure (B. 8, 289). — II, 127.
- $C_6H_5N_2Cl, BrJ$, 1) 2,4,6-Trichlor-1-Diazobenzolchloridbromidjodid. Sm. 132° (B. 30, 2355). — IV, 1521.
- C_6H_5ONJ, S , 1) 2,4-Dijod-1-Thionylamidobenzol. Sm. 74° (A. 274, 224). — II, 356.
- $C_6H_5O_2NClBr$, 1) 4-Chlor-2-Brom-1-Nitrobenzol. Sm. $49,5^\circ$ (J. 1875, 327). — II, 89.
- 2) 6-Chlor-3-Brom-1-Nitrobenzol. Sm. $68,5^\circ$ (J. 1875, 328). — II, 89.
- 3) 5-Chlor-3-Brom-1-Nitrobenzol. Sm. $82,5^\circ$ (J. 1875, 327). — II, 89.
- 4) 2-Chlor-4-Brom-1-Nitrobenzol (J. 1875, 325). — II, 89.
- $C_6H_5O_2NClJ$, 1) 4-Chlor-2-Jod-1-Nitrobenzol. Sm. $63,4^\circ$ (J. 1875, 328). — II, 90.
- 2) 5-Chlor-2-Jod-1-Nitrobenzol. Sm. $63,3^\circ$ (J. 1875, 328). — II, 91.
- 3) 2-Chlor-4-Jod-1-Nitrobenzol (J. 1875, 328). — II, 91.
- $C_6H_5O_2NBrJ$, 1) 4-Brom-2-Jod-1-Nitrobenzol. Sm. $83,5^\circ$ (J. 1875, 329). — II, 91.
- 2) 5-Brom-2-Jod-1-Nitrobenzol. Sm. $90,4^\circ$ (J. 1875, 330). — II, 91.
- 3) 6-Brom-2-Jod-1-Nitrobenzol (J. 1875, 330). — II, 91.
- 4) 2-Brom-4-Jod-1-Nitrobenzol. Sm. $126,8^\circ$ (J. 1875, 329-330). — II, 91.

- $C_6H_3O_2NBrJ$ 5) 3-Brom-4-Jod-1-Nitrobenzol. Sm. 106° (J. 1875, 329). — II, 21.
- $C_6H_3O_2NBr_4S$ 1) Amid d. 2,3,4,5-Tetrabrombenzol-1-Sulfonsäure. Sm. 181° (A. 181, 46; 197, 295). — II, 124.
- 2) Amid d. 2,3,4,6-Tetrabrombenzol-1-Sulfonsäure. Sm. über 240° u. Zers. (A. 181, 219; 186, 300; 191, 201, 227). — II, 124.
- $C_6H_3O_2ClBr_2S$ 1) Chlorid d. 2,3-Dibrombenzol-1-Sulfonsäure. Sm. 127° (A. 188, 155). — II, 121.
- 2) Chlorid d. 2,4-Dibrombenzol-1-Sulfonsäure. Sm. 79° (A. 191, 234). — II, 121.
- 3) Chlorid d. 2,5-Dibrombenzol-1-Sulfonsäure. Sm. 71—72° (A. 181, 207; 186, 131, 313). — II, 122.
- 4) Chlorid d. 3,4-Dibrombenzol-1-Sulfonsäure. Sm. 34° (A. 186, 146; 191, 180). — II, 121.
- 5) Chlorid d. 3,5-Dibrombenzol-1-Sulfonsäure. Sm. 57,5° (A. 181, 28, 202). — II, 121.
- 6) Chlorid d. isom. Dibrombenzolsulfonsäure. Sm. 97—98° (A. 181, 207).
- $C_6H_3O_2Cl_2BrS$ 1) Chlorid d. 5-Chlor-2-Brombenzol-1-Sulfonsäure. Sm. 46° (B. 25, [2] 752). — II, 124.
- 2) Chlorid d. 6-Chlor-3-Brombenzol-1-Sulfonsäure. Sm. 66° (B. 25, [2] 752). — II, 124.
- $C_6H_3O_2NClBr$ 1) 4-Chlor-6-Brom-2-Nitro-1-Oxybenzol. Sm. 125°. K, Ca + 4H₂O, Ba + H₂O (Soc. 51, 787; 55, 588). — II, 699.
- 2) 6-Chlor-4-Brom-2-Nitro-1-Oxybenzol. Sm. 114°. K, Ca + 7H₂O (Soc. 51, 789; 55, 587). — II, 699.
- 3) 2-Chlor-6-Brom-4-Nitro-1-Oxybenzol. Sm. 137°. K + H₂O, Ca + 9H₂O, Ba + 10H₂O (Soc. 55, 57; Am. 14, 563). — II, 700.
- $C_6H_3O_2NBrJ$ 1) 4-Brom-6-Jod-2-Nitro-1-Oxybenzol. Sm. 104,2°. Na + H₂O, K, Ca + 4H₂O (J. 1867, 617; 1877, 549; Soc. 55, 62). — II, 701.
- 2) 2-Brom-6-Jod-4-Nitro-1-Oxybenzol. K (J. 1867, 617). — II, 701.
- $C_6H_3O_2NBr_4S$ 1) 3,4,5,6-Tetrabrom-1-Amidobenzol-2-Sulfonsäure + 2H₂O. K + H₂O, Ca + 2H₂O, Ba + H₂O (A. 197, 302). — II, 574.
- 2) 2,4,5,6-Tetrabrom-1-Amidobenzol-3-Sulfonsäure + 2H₂O. K + 1½H₂O, Ca + 7H₂O, Ba + H₂O (A. 181, 223; 191, 204). — II, 574.
- $C_6H_3O_2N_2BrS$ 1) 4-Bromdiazobenzol-2-Sulfonsäure (A. 187, 371). — IV, 1536.
- $C_6H_3O_2N_2Br_3S$ 1) 2,4,6-Tribrombenzol-syn-1-Diazosulfonsäure. K (B. 30, 78). — IV, 1523.
- $C_6H_3O_2N_2Br_2S$ 1) 4,6-Dibrom-3-Diazobenzolimid-1-Sulfonsäure. Ba (B. 21, 3418). — IV, 1142.
- $C_6H_3O_2NCl_3S$ 1) Chlorid d. 2-Chlor-1-Nitrobenzol-5-Sulfonsäure. Sm. 40—41° (B. 24, 3190). — II, 127.
- 2) Chlorid d. 3-Chlor-1-Nitrobenzol-2-Sulfonsäure. Sm. 180° (A. 265, 101). — II, 127.
- 3) Chlorid d. 3-Chlor-1-Nitrobenzol-5-Sulfonsäure. Fl. (B. 14, 1435, 1605; A. 265, 97). — II, 127.
- 4) Chlorid d. 4-Chlor-1-Nitrobenzol-3-Sulfonsäure. Sm. 89—90° (B. 24, 3194; A. 265, 91). — II, 127.
- $C_6H_3O_2N_2ClS$ 1) 3-Chlor-4-Oxy-1-Diazobenzolanhydrid-2-Sulfonsäure + 3H₂O. Zers. bei 170°. Ba + 7½H₂O, Ag + 2H₂O (A. 234, 29). — IV, 1549.
- $C_6H_3O_2N_2Cl_3S$ 1) 2,3,6-Trichlor-4-Oxy-1-Diazobenzolschweflige Säure. Zers. oberh. 200°. Na₂ (J. pr. [2] 33, 390). — IV, 1546.
- $C_6H_3O_2N_2Br_3S$ 1) Amid d. 4,5,6-Tribrom-1-Nitrobenzol-2-Sulfonsäure. Sm. 202° (A. 181, 43). — II, 129.
- 2) Amid d. 2,4,6-Tribrom-1-Nitrobenzol-3-Sulfonsäure (A. 186, 280, 297; 191, 198, 218). — II, 130.
- 3) Amid d. 2,5,6-Tribrom-1-Nitrobenzol-3-Sulfonsäure (A. 197, 288). — II, 130.
- $C_6H_3O_2Cl_2BrS_2$ 1) Chlorid d. 2-Brombenzol-1,3-Disulfonsäure. Sm. 99° (A. 188, 179). — II, 120.
- 2) Chlorid d. 4-Brombenzol-1,2-Disulfonsäure. Sm. 104° (A. 198, 29). — II, 120.
- 3) Chlorid d. 4-Brombenzol-1,3-Disulfonsäure. Sm. 103—105° (A. 198, 11; B. 7, 1311). — II, 120.

- $C_6H_5O_5NBr_2S$ 1) 4,5-Dibrom-1-Nitrobenzol-2-Sulfonsäure. NH_4 , K, Ca + 4 H_2O , Ba + 3 H_2O , Pb + 3 H_2O (A. 186, 152; 197, 279). — II, 128.
2) 4,6-Dibrom-1-Nitrobenzol-2-Sulfonsäure. NH_4 , K + H_2O , Ca + 3 H_2O , Ba, Pb + 5 H_2O (A. 181, 32). — II, 129.
3) 2,5-Dibrom-1-Nitrobenzol-3-Sulfonsäure. + $1\frac{1}{2}H_2O$. NH_4 + $\frac{1}{2}H_2O$, K + $2\frac{1}{2}H_2O$, Ca + 3 H_2O , Ba + $1\frac{1}{2}H_2O$, Sr, Pb + 2 H_2O , Cu + H_2O (A. 167, 121; 187, 358). — II, 129.
4) 4,6-Dibrom-1-Nitrobenzol-3-Sulfonsäure. Sm. 200°. K, Ca + 6 H_2O , Ba + H_2O , Pb + 4 H_2O (A. 191, 235). — II, 129.
- $C_6H_5O_5NCl_2S_2$ 1) Chlorid d. 1-Nitrobenzol-2,4-Disulfonsäure. Fl. (A. 188, 166). — II, 126.
2) Chlorid d. 1-Nitrobenzol-3,5-Disulfonsäure. Sm. 96° (A. 188, 164). — II, 126.
- $C_6H_5O_5NCl_2Cr_2$ 1) Verbindung (d. Nitrobenzol) (A. ch. [5] 22, 272; Soc. 57, 253).
 $C_6H_5O_5N_2ClS$ 1) Chlorid d. 1,2-Dinitrobenzol-4-Sulfonsäure. Sm. 89° (A. 188, 144; B. 9, 554). — II, 126.
2) Chlorid d. 1,3-Dinitrobenzol-4-Sulfonsäure. Sm. 102° (J. pr. [2] 34, 123). — II, 126.
- $C_6H_5O_5N_2BrS_2$ 1) 6-Bromdiazobenzol-2,4-Disulfonsäure. K + 3 H_2O (A. 198, 15). — IV, 1536.
- C_6H_5ONClS 1) 2-Chlor-1-Thionylamidobenzol. Sd. 207°₄₆ (A. 274, 218). — II, 355.
2) 3-Chlor-1-Thionylamidobenzol. Sm. 4°; Sd. 233° (A. 274, 218). — II, 355.
3) 4-Chlor-1-Thionylamidobenzol. Sm. 36°; Sd. 237° (B. 24, 754). — II, 355.
- C_6H_5ONBrS 1) 2-Brom-1-Thionylamidobenzol. Sm. 3—4°; Sd. 210°₄₆ (A. 274, 221). — II, 355.
2) 3-Brom-1-Thionylamidobenzol. Sm. 32° (A. 274, 220). — II, 356.
3) 4-Brom-1-Thionylamidobenzol. Sm. 60—61° (A. 274, 220). — II, 356.
- C_6H_5ONJS 1) 4-Jod-1-Thionylamidobenzol. Sm. 54° (A. 274, 223). — II, 356.
- $C_6H_5ON_2Br_2S$ 1) s-?-Dibromphenylthionylhydrazin. Sm. 99° (B. 27, 2552). — IV, 661.
- $C_6H_5OCl_2BrP$ 1) Dichlorid d. 4-Bromphenylphosphinsäure. Sd. 290—291° (A. 293, 238). — IV, 1652.
- $C_6H_5O_2NCIS$ 1) 4-Chlor-2-Nitro-1-Merkaptobenzol. Sm. 212—213° (A. 197, 79). — II, 795.
2) 5-Chlor-2-Nitro-1-Merkaptobenzol. Sm. 171° (A. 197, 82). — II, 795.
- $C_6H_5O_2NCl_2J$ 1) 2-Jod-1-Nitrobenzoldichlorid. Zers. bei 96° (B. 26, 1809). — II, 89.
2) 3-Jod-1-Nitrobenzoldichlorid. Zers. bei 100—102° (B. 26, 1313). — II, 89.
3) 4-Jod-1-Nitrobenzoldichlorid. Zers. bei 150° (J. pr. [2] 33, 160). — II, 89.
- $C_6H_5O_2NCl_2As$ 1) ?-Nitrophenyldichlorarsin. Sm. 46—47° (B. 27, 269). — IV, 1684.
 $C_6H_5O_2NCl_4As$ 1) ?-Nitrophenylarsentetrachlorid (B. 27, 269).
 $C_6H_5O_2NBr_2As$ 1) ?-Nitrophenyldibromarsin (B. 27, 269). — IV, 1684.
 $C_6H_5O_2NBr_3S$ 1) Amid d. 2,3,5-Tribrombenzol-1-Sulfonsäure. Zers. bei 225° (A. 181, 40). — II, 123.
2) Amid d. 2,4,5-Tribrombenzol-1-Sulfonsäure. Sm. 223° (A. 186, 289, 304; 191, 191; 197, 284). — II, 123.
3) Amid d. 2,4,6-Tribrombenzol-1-Sulfonsäure (A. 186, 277, 295; 191, 196, 213). — II, 123.
4) Amid d. 3,4,5-Tribrombenzol-1-Sulfonsäure. Sm. 210° (A. 181, 31). — II, 122.
5) Amide isom. Tribrombenzolsulfonsäuren. Sm. 187° (152°; 202°; über 220° u. Zers.) (A. 181, 208; 186, 155; 187, 365). — II, 122.
- $C_6H_5O_2NS_2As$ 1) ?-Nitrophenylarsendisulfid. Sm. bei 80° (B. 27, 270). — IV, 1686.
 $C_6H_5O_2N_2ClBr$ 1) 4,6-Chlorbrom-2-Nitro-1-Amidobenzol. Sm. 106°₄₆ (J. 1875, 352). — II, 322.
- $C_6H_5O_2N_2ClJ$ 1) 6-Chlor-2-Jod-4-Nitro-1-Amidobenzol. Sm. 195° (J. pr. [2] 58, 203).
- $C_6H_5O_2N_2Cl_2J$ 1) 4-Nitrobenzoldiazoniumdichloridjodid. Sm. 106° u. Zers. (B. 28, 2761). — IV, 1524.

- C₆H₄O₂ClBrS**
- 1) Chlorid d. 2-Brombenzol-1-Sulfonsäure. Sm. 51° (A. 177, 101; B. 7, 1352). — II, 119.
 - 2) Chlorid d. 3-Brombenzol-1-Sulfonsäure. Fl. (B. 7, 1352; A. 177, 94). — II, 119.
 - 3) Chlorid d. 4-Brombenzol-1-Sulfonsäure. Sm. 75°; Sd. 153°₁₅ (A. 156, 326; 180, 98; B. 7, 1352; 8, 596; 25, 2261; J. pr. [2] 49, 382). — II, 120.
 - 4) Chlorid d. isom. Brombenzolsulfonsäure. Sm. 97—98° (A. 181, 207). — II, 120.
 - 5) Bromid d. 4-Chlorbenzol-1-Sulfonsäure. Sm. 52—53° (A. 145, 324). — II, 118.
- C₆H₄O₂ClJS**
- 1) Chlorid d. 2-Jodbenzol-1-Sulfonsäure. Sm. 51° (A. 186, 326; B. 28, 96). — II, 124.
 - 2) Chlorid d. 3-Jodbenzol-1-Sulfonsäure. Sm. 23° (B. 28, 94).
 - 3) Chlorid d. 4-Jodbenzol-1-Sulfonsäure. Sm. 86—87° (B. 10, 1136). — II, 124.
- C₆H₄O₂ClFS**
- 1) Chlorid d. Fluorbenzol-1-Sulfonsäure. Sm. 36° (B. 10, 1136; 12, 581). — II, 118.
- C₆H₄O₂Cl₂JS**
- 1) Chlorid d. 2-Dichlorjodosobenzol-1-Sulfonsäure (Jodidchlorid d. 2-Jodbenzol-1-Sulfonsäurechlorid). Sm. 65—67° (B. 28, 95).
 - 2) Chlorid d. 3-Dichlorjodosobenzol-1-Sulfonsäure. Sm. 87° (B. 28, 94).
 - 3) Chlorid d. 4-Dichlorjodosobenzol-1-Sulfonsäure. Sm. 87—90° (B. 28, 92).
- C₆H₄O₂NBr₂S**
- 1) 4,5,6-Tribrom-1-Amidobenzol-2-Sulfonsäure + H₂O. Ba + 1½ H₂O (A. 181, 43; Ph. Ch. 3, 409). — II, 574.
 - 2) 2,4,6-Tribrom-1-Amidobenzol-3-Sulfonsäure + H₂O. NH₄ + H₂O, K + H₂O, Ba + 9H₂O, Pb + 9H₂O (A. 177, 87; 181, 214; 186, 298; 191, 198, 220; 197, 275; Ph. Ch. 3, 410). — II, 574.
 - 3) 2,5,6-Tribrom-1-Amidobenzol-3-Sulfonsäure + 1 u. 1½ H₂O. NH₄, K + H₂O, Ca + 3½ H₂O, Ba, Pb + 2H₂O, Ag + ½ H₂O (A. 197, 288; Ph. Ch. 3, 410). — II, 574.
- C₆H₄O₂N₂Br₂S**
- 1) 2,4-Dibrombenzol-anti-1-Diazosulfonsäure. K, Ag (B. 30, 78, 86). — IV, 1522.
 - 2) 2,4-Dibrombenzol-syn-1-Diazosulfonsäure. K (B. 30, 77). — IV, 1522.
- C₆H₄O₂N₂J₂S**
- 1) 2,4-Dijodbenzol-anti-1-Diazosulfonsäure. K (B. 30, 77). — IV, 1524.
 - 2) 2,4-Dijodbenzol-syn-1-Diazosulfonsäure. K (B. 30, 76). — IV, 1524.
- C₆H₄O₂N₂BrS**
- 1) s-4-Brom-2-Nitrophenylthionylhydrazin. Sm. 157° (B. 27, 2553). — IV, 661.
- C₆H₄O₂ClBrS**
- 1) 2-Chlor-5-Brombenzol-1-Sulfonsäure (B. 25 [2] 752). — II, 124.
 - 2) 3-Chlor-6-Brombenzol-1-Sulfonsäure (B. 25 [2] 752). — II, 124.
- C₆H₄O₂NCIS**
- 1) Chlorid d. 2-Nitrobenzol-1-Sulfonsäure. Sm. 67° (A. 177, 77). — II, 125.
 - 2) Chlorid d. 3-Nitrobenzol-1-Sulfonsäure. Sm. 60,5° (J. pr. [2] 2, 223; A. 177, 71). — II, 125.
 - 3) Chlorid d. 4-Nitrobenzol-1-Sulfonsäure. Fl. (A. 177, 74). — II, 125.
- C₆H₄O₂NBrS**
- 1) Bromid d. 3-Nitrobenzol-1-Sulfonsäure. Sm. 68° (A. 278, 246).
- C₆H₄O₂N₂Br₂S**
- 1) 3,5-Dibrom-4-Oxy-1-Diazobenzolschwefligsäure. Na + 2H₂O, Ba + 5H₂O (B. 29, 1532; J. pr. [2] 24, 465). — IV, 1550.
 - 2) Amid d. 4,5-Dibrom-1-Nitrobenzol-2-Sulfonsäure. Sm. 210 bis 211° (A. 186, 154). — II, 129.
 - 3) Amid d. 4,6-Dibrom-1-Nitrobenzol-2-Sulfonsäure (A. 181, 36). — II, 129.
 - 4) Amid d. 2,5-Dibrom-1-Nitrobenzol-3-Sulfonsäure. Sm. 178° (A. 187, 362). — II, 129.
 - 5) Amid d. 4,6-Dibrom-1-Nitrobenzol-3-Sulfonsäure (A. 191, 237). — II, 129.
- C₆H₄O₂N₂Br₄S**
- 1) Tetrabromdiamid d. Benzol-1,3-Disulfonsäure. Sm. 147—150° u. Zers. (B. 8, 178). — II, 117.
- C₆H₄O₂NCIS**
- 1) 2-Chlor-1-Nitrobenzol-5-Sulfonsäure + H₂O. Zers. über 200°. Ba + H₂O (B. 24, 3188). — II, 127.

- C₆H₄O₃NCIS** 2) 3-Chlor-1-Nitrobenzol-2-Sulfonsäure. K + $\frac{1}{2}$ H₂O, Sr, Ba + $\frac{1}{2}$ H₂O (B. 14, 1606; A. 265, 100). — II, 127.
3) 3-Chlor-1-Nitrobenzol-5-Sulfonsäure. Na + $2\frac{1}{2}$ H₂O, K, Sr + $\frac{1}{2}$ H₂O, Ba + 2H₂O (B. 14, 1434, 1606; A. 265, 96). — II, 127.
4) 3-Chlor-1-Nitrobenzol-6-Sulfonsäure. Na + 2H₂O (B. 15, 598). — II, 127.
5) 4-Chlor-1-Nitrobenzol-3-Sulfonsäure + 2H₂O. NH₄ + H₂O, Na + H₂O, Ca + 8H₂O, Ba, Pb + 7H₂O, Cu + 5H₂O (B. 24, 3194; A. 265, 88). — II, 127.
- C₆H₄O₃NBrS** 1) 2-Brom-1-Nitrobenzol-3-Sulfonsäure. K, Ba (A. 186, 322). — II, 128.
2) 2-Brom-1-Nitrobenzol-5-Sulfonsäure. NH₄, K, Ca + $2\frac{1}{2}$ H₂O, Ba + H₂O, Zn + 2H₂O, Cu + $9\frac{1}{2}$ H₂O, Pb + 2H₂O (A. 180, 98; B. 8, 1560; 13, 2127; J. pr. [2] 2, 225). — II, 128.
3) 4-Brom-1-Nitrobenzol-2-Sulfonsäure. NH₄, K, Ca + 6H₂O, Ba + 3H₂O, Pb + 3H₂O, Ag + $1\frac{1}{2}$ H₂O (A. 177, 95; 186, 124). — II, 128.
4) 4-Brom-1-Nitrobenzol-3-Sulfonsäure + 2H₂O. Sm. 130—135°. NH₄, Na, K, Ca + 4H₂O, Ba + 5H₂O, Zn + 7H₂O, Pb + 5H₂O, Ag (A. 186, 316). — II, 128.
5) 4-Brom-1-Nitrobenzol-?Sulfonsäure. K, Ca + $6\frac{1}{2}$ H₂O, Ba + 5H₂O (B. 8, 1559—1560). — II, 128.
- C₆H₄O₆NCIS** 1) 2-Chlor-6-Nitro-1-Oxybenzol-4-Sulfonsäure. K + $\frac{1}{2}$ H₂O, K₂ (Z. 1871, 519; B. 7, 405). — II, 837.
2) ?-Chlor-?-Nitro-1-Oxybenzol-4-Sulfonsäure. K₂ (Soc. [2] 10, 869). — II, 837.
- C₆H₄O₆NBrS** 1) 6-Brom-4-Nitro-1-Oxybenzol-2-Sulfonsäure. NH₄, Ca + 3H₂O, Ba + $3\frac{1}{2}$ H₂O, 2PbOH + $2\frac{1}{2}$ H₂O (A. 205, 91). — II, 838.
2) ?-Brom-?-Nitro-1-Oxybenzol-4-Sulfonsäure (Soc. [2] 10, 857). — II, 838.
- C₆H₄O₆NJS** 1) 6-Jod-4-Nitro-1-Oxybenzol-2-Sulfonsäure. NH₄, Ca + 3H₂O, Ba + 3H₂O, 2PbOH + $2\frac{1}{2}$ H₂O (A. 205, 88). — II, 838.
2) 2-Jod-6-Nitro-1-Oxybenzol-4-Sulfonsäure. K, K₂, Ba + 4H₂O (Soc. [2] 10, 869). — II, 838.
- C₆H₄O₅NCIS₂** 1) 3-Chlor-1-Nitrobenzol-?-Disulfonsäure. K₂, Ba (B. 14, 1436). — II, 127.
- C₆H₄O₅NBrS₂** 1) Bromnitrobenzoldisulfonsäure + H₂O (B. 8, 290). — II, 128.
- C₆H₄NCl₄SP** 1) 4-Chlorphenylimid d. Thiophosphorsäuremonochlorid (Sulphosphazo-p-Chlorbenzolchlorid). Sm. 188°; Sd. 230°₁₆ (B. 28, 1241).
- C₆H₄N₂ClBr₂J** 1) 4-Brombenzoldiazoniumchloridbromidjodid. Sm. 111—112° (B. 28, 2761).
- C₆H₅ONCl₂P** 1) 4-Chlorphenylmonamid d. Phosphorsäuredichlorid. Sm. 107° (B. 28, 616).
- C₆H₅ON₂ClS** 1) s-4-Chlorphenylthionylhydrazin. Sm. 159° (B. 27, 2551). — IV, 661.
- C₆H₅ON₂BrS** 1) s-4-Bromphenylthionylhydrazin. Sm. 168° (B. 27, 2552). — IV, 661.
- C₆H₅OCl₂Br₂P** 1) Dichloriddibromid d. Phenylphosphorsäure (A. 253, 114). — II, 659.
- C₆H₅OCl₂SP** 1) Dichlorid d. Phenylthiophosphorsäure. Sd. 119—120°₁₁ (A. 253, 116; B. 31, 1103, 1111). — II, 660.
- C₆H₅O₂NCl₂S** 1) Dichloramid d. Benzolsulfonsäure. Sm. 70° (Am. 18, 492).
- C₆H₅O₂NBr₂S** 1) Dibromamid d. Benzolsulfonsäure. Sm. 115—116° (110°) (R. 6, 378; Am. 18, 494). — II, 114.
2) Amid d. 2,3-Dibrombenzol-1-Sulfonsäure. Sm. 215° (A. 188, 155). — II, 121.
3) Amid d. 2,4-Dibrombenzol-1-Sulfonsäure. Sm. 190° (A. 191, 234). — II, 121.
4) Amid d. 2,5-Dibrombenzol-1-Sulfonsäure. Sm. 193° (A. 181, 207; 186, 132, 314). — II, 122.
5) Amid d. 3,4-Dibrombenzol-1-Sulfonsäure. Sm. 175° (A. 186, 147; 191, 180). — II, 121.
6) Amid d. 3,5-Dibrombenzol-1-Sulfonsäure. Sm. 203° (A. 181, 28, 202). — II, 121.
7) Amid d. ?-Dibrombenzolsulfonsäure. Sm. 252° (A. 181, 207).
- C₆H₅O₂NCl₂S** 1) ?-Dichlor-1-Amidbenzol-3-Sulfonsäure + 2H₂O (A. 181, 212; Ph. Ch. 11, 612). — II, 571.

- $C_6H_5O_3NBr_2S$ 1) 4,5-Dibrom-1-Amidobenzol-2-Sulfonsäure. $NH_4 + H_2O$, $K + 2H_2O$, $Ca + 3(4)H_2O$, $Ba + H_2O$, $Pb + H_2O$, Ag (A. 197, 279). — II, 572.
 2) 4,6-Dibrom-1-Amidobenzol-2-Sulfonsäure + H_2O . $Na + H_2O$, $K + H_2O$, Ca , $Ba + 1\frac{1}{2}H_2O$, $Pb + H_2O$ (A. 181, 36, 198; Ph. Ch. 3, 408). — II, 573.
 3) 2,5-Dibrom-1-Amidobenzol-3-Sulfonsäure + $\frac{1}{2}H_2O$. K , $Ba + H_2O$, $Pb + 8H_2O$ (A. 187, 362). — II, 573.
 4) 4,6-Dibrom-1-Amidobenzol-3-Sulfonsäure. NH_4 , $K + H_2O$, $Ca + 2(5)H_2O$, $Ba + 6H_2O$, Pb (A. 177, 84; 186, 286, 301; 191, 180, 227, 238; 197, 266; 278, 246; Ph. Ch. 3, 410). — II, 573.
 5) 2,6-Dibrom-1-Amidobenzol-4-Sulfonsäure + $1\frac{1}{2}H_2O$. K , $Ba + 2(3\frac{1}{2})H_2O$, $Pb + 2H_2O$, Ag , $H_2SO_4 + 4H_2O$ (A. 120, 138; 198, 16; 253, 269; B. 10, 1541; Ph. Ch. II, 611). — II, 573.
 6) Dibromphenylsulfaminsäure. Ba (B. 24, 361). — II, 570.
- $C_6H_5O_3N_2ClS$ 1) 2-Chlorbenzol-anti-1-Diazosulfonsäure. K (B. 27, 3531; 30, 83). — IV, 1520.
 2) 2-Chlorbenzol-syn-1-Diazosulfonsäure. K (B. 27, 3530). — IV, 1520.
 3) 4-Chlorbenzol-anti-1-Diazosulfonsäure. K (B. 27, 3530; 30, 75). — IV, 1520.
 4) 4-Chlorbenzol-syn-1-Diazosulfonsäure. $K + H_2O$ (B. 27, 3529). — IV, 1520.
- $C_6H_5O_3N_2BrS$ 1) 3-Brombenzol-anti-1-Diazosulfonsäure. K (B. 27, 76). — IV, 1522.
 2) 3-Brombenzol-syn-1-Diazosulfonsäure. K (B. 30, 76). — IV, 1522.
 3) 4-Brombenzol-anti-1-Diazosulfonsäure. K , Ag (B. 30, 76, 86). — IV, 1522.
 4) 4-Brombenzol-syn-1-Diazosulfonsäure. $K + H_2O$ (B. 27, 3530). — IV, 1522.
- $C_6H_5O_3N_2Br_2S$ 1) 2,4,6-Tribrom-1,3-Diamidobenzol-5-Sulfonsäure. $Ba + 1\frac{1}{2}H_2O$ (A. 191, 248). — IV, 579.
- $C_6H_5O_4N_2ClS$ 1) Amid d. 2-Chlor-1-Nitrobenzol-5-Sulfonsäure. Sm. 175—176° (B. 24, 3190). — II, 127.
 2) Amid d. 3-Chlor-1-Nitrobenzol-2-Sulfonsäure (A. 265, 101). — II, 127.
 3) Amid d. 3-Chlor-1-Nitrobenzol-5-Sulfonsäure. Sm. 164—165° (A. 265, 97). — II, 127.
 4) Amid d. 3-Chlor-1-Nitrobenzol-6-Sulfonsäure. Sm. 158—159° (B. 15, 599). — II, 127.
 5) Amid d. 4-Chlor-1-Nitrobenzol-3-Sulfonsäure. Sm. 185—188° (A. 265, 91). — II, 127.
 6) Chlorid d. 2-Nitro-1-Amidobenzol-4-Sulfonsäure. Sm. 59—60° (A. 180, 103). — II, 575.
- $C_6H_5O_4N_2BrS$ 1) Amid d. 2-Brom-1-Nitrobenzol-3-Sulfonsäure. Sm. 215° (A. 186, 323). — II, 128.
 2) Amid d. 6-Brom-1-Nitrobenzol-3-Sulfonsäure. Sm. 177° (A. 180, 100; B. 13, 2129). — II, 128.
 3) Amid d. 4-Brom-1-Nitrobenzol-2-Sulfonsäure. Sm. 169—170° (A. 186, 126). — II, 128.
 4) Amid d. 4-Brom-1-Nitrobenzol-3-Sulfonsäure. Sm. 205° (A. 186, 318). — II, 128.
- $C_6H_5O_5NClP$ 1) 4-Chlor-?-Nitrophenylphosphinsäure. Sm. 166—168°. $(NH_4)_2$, $Na_2 + 6H_2O$, K_2 , Ca , $Ba + 2H_2O$, Ag_2 (A. 293, 230). — IV, 1652.
- $C_6H_5O_5NBrP$ 1) 4-Brom-?-Nitrophenylphosphinsäure. Sm. 185° Ag_2 (A. 293, 243). — IV, 1652.
- $C_6H_5O_6NBr_2S_2$ 1) 2,4-Dibrom-1-Amidobenzol-3,5-Disulfonsäure + $4H_2O$. $(NH_4)_2$, K_2 , $Ba + 8H_2O$, $Pb + 3H_2O$ (A. 188, 182). — II, 573.
 2) 3,6-Dibrom-1-Amidobenzol-2,4-Disulfonsäure. K_2 , $Ba + 6H_2O$ (A. 187, 367). — II, 573.
- C_6H_5NCISp 1) Phenylimid d. Thiophosphorsäuremonochlorid (Sulfophosphazobenzolchlorid). Sm. 149°; Sd. 280—290°₈₀ u. geringer Zers. + $\frac{1}{2}C_6H_4$ (B. 28, 1239).
- $C_6H_5N_3ClBrJ$ 1) Benzoldiazoniumchloridbromidjodid. Sm. 80—81° (B. 28, 2760).

- C₆H₄O₂NCIS** 1) Amid d. 2-Chlorbenzol-1-Sulfonsäure. Sm. 188° (A. 180, 110; 186, 325). — II, 118.
2) Amid d. 3-Chlorbenzol-1-Sulfonsäure. Sm. 148° (A. 180, 110). — II, 118.
3) Amid d. 4-Chlorbenzol-1-Sulfonsäure. Sm. 143—144° (A. 180, 107; B. 30, 655). — II, 118.
- C₆H₄O₂NBrS** 1) Bromamid d. Benzolsulfonsäure. Na, K, Ag + H₂O (R. 6, 380). — II, 114.
2) Amid d. 2-Brombenzol-1-Sulfonsäure. Sm. 186° (A. 177, 102; B. 7, 1352). — II, 119.
3) Amid d. 3-Brombenzol-1-Sulfonsäure. Sm. 154° (A. 177, 95; B. 7, 1352). — II, 119.
4) Amid d. 4-Brombenzol-1-Sulfonsäure. Sm. 160—161° (A. 180, 98; B. 8, 594; 13, 1352). — II, 120.
5) Amid d. isom. Brombenzolsulfonsäure. Sm. 252° (A. 181, 207). — II, 120.
- C₆H₄O₂NJS** 1) Amid d. 2-Jodbenzol-1-Sulfonsäure. Sm. 170° (A. 186, 326). — II, 124.
2) Amid d. 3-Jodbenzol-1-Sulfonsäure. Sm. 152° (B. 28, 94).
3) Amid d. 4-Jodbenzol-1-Sulfonsäure. Sm. 183° (B. 10, 1136). — II, 125.
- C₆H₄O₂NFS** 1) Amid d. 4-Fluorbenzol-1-Sulfonsäure. Sm. 123° (B. 10, 1137; 12, 581). — II, 118.
- C₆H₄O₂NCIS** 1) 2-Chlor-1-Amidobenzol-5-Sulfonsäure + H₂O. K, Ba + 4H₂O (B. 24, 3193). — II, 571.
2) 3-Chlor-1-Amidobenzol-2-Sulfonsäure. Ba + 7½H₂O (B. 14, 1607). — II, 571.
3) 3-Chlor-1-Amidobenzol-4-Sulfonsäure (A. 265, 106). — II, 571.
4) 3-Chlor-1-Amidobenzol-5-Sulfonsäure (B. 14, 1607). — II, 571.
5) 3-Chlor-1-Amidobenzol-6-Sulfonsäure. Na + ½H₂O, Sr + 9H₂O (A. 265, 105; B. 14, 1607). — II, 571.
6) 4-Chlor-1-Amidobenzol-2-Sulfonsäure (A. 265, 94). — II, 571.
7) 4-Chlor-1-Amidobenzol-3-Sulfonsäure. Ba + 6(4)H₂O (A. 265, 92; B. 24, 3196; 25 [2] 752). — II, 571.
- C₆H₄O₂NBrS** 1) 2-Brom-1-Amidobenzol-3-Sulfonsäure. Ba + xH₂O (A. 186, 323). — II, 571.
2) 2-Brom-1-Amidobenzol-5-Sulfonsäure + H₂O. K + 1½(1)H₂O, Ca + 2H₂O, Ba + H₂O, Pb, Ag + 1½H₂O (A. 180, 100; 191, 176; 197, 261; B. 8, 1560; 10, 1542; 13, 2126; 18, 1422; 20, 3086; Ph. Ch. 3, 409). — II, 571.
3) 4-Brom-1-Amidobenzol-2-Sulfonsäure + H₂O. NH₄, K, Ca + H₂O, Ba + H₂O, Pb + 2H₂O (A. 181, 196; 186, 126, 130; 187, 368; 286, 377; B. 8, 1095; Ph. Ch. 3, 408). — II, 572.
4) 4-Brom-1-Amidobenzol-3-Sulfonsäure + H₂O. Ba + 2H₂O, Pb, Ag (A. 186, 318; 286, 380; Ph. Ch. 3, 409). — II, 572.
5) ?-Brom-1-Amidobenzol-3-Sulfonsäure. Ba + 2H₂O (B. 8, 1072). — II, 572.
- C₆H₄O₂N₂Br₂S** 1) ?-Dibrom-1,3-Diamidobenzol-5-Sulfonsäure + H₂O (A. 191, 248). — IV, 579.
2) 4,6-Dibrom-1-Hydrazidobenzol-3-Sulfonsäure (B. 21, 3417). — IV, 735.
- C₆H₄O₂NCIS** 1) 2-Chlor-4-Amido-1-Oxybenzol-?-Sulfonsäure + 2½H₂O. Ni, Zn, Cu (A. 234, 21; Ph. Ch. 11, 614). — II, 839.
- C₆H₄O₂N₂Br₂S₂** 1) Amid d. 1,4-Dibrombenzoldisulfonsäure. Sm. noch nicht bei 240° (A. 187, 367). — II, 122.
- C₆H₄O₂NBrS₂** 1) 2-Brom-1-Amidobenzol-4,6-Disulfonsäure + H₂O. (NH₄)₂ + 2H₂O, K₂ + 2H₂O, Ba + 5H₂O, Ba + 3H₂O, PbH + 5H₂O (A. 198, 13). — II, 572.
2) 2 [oder 4]-Brom-1-Amidobenzol-3,5-Disulfonsäure + 2½H₂O. (NH₄)₂, Ba + 8H₂O, Pb + 3H₂O (A. 188, 179). — II, 572.
- C₆H₄O₂NCIP** 1) 4-Chlor-?-Amidophenylphosphinsäure. Sm. oberh. 270° u. Zers. Ba + 1½H₂O, Ag₂ (A. 293, 233). — IV, 1653.
2) 4-Chlorphenylmonamid d. Phosphorsäure. Sm. 155°. Ag₂ (B. 28, 617).

- $C_6H_7O_3N_2BrS$ 1) 2-Brom-1,3-Diamidobenzol-5-Sulfonsäure. Ba (A. 191, 244). — IV, 579.
- $C_6H_7O_4N_2BrS_2$ 1) Amid d. 2-Brombenzol-1,3-Disulfonsäure. Sm. 245° (A. 188, 179). — II, 120.
2) Amid d. 4-Brombenzol-1,2-Disulfonsäure. Sm. 210° (A. 198, 29). — II, 120.
3) Amid d. 4-Brombenzol-1,3-Disulfonsäure. Sm. $238-239^\circ$ (A. 198, 11). — II, 120.
- $C_6H_8O_2NSP$ 1) Monamid d. Thiophosphorsäuremonophenylester. Sm. 127 bis 128° (B. 31, 1105).
- $C_6H_8O_4N_2ClBr$ 1) Nitrochlorbromhydrin d. Dulcit. Sm. 115° (A. *ch.* [4] 27, 194). — I, 328.
- $C_6H_9ON_2SP$ 1) Diamid d. Thiophosphorsäuremonophenylester. Sm. 119° (B. 31, 1103).
- $C_6H_9O_3N_2ClBr_2$ 1) Chlordibromaldehydacetamid. Sm. 158° (B. 15, 601).
- $C_6H_{10}ONBrS$ 1) Aethyläther d. 5-Brom-2-Oxy-4,5-Dihydro-1,3-Thiazin. Sm. 96 bis 97° (Soc. 69, 31).
- $C_6H_{10}ON_2Br_3S_2$ 1) Bromderivat d. 3-Thiocarbonyl-5-Keto-2,4-Diäthyltetrahydro-1,2,4-Thiodiazol. Sm. $180-181^\circ$ u. Zers. (A. 285, 184).
- $C_6H_{10}O_2ClBr_2P$ 1) Diacetophosphorchlorodibromid. Sm. 142° (B. 18, 900). — I, 1508.
- $C_6H_{11}N_2ClBrS$ 1) $\alpha\alpha$ -Dimethyl- β -(p -Chlorbrompropyl)thioharnstoff. Sm. 191 bis 192° (C. 1896 [1] 305).
- $C_6H_{14}ONCl_2P$ 1) Dipropylamid d. Phosphorsäuredichlorid. Sd. 170°_{90} (B. 29, 712).
- $C_6H_{14}NCl_2SP$ 1) Dipropylamid d. Thiophosphorsäuredichlorid. Sd. $132-134^\circ_{15}$ (B. 29, 713).
- $C_6H_{15}O_3BrS_2P_2$ 1) Verbindung (aus Pyrophosphorsulfobromid). Fl. (A. 164, 30). — I, 341.
- $C_6O_4NClBr_4S$ 1) Chlorid d. 2,3,4,5-Tetrabrom-1-Nitrobenzol-6-Sulfonsäure. Sm. $172-173^\circ$ (A. 197, 301). — II, 130.
2) Chlorid d. 2,3,4,6-Tetrabrom-1-Nitrobenzol-5-Sulfonsäure. Sm. $147,5^\circ$ (A. 191, 203). — II, 130.
- $C_6O_6N_2ClBr_3S$ 1) Chlorid d. 2,4,6-Tribrom-1,3-Dinitrobenzol-5-Sulfonsäure. Sm. 200° u. Zers. (A. 191, 243). — II, 130.

C_6 -Gruppe mit sechs Elementen.

- $C_6HO_4NClBr_3S$ 1) Chlorid d. 4,5,6-Tribrom-1-Nitrobenzol-2-Sulfonsäure. Sm. 116° (A. 181, 43). — II, 129.
2) Chlorid d. 2,4,6-Tribrom-1-Nitrobenzol-3-Sulfonsäure. Sm. $143-145^\circ$ (A. 186, 280, 297; 191, 198, 218). — II, 130.
3) Chlorid d. 2,5,6-Tribrom-1-Nitrobenzol-3-Sulfonsäure. Sm. 143° (A. 197, 288). — II, 129.
- $C_6H_2O_4NClBr_3S$ 1) Chlorid d. 4,5-Dibrom-1-Nitrobenzol-2-Sulfonsäure. Sm. 98 bis 99° (A. 186, 154). — II, 129.
2) Chlorid d. 4,6-Dibrom-1-Nitrobenzol-2-Sulfonsäure. Sm. 118 bis 119° (A. 181, 36). — II, 129.
3) Chlorid d. 2,5-Dibrom-1-Nitrobenzol-3-Sulfonsäure (A. 187, 362). — II, 129.
4) Chlorid d. 4,6-Dibrom-1-Nitrobenzol-3-Sulfonsäure. Sm. $115,5^\circ$ (A. 191, 237). — II, 129.
- $C_6H_3O_4NClBrS$ 1) Chlorid d. 2-Brom-1-Nitrobenzol-3-Sulfonsäure. Sm. 97° (A. 186, 323). — II, 128.
2) Chlorid d. 6-Brom-1-Nitrobenzol-3-Sulfonsäure. Sm. $56-57^\circ$ (A. 180, 100; B. 13, 2128). — II, 128.
3) Chlorid d. 4-Brom-1-Nitrobenzol-2-Sulfonsäure. Sm. 83° (A. 186, 126). — II, 128.
4) Chlorid d. 4-Brom-1-Nitrobenzol-3-Sulfonsäure. Sm. 92° (A. 186, 318). — II, 128.
- $C_6H_4O_2NClBr_2S$ 1) Dibromamid d. 4-Chlorbenzol-1-Sulfonsäure (Am. 17, 704; 18, 494).
- $C_6H_4O_2NCl_2BrS$ 1) Dichloramid d. 4-Brombenzol-1-Sulfonsäure. Sm. 106° (Am. 18, 493).

- $C_6H_4O_2N_2ClBrJ$ 1) 4-Nitrobenzoldiazoniumchloridbromidjodid. Sm. 93° (B. 28, 2761). — IV, 1524.
- $C_6H_3O_2NClBrS$ 1) Amid d. 2-Chlor-5-Brombenzol-1-Sulfonsäure. Sm. 178° (B. 25 [2] 752). — II, 124.
- 2) Amid d. 3-Chlor-6-Brombenzol-1-Sulfonsäure. Sm. 191° (B. 25 [2] 752). — II, 124.
- $C_6H_3O_3NCl_2SP$ 1) Trichlorid d. 4-Sulfophenylamidophosphorsäure. Sm. 158° (J. pr. [2] 20, 250). — II, 569.
- $C_6H_4O_2NClBr_2S$ 1) Verbindung (aus d. Amid d. 4-Chlorbenzol-1-Sulfonsäure) (Am. 17, 704).
- $C_6H_4O_2NCl_2SP$ 1) Benzolsulfondichlorphosphamid. Sm. 130—131° (B. 2, 503). — II, 114.

C_6 -Gruppe mit sieben Elementen.

- $C_6H_3O_3NCl_2Br_2SP$ 1) Trichlorid d. 2,6-Dibrom-4-Sulfo-1-Phenylamidophosphinsäure (J. pr. [2] 20, 257). — II, 573.

C_7 -Gruppe mit einem Element.

- C_7H_4 C 95,5 — H 4,5 — M. G. 88.
- 1) Kohlenwasserstoff (aus Petroleum). Sm. 119° (A. ch. [5] 17, 47). — II, 305.
- C_7H_6 C 93,3 — H 6,7 — M. G. 90.
- 1) Kohlenwasserstoff (aus Benzylchlorid) = $(C_7H_6)_x$ (Bl. 43, 53; B. 27, 3237). — II, 46.
- 2) Kohlenwasserstoff (aus Benzylbromid) = $(C_7H_6)_x$. Sm. 42° (Soc. 47, 448). — II, 60.
- C_7H_8 C 91,3 — H 8,7 — M. G. 92.
- 1) Methylbenzol (Toluol). Sd. 110,3°. 3 + $AlCl_3$, 3 + $AlBr_3$. Lit. bedeutend. — II, 24.
- 2) Tropiliden (1-Methylen-1,2-Dihydrobenzol). Sd. 113° (114—115°) (B. 14, 2128, 2403; 15, 289; 24, 3121; 25, 3072; 26, 1068; A. 216, 338; 217, 117, 133). — I, 141.
- 3) Kohlenwasserstoff = $(C_7H_8)_n$ (aus Dioxyretisten). Sd. 215—220° (A. 185, 104).
- C_7H_{10} C 89,4 — H 10,6 — M. G. 94.
- 1) Methyl-dihydrobenzol (Dihydrotoluol). Sd. 105—108° (A. 155, 271). — II, 19.
- 2) Hydrotropiliden. Sd. 118—119°₇₁₅ (B. 30, 727; 31, 1544 Anm.).
- 3) R-Heptamethylenterpen. Sd. 120—121° (J. r. 27, 290).
- 4) Kohlenwasserstoff (aus Diallylcarbinolchlorid). Sd. 115° (A. 185, 144). — I, 138.
- 5) Kohlenwasserstoff = $(C_7H_{10})_n$ (aus Oenanthol) (Z. 1870, 75). — I, 956.
- C_7H_{12} C 87,5 — H 12,5 — M. G. 96.
- 1) α -Heptin (Oenanthin; Oenanthyliden). Sd. 110—112° (106—108°; 99 bis 101°). + $CuCl_2$, Ag + $AgNO_3$ (A. 103, 80; 142, 294; 235, 10; B. 8, 409; 30, 1495, 1496; A. ch. [6] 15, 424). — I, 134.
- 2) β -Heptin (Methylbutylacetylen). Sd. 111—113°₇₅₀ (A. ch. [6] 15, 427). — I, 134.
- 3) γ -Heptin (Aethylpropylacetylen). Sd. 105—106° (A. ch. [6] 15, 415). — I, 134.
- 4) $\beta\delta$ -Dimethyl- $\beta\gamma$ -Pentadien (Tetramethylallylen). Sd. 70° (B. 8, 400). — I, 135.
- 5) R-Tetrahydrohepten (Suberylen). Sd. 114,5—115° (J. pr. [2] 49, 429; J. r. 25, 550; 27, 291).
- 6) Heptanaphtylen. Sd. 102—104° (J. r. 23, 42). — II, 17.
- 7) Methylenhexahydrobenzol. Sd. 105—115° (A. 300, 179).
- 8) 1-Methyl-2-Tetrahydrobenzol. Sd. 103—104° (B. 13, 1605; 15, 1582; 25 [2] 504; Bl. 36, 215; 47, 955; A. ch. [6] 1, 231; [6] 19, 184; Soc. 41, 174; A. 289, 153, 343; 297, 158). — I, 135; II, 16.

- C₇H₁₂** 9) Kohlenwasserstoff (aus bernsteins. Kalk). *Sd.* 115—125° (*G.* 11, 276). — I, 135.
- 10) Kohlenwasserstoff (aus Butyron) = (C₇H₁₂)_x. *Sd.* 200—250° (*B.* 9, 1442). — II, 135.
- C₇H₁₄** 11) Kohlenwasserstoff (aus Copal). *Sd.* 150—151° (*C.* 1896 [2] 795).
C 85,7 — H 14,3 — M. G. 98.
- 1) α -Hepten (norm. Heptylen). *Sd.* 98—99° (95°) (*A.* 103, 86; 136, 267; 166, 176; 177, 308; *J.* 1875, 261; *B.* 30, 1495). — I, 119.
- 2) β -Hepten (*s*-Methylbutyläthylen). *Sd.* 98,5° (*A.* 166, 177; 177, 307; 217, 150, 152). — I, 120.
- 3) ϵ -Methyl- β -Hexen? (Gemisch!). *Sd.* 91° (*A.* 166, 167, 177). — II, 120.
- 4) γ -Äthyl- β -Penten. *Sd.* 97—98° (*J. pr.* [2] 57, 38).
- 5) $\beta\gamma$ -Dimethyl- β -Penten (Trimethyläthyläthylen). *Sd.* 75—80° (92—95°₇₅₇) (*B.* 9, 1311; *J. r.* 13, 90). — I, 120.
- 6) $\beta\delta$ -Dimethyl- β -Penten (Pseudoheptylen). *Sd.* 83—84° (*A.* 173, 194; *Z.* 1870, 518; 1871, 268; *B.* 28, 2845). — I, 120.
- 7) $\beta\gamma\gamma$ -Trimethyl- α -Buten (Methylpseudoethyläthylen). *Sd.* 78—80° (*J. r.* 7, 44; 14, 382; *B.* 16, 399; *A.* 180, 245). — I, 120.
- 8) R-Heptamethylen (Suberan). *Sd.* 117—117,5°₄₃ (*J. pr.* [2] 49, 427; *J. r.* 25, 548).
- 9) Methylhexahydrobenzol (Hexahydrotoluol). *Sd.* 100—101° (102—104°₇₆₀) (*A.* 187, 161; 225, 109; 297, 159; 300, 179; *A. ch.* [6] 1, 228; [6] 28, 279; *B.* 25 [2] 420, 504, 558; 29, 731; 30, 1217, 1534; *Bl.* [3] 9, 130; *J. pr.* [2] 49, 431; *J. r.* 17, 37; 25, 554; *Soc.* 73, 916). — II, 14.
- 10) 1,3-Dimethyl-R-Pentamethylen. *Sd.* 93°₇₄₃ (*B.* 29, 405; 30, 1217, 1539; *C.* 1897 [2] 344).
- 11) Hepten (aus Äthylpropylketon). *Sd.* 97,4° (*J. pr.* [2] 39, 435). — I, 120.
- 12) Hepten (aus Methyläthylpropylcarbinol). *Sd.* 90—95° (*B.* 9, 1311). — I, 120.
- 13) Hepten (aus Methylisoamylcarbinoljodid). *Sd.* 75—80° (*A.* 190, 314). — I, 120.
- 14) Hepten (aus Colophonium). *Sd.* 90—100° (*Z.* 1870, 75).
- 15) Hepten (aus Colophonium). *Sd.* 103—106° (*Bl.* 36, 215; *B.* 13, 2000).
- 16) Hepten (aus Fischthran). *Sd.* 94° (*Z.* 1868, 229). — I, 120.
- 17) Hepten (aus Fuselöl). *Sd.* 80—85° (*Bl.* [1863] 5, 307). — I, 120.
- 18) Hepten (aus Harzessenz). *Sd.* 95—98° (*Bl.* 39, 540). — I, 120.
- 19) Hepten (aus Oenanthol). *Sd.* 95—100° (*A.* 117, 77; *Z.* 1870, 74). — I, 120.
- 20) Hepten (aus Paraffin). *Sd.* 94—97° (*A.* 165, 11). — I, 120.
- 21) Hepten (aus bitum. Schiefer). *Sd.* 80—85° (*A.* 25, 284). — I, 120.
- 22) Hepten (aus Steinöl). *Sd.* 80—88° (*Berz. J.* 21, 470). — I, 120.
- C₇H₁₆** 23) Kohlenwasserstoff (aus Naphta). *Sd.* 91—93° (*B.* 30, 976).
C 84,0 — H 16,0 — M. G. 100.
- 1) norm. Heptan. *Sd.* 100,5° (98°) (*A.* 125, 109; 132, 247; 165, 13; 188, 253; 198, 364; 217, 150; *B.* 13, 2028; 14, 1621; 27, 489; *Z.* 1868, 229; *J. r.* 1882, 45; *Soc.* 73, 675, 921). — I, 103.
- 2) β -Methylhexan (Äthylisoamyl). *Sd.* 90,3° (*A.* 96, 373; 136, 259; 166, 163; *Soc.* 37, 216; 39, 467; 73, 921; *A. ch.* [3] 44, 275). — I, 104.
- 3) γ -Methylhexan (Methyläthylpropylmethan). *Sd.* 91° (*A.* 220, 154; *Bl.* [3] 11, 1179). — I, 104.
- 4) γ -Äthylpentan (Triäthylmethan). *Sd.* 95—98° (*B.* 5, 752—753). — I, 104.
- 5) $\gamma\gamma$ -Dimethylpentan (Dimethyldiäthylmethan). *Sd.* 86—87° (*A.* 142, 310, 318). — I, 104.

C₇-Gruppe mit zwei Elementen.

- C₇HCl₄** 1) Tetrachlor-1-Trichlormethylbenzol. *Sm.* 104°; *Sd.* 316° (*A.* 150, 308). — II, 50.
- 2) 2,3,4,5,6-Pentachlor-1-Dichlormethylbenzol. *Sm.* 109° (119,5°); *Sd.* 334° (*A.* 150, 306; *B.* 26, 318). — II, 50.
- C₇H₂O₃** C 62,7 — H 1,5 — O 35,8 — M. G. 134.
- 1) Graphitoxyd = (C₇H₂O₃)_x (*A. ch.* [6] 20, 23). — II, 2021.

- $C_7H_5Cl_3$ 1) **2,4,5-Trichlor-1-Trichlormethylbenzol**. Sm. 82°; Sd. 307—308° (A. 150, 305). — II, 50.
2) **Tetrachlor-1-Dichlormethylbenzol**. Sm. 305—306° (A. 150, 303). — II, 50.
3) **2,3,4,5,6-Pentachlor-1-Chlormethylbenzol**. Sm. 103°; Sd. 325—327° (A. 150, 302). — II, 50.
- $C_7H_4Cl_4$ 1) **2,3,4,5,6-Pentachlor-1-Methylbenzol**. Sm. 218°; Sd. 301° (A. 150, 298). — II, 49.
2) **Tetrachlor-1-Chlormethylbenzol**. Sd. 296° (A. 150, 299). — II, 49.
3) **2,3,4-Trichlor-1-Dichlormethylbenzol**. Sm. 84°; Sd. 275—285° (A. 237, 146). — II, 50.
4) **2,4,5-Trichlor-1-Dichlormethylbenzol**. Sd. 280—281° (A. 150, 299). — II, 49.
5) **2-Dichlor-1-Trichlormethylbenzol**. Sd. 273° (3 Isomere?) (A. 150, 300). — II, 50.
- $C_7H_3Br_5$ 1) **2,3,4,5,6-Pentabrom-1-Methylbenzol**. Sd. 282—283° (J. r. 9, 286; 25, 553; B. 13, 976; J. pr. [2] 49, 428). — II, 62.
- $C_7H_4O_2$ C 70,0 — H 3,3 — O 26,7 — M. G. 120.
1) **Caramelin** (J. 1872, 783). — I, 1107.
2) **Polysalicylid** = $(C_7H_4O_2)_n$. Sm. 322—325° (A. 273, 79). — II, 1499.
3) **Pseudocumarin** (C. 1896 [2] 430).
4) **Inn. Anhydrid d. 4-Oxybenzol-1-Carbonsäure** = $(C_7H_4O_2)_n$ (4 Oxybenzid). Zers. oberh. 350° (J. pr. [2] 25, 525; [2] 28, 194). — II, 1528.
C 61,8 — H 2,9 — O 35,3 — M. G. 136.
- $C_7H_3O_3$ 1) **1,2-Phenyleneester d. Kohlensäure**. Sm. 118°; Sd. 225—230° (B. 13, 697; A. 226, 84). — II, 910.
2) **1,3-Phenyleneester d. Kohlensäure** (B. 14, 1753). — II, 918.
- $C_7H_2O_4$ C 45,6 — H 2,2 — O 52,2 — M. G. 184.
1) **1,4-Pyron-2,6-Dicarbonsäure** (Chelidonsäure; Jervasäure). Sm. 262° u. Zers. Salze meist bek. (A. 29, 116; 57, 273; 127, 164; B. 16, 1263; 17, 1061; 24, 118; M. 5, 341, 370; G. 21, 305; Ph. Ch. 3, 400; J. 1873, 856). — I, 847.
C 42,0 — H 2,0 — O 56,0 — M. G. 200.
- $C_7H_2O_5$ 1) **Mekonsäure** + 3H₂O (3-Oxy-1,4-Pyron-2,6-Dicarbonsäure?). NH₄ + H₂O, (NH₄)₂ + xH₂O, Pb₃ + 2H₂O, Fe₃ + 5H₂O, Ag₃, Ag₃, Anilinsalz (A. 5, 94, 286; 24, 43; 26, 114; 51, 231; 83, 350; 138, 191; J. 1856, 699; 1874, 619; 1875, 907; 1881, 937; A. ch. [6] 7, 199; Bl. 47, 161; B. 15, 541; Ph. Ch. 3, 399; C. 1897 [1] 407; J. pr. [2] 23, 439; [2] 26, 449; [2] 27, 257). — II, 2041.
C 58,3 — H 2,8 — N 38,9 — M. G. 144.
- $C_7H_4N_2$ 1) **Nitril d. 1-Diazobenzolimid-3-Carbonsäure**. Sm. 57° (B. 2, 370). — IV, 1554.
- $C_7H_4Cl_4$ 1) **Tetrachlor-1-Methylbenzol**. Sm. 96° (91—92°); Sd. 276,5° (271°) (A. 139, 327; 150, 287). — II, 49.
2) **isom. Tetrachlor-1-Methylbenzol**. Sd. 280—290° (A. 142, 305). — II, 49.
3) **2-Trichlor-1-Chlormethylbenzol**. Sd. 273° (A. 150, 290). — II, 49.
4) **2,5-Dichlor-1-Dichlormethylbenzol**. Sm. 42° (A. 299, 360).
5) **3,4-Dichlor-1-Dichlormethylbenzol**. Sd. 257° (A. 150, 294). — II, 49.
6) **2-Chlor-1-Trichlormethylbenzol**. Sm. 30°; Sd. 260° (A. 115, 195). — II, 49.
7) **3-Chlor-1-Trichlormethylbenzol**. Sd. 247—250° (A. 131, 158; 134, 58; 139, 326; 239, 342). — II, 49.
8) **4-Chlor-1-Trichlormethylbenzol**. Sd. 245° (A. 150, 295; 239, 347; J. pr. [2] 28, 204). — II, 49.
- $C_7H_3Br_4$ 1) **2,3,4,5-Tetrabrom-1-Methylbenzol**. Sm. 111° (B. 13, 975). — II, 62.
2) **2,3,4,6-Tetrabrom-1-Methylbenzol**. Sm. 105—108° (B. 13, 975). — II, 62.
3) **2,3,5,6-Tetrabrom-1-Methylbenzol**. Sm. 116—117° (B. 13, 976). — II, 62.
- C_7H_4N C 81,6 — H 4,8 — N 13,6 — M. G. 103.
1) **Anhydro-2-Amidobenzol-1-Carbonsäurealdehyd**. Sm. 214° (B. 31, 658).

- C₇H₅N** 2) Nitril d. Benzolcarbonsäure. Sd. 190,6°. + BF₃, 2 + TiCl₄, 2 + SnCl₄, 2 + Cu₂Cl₂, + AuCl₃, 2 + PtCl₄, + Al₂Cl₆, 2 + Al₂Cl₆, 4 + Al₂Cl₆. Lit. bedeutend. — II, 1210.
- 3) Phenylisocyanid. Sd. 165—166° u. Zers. 2 + 3HCl (A. 144, 117; 270, 274; B. 6, 210; J. pr. [2] 35, 516). — II, 360.
- 4) Verbindung (Base aus 2-Nitrobenzol-1-Carbonsäurealdehyd). HCl (B. 13, 311; 14, 2804). — III, 15.
- C₇H₅N₃** C 64,1 — H 3,8 — N 32,1 — M. G. 131.
- 1) 1,2,4-Benzotriazin. Sm. 74—75°; Sd. 235—240° (B. 22, 2806; 25, 3205; J. pr. [2] 41, 174). — IV, 1155.
- 2) Nitril d. Diazobenzol-N-Carbonsäure (Diazobenzolcyanid). + CHN (Sm. 70°) (B. 12, 1638, 2120; 28, 670). — IV, 1452.
- C₇H₅Cl₃** 1) Trichlormethylbenzol (Benzotrichlorid). Sd. 213—214°. Lit. bedeutend. — II, 48.
- 2) 2-Chlor-1-Dichlormethylbenzol. Sd. 227—230° (B. 2, 136; 26, 650; A. 272, 151). — II, 48.
- 3) 4-Chlor-1-Dichlormethylbenzol. Sd. 234° (255—260°) (A. 146, 327; B. 6, 804). — II, 48.
- 4) Dichlor-1-Chlormethylbenzol. Sd. 241° (A. 146, 327). — II, 48.
- 5) 2,3,4-Trichlor-1-Methylbenzol. Sm. 41°; Sd. 231—232°₁₁₆ (A. 237, 36; 296, 180). — II, 48.
- 6) 2,4,5-Trichlor-1-Methylbenzol. Sm. 82°; Sd. 229—230°₁₁₆ (A. 139, 326; 142, 301; 146, 325; 237, 326). — II, 48.
- 7) 3,4,5-Trichlor-1-Methylbenzol. Sm. 42,5°; Sd. 245,5—247° (Soc. 61, 1070). — II, 48.
- C₇H₅Br₃** 1) 2,3,4-Tribrom-1-Methylbenzol. Sm. 44—44,5° (B. 13, 974). — II, 61.
- 2) 2,3,5-Tribrom-1-Methylbenzol. Sm. 52—53° (B. 13, 974). — II, 61.
- 3) 2,4,5-Tribrom-1-Methylbenzol. Sm. 111—112,8° (B. 13, 974; 14, 417). — II, 61.
- 4) 2,4,6-Tribrom-1-Methylbenzol. Sm. 66° (70°); Sd. 290° (B. 13, 975; A. 168, 195). — II, 61.
- 5) 2,5,6-Tribrom-1-Methylbenzol. Sm. 58—59° (B. 13, 974). — II, 61.
- 6) 3,4,5-Tribrom-1-Methylbenzol. Sm. 88—89° (B. 13, 974; 14, 417). — II, 61.
- 7) isom. Tribrom-1-Methylbenzol. Sm. 150° (J. pr. [2] 6, 108). — II, 62.
- C₇H₅J₃** 1) 2,4,6-Trijod-1-Methylbenzol. Sm. 118—119°; Sd. oberh. 300° (A. 241, 55). — II, 75.
- C₇H₅F₃** 1) Trifluormethylbenzol. Sd. 103,5° (C. 1898 [2] 26).
- C₇H₅O** C 79,3 — H 5,6 — O 15,1 — M. G. 106.
- 1) Aldehyd d. Benzolcarbonsäure (Benzaldehyd). Sm. —26°; Sd. 179,1°_{751,3}. + 1½ CaCl₂, + NH₄.HSO₃ + H₂O, + LiHSO₃ + ½ H₂O, + NaHSO₃ + ½ H₂O, + KHSO₃, 2 + Ba(HSO₃)₂ + 2H₂O, 4 + PH₃, + BF₃. Lit. bedeutend. — III, 3.
- C₇H₅O₂** C 68,8 — H 4,9 — O 26,2 — M. G. 122.
- 1) Methylenäther d. 1,2-Dioxybenzol. Sd. 172—173° (C. 1896 [1] 994; Bl. [3] 15, 388, 654).
- 2) 2-Methyl-1,4-Benzochinon (Toluchinon). Sm. 68—69° (B. 10, 833; 1128; 18, 1151; 20, 2283; J. pr. [2] 23, 425; A. 215, 158; Bl. [3] 19, 13). — III, 356.
- 3) Isotoluchinon. = (C₇H₅O₂)₂. Sm. noch nicht bei 300° (G. 12, 225). — III, 362.
- 4) Benzolcarbonsäure (Benzoësäure). Sm. 121,4°; Sd. 249,2°. Salze fast sämtlich bekannt. Lit. bed. — II, 1136.
- 5) Aldehyd d. 2-Oxybenzol-1-Carbonsäure (Salicylaldehyd). Sd. 196,5°. Na, NaH + ½ H₂O, K + H₂O, Ba + 2H₂O, PbOH, Cu, + KHSO₃. Lit. bedeutend. — III, 66.
- 6) Aldehyd d. 3-Oxybenzol-1-Carbonsäure. Sm. 104°; Sd. 240° (B. 14, 969; 15, 2044; A. 286, 6). — III, 79.
- 7) Aldehyd d. 4-Oxybenzol-1-Carbonsäure. Sm. 115—116° (B. 9, 529, 825; 10, 63, 213; 24, 3170; 31, 1766; A. ch. [6] 7, 173; M. 14, 339; J. r. 17, 410; J. pr. [2] 57, 538; [2] 58, 130). — III, 81.
- 8) Aldehyd d. β-[2-Furanyl]akrylsäure (Furfurakrolein). Sm. 51°; Sd. oberh. 200° u. Zers. (B. 13, 2342; 31, 283). — III, 727.

- $C_7H_6O_2$ 9) Phenylester d. Ameisensäure. Sd. 179—180° u. Zers. (*J. pr.* [2] 31, 467). — II, 661.
- $C_7H_6O_2$ C 60,9 — H 4,3 — O 34,8 — M. G. 138.
- 1) Methyläther d. 2-Oxy-1,4-Benzochinon. Sm. 140° (138°) (*A.* 207, 251; *B.* 21, 605; 22, 2381). — III, 346.
- 2) 2-Oxybenzol-1-Carbonsäure (Salicylsäure). Sd. 155—156°; subl. 75 bis 76°. Salze meist bek. Lit. bedeutend. — II, 1488.
- 3) 3-Oxybenzol-1-Carbonsäure. Sm. 200°. Salze meist bek. (*A.* 148, 35). Lit. bedeutend. — II, 1516.
- 4) 4-Oxybenzol-1-Carbonsäure + H_2O . Sm. 210° (wasserfrei). Salze meist bek. (*J. pr.* [2] 16, 44). Lit. bedeutend. — II, 1523.
- 5) β -[2-Furanyl]akrylsäure. Sm. 141° (135°; 140°); Sd. 286°. Ag (*B.* 10, 357; 20, 2316, 2812; 21, 1398 Anm.; 27, 286; 28, 130, 1444; 31, 2613; *Am.* 12, 314). — III, 710.
- 6) β -[2-Allofuranyl]akrylsäure. Sm. 103°. Ag (*B.* 27, 287; 28, 129, 1443). — III, 710.
- 7) Anhydrid d. 2,3-Dihydro-R-Penten-4,5-Dicarbonsäure. Fl. (*B.* 28, 662).
- 8) Aldehyd d. 2,4-Dioxybenzol-1-Carbonsäure. Sm. 134—135° (*B.* 10, 2212; 13, 2354; 31, 1768; 32, 278). — III, 97.
- 9) Aldehyd d. 2,5-Dioxybenzol-1-Carbonsäure (Gentisinaldehyd). Sm. 99° (*B.* 14, 1986). — III, 98.
- 10) Aldehyd d. 3,4-Dioxybenzol-1-Carbonsäure (Protokatechualdehyd). Sm. 153—154°. Pb + H_2O (*A.* 159, 149; 168, 98; 199, 45; *M.* 3, 792; 14, 382; *B.* 7, 620; 9, 1269; 14, 2015). — III, 99.
- $C_7H_6O_2$ 11) Monophenylester d. Kohlensäure. Na (*J. pr.* [2] 31, 405). — II, 662.
- C 54,5 — H 3,9 — O 41,6 — M. G. 154.
- 1) 3,6-Dioxy-2-Methyl-1,4-Benzochinon. Sm. 177° (*B.* 16, 1562). — III, 361.
- 2) Acetylpyromekonsäure. Sm. 91° (*J. pr.* [2] 19, 187). — I, 626.
- 3) 2,3-Dioxybenzol-1-Carbonsäure (Brenzkatechin-o-Carbonsäure). Sm. 204°. Ba + 5 H_2O (*A.* 220, 116, 126; 280, 23; *Ph. Ch.* 3, 248). — II, 1735.
- 4) 2,4-Dioxybenzol-1-Carbonsäure + 3 H_2O (β -Resorcylsäure). Sm. 204 bis 206° u. Zers. K + H_2O , Ba + 4 H_2O , Cu + 8 H_2O , Ag (*A.* 161, 11; *B.* 5, 1089; 12, 997, 1259; 13, 2356, 2360; 18, 1985; *J.* 1879, 760; *Am.* 2, 196; *M.* 5, 170; *J. pr.* [2] 40, 132; *Ph. Ch.* 3, 249). — II, 1735.
- 5) 2,5-Dioxybenzol-1-Carbonsäure (Gentisinsäure; Hydrochinoncarbonsäure). Sm. 199—200° (196—197°). Na + 5½ H_2O , K + H_2O , Ca + 7 H_2O , Ba, Pb, Cu + 4½ H_2O (*A.* 120, 311; 175, 66; 180, 347; 220, 124; *A. Spl.* 7, 144; *Am.* 2, 181; *B.* 7, 1438; 8, 789; 14, 1988; 16, 81; 18, 3499; *M.* 2, 448; *Ph. Ch.* 3, 248; *H.* 21, 422; *J. pr.* [2] 19, 371). — II, 1737.
- 6) 2,6-Dioxybenzol-1-Carbonsäure + H_2O . Sm. 148—167° u. Zers. K, Ba + H_2O , Cu + 8 H_2O , Ag (*B.* 13, 2356; *Ph.* 3, 249). — II, 1738.
- 7) 3,4-Dioxybenzol-1-Carbonsäure (Protokatechusäure). Sm. 199° (194°). Ca + 4 H_2O , Ba + 5 H_2O , (Pb, 2PbO), Pb + 2 H_2O . Lit. bedeutend. — II, 1739.
- 8) 3,5-Dioxybenzol-1-Carbonsäure + 1½ H_2O (α -Resorcylsäure). Sm. 232 bis 233° (225—227°). Na + H_2O , Ba + 4 H_2O , Cd + 4½ H_2O , Cu + 6½ H_2O , Ag + H_2O (*A.* 159, 222; *B.* 8, 374; 12, 1258; *M.* 14, 698; 19, 91; *Ph. Ch.* 3, 251). — II, 1746.
- 9) ?-Dioxybenzol-1-Carbonsäure. subl. bei 170° (ohne Sm.). Ag (*B.* 14, 482). — II, 1748.
- 10) Aescioxalsäure + H_2O (*J.* 1867, 752). — II, 1748.
- 11) Säure (aus Phenol). Sm. 93° (*G.* 14, 103). — II, 649.
- 12) Aldehyd d. 2,3,4-Trioxymbenzol-1-Carbonsäure. Sm. 157—158° (*B.* 31, 1768; 32, 281, 287).
- 13) Aldehyd d. 2,4,5-Trioxymbenzol-1-Carbonsäure. Sm. 223° (*B.* 32, 282).
- 14) Aldehyd d. 2,4,6-Trioxymbenzol-1-Carbonsäure + 2 H_2O (*B.* 32, 280).
- 15) Methylester d. 1,2-Pyron-5-Carbonsäure (M. d. Cumalinsäure). Sm. 73—74°; Sd. 250—260° (*A.* 264, 279). — I, 774.
- 16) Verbindung (aus Acetondicarbonsäurediäthylester u. Bernsteinsäurediäthylester). Sm. 186—187° (*G.* 26 [2] 379).

$C_7H_4O_5$

C 49,4 — H 3,5 — O 47,0 — M. G. 170.

- 1) **3,5,6-Trioxo-2-Methyl-1,4-Benzochinon.** Ag₂ (B. 12, 2044). — III, 362.
- 2) **2,3,4-Trioxobenzol-1-Carbonsäure** + $\frac{1}{3}H_2O$ (Pyrogallolcarbonsäure). Na + 2H₂O, K + H₂O, Ca + 4H₂O, Ba + 5H₂O, Pb + $1\frac{1}{2}H_2O$ (M. 1, 475; 4, 181; 10, 622; B. 18, 3205; J. pr. [2] 40, 133; Ph. Ch. 3, 253). — II, 1917.
- 3) **2,4,6-Trioxobenzol-1-Carbonsäure** + H₂O (Phloroglucincarbonsäure) (B. 17, 2103; 18, 1323; 27, 1582; M. 10, 724; Ph. Ch. 3, 253). — II, 1918.
- 4) **3,4,5-Trioxobenzol-1-Carbonsäure** + H₂O (Gallussäure). Sm. 222 bis 240° u. Zers. (wasserfrei). Salze meist bek. Lit. bedeutend. — II, 1919.

 $C_7H_4O_6$

C 45,2 — H 3,2 — O 51,6 — M. G. 186.

- 1) **Tannoxylsäure.** 2Pb + Pb(OH)₂ (A. 53, 374; C. 1896 [2] 804). — I, 822.

 $C_7H_6O_7$

C 41,6 — H 3,0 — O 55,4 — M. G. 202.

- 1) **$\alpha\gamma\epsilon$ -Triketopentan- $\alpha\epsilon$ -Dicarbonsäure** (Acetondioxalsäure; Xanthochelidonsäure). K, Ca + 8H₂O, Ca₂, Ca₃ + 4H₂O, CaBa, Pb₂ + H₂O, Ag₃ + 4H₂O (M. 5, 341, 348, 376). — I, 846.
- 2) **Säure** (aus Chelidonsäure). Pb₂ (B. 16, 1260).

 $C_7H_6O_8$

C 38,5 — H 2,7 — O 58,7 — M. G. 218.

- 1) **Propen- $\alpha\alpha\gamma\gamma$ -Tetracarbonsäure** (Dicarboxylglutakonsäure). (A. 222, 250; B. 22, 1414). — I, 863.
- 2) **R-Trimethylen-1,1,2,2-Tetracarbonsäure.** Sm. 200° u. Zers. (B. 19, 1056; A. 256, 194; J. pr. [2] 45, 477, 483). — I, 865.
- 3) **R-Trimethylen-cis-1,2,3-trans-1-Tetracarbonsäure.** Sm. 95—100° u. Zers. Ca₂ + H₂O, Ag₄ (Soc. 47, 823). — I, 864.
- 4) **R-Trimethylen-cis-1,2-trans-1,3-Tetracarbonsäure** (Propargylentetracarbonsäure) + 2H₂O. Sm. 196—198° (wasserfrei). Na₂ + 8H₂O, Ca + $3\frac{1}{2}H_2O$, Ba₂ + $1\frac{1}{2}H_2O$ (A. 229, 91; 284, 223; B. 23, 2584; Ph. Ch. 2, 903). — I, 864.

 $C_7H_6N_2$

C 71,2 — H 5,1 — N 23,7 — M. G. 118.

- 1) **Benzimidazol.** Sm. 170°. HCl + H₂O, (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃), Ag (G. 25 [1] 226; B. 11, 826; 22, 645; J. 1878, 167; A. 273, 280, 373). — IV, 868.
- 2) **Indazol.** Sm. 146,5°; Sd. 269—270°₇₄₃, subl. bei 100° (A. 221, 280; 227, 309; 305, 340; B. 23, 3642; 24, 4161; 26, 217). — IV, 865.
- 3) **Nitril d. Phenylamidoameisensäure** (Phenylcyanamid; Cyananilid) + $\frac{1}{2}H_2O$. Sm. 47°. K, Ag, (2HCl, PtCl₄) (A. 90, 91; B. 3, 267; 9, 820; 12, 773, 1602; 18, 3220; 24, 379; 28, 1305; 32, 650; J. pr. [2] 30, 114; M. 5, 219). — II, 449.
- 4) **Nitril d. 2-Amidobenzol-1-Carbonsäure.** Sm. 46—47° (103°); Sd. 264 bis 266°. HCl (B. 10, 1714; 28, 159). — II, 1247.
- 5) **Nitril d. 3-Amidobenzol-1-Carbonsäure.** Sm. 53—54°; Sd. 288—290°. HCl, (2HCl, PtCl₄), 2 + AgNO₃ (B. 1, 191, 196; 7, 1321; 8, 861). — II, 1258.
- 6) **Nitril d. 4-Amidobenzol-1-Carbonsäure.** Sm. 110° (86°; 74°). HCl, (2HCl, PtCl₄) (A. 149, 302; B. 7, 1322; 8, 61). — II, 1273.

 $C_7H_6N_4$

C 57,5 — H 4,1 — N 38,4 — M. G. 146.

- 1) **5-Phenyl-1,2,3,4-Tetrazol** (Phenyltetrazotsäure). Sm. 214° u. Zers. NH₄, Na + 3H₂O, K, Ca + 4H₂O, Ba + 3H₂O, Cu, Ag (A. 263, 101; 297, 248; 298, 91; B. 27, 994, 999). — IV, 1266.
- 2) **1-Phenyl-1,2,3,5-Tetrazol.** Fl. (B. 18, 2911; 31, 948). — IV, 1231.
- 3) **Verbindung** (aus d. Verb. C₈H₁₀N₄, Sm. 85°, aus Diacetonitril). Sm. 213° u. Zers. (J. pr. [2] 52, 99). — IV, 1264.

 $C_7H_6Cl_2$

- 1) **Dichlormethylbenzol** (Benzylidenchlorid). Sd. 206° (212—214°). Lit. bedeutend. — II, 47.
- 2) **4-Chlor-1-Chlormethylbenzol.** Sm. 29°; Sd. 213—214° (A. 146, 320; 147, 352; B. 11, 904). — II, 47.
- 3) **2,3-Dichlor-1-Methylbenzol.** Sd. 195—199° (207—208°₁₆₀) (A. 237, 168; C. 1895 [2] 529). — II, 47.
- 4) **2,4-Dichlor-1-Methylbenzol.** Sd. 194°₇₄₃ (199—200°₆₀) (A. 187, 263; 231, 314; 237, 162; B. 24, 2769; C. 1895 [2] 528). — II, 47.
- 5) **2,5-Dichlor-1-Methylbenzol.** Sm. 4—5°; Sd. 200°₇₇₀ (A. 231, 318; Soc. 61, 1053). — II, 47.
- 6) **2,6-Dichlor-1-Methylbenzol.** Sd. 199—200°₇₆₀ (A. 187, 263; C. 1895 [2] 529). — II, 47.

- $C_7H_6Cl_2$ 7) 3,4-Dichlor-1-Methylbenzol. Sd. 207,4°₇₆₄ (B. 17, 2535; A. 231, 312; Soc. 61, 1060, 1069). — II, 47.
- 8) 3,5-Dichlor-1-Methylbenzol. Sm. 26°; Sd. 195°₇₇₀ (201—202°₇₈₀) (A. 231, 323; C. 1895 [2] 529; B. 30, 2345). — II, 47.
- $C_7H_4Cl_2$ 1) 7-Dichlor-1-Methylbenzolhexachlorid. Sm. 150° (A. 142, 305). — II, 45.
- $C_7H_4Br_2$ 1) Dibrommethylbenzol. Sd. 130—140°₇₀ (156°₁₁₃) (Bl. 4, 251; J. pr. [2] 58, 389). — II, 61.
- 2) 2-Brom-1-Brommethylbenzol. Sm. 30° (B. 9, 932; Am. 2, 315, 391; 3, 252). — II, 61.
- 3) 3-Brom-1-Brommethylbenzol. Sm. 41° (B. 9, 932; Am. 3, 252). — II, 61.
- 4) 4-Brom-1-Brommethylbenzol. Sm. 61° (B. 9, 931; 17, 2922; 18, 350; 29, 2252; J. pr. [2] 34, 341; Am. 3, 262). — II, 61.
- 5) 2,3-Dibrom-1-Methylbenzol. Sm. 30—31° (B. 13, 964; Soc. 61, 1040). — II, 60.
- 6) 2,4-Dibrom-1-Methylbenzol. Fl. (A. 168, 185). — II, 60.
- 7) 2,5-Dibrom-1-Methylbenzol. Sd. 236° (A. 168, 185; B. 13, 963). — II, 60.
- 8) 2,6-Dibrom-1-Methylbenzol. Sd. 246° (A. 168, 191; B. 13, 964). — II, 61.
- 9) 3,4-Dibrom-1-Methylbenzol. Sd. 239—241° (A. 168, 184; 176, 287; B. 8, 560; 13, 964). — II, 61.
- 10) 3,5-Dibrom-1-Methylbenzol. Sm. 39°; Sd. 246° (A. 168, 190; B. 13, 966). — II, 61.
- 11) isom. Dibrom-1-Methylbenzol. Sm. 107—108° (A. 147, 41). — II, 60.
- 12) isom. Dibrom-1-Methylbenzol. Sm. 42,5°; Sd. 239° (A. 168, 187). — II, 60.
- $C_7H_4J_2$ 1) 2,4-Dijod-1-Methylbenzol. Sd. 295—296° (A. 241, 51). — II, 55.
- $C_7H_4S_2$ 1) Benzoldithiocarbonsäure. Fl. K, Pb, Hg, Ag (Z. 1868, 455; A. 140, 240; 290, 184; B. 15, 862). — II, 1292.
- C_7H_4Se 1) Aldehyd d. Benzolselencarbonsäure. Sm. 70° (B. 8, 1165). — III, 20.
- C_7H_4N C 80,0 — H 6,7 — N 13,3 — M. G. 105.
- 1) Imidomethylbenzol (Benzylidenimid). HCl, H₂SO₄ (B. 29, 2137, 2143).
- 2) Methylenamidobenzol (Methylenanilin) (G. 14, 355; Bl. [3] 9, 563; B. 31, 3251). — II, 412.
- 3) Anhydro-4-Amido-1-Oxymethylbenzol (Anhydro-p-Amidobenzylalkohol). = (C₇H₇N)₂ (C. 1898 [1] 541, 812; 1898 [2] 159; B. 31, 2037).
- 4) 2-Aethenylpyridin (2-Pyridyläthen). Sd. 158—159° u. Zers. (2HCl, PtCl₄), (HCl, AuCl₃) (B. 22, 2585; A. 265, 229). — IV, 187.
- 5) m-Benzylidenimid. Sm. 120—145° (2HCl, PtCl₄) (A. 259, 60). — IV, 186.
- 6) p-Benzylidenimid, siehe C₂₀H₁₅N₄. — IV, 186.
- 7) Verbindung (aus 1,3,5-Triphenylhexahydro-1,3,5-Triazin). = (C₇H₇N)₃. Sm. 177—178° (B. 31, 3252).
- C 63,1 — H 5,3 — N 31,6 — M. G. 133.
- 1) 3-Amidoindazol. Sm. 153,5—154,5°. H₂SO₄ (A. 305, 346).
- 2) 6-Amidoindazol. Sm. 210° (B. 23, 3640). — IV, 1147.
- 3) 5-Methyl-1,2,3-Benztriazol (Azimidotoluol). Sm. 83° (85°); Sd. 323°. HCl, (2HCl, PtCl₄), Na, Hg, Ag (B. 9, 220; 15, 1880; 19, 1759; 20, 3001; A. 240, 116; J. pr. [2] 41, 325). — IV, 1145.
- 4) 2,3-Dihydro-1,2,3-Benztriazin? Sm. 156°. HCl, H₂SO₄, Pikrat (B. 29, 626). — IV, 1142.
- 5) Nitril d. β-Phenylhydrazidoameisensäure (α-Cyanphenylhydrazin). Fl. Pikrat (G. 22 [1] 226). — IV, 742.
- C_7H_5Cl 1) Chlormethylbenzol (Benzylchlorid). Sd. 175—175,2°_{709,3}. Lit. bedeutend. — II, 46.
- 2) 2-Chlor-1-Methylbenzol. Sd. 157° (A. 156, 79; 237, 152; 269, 393; 272, 145; B. 6, 790; 22, 2520; 26, 1053; Ph. Ch. 4, 73). — II, 45.
- 3) 3-Chlor-1-Methylbenzol. Sd. 162,2°_{750,5} (A. 168, 199; B. 22, 2520; 26, 1053; 27, 3022; Ph. Ch. 4, 76). — II, 45.
- 4) 4-Chlor-1-Methylbenzol. Sm. 7,4°; Sd. 162,3°_{750,4} (A. 139, 334; B. 6, 794; 8, 1402; 18, 1939; 22, 2519; 26, 2942; Ph. Ch. 4, 78). — II, 45.
- C_7H_5Br 1) Brommethylbenzol (Benzylbromid). Sd. 198—199° (A. 137, 190; 143, 369; Bl. 7, 108; Am. 3, 252; B. 18, 608; M. 11, 431; G. 17, 202). — II, 60.

- C₇H₇Br** 2) **2-Brom-1-Methylbenzol**. *Sd.* 180,3°₇₅₄ (*A.* 168, 171; 170, 117; *J.* 1875, 333; *Am.* 7, 145; *B.* 4, 514; 7, 1502; 18, 607; 22, 2520; 26, 1053; *Bl.* 26, 533; *Soc.* 61, 1029; *Ph. Ch.* 4, 73). — II, 59.
- 3) **3-Brom-1-Methylbenzol**. *Sd.* 183,7°_{789,5} (*A.* 168, 155; 177, 231; *B.* 22, 2520; 26, 1053; *Ph. Ch.* 4, 78). — II, 60.
- 4) **4-Brom-1-Methylbenzol**. *Sm.* 28,5°; *Sd.* 185,2° (*A.* 136, 301; 137, 192; 154, 293; 168, 174; 169, 6; 242, 165; *J. pr.* [2] 24, 162; *H.* 5, 63; *Ph. Ch.* 4, 80; *B.* 22, 2519; *Soc.* 61, 1034; *G.* 26 [2] 1). — II, 60.
- C₇H₇J** 1) **Jodmethylbenzol**. *Sm.* 24,1° (*Gm.* 6, 38; *J.* 1869, 425; *B.* 9, 1454, 1744; 10, 311; 16, 610; *A.* 224, 126). — II, 75.
- 2) **2-Jod-1-Methylbenzol**. *Sd.* 204° (211°) (*A.* 158, 347; *B.* 7, 1007; *Am.* 4, 101). — II, 74.
- 3) **3-Jod-1-Methylbenzol**. *Sd.* 204° (*A.* 158, 349). — II, 74.
- 4) **4-Jod-1-Methylbenzol**. *Sm.* 35°; *Sd.* 211,5° (*Z.* 1868, 327). — II, 74.
- C₇H₇F** 1) **4-Fluor-1-Methylbenzol**. *Sd.* 116—117° (*G.* 13, 535; *A.* 235, 261; *C.* 1898 [1] 1224). — II, 40.
- C₇H₈O** C 77,8 — H 7,4 — O 14,8 — M. G. 108.
- 1) **Oxymethylbenzol** (Benzylalkohol). *Sd.* 206,5° (204°). *Lit.* bedeutend. — II, 1047.
- 2) **2-Oxy-1-Methylbenzol** (o-Kresol). *Sm.* 30°; *Sd.* 190,8°. *Al.* *Lit.* bedeutend. — II, 737.
- 3) **3-Oxy-1-Methylbenzol** (m-Kresol). *Sd.* 202,8°. *Lit.* bedeutend. — II, 743.
- 4) **4-Oxy-1-Methylbenzol** (p-Kresol). *Sm.* 36°; *Sd.* 201,8°. *Lit.* bedeutend. — II, 747.
- 5) **Methylphenyläther** (Anisol). *Sd.* 154,3° (155—155,8°) (*A.* 41, 71; 48, 65; 52, 327; 74, 298; 78, 226; 152, 66; 220, 105; 234, 317; 243, 34; *R.* 12, 182; *B.* 19, 1820; *Am.* 16, 236; *Bl.* 40, 106; [3] 19, 403). — II, 652.
- 6) **Aldehyd d. 1,2-Dihydrobenzol-3-Carbonsäure**. *Sd.* 170—171°₇₄₄ u. *Zers.* + NaHSO₃ (*B.* 23, 2880; 29, 402, 492; *G.* 26 [2] 163). — III, 1.
- C₇H₈O₂** C 67,8 — H 6,4 — O 25,8 — M. G. 124.
- 1) **2,3-Dioxy-1-Methylbenzol**. *Sm.* 47°; *Sd.* 238—240° u. *Zers.* (*B.* 24, 4137). — II, 954.
- 2) **2,4-Dioxy-1-Methylbenzol** (Kresorcin). *Sm.* 103—104°; *Sd.* 267—270° (*B.* 5, 1087; 15, 301, 1068, 2835, 2981; 19, 136; *A.* 215, 92; *Bl.* [3] 11, 383). — II, 954.
- 3) **2,5-Dioxy-1-Methylbenzol**. *Sm.* 124° (126°). + Anilin (*B.* 10, 834, 1935; 11, 1278; 15, 1974, 2979; 28, 247; *M.* 2, 65; *H.* 5, 60; *A.* 215, 159; *Bl.* [3] 19, 14). — II, 954.
- 4) **2,6-Dioxy-1-Methylbenzol**. *Sm.* 63—66° (*B.* 17, 1963). — II, 958.
- 5) **3,4-Dioxy-1-Methylbenzol** (Homobrenzkatechin). *Sm.* 51°; *Sd.* 251 bis 252°₇₅₅ (*B.* 10, 210; 11, 672; 15, 2983; 25 [2] 729; *J.* 1864, 525—526; *Soc.* 55, 90; *Bl.* [3] 9, 144; *C.* 1898 [1] 1024). — II, 958.
- 6) **3,5-Dioxy-1-Methylbenzol** (Orcin) + H₂O. *Sm.* 58° (106,5—108° wasserfrei); *Sd.* 287—290°. (Pb, PbO), + NH₃, Pikrat. *Lit.* bedeutend. — II, 959.
- 7) **β-Isoorcin** (?-Dioxy-1-Methylbenzol). *Sm.* 87°; *Sd.* 260° (*A.* 164, 131). — II, 966.
- 8) **2-Oxy-1-Oxymethylbenzol** (2-Oxybenzylalkohol; Saligenin). *Sm.* 86° (82°) (*A.* 56, 39; 117, 83; 128, 179; 302, 131; *Am.* 2, 19; *A. ch.* [6] 7, 171; *B.* 24, 175; 27, 1084, 2411; 30, 754; *J. pr.* [2] 50, 225; [2] 58, 107; *J. r.* 17, 400). — II, 1108.
- 9) **3-Oxy-1-Oxymethylbenzol** (3-Oxybenzylalkohol). *Sm.* 67°; *Sd.* bei 300° u. *Zers.* (*J. pr.* [2] 15, 166). — II, 1109.
- 10) **4-Oxy-1-Oxymethylbenzol** (4-Oxybenzylalkohol). *Sm.* 110° (111—112°) (*B.* 19, 2374; 24, 175; 27, 2411; *J. pr.* [2] 50, 225). — II, 1110.
- 11) **Monomethyläther d. 1,2-Dioxybenzol** (Guajakol). *Sm.* 31—32°; *Sd.* 205°. K + H₂O, Ca, PbOH, Pikrat. *Lit.* bedeutend. — II, 909.
- 12) **Monomethyläther d. 1,3-Dioxybenzol**. *Sd.* 243—244° (*B.* 10, 868; 13, 2362; 16, 151). — II, 916.
- 13) **Monomethyläther d. 1,4-Dioxybenzol**. *Sm.* 53°; *Sd.* 243°. K (*A.* 177, 339; 200, 254; *B.* 14, 1989; *Am.* 5, 177). — II, 939.
- 14) **2,6-Dimethyl-1,4-Pyron**. *Sm.* 132°; *Sd.* 248—249°₇₁₃ (*A.* 257, 273; *Soc.* 63, 116). — I, 1025.

$C_7H_6O_2$

- 15) Isohydrotoluchinon. = $(C_7H_6O_2)_x$. Sm. 204° (G. 12, 225). — III, 362.
 16) 1,2-Dihydrobenzol-3-Carbonsäure. Sm. 94–95° (Cu (B. 23, 2886; 26, 454). — II, 1131.

- 17) 1,2-Dihydrobenzol-?-Carbonsäure. Sm. 73° (B. 24, 2623). — II, 1131.

 $C_8H_6O_2$

- 18) Lakton d. δ -Oxy- β -Methyl- α - γ -Pentadien- α -Carbonsäure? (Mesitenlakton). Sm. 51,5°; Sd. 245° (A. 222, 17). — I, 622.

C 60,0 — H 5,7 — O 34,3 — M. G. 140.

- 1) 3,4,5-Trioxy-1-Methylbenzol. Sm. 129° (119°) (B. 12, 1371; M. 19, 565). — II, 1023.
 2) 2,4,6-Trioxy-1-Methylbenzol. Sm. 214–216° (M. 19, 226; A. 302, 177).
 3) 2-Methyläther d. 1,2,4-Trioxybenzol. Sm. 84° (B. 21, 606; M. 18, 477). — II, 1017.
 4) Methyläther d. 4-Oxy-6-Methyl-1,2-Pyron. Sm. 139–140° (Soc. 71, 326).
 5) Physcolol (Atranorinsäure). Sm. 107° (100°) (A. 284, 190; B. 30, 359; G. 12, 257; J. pr. [2] 57, 284). — III, 642.
 6) ?-Oxydihydrobenzol-1-Carbonsäure. Sm. 274,5°. Ca + 2H₂O, Ag (B. 9, 327). — II, 1485.
 7) 2,4-Dimethylfuran-3-Carbonsäure. Sm. 122° (B. 26, 755). — III, 709.
 8) 2,5-Dimethylfuran-3-Carbonsäure (Pyrotritorsäure; Uvinsäure). Sm. 135°. Na + 2H₂O, Ca + 2H₂O, Ba + 4H₂O, Zn, Ag (A. 146, 306; 172, 242; 201, 148; 208, 127; 247, 255; 250, 189; 303, 140, 144; B. 13, 1969; 17, 317, 2765; 22, 154). — III, 707.
 9) 2-Methylfuran-5-Methylcarbonsäure (Sylvanessigsäure). Sm. 134 bis 135°; subl. oberh. 100°. Ba + 4½H₂O, Ag + ½H₂O (B. 21, 3189; A. 246, 14). — III, 709.
 10) β -(2-Furanyl)propionsäure (β -Furfurpropionsäure). Sm. 50–51° (58,5°). Sd. 229° (B. 10, 357; 20, 2812; 21, 1083; 31, 1122). — III, 709.
 11) Anhydrid d. cis-R-Pentamethylen-1,2-Dicarbonsäure. Sm. 73° (Soc. 51, 247; 65, 587, 987). — I, 720.
 12) Anhydrid d. trans-R-Pentamethylen-1,2-Dicarbonsäure. Fl. (Soc. 65, 985).
 13) Anhydrid d. cis-R-Pentamethylen-1,3-Dicarbonsäure. Sm. 160 bis 161,5° (B. 31, 1952).
 14) Anhydrid d. cis-1,1-Dimethyl-R-Trimethylen-2,3-Dicarbonsäure (A. d. cis-Caronsäure). Sm. 54–56° (B. 29, 2799; C. 1898 [1] 1292; Soc. 75, 61).
 15) Anhydrid d. α -Penten- $\alpha\beta$ -Dicarbonsäure (A. d. Äthylcittrakonsäure). Sd. 152–153°₆₆ (J. r. 23, 439). — I, 719.
 16) Anhydrid d. α -Penten- $\delta\epsilon$ -Dicarbonsäure (A. d. Äthylbernsteinsäure). Sd. 250° (B. 16, 334). — I, 720.
 17) Anhydrid d. β -Penten- $\alpha\beta$ -Dicarbonsäure (A. d. Äthylitakonsäure). Sd. 240–245° (A. 304, 183).
 18) Anhydrid d. β -Penten- $\beta\gamma$ -Dicarbonsäure (A. d. Methyläthylmaleinsäure). Sd. 237° (122°₃₀) (B. 23, 3422; 24, 2545; A. 267, 214; J. pr. [2] 46, 303). — I, 719.
 19) Anhydrid d. β -Penten- $\gamma\epsilon$ -Dicarbonsäure. Sm. 87° (B. 31, 1999).
 20) Anhydrid d. β -Methyl- α -Buten- $\gamma\delta$ -Dicarbonsäure (A. d. Dimethylatikonensäure). Fl. (A. 304, 214).
 21) Anhydrid d. γ -Methyl- α -Buten- $\alpha\beta$ -Dicarbonsäure (A. d. Dimethylcittrakonsäure). Sd. 270–280° (A. 304, 197; C. 1899 [1] 780).
 22) Anhydrid d. β -Methyl- β -Buten- $\gamma\delta$ -Dicarbonsäure (A. d. Terakonsäure). Sm. 44°; Sd. 275–283° (A. 304, 195).
 23) $\gamma\epsilon$ -Lakton d. $\beta\epsilon$ -Dioxy- $\beta\delta$ -Hexadien- γ -Carbonsäure. Sm. 63°; Sd. 216° u. Zers. Na, Ba + 4H₂O, Fe + 4H₂O (A. 303, 137, 145).
 24) Lakton d. β -Oxy- ϵ -Keto- β -Hexen- δ -Carbonsäure. Sm. 177–180° (A. 303, 142, 145).
 25) Äthylester d. Furan-2-Carbonsäure. Sm. 34°; Sd. 208–210° (A. 25, 276; B. 16, 659–660; 27 [2] 246; G. 24 [1] 253). — III, 698.
 26) Acetat d. 2-Oxymethylfuran. Sd. 175–177° (A. 272, 303). — III, 692.
 27) Verbindung (aus Quercetin). Sm. 130° (J. 1864, 562). — III, 605.
 28) Verbindung (aus Diäthylketon u. Oxalsäurediäthylester). Sm. 142–143° (A. 284, 248).

$C_7H_5O_4$

C 53,8 — H 5,1 — O 41,0 — M. G. 156.

- 1) 2-Methyläther d. 1,2,3,5-Tetraoxybenzol (Iretol). Sm. 186° (B. 26, 2015). — II, 1030.
- 2) 1,4-Diketo-hexahydrobenzol-3-Carbonsäure? (Succinylpropionsäure). Fl. (B. 10, 109; A. 211, 320). — I, 732.
- 3) 2,3-Dihydro-R-Penten-4,5-Dicarbonsäure. Sm. 178°. Ag, Ag₂ (B. 28, 660; Soc. 65, 983).
- 4) Cyclopsäure (Bl. 15, 136; B. 14, 851; Chem. N. [1870] 22, 2). — I, 732.
- 5) Pinnitansäure (J. 1853, 575; 1858, 517). — I, 732.
- 6) Piperylendicarbonsäure. Sm. 169°. Cu₂ + 18H₂O, Ag₂ (B. 28, 3287; 31, 1548).
- 7) Säure (aus β -Brom- β -Penten- α -Carbonsäure). Sm. 145—146°. Ag (A. 304, 193).
- 8) Anhydrid d. β -Ketobutan- $\delta\epsilon$ -Dicarbonsäure. Sm. 95° (J. pr. [2] 53, 305).
- 9) Anhydrid d. γ -Ketopentan- $\alpha\epsilon$ -Dicarbonsäure (A. d. Hydrochelidon-säure). Sm. 75°; Sd. 200—205°₁₅ (A. 253, 208, 221). — I, 767.
- 10) Anhydrid d. β -Acetylpropan- $\alpha\gamma$ -Dicarbonsäure. Sm. 102°; Sd. 205°₁₉ (J. pr. [2] 53, 306; A. 295, 104).
- 11) $\beta\delta$ -Lakton d. β -Oxy- β -Penten- $\gamma\delta$ -Dicarbonsäure. Ba (Soc. 71, 1162).
- 12) $\alpha\gamma$ -Lakton d. γ -Oxy- γ -Methyl- α -Buten- $\alpha\beta$ -Dicarbonsäure (L. d. Di-terebilensäure; Terebilensäure). Sm. 162—163°. Ca, Ag (B. 15, 296; 220, 261; 226, 370). — I, 768.
- 13) $\alpha\gamma$ -Lakton d. α -Oxy- β -Methyl- β -Buten- $\gamma\delta$ -Dicarbonsäure (Isoterebilensäure). Sm. 118—119°. Ca + $\frac{1}{2}$ H₂O, Ba + H₂O, Ag (A. 304, 234).
- 14) Dilakton d. $\gamma\delta$ -Dioxy-pentan- $\alpha\beta$ -Dicarbonsäure (Isoheptodilakton). Sm. 115° (A. 304, 227).
- 15) Dilakton d. $\beta\delta$ -Dioxy-pentan- $\beta\delta$ -Dicarbonsäure (D. d. Dioxydimethyl-glutarsäure). Sm. 104—105°; Sd. 235—260° (B. 24, 4010; 25, 3246). — I, 806.
- 16) Aldehyd d. Furonsäure (B. 10, 696). — I, 775.

 $C_7H_5O_5$

C 48,8 — H 4,6 — O 46,5 — M. G. 172.

- 1) Furonsäure. Sm. 180°. Ag₂ (B. 10, 696, 1358). — I, 775.
- 2) 1-Keto-R-Pentamethylen-3,4-Dicarbonsäure. Sm. 189°. Ag₂ (B. 21, 2112; 24, 313; 26, 366, 373).
- 3) Acetyl-R-Trimethylendicarbonsäure. Sm. 175° u. Zers. Ag (Soc. 51, 845). — I, 775.
- 4) Anhydrid d. Propionyläpfelsäure. Sm. 88—89° (B. 26 [2] 492).

 $C_7H_5O_6$

C 44,7 — H 4,2 — O 51,1 — M. G. 188.

- 1) Ozotoluol (Bl. [3] 15, 462).
- 2) $\alpha\gamma$ -Diketopentan- $\alpha\epsilon$ -Dicarbonsäure. Sm. 100—125°. Ag₂ (B. 31, 625).
- 3) β -Buten- $\alpha\alpha\beta$ -Tricarbonsäure. Sm. 185° u. Zers. Ca₃, Ba₃, Ag₃ (B. 17, 2833). — I, 819.
- 4) R-Trimethylen-1,2-Dicarbonsäure-1-Methylcarbonsäure. Sm. 212° u. Zers. (B. 27, 880).
- 5) 1-Methyl-R-Trimethylen-1,2,3-Tricarbonsäure. Sm. 191° (B. 27, 878).
- 6) Corydalsäure. Sm. 178—180° u. Zers. Pb₃, Ag (Soc. 65, 62; 67, 22). — II, 1990.
- 7) Kaffeelsäure (J. 1858, 262). — I, 819.
- 8) $\alpha\delta$ -Lakton d. α -Oxybutan- $\alpha\beta\delta$ -Tricarbonsäure. Ba (M. 13, 842). — I, 842.
- 9) $\alpha\gamma$ -Lakton d. γ -Oxybutan- $\alpha\beta\gamma$ -Tricarbonsäure. Sm. 160—168°. Ca, Ba (A. 234, 38; Ph. Ch. 10, 569). — I, 842.
- 10) $\alpha\delta$ -Lakton d. δ -Oxybutan- $\alpha\beta\gamma$ -Tricarbonsäure (Cinchonsäure). Sm. 168—169°. Ca + 2H₂O, Ba + 3H₂O, Cu, Ag₂ (A. 173, 104; B. 12, 1150; M. 3, 603; 13, 582). — I, 842.
- 11) Laktonsäure (aus d. Tetramethylester d. R-Trimethylen-1,2,3 Tricarbonsäure-1-Methylcarbonsäure). Sm. 190° (B. 27, 876).

 $C_7H_5O_8$

C 38,2 — H 3,6 — O 58,2 — M. G. 220.

- 1) Propan- $\alpha\alpha\gamma\gamma$ -Tetracarbonsäure (Dicarboxylglutarsäure). Sm. 167° u. Zers. Ca + 2H₂O, Ba + 2H₂O, Pb + 2H₂O (A. 222, 257; 246, 106; 256, 175; Soc. 59, 992; B. 19, 1054; 21, 2234). — I, 859.
- 2) Propan- $\alpha\beta\beta\gamma$ -Tetracarbonsäure (Isoallylentetracarbonsäure). Sm. 151° u. Zers. K₃ + 2 $\frac{1}{2}$ H₂O, Pb₂ + H₂O, Zn₂ + 3H₂O, Ag₄ (A. 214, 63; B. 13, 2164; 29, 969, 1750). — I, 858.

- C₇H₅O₂** 3) Diacetoxylnmethandicarbonsäure (Diacetylmesoxalsäure). Sm. 130°. Ag, Ag₂ (*J. r.* **10**, 72). — **I**, 788.
- C₇H₅N₃** C **70,0** — **H** **6,7** — **N** **23,3** — M. G. **120**.
- 1) 1-Imidoamidomethylbenzol (Benzenylamidin). Sm. 75—80°. Salze meist bek. (*B.* **10**, 1894; **11**, 6; **17**, 2004; **22**, 1606; **23**, 3820; **24**, 386; **25**, 547; **26**, 2124; *J.* **1888**, 1133; *A.* **265**, 130). — **IV**, 832.
- 2) Benzylidenhydrazin. Sm. bei 16°; Sd. **140**₁₄ (*J. pr.* [2] **44**, 537; *B.* **26**, 2060). — **IV**, 842.
- 3) α -Methylen- β -Phenylhydrazin. Sm. 146—155°(?) (*Soc.* **69**, 1282). — **IV**, 744.
- C₇H₅N₄** 4) Phenylazomethan. Sd. bei 150° u. Zers. (*B.* **18**, 1742). — **IV**, 1374.
- C **56,7** — **H** **5,4** — **N** **37,8** — M. G. **148**.
- 1) 6-Amido-1-Methyl-1,2,3-Benzotriazol. Sm. 180°. 2HCl, H₂SO₄, Pikrat (*B.* **30**, 2852). — **IV**, 1258.
- 2) 1-Phenyl-1,4-Dihydro-1,2,3,4-Benzotetrazin. Sm. 62° (*J. pr.* [2] **41**, 176). — **IV**, 1257.
- C₇H₅Br** 1) Tropilidendibromid. Fl. (*B.* **24**, 3122).
- C₇H₅S** 1) Merkaptomethylbenzol (Benzylmerkaptan). Sd. **194—195**° Hg, HgCl (*A.* **136**, 75; **140**, 89). — **II**, 1052.
- 2) 2-Merkapto-1-Methylbenzol. Sm. 15°; Sd. 193° (188°). Pb, Hg (*A.* **169**, 30; *B.* **19**, 2953; *G.* **20**, 30). — **II**, 820.
- 3) 3-Merkapto-1-Methylbenzol. Sd. **195—205**° (*A.* **169**, 51; *B.* **19**, 2953). — **II**, 820.
- 4) 4-Merkapto-1-Methylbenzol. Sm. 43°; Sd. **190,2—191,7**° (194°). Hg, + HgCl₂ (*A.* **136**, 79; *Z.* **1865**, 222; *B.* **19**, 2953, 3130; **28**, 2319). — **II**, 822.
- 5) Methyläther d. Merkaptobenzol (Methylphenylsulfid). Sd. 187—188° (*B.* **20**, 2926). — **II**, 780.
- C₇H₅S₂** 1) 2,4-Dimerkapto-1-Methylbenzol. Sm. **36—37**°; Sd. 263° (*B.* **20**, 355). — **II**, 954.
- 2) 3,5-Dimerkapto-1-Methylbenzol. Sm. **34,5—35**°. Pb (*B.* **12**, 1640). — **II**, 966.
- C₇H₅N** C **78,5** — **H** **8,4** — **N** **13,1** — M. G. **107**.
- 1) Methylamidobenzol (Methylanilin). Sd. **193,5**°. Salze meist bekannt. Lit. bedeutend. — **II**, 324.
- 2) Amidomethylbenzol (Benzylamin). Sd. 185° (183°). Salze meist bekannt. Lit. bedeutend. — **II**, 513.
- 3) 2-Amido-1-Methylbenzol. Sd. **197**°. Salze meist bekannt. Lit. bedeutend. — **II**, 453.
- 4) 3-Amido-1-Methylbenzol. Sd. 197°. Salze meist bek. Lit. bedeutend. — **II**, 474.
- 5) 4-Amido-1-Methylbenzol. Sm. 45°; Sd. 198°. Salze meist bekannt. Lit. bedeutend. — **II**, 479.
- 6) 1-Allylpyrrol. Sd. **105**₄₈° (*B.* **15**, 2581). — **IV**, 66.
- 7) 2-Aethylpyridin. Sd. **148,5**_{732,5}° (HCl, 2HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (*B.* **20**, 1651; **22**, 1128; **31**, 290; **32**, 44; *A.* **247**, 13). — **IV**, 131.
- 8) 3-Aethylpyridin (β -Lutidin). Sd. 166°. Salze meist bek. (*J.* **1855**, 549; **1864**, 437; **1881**, 431; *Bl.* **34**, 211; **35**, 303; **42**, 100; *A. ch.* [5] **27**, 462; *J. r.* **11**, 184; *M.* **3**, 781; *J. pr.* [2] **43**, 155; [2] **45**, 39; *B.* **16**, 797; *Ph. Ch.* **16**, 216). — **IV**, 131.
- 9) 4-Aethylpyridin. Sd. 164—166°. (HCl, 2HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (*A.* **247**, 18; *Bl.* **41**, 249; **42**, 101; **43**, 173; *B.* **32**, 45). — **IV**, 132.
- 10) 2,4-Dimethylpyridin. Sd. 157°. (HCl, 2HgCl₂ + $\frac{1}{2}$ H₂O), (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (*B.* **17**, 2908; **18**, 2025; **20**, 131; **21**, 286; *A.* **215**, 56; **247**, 35). — **IV**, 127.
- 11) 2,5-Dimethylpyridin. Sd. 162—166° (*B.* **20**, 134). — **IV**, 131.
- 12) 2,6-Dimethylpyridin (Lutidin). Sd. 142—143°. (HCl, HgCl₂), (HCl, 2HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), H₂Cr₂O₇, Pikrat, 2 + AgNO₃ (*B.* **18**, 51; **19**, 786; **20**, 129, 162; **21**, 1008; *A.* **231**, 18, 54; **247**, 28; *Soc.* **59**, 178). — **IV**, 129.
- 13) 3,4-Dimethylpyridin. Sd. **163,5—164,5**°. HCl, (2HCl, PtCl₄ + 2H₂O), (HCl, 2AuCl₃), (HCl, 2HgCl₂), HBr, HJ, Pikrat (*B.* **29**, 2996). — **IV**, 127.

- C₇H₅N** 14) **3,5-Dimethylpyridin**. *Sd.* 169—170°. (2HCl, PtCl₄), (HCl, AuCl₃) (*B.* 23, 1113). — IV, 131.
- 15) **2-Dimethylpyridin (α-Lutidin)**. *Sd.* 154°. (HCl, 2PbCl₂), (2HCl, PbCl₂), (5HCl, 2PbCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), + HgCl₂, 2 + AuCl₃ (*J.* 1854, 494; 1860, 359; 1864, 437; 1867, 490; *A.* 80, 57; *Bl.* 32, 486; 34, 634; *M.* 1, 1; *B.* 28, 794). — IV, 127.
- C₇H₅N₃** C 62,2 — H 6,7 — N 31,1 — *M. G.* 135.
- 1) **Phenylguanidin**. (HCl, AuCl₃), Pikrat (*B.* 12, 1602; *M.* 12, 17; 13, 100). — II, 348.
- 2) **3-Amido-1-Imidoamidomethylbenzol (3-Amidobenzamidin)**. *Fl.* 2HCl + H₂O, (2HCl, PtCl₄ + 2H₂O) (*B.* 28, 486). — IV, 1137.
- 3) **Benzenylhydrazidin (α-Imidobenzylidenhydrazin)**. HCl, Pikrat (*B.* 27, 991; *A.* 297, 242). — II, 1213.
- C₇H₅N₃** C 51,5 — H 5,5 — N 42,9 — *M. G.* 163.
- 1) **Aethyladenin (H. 18, 441)**. — IV, 1320.
- C₇H₅Cl** 1) **5-Chlor-3-Methyl-1,2-Dihydrobenzol**. *Sd.* 160—170° (*B.* 27, 3021).
- C₇H₅Br** 1) **Heptabromheptan**. *Fl.* (*B.* 26, 2437).
- C₇H₅P** 1) **Benzylphosphin**. *Sd.* 180°. HBr, HJ (*B.* 5, 101). — IV, 1662.
- 2) **4-Methylphenylphosphin**. *Sm.* 4°; *Sd.* 178°. HJ (*A.* 212, 233). — IV, 1666.
- C₇H₁₀O** C 76,4 — H 9,1 — O 14,5 — *M. G.* 110.
- 1) **Aethyläther d. β-Oxy-αδ-Pentenin**. *Sd.* 155° (*A. ch.* [6] 12, 223). — I, 304.
- 2) **1-Keto-5-Methyl-1,2,3,4-Tetrahydrobenzol**. *Sd.* 200—201° (*B.* 26, 884, 1951; *A.* 281, 97; 288, 355; 297, 143; *G.* 25 [2] 77). — III, 111.
- 3) **2-Keto-6-Methyl-1,2,3,4-Tetrahydrobenzol**. *Sm.* 12°; *Sd.* 192° (*C.* 1898 [1] 209, 441; 1898 [2] 1232).
- 4) **1-Keto-2,4-Dimethyl-2,3-Dihydro-R-Penten?** *Sm.* 118—119° (*A.* 250, 210). — I, 1012.
- 5) **4-Aethylbenzfuran**. *Sd.* 217—218° (*B.* 30, 1710).
- 6) **Myroxoresen (C. 1897 [1] 421)**.
- 7) **Aldehyd d. 1,2,3,4-Tetrahydrobenzol-1-Carbonsäure (Tropilen)**. *Sd.* 186—188°. + NaHSO₃ (*A.* 216, 338; 217, 138; *B.* 14, 2130, 2406; 24, 3124). — III, 1.
- C₇H₁₀O₂** C 66,7 — H 7,9 — O 25,4 — *M. G.* 126.
- 1) **γ-Acetyl-δ-Keto-β-Penten (Aethylidenacetylaceton)**. *Sd.* 97°₁₈ (*B.* 31, 1028).
- 2) **3,5-Diketo-1-Methylhexahydrobenzol (m-Methyldihydroresorcin)**. *Sm.* 125—126° (122°) (*A.* 289, 170; *B.* 30, 1801).
- 3) **2-[α-Oxypropyl]furan**. *Sd.* 180°₁₀ (*B.* 17, 1968). — III, 697.
- 4) **Aethyläther d. 2-Oxymethylfuran**. *Sd.* 148—150° (*A.* 272, 298). — III, 697.
- 5) **1,2,3,4-Tetrahydrobenzol-1-Carbonsäure (Benzoleinsäure)**. *Sd.* 234 bis 235° (i. CO₂). Ca, Ag (*A.* 132, 75; 271, 234; *B.* 24, 1865; 27, 2471). — II, 1129.
- 6) **1,2,3,4-Tetrahydrobenzol-5-Carbonsäure**. *Sm.* 29°; *Sd.* 240—243°. Ca + H₂O, Ag (*A.* 271, 267; *B.* 26, 457). — II, 1129.
- 7) **α-Hexin-α-Carbonsäure (Butylacetylen-carbonsäure)**. *Sd.* 135°₃₀. Ca, Ba (*J. pr.* [2] 37, 428). — I, 532.
- 8) **Säure (aus Carvenolsäure)**. *Sm.* 130—131° (*A.* 305, 255).
- 9) **Lakton d. β-Oxy-β-Hexen-δ-Carbonsäure**. *Sd.* 219° (*Soc.* 39, 340; 71, 1161). — I, 607.
- 10) **Lakton d. γ-Oxy-δ-Methyl-β-Penten-α-Carbonsäure**. *Sd.* 225—230° (*A.* 283, 274).
- 11) **Lakton [?] d. δ-Keto-β-Methylpentan-β-Carbonsäure (L. d. Mesiton-säure)**. *Sm.* 24°; *Sd.* 167° (164°) (*B.* 15, 579; *M.* 13, 613). — I, 608.
- 12) **Verbindung (aus Strophantidin) = (C₇H₁₀O₂)_x**. *Sm.* 198,5° (*B.* 31, 540). C 59,1 — H 7,0 — O 33,8 — *M. G.* 142.
- C₇H₁₀O₃** 1) **βδ-Triketoheptan (s-Diacetylaceton)**. *Sm.* 49°. Ba + 4H₂O, Cu (*A.* 257, 276; *Soc.* 61, 858; 63, 124; *B.* 28, 1819). — I, 1024.
- 2) **γ-Acetyl-β-Oxy-δ-Keto-β-Penten (αα-Diacetyl-β-Oxypropylen)**. *Sd.* 203 bis 204° u. ger. Zers. (*A.* 277, 71).
- 3) **Methyläther d. α-Oxy-γ-Keto-β-Aethanoyl-α-Buten**. *Sm.* 6—7°; *Sd.* 140°₁₈ (*A.* 297, 58).

$C_7H_{10}O_2$

- 4) Acetat d. β -Oxy- δ -Keto- β -Penten (A. d. α -Acetyl- β -Oxypropylen). Sd. 118—120°_{ss} (A. 277, 72).
- 5) Shikimipikrin. Sm. 200° (R. 4, 53). — III, 648.
- 6) 3-Ketohexahydrobenzol-1-Carbonsäure. Fl. Na (B. 22, 2182; A. 291, 304). — II, 1484.
- 7) 1-Oxy-5-Methyl-2,3-Dihydro-R-Penten-1-Carbonsäure. Sm. 87—88° (B. 27, 1541).
- 8) 1-Acetyl-R-Tetramethylen-1-Carbonsäure. Sm. 119°. Cu + H₂O, Ag (B. 16, 209; Soc. 51, 709, 740). — I, 623.
- 9) ?-Acetyl-1-Methyl-R-Trimethylen-?-Carbonsäure? (Propylenacetessigsäure?) Fl. Ag (Soc. 47, 850; 61, 68). — I, 623.
- 10) δ -Oxy- β -Methyl- $\alpha\gamma$ -Pentadien- α -Carbonsäure? (Oxymesitencarbonsäure). Fl. Ba (A. 222, 19). — I, 622.
- 11) Hexinsäure. Sm. 126° (A. ch. [5] 20, 468). — I, 623.
- 12) Isohexinsäure. Sm. 124°. Ba + 8H₂O (A. ch. [5] 20, 469). — I, 623.
- 13) Säure (aus Aceton). Pb (Z. 1868, 51). — I, 989.
- 14) Anhydrid d. Pentan- $\alpha\gamma$ -Dicarbonsäure. Sd. 275° (A. 292, 214).
- 15) Anhydrid d. Pentan- $\alpha\delta$ -Dicarbonsäure (C. 1896 [2] 1091).
- 16) Anhydrid d. Pentan- $\beta\gamma$ -Dicarbonsäure (A. d. α -Methyläthylbernsteinsäure). Sd. 244—245°₇₀ (J. r. 21, 387; A. 298, 162). — I, 678.
- 17) Anhydrid d. Pentan- $\beta\delta$ -Dicarbonsäure (A. d. Dimethylglutarsäure). Sm. 95°; Sd. 272° (B. 23, 1613; 24, 1934; A. 285, 268, 337; Soc. 67, 429, 430). — I, 678.
- 18) Anhydrid d. β -Methylbutan- $\alpha\beta$ -Dicarbonsäure? (A. d. Isopimelinsäure). Fl. (B. 24, 1393). — I, 679.
- 19) Anhydrid d. isom. β -Methylbutan- $\alpha\gamma$ -Dicarbonsäure. Sd. 275—283° (Bl. [3] 15, 1238).
- 20) Anhydrid d. β -Methylbutan- $\beta\gamma$ -Dicarbonsäure (A. d. Trimethylbernsteinsäure). Sm. 35,5—36,5° (31°; 38,5°); Sd. 227°₇₀ (A. 285, 306; B. 28, 265; Soc. 67, 428).
- 21) Anhydrid d. β -Methylbutan- $\beta\delta$ -Dicarbonsäure. Sm. 38,5°; Sd. 270° (B. 30, 255; C. 1895 [2] 447; Soc. 73, 847).
- 22) Anhydrid d. isom. β -Methylbutan- $\beta\delta$ -Dicarbonsäure. Sd. 240—250° (Bl. [3] 15, 1238).
- 23) Anhydrid d. β -Methylbutan- $\gamma\delta$ -Dicarbonsäure (A. d. Pimelinsäure). Sd. 245—250° (A. 169, 172; Soc. 73, 23; C. 1897 [1] 408). — I, 677.
- 24) Anhydrid d. $\beta\beta$ -Dimethylpropan- $\alpha\gamma$ -Dicarbonsäure. Sm. 124°; Sd. 181°_{ss} (B. 28, 1132; 29 [2] 660; Soc. 69, 1475; 75, 54).
- 25) Anhydrid einer zweibas. Säure. Sm. 170—172° (B. 26, 1459).
- 26) Aethylester d. Tetrinsäure. Sm. 30°; Sd. 180°₇₀ (B. 21, 2604; Am. 13, 313; 17, 793; A. 219, 114). — I, 617.
- 27) isom. Aethylester d. Tetrinsäure? Sd. 175—176°₅₀ (Am. 17, 793).
- 28) Aethylester d. γ -Keto- α -Buten- α -Carbonsäure (Ae. d. β -Acetylakrylsäure). Sd. 206—207° (A. 264, 248). — I, 617.
- 29) Furfurylester d. Essigsäure. Sd. 175—177° (A. 272, 303).
C 53,2 — H 6,3 — O 40,5 — M. G. 158.

 $C_7H_{10}O_4$

- 1) R-Pentamethylen-1,1-Dicarbonsäure. Sm. 185° (176—178°). Ag₂ (B. 26, 2247; 27, 1229; Soc. 65, 96).
- 2) cis-R-Pentamethylen-1,2-Dicarbonsäure. Sm. 140° (Soc. 65, 590).
- 3) trans-R-Pentamethylen-1,2-Dicarbonsäure. Sm. 159—160°. Ca, Ag₂ (Soc. 51, 244; 59, 828; 61, 705; 65, 586; J. pr. [2] 45, 480, 487). — I, 720.
- 4) cis-R-Pentamethylen-1,3-Dicarbonsäure. Sm. 120—121,5°. Ca + 2 $\frac{1}{2}$ H₂O, Ag₂ (B. 31, 1953).
- 5) cis-trans-R-Pentamethylen-1,3-Dicarbonsäure. Sm. 87—88,5°. Ca + 2 $\frac{1}{2}$ H₂O, Ag₂ (B. 31, 1955).
- 6) 1-Acetoxy-R-Tetramethylen-1-Carbonsäure. Sm. 72—74° (Soc. 61, 46). — I, 602.
- 7) cis-1,1-Dimethyl-R-Trimethylen-2,3-Dicarbonsäure (cis-Caronsäure). Sm. 174—175°. NH₃ (B. 29, 2798; C. 1898 [1] 1292; Soc. 75, 60).
- 8) trans-1,1-Dimethyl-R-Trimethylen-2,3-Dicarbonsäure (trans-Caronsäure). Sm. 212°. NH₃, Ag₂ (B. 29, 2799; C. 1898 [1] 1292; Soc. 75, 59).
- 9) α -Penten- $\alpha\beta$ -Dicarbonsäure (Aethylcitronsäure). Sm. 92—94° (93—95°). Ca + H₂O, Ba + $\frac{1}{2}$ H₂O, Ag₂ (J. r. 23, 439; A. 304, 184). — I, 719.

$C_7H_{10}O_4$

- 10) α -Penten- $\alpha\beta$ -Dicarbonsäure (Propylfumarsäure; Aethylmesakonsäure). Sm. 172,5—173° (174—175°). Ca + 2H₂O, Ba, Ag₂ (A. ch. [5] 20, 489; J. r. 23, 438; A. 304, 187). — I, 719.
- 11) α -Penten- $\alpha\gamma$ -Dicarbonsäure (Aethylglutakonsäure). Sm. 118—120°. Ag₂ (B. 23, 3182). — I, 719.
- 12) α -Penten- $\gamma\delta$ -Dicarbonsäure? (α -Vinylglutarsäure). Sm. 97—98° (B. 31, 2000).
- 13) α -Penten- $\delta\epsilon$ -Dicarbonsäure (Allylbernsteinsäure). Sm. 93—94°. Ca, Ba, Ag₂ (B. 16, 334). — I, 720.
- 14) β -Penten- $\alpha\beta$ -Dicarbonsäure (Aethylitakonsäure). Sm. 162—167° u. Zers. Ca + H₂O, Ba + 2H₂O, Ag₂ (J. r. 23, 440; A. 304, 181). — I, 719.
- 15) β -Penten- $\beta\gamma$ -Dicarbonsäure (Methyläthylmaleinsäure). Ca + H₂O, Ba, Ag₂ (A. 267, 214; J. pr. [2] 46, 304). — I, 719.
- 16) β -Penten- $\beta\delta$ -Dicarbonsäure ($\alpha\alpha$ -Dimethylglutakonsäure). Sm. 147° (C. 1898 [2] 886).
- 17) β -Penten- $\gamma\epsilon$ -Dicarbonsäure (α -Aethylidenglutarsäure). Sm. 152°. CaH + 2H₂O, Ca + H₂O, Ba, Ag₂ (B. 31, 1998).
- 18) β -Methyl- α -Buten- $\gamma\delta$ -Dicarbonsäure (Dimethylatikonsäure). Sm. 146 bis 147°. Ca + 2H₂O, Ba + H₂O (A. 304, 211).
- 19) γ -Methyl- α -Buten- $\alpha\beta$ -Dicarbonsäure (Dimethylcitakonsäure). Sm. 91 bis 93° u. Zers. Ca + H₂O, Ba + 1½ H₂O, Ag₂ (A. 304, 196; C. 1899, [1] 780).
- 20) γ -Methyl- α -Buten- $\alpha\beta$ -Dicarbonsäure (Dimethylmesakonsäure). Sm. 186 bis 187°; Sd. 205°₁₈. Ca + 2H₂O, Ba + 4H₂O, Ag₂ (A. ch. [5] 20, 491; A. 304, 200; C. 1899 [1] 780). — I, 720.
- 21) β -Methyl- β -Buten- $\gamma\delta$ -Dicarbonsäure (Terakonsäure). Sm. 161—163° u. Zers. Ca, Ba, Ag (A. 208, 50, 53; 220, 255; 267, 130; 282, 286; 304, 205, 208; B. 15, 294; 26, 2312; Ph. Ch. 4, 484; C. 1899 [1] 780). — I, 719.
- 22) Carbocaprolaktonsäure. Sm. 68—69°; Sd. 260° (B. 16, 335).
- 23) Dihydropiperylendicarbonsäure. Sm. 91° (B. 31, 1548).
- 24) isom. Dihydropiperylendicarbonsäure. Sm. 120—121° (B. 31, 1549).
- 25) Tuberkulinsäure. Sm. 161—164° (C. 1897 [2] 1188, 1189).
- 26) Säure (aus Carvenolsäure). Sm. 201—202° (A. 305, 256).
- 27) Säure (aus d. $\alpha\delta$ -Lakton d. δ -Oxypentan- $\alpha\gamma$ -Dicarbonsäure). Sm. 152° (B. 29, 2369).
- 28) Säure (aus δ -Oxypentan- $\alpha\delta$ -Dicarbonsäure). Sm. 153° (B. 30, 2053).
- 29) Säure (aus Diacetylbernsteinsäurediäthylester). Sm. 164° (A. 293, 103 Anm.).
- 30) Laktonsäure (aus Piperylendicarbonsäure). Sm. 82,5° (B. 31, 1552).
- 31) Lakton d. γ -Acetoxyl- γ -Oxybutan- α -Carbonsäure? (Acetat d. β -Acetylpropionsäure). Sm. 78—79°; Sd. 140°₁₈ (A. 236, 228; 256, 321, 339; B. 20, 3191). — I, 599.
- 32) $\alpha\gamma$ -Lakton d. γ -Oxypentan- $\alpha\beta$ -Dicarbonsäure (L. d. Aethylitamalsäure; Aethylparakonsäure). Sm. 85°. Ca + 2H₂O, Ba + 3H₂O, Ag (A. 255, 56). — I, 753.
- 33) $\beta\delta$ -Lakton d. δ -Oxypentan- $\alpha\beta$ -Dicarbonsäure. Sm. 68—69°; Sd. 260°. Ba (B. 16, 334, 1259). — I, 753.
- 34) $\alpha\delta$ -Lakton d. δ -Oxypentan- $\alpha\gamma$ -Dicarbonsäure. Sm. 107—108° (B. 29, 2369).
- 35) $\beta\delta$ -Lakton d. β -Oxy- β -Methylbutan- $\alpha\delta$ -Dicarbonsäure (L. d. β -Oxy- β -Methyladipinsäure). Sm. 60—65° (B. 25, 3516).
- 36) Lakton d. δ -Oxy- β -Methylbutan- $\beta\delta$ -Dicarbonsäure. Sm. 153°. Ba (B. 32, 145).
- 37) $\alpha\gamma$ -Lakton d. α -Oxy- β -Methylbutan- $\gamma\delta$ -Dicarbonsäure (Isoterebinsäure). Sm. 77—78°. Ca + H₂O, Ba, Ag (A. 304, 238).
- 38) $\beta\delta$ -Lakton d. β -Oxy- β -Methylbutan- $\gamma\delta$ -Dicarbonsäure (L. d. Diaterebinsäure; Terebinsäure). Sm. 174°. Ba + 2(3)H₂O, Pb, Ag, Ag₂ (J. 1855, 651; Ph. Ch. 3, 402, 614; 4, 580; A. 37, 297; 52, 393; 180, 45; 208, 37, 77; 226, 374; 228, 179; B. 26, 2047, 2315; 27, 1646; 28, 1346; 29, 933, 2621; Bl. [3] 17, 593; [3] 19, 275). — I, 754.
- 39) Lakton d. α -Oxy- $\beta\beta$ -Dimethylpropan- $\alpha\gamma$ -Dicarbonsäure. Sm. 112° (Soc. 75, 56).
- 40) $\alpha\gamma$ -Lakton d. γ -Oxybutan- α -Carbonsäure- β -Methylcarbonsäure. Sm. 79°; Sd. 225°₂₀. Ag (A. 295, 125).

$C_7H_{10}O_4$

- 41) $\alpha\gamma$ -Lakton d. γ -Oxybutan- $\alpha\gamma$ -Dicarbonsäure- γ -Methylester (Monomethylester d. Methyloxyglutarsäurelakton). *Sd.* 252° (*A.* 238, 296). — *I*, 750.
- 42) Methylester d. Acetylpropenylkohlenensäure. *Sd.* 115—120°₁₈ (*A.* 277, 182).
- 43) Methylester d. α -Oxy- γ -Keto- α -Butenmethyläther- β -Carbonsäure. *Sd.* 150°₁₆ (*A.* 297, 19).
- 44) Methylester d. $\beta\delta$ -Diketopentan- γ -Carbonsäure (Methylester d. Diacetyllessigsäure). *Sm.* 22—23°; *Sd.* 196—198°. *Cu* (*A.* 277, 175, 182).
- 45) Monomethylester d. β -Buten- $\beta\gamma$ -Dicarbonsäure (Methylester d. Pyrocinchonsäure). *Fl.* (*B.* 15, 1319).
- 46) Dimethylester d. *fum.* R-Trimethylen-1,2-Dicarbonsäure. *Sd.* 205 bis 215°₁₈ (*B.* 23, 703). — *I*, 712.
- 47) Dimethylester d. Propen- $\alpha\alpha$ -Dicarbonsäure (*D. d.* Crotakonsäure). *Fl.* (*A.* 191, 77). — *I*, 713.
- 48) Dimethylester d. Itakonsäure. *Sd.* 210—212,5° (*B.* 14, 2787; *A.* 248, 200). — *I*, 707.
- 49) *polym.* Dimethylester d. Itakonsäure (*A.* 248, 202). — *I*, 707.
- 50) Dimethylester d. Citrakonsäure. *Sd.* 210,5° (*B.* 14, 2541, 2736, 2785; *A.* 248, 197; *Soc.* 53, 583). — *I*, 709.
- 51) Dimethylester d. Mesakonsäure. *Sd.* 203,5° (*B.* 14, 2542, 2736, 2785; *A.* 248, 195; *Soc.* 53, 586). — *I*, 711.
- 52) α -Aethylester d. Itakonsäure. *Sm.* 45°; *Sd.* 153°₁₂ (*B.* 30, 2651).
- 53) α -Aethylester d. Mesakonsäure. *Sm.* 42°; *Sd.* 150°₁₅ (*B.* 30, 2651).
- 54) β -Monäthylester d. Mesakonsäure. *Sm.* 67—68° (*Bl.* [3] 3, 602; *B.* 30, 2651, 2653). — *I*, 711.
- 55) Aethylester d. β -Acetoxyläthen- α -Carbonsäure (*Ae. d.* β -Acetoxylakrylsäure). *Sd.* 126°₄₆ (*B.* 25, 1049). — *I*, 584.
- 56) Aethylester d. α -Oxy- γ -Keto- α -Buten- β -Carbonsäure (*Ae. d.* Oxy-methylenacetessigsäure). *Sd.* 200°₇₅₀. *NH₄*, *K*, *Ba*, *Cu*, *Ag* (*B.* 26, 2731; 30, 954; *A.* 297, 20, 22).
- 57) Aethylester d. $\alpha\gamma$ -Diketobutan- α -Carbonsäure (*Ae. d.* Acetbrenztraubensäure). *Sm.* 18°; *Sd.* 213—215°. *Cu* (*B.* 20, 2189; 21, 1141; 30, 954). — *I*, 691.
- 58) Acetat d. γ -Oxy- $\beta\delta$ -Diketopentan (Diacetylcarbinolacetat). *Sd.* 111°₂₁. *Cu* (*B.* 23 [2] 687). — *I*, 1018.
- 59) Diacetat d. $\gamma\gamma$ -Dioxypropen (Akroleinacetat). *Sd.* 180° (*A.* 114, 48). — *I*, 958.

 $C_7H_{10}O_5$

- C* 48,3 — *H* 5,7 — *O* 46,0 — *M. G.* 174.
- 1) γ -Oxy- γ -Methyl- α -Buten- $\alpha\beta$ -Dicarbonsäure (Diaterebilensäure). *K₂* (*A.* 220, 261; 226, 370). — *I*, 768.
 - 2) α -Oxypropenäthyläther- $\alpha\beta$ -Dicarbonsäure (Aethoxycitrakonsäure). *Fl.* *Ba* + *H₂O*, *Pb*, *Ag* (*Am.* 20, 143).
 - 3) β -Ketopentan- $\gamma\delta$ -Dicarbonsäure. *Ba* (*Soc.* 71, 1163).
 - 4) β -Ketopentan- $\delta\epsilon$ -Dicarbonsäure. *Sm.* 109° (107°). *Ba*, *Ag₂* (*B.* 19, 44; *J. pr.* [2] 53, 304, 311).
 - 5) γ -Ketopentan- $\alpha\epsilon$ -Dicarbonsäure (Hydrochelidonsäure; Acetondiessigsäure). *Sm.* 142—143°. *NH₄*, *Na*, *Na₂* + *H₂O*, *K*, *Ca* + *H₂O*, *Ba* + 2(2 $\frac{1}{2}$)*H₂O*, *Zn* + 2*H₂O*, *Cd* + 2*H₂O*, *Mn* + 2*H₂O*, *Cu*, *Ag₂* (*A.* 253, 206, 211; 267, 48, 104; *M.* 5, 353; *B.* 20, 2813). — *I*, 766.
 - 6) β -Acetylpropan- $\alpha\gamma$ -Dicarbonsäure (β -Acetylglutarsäure). *Sm.* 48°. *Na*, *Na₂*, *K*, *K₂*, *Mg*, *Sr* + 2*H₂O*, *Ba* + *H₂O*, *Cu* + *H₂O*, *Ag₂* (*J. pr.* [2] 53, 307; *A.* 295, 103, 108). — *I*, 767.
 - 7) Hydrofuronsäure. *Sm.* 112°. *Ag₂* (*B.* 10, 697, 1359). — *I*, 769.
 - 8) Oxydehydropimelinsäure (*M.* 4, 348). — *I*, 769.
 - 9) Oxyterebinsäure. *Fl.* *Ca*, *Ag* (*A.* 220, 263). — *I*, 768.
 - 10) Shikiminsäure. *Sm.* 184°. *NH₄*, *Ca* + 6*H₂O*, *Sr* + 3*H₂O*, *Ag* (*B.* 4, 49; 5, 299; *B.* 24, 1279, 1280). — *I*, 768.
 - 11) Säure (aus Campher). *Sm.* 145° (*A.* 191, 152, 153). — *I*, 815.
 - 12) Säure (aus Chelidonsäure). *Sm.* 140° (*B.* 16, 1261).
 - 13) $\beta\delta$ -Lakton d. $\gamma\delta$ -Dioxypentan- $\alpha\beta$ -Dicarbonsäure (Oxyisoterebinsäure). *Sm.* 163°. *Ca* + $\frac{1}{2}$ *H₂O*, *Ba* + *H₂O*, *Ag* (*A.* 304, 230).
 - 14) Lakton d. $\beta\delta$ -Dioxypentan- $\beta\delta$ -Dicarbonsäure (*L. d.* Dioxydimethylglutarsäure). *Sm.* 189—190°. *Ba* + 2*H₂O* (*B.* 24, 4008; 25, 3243). — *I*, 805.

- $C_7H_{10}O_5$
- 15) $\beta\delta$ -Lakton d. $\gamma\delta$ -Dioxy- β -Methylbutan- $\beta\delta$ -Dicarbonsäure. Sm. 214°; Sd. 320—330° u. Zers. Ca + 4H₂O, Ba, Ag, Anilinsalz (B. 32, 141).
 - 16) Lakton d. Rhamnonmethylenäthersäure. Sm. 178—180° (A. 299, 324).
 - 17) Chinid (Lakton d. Chinasäure). Sm. 198° (A. 110, 335—336; B. 24, 1297). — I, 805.
 - 18) Dimethylester d. Acetessigkohlsäure. Sm. 37—38°; Sd. 224—228° u. geringer Zers. (B. 25, 1771). — I, 763.
 - 19) Dimethylester d. β -Ketopropan- $\alpha\gamma$ -Dicarbonsäure (D. d. Acetondicarbonsäure). Sd. 150°₃₅ (128°₁₂) (A. ch. [6] 23, 166; B. 23, 3762). — I, 764.
 - 20) Dimethylester d. α -Oxypropen- $\beta\gamma$ -Dicarbonsäure (D. d. Formylbernsteinsäure). Sd. 126°₂₄ (J. pr. [2] 51, 144 Anm.).
 - 21) Dimethylester d. β -Oxyäthenmethyläther- $\alpha\alpha$ -Dicarbonsäure. Sm. 46°; Sd. 167°₂₀ (A. 297, 78).
 - 22) Diäthylester d. Ketomethandicarbonsäure (Diäthylester d. Ketomalonsäure). Sd. 100—101°₁₄ (B. 25, 3614; 27, 1305).
 - 23) Dioxymonopropylester d. Bernsteinsäure (Glycerinsuccinin). (J. 1856, 602; 1880, 799). — I, 656.
 - 24) Monacetat d. Holzgummi (C. 1895 [1] 373).
C 44,2 — H 5,3 — O 50,5 — M. G. 190.
- $C_7H_{10}O_6$
- 1) α -Oxy- δ -Ketopentan- $\alpha\beta$ -Dicarbonsäure (Acetonyläpfelsäure). Sm. 145 bis 146° u. Zers. Ba + H₂O, Ag₂, Phenylhydrazinsalz (Soc. 69, 534; 71, 324).
 - 2) α -Propionoxyläthan- $\alpha\beta$ -Dicarbonsäure (Propionyläpfelsäure) (B. 26 [2] 492).
 - 3) Butan- $\alpha\alpha\beta$ -Tricarbonsäure. Sm. 141° u. Zers. Ca, Ca + 2H₂O, Ca₃, Sr₂ + 6H₂O, Ba₃, Zn₂ + 6H₂O, Ag₃ + 1½ H₂O (A. 242, 114; B. 21, 2091; A. ch. [6] 27, 256; Ph. Ch. 10, 572). — I, 809.
 - 4) Butan- $\alpha\alpha\delta$ -Tricarbonsäure. Sm. 130° (139—140°). Ca₃ + 3H₂O, Ag₃ (Soc. 65, 1002; A. 297, 111; G. 26 [2] 262).
 - 5) fum. Butan- $\alpha\beta\gamma$ -Tricarbonsäure (Methyltricarballysäure). Sm. 184° (180°). Ca₃ + 8H₂O, Ag₃ (B. 24, 2891; M. 13, 590; Ph. Ch. 10, 564). — I, 810.
 - 6) mal. Butan- $\alpha\beta\gamma$ -Tricarbonsäure. Sm. 134°. Ag₃ (B. 24, 2892; M. 13, 590). — I, 810.
 - 7) isom. Butan- $\alpha\beta\gamma$ -Tricarbonsäure. Sm. 164° (B. 24, 2894). — I, 810.
 - 8) Butan- $\alpha\beta\delta$ -Tricarbonsäure. Sm. 116—120° (B. 24, 2895; M. 13, 848). — I, 809.
 - 9) Butan- $\beta\beta\gamma$ -Tricarbonsäure. Sm. 156—158° u. Zers. Ca₃, Ba₃ (B. 18, 2346; A. 234, 54; Ph. Ch. 10, 572). — I, 810.
 - 10) β -Methylpropan- $\alpha\alpha\beta$ -Tricarbonsäure. Sm. 148° u. Zers. K₂ + 2H₂O, Ca₃ + 9H₂O, Ca + 2H₂O, Sr + 7H₂O, Ba₃ + 4H₂O, Ag₃ (B. 18, 2350; A. 242, 127, 210; Ph. Ch. 10, 572). — I, 811.
 - 11) Boheasäure. Sm. 100°. Ba + H₂O, Pb + H₂O, Pb + PbO (A. 63, 202). — I, 811.
 - 12) Lakton d. $\beta\delta\epsilon$ -Trioxypentan- $\alpha\beta$ -Dicarbonsäure. Ba (J. r. 22, 527; J. pr. [2] 48, 526). — I, 834.
C 40,8 — H 4,8 — O 54,4 — M. G. 206.
- $C_7H_{10}O_7$
- 1) γ -Oxybutan- $\alpha\beta\gamma$ -Tricarbonsäure (Dicarboxyvalerolaktonsäure). Ca₃, Ba₃ (A. 234, 37). — I, 842.
 - 2) δ -Oxybutan- $\alpha\beta\gamma$ -Tricarbonsäure. Ca₃, Ba₃ + 3H₂O (M. 13, 587). — I, 842.
 - 3) α -Oxybutan- $\alpha\beta\delta$ -Tricarbonsäure. Ba, Ba₃ (M. 13, 844). — I, 841.
 - 4) Hydromekonsäure. Ba + 2H₂O, Pb + 3½ H₂O, Ag₂ + ½ H₂O (A. 138, 191). — I, 843.
 - 5) Oxycarballylmethyläthersäure. K₂, Ca + ½ H₂O, Ba + 2H₂O (J. r. 17, 85). — I, 841.
 - 6) α -Oxyäthanäthyläther- $\alpha\alpha\beta$ -Tricarbonsäure. Ba₃ (A. 214, 52; A. 15, 1108). — I, 834.
 - 7) $\alpha\gamma$ -Lakton d. $\alpha\beta\gamma\delta\epsilon$ -Pentaoxypentan- $\alpha\epsilon$ -Dicarbonsäure- ϵ -Aldehyd (Anhydrid d. Aldehydrolaktonsäure). Sm. 205—206° u. Zers. (B. 22, 1385). — I, 856.
 - 8) Monomethylester d. β -Oxypropan- $\alpha\beta\gamma$ -Tricarbonsäure (M. d. Citronensäure) (A. 80, 302). — I, 839.

$C_7H_{10}O_8$

C 37,8 — H 4,5 — O 57,7 — M. G. 222.

- 1) d-Zuckermethylenäthersäure. Sm. 144—146°. $(NH_4)_2 + H_2O$, $Na_2 + 2\frac{1}{2}H_2O$, $K_2 + H_2O$, $Mg + H_2O$, $Ca + 4H_2O$, $Sr + 4H_2O$, $Ba + 4H_2O$, $Cu + CuO + 2H_2O$, $Zn + 3H_2O$, Pb (A. 292, 40).
- 2) Lakton [oder Anhydrid] d. $\alpha\beta\gamma\delta\epsilon$ -Pentaoxypentan- $\alpha\epsilon$ -Dicarbonsäure (L. d. α -Pentaoxypimelinsäure). Sm. 143° (B. 19, 1917; A. 270, 91). — I, 869.
- 3) Lakton [oder Anhydrid] d. $\alpha\beta\gamma\delta\epsilon$ -Pentaoxypentan- $\alpha\epsilon$ -Dicarbonsäure (L. d. β -Pentaoxypimelinsäure). Sm. 177° u. Zers. (A. 270, 90). — I, 869.

 $C_7H_{10}O_{10}$

C 33,1 — H 3,9 — O 63,0 — M. G. 254.

- 1) $\alpha\beta\gamma\delta$ -Tetraoxybutan- $\alpha\alpha\delta$ -Tricarbonsäure. Sm. 146—147°. $K_2 + 1\frac{1}{2}H_2O$, $Ca_2 + 6H_2O$ (B. 24, 348). — I, 870.

 $C_7H_{10}N_2$

C 68,8 — H 8,2 — N 23,0 — M. G. 122.

- 1) 2-Amido-1-Methylamidobenzol. Sd. 245—248°₇₃₅. 2HCl (B. 24, 2682; 25, 2841). — IV, 555.
- 2) 3-Amido-1-Methylamidobenzol. Sd. 265—270° (B. 19, 549; A. 286, 173). — IV, 570.
- 3) 4-Amido-1-Methylamidobenzol. Sd. 257—259,5°. 2HCl, H_2SO_4 (B. 20, 929; 28, 1539; 29, 1482). — IV, 581.
- 4) 2-Amido-1-Amidomethylbenzol (2-Amidobenzylamin). HCl, 2HCl, Pikrat, Benzoat (B. 20, 2229; J. pr. [2] 51, 125; [2] 53, 418). — IV, 625.
- 5) 3-Amido-1-Amidomethylbenzol. Fl. (2HCl, $PtCl_4$), Pikrat (B. 20, 2870). — IV, 639.
- 6) 4-Amido-1-Amidomethylbenzol. Sd. 268—270°. (2HCl, $PtCl_4 + H_2O$) (B. 19, 1287; 22, 2142). — IV, 639.
- 7) 2,3-Diamido-1-Methylbenzol. Sm. 61—62°; Sd. 255° (A. 228, 243). — IV, 600.
- 8) 2,4-Diamido-1-Methylbenzol. Sm. 99°; Sd. 280°. HCl, 2HCl, (2HCl, $PtCl_4$), 2HBr, $H_2SO_4 + 2H_2O$, 2HCNS (J. 1861, 513; 1882, 369; A. 148, 157; 158, 251; B. 7, 1265; 11, 1759; 12, 723; 17, 268; 26, 3084; J. r. 27, 337). — IV, 601.
- 9) 2,5-Diamido-1-Methylbenzol. Sm. 64°; Sd. 273—274°. 2HCl, H_2SO_4 (A. 158, 352; B. 10, 832, 1157; 11, 1651; 12, 2237; G. 18, 306). — IV, 608.
- 10) 2,6-Diamido-1-Methylbenzol. Sm. 103,5—105°. HCl, $H_2SO_4 + 1\frac{1}{2}H_2O$ (A. 172, 227; B. 17, 1959). — IV, 610.
- 11) 3,4-Diamido-1-Methylbenzol. Sm. 88,5°; Sd. 265°. 2HCl, $H_2SO_4 + 1\frac{1}{2}H_2O$, Oxydehydracetsäures Salz (A. 158, 351; 209, 364; B. 18, 1234; 25, 325). — IV, 610.
- 12) 3,5-Diamido-1-Methylbenzol. Sd. 283—285°. (2HCl, $SnCl_2$) (A. 217, 200). — IV, 625.
- 13) s-Methylphenylhydrazin. Fl. H_2SO_4 (B. 18, 1741). — IV, 1501.
- 14) uns-Methylphenylhydrazin. Sd. 227°₇₄₅. H_2SO_4 , Amidosulfat, p-Toluolsulfinsäuresalz (A. 190, 150; 236, 198; 239, 249; J. pr. [2] 55, 297; [2] 56, 226; B. 18, 1744; 28, 3165; Ph. Ch. 16, 218). — IV, 657.
- 15) 2-Methylphenylhydrazin. Sm. 56° (59°). HCl + H_2O , HNO_3 (A. 212, 338; B. 18, 3175). — IV, 801.
- 16) 3-Methylphenylhydrazin. Sd. 240—244°. HCl (B. 22, 841). — IV, 804.
- 17) 4-Methylphenylhydrazin. Sm. 61° (65—66°); Sd. 240—244° u. Zers. (B. 9, 890; 28, 1539; 31, 582). — IV, 804.
- 18) 4-Amido-2,6-Dimethylpyridin. Sm. 186°; Sd. 246°. HCl, (2HCl, $PtCl_4$), HNO_3 , H_2SO_4 , Pikrat (B. 27, 1325). — IV, 823.
- 19) 4-Methyl-2-Aethyl-1,3-Diazin. Sd. 160° (PINNEN, Imidoäther 224). — IV, 824.
- 20) 2,3,5-Trimethyl-1,4-Diazin. Sd. 171—172°₇₃₅. (HCl, $AuCl_3 + H_2O$), (2HCl, $PtCl_4 + 2\frac{1}{2}H_2O$), + $AuCl_3$, + $PtCl_4$, + 5HgCl₂, Pikrat (J. pr. [2] 53, 503). — IV, 824.
- 21) β -Glykosin. Sd. 160° (Bl. 44, 104). — I, 1047.
- 22) Nitril d. Pentan- $\gamma\gamma$ -Dicarbonsäure. Sm. 44—45°; Sd. 195—195,5° (G. 28 [2] 223; Am. 18, 731).
- 23) Nitril d. β -Methylbutan- $\delta\delta$ -Dicarbonsäure (N. d. Isobutylmalonsäure). Sd. 222° (J. 1889, 640). — I, 1479.
- 24) Verbindung (aus Fuselöl). Sd. 170—171° (Fr. 29, 351). — I, 1047.

- C₇H₁₀N₄** C 56,0 — H 6,7 — N 37,3 — M. G. 150.
 1) **Amidophenylguanidin.** (2HCl, PtCl₄), HNO₃, 2 + Cu(NO₃)₂ + 3H₂O, Pikrat (*G.* 26 [2] 185). — IV, 1222.
 2) **Phenylamidoguanidin.** HCl, (2HCl, PtCl₄), HNO₃, Acetat, Carbonat, Pikrat (*G.* 21 [1] 333; 26 [2] 181). — IV, 1221.
- C₇H₁₀Br₆** 1) **Hexabromheptan.** Fl. (*A.* 185, 144). — I, 178.
- C₇H₁₀S** 1) **2-Propylthiophen.** Sd. 157,5—159,5° (cor.) (*B.* 17, 1561). — III, 746.
 2) **2-Isopropylthiophen.** Sd. 153—154° (*B.* 19, 673). — III, 747.
 3) **3-Isopropylthiophen.** Sd. 157—158°. HgCl, 2HgCl (*A.* 267, 134, 183). — III, 747.
 4) **2,3,4-Trimethylthiophen.** Sd. 160—163°. — III, 747.
- C₇H₁₀S₃** 1) **Allylester d. Merkapto-dithioameisenallyläthersäure** (Diallylester d. Trithiokohlensäure). Sd. 170—175° (*A.* 126, 297). — I, 888.
- C₇H₁₁N** C 77,1 — H 10,1 — N 12,8 — M. G. 109.
 1) **1-Propylpyrrol.** Sd. 145,5—146,5° (*B.* 22, 2518). — IV, 66.
 2) **2-Propylpyrrol.** Sd. 160—180° (*B.* 22, 2518). — IV, 73.
 3) **3[2]-Isopropylpyrrol.** Sd. 173—175° (*B.* 20, 850). — IV, 73.
 4) **1,2,5-Trimethylpyrrol.** Sd. 169°₇₄₆ (*A.* 236, 304). — IV, 71.
 5) **2-Trimethylpyrrol.** Sd. 180—195° (*B.* 14, 1338). — IV, 74.
 6) **1-Aethyl-2-Dihydropyridin.** Sd. 148° (*B.* 14, 1500). — IV, 69.
 7) **Dihydrolutidin.** Sd. 199°₇₇₀ (*Bl.* [3] 2, 223). — III, 888.
 8) **Dihydrolutidin.** Fl. (2HCl, PtCl₄) (*B.* 14, 1338). — IV, 74.
 9) **Nitril d. δ-Methyl-β-Penten-α-Carbonsäure.** Sd. 175° (*M.* 18, 726).
 C 61,3 — H 8,0 — N 30,7 — M. G. 137.
 1) **2,3,4-Triamido-1-Methylbenzol.** 3HCl (*M.* 10, 591). — IV, 1128.
 2) **2,4,5-Triamido-1-Methylbenzol.** 3HCl, 3H₂SO₄ (*B.* 14, 2657). — IV, 1128.
 3) **2,4,6-Triamido-1-Methylbenzol.** 3HCl (*B.* 29, 1346; *M.* 19, 224). — IV, 1129.
 4) **uns-Methyl-2-Amidophenylhydrazin.** Fl. (*J. pr.* [2] 41, 172). — IV, 1126.
 5) **4-Hydrazido-2,6-Dimethylpyridin.** Sm. 115—116° (*B.* 31, 2497).
- C₇H₁₁Cl** 1) **δ-Chlor-α⁷-Heptadien** (Diallylcarbinolchlorid). Sd. 144° u. Zers. (*A.* 185, 141). — I, 164.
 2) **Chlortetrahydro-R-Hepten.** Sd. 171° (*J. pr.* [2] 49, 415).
 3) **Hydrotropilidenhydrobromid.** Fl. (*B.* 30, 728).
- C₇H₁₂O** C 75,0 — H 10,7 — O 14,3 — M. G. 112.
 1) **δ-Oxy-α⁷-Heptadien** (Diallylcarbinol). Sd. 151° (*A.* 185, 129, 149; *J. pr.* [2] 23, 207; [2] 26, 110). — I, 257.
 2) **Anhydro-ξ-Oxy-β-Keto-γ-Methylhexan.** Sd. 131° (*B.* 32, 61).
 3) **Aethylpentinyläther.** Sd. 125—130° (*A.* 133, 86). — I, 304.
 4) **ε-Keto-δ-Methyl-α-Hexen** (α-Methyl-α-Allyldimethylketon). Sd. 138 bis 140° (*A.* 278, 11).
 5) **ε-Keto-β-Methyl-γ-Hexen.** Sd. 154—157° (*B.* 5, 700; 12, 192; *Soc.* 43, 91; *M.* 2, 618; 19, 370, 373; *Bl.* [3] 13, 1049). — I, 947.
 6) **β-Keto-γ-Methyl-γ-Hexen.** Sd. 153—159° (*J. r.* 26, 14).
 7) **δ-Keto-βγ-Dimethyl-β-Penten.** Sd. 143—147° (*Bl.* [3] 7, 581; *J. r.* 26 [1] 8).
 8) **Keto-R-Heptamethylen** (Suberon). Sd. 179—181° (178—179°) (*A.* 19, 308; 39, 167; 199, 147; 211, 117; 275, 357; *J. pr.* [2] 49, 409; *J. r.* 25, 364; *B.* 14, 2406; 31, 2507; *Soc.* 39, 539). — I, 1009.
 9) **2-Keto-1-Methylhexahydrobenzol.** Sd. 165—166°₇₇₀ (*B.* 29, 731).
 10) **d-3-Keto-1-Methylhexahydrobenzol.** Sd. 169° (*B.* 29, 916, 1595; 30, 23, 1533; *A.* 289, 338; 297, 154, 178).
 11) **i-3-Keto-1-Methylhexahydrobenzol.** Sd. 162—164° (*A.* 295, 181).
 12) **4-Keto-1-Methylhexahydrobenzol.** Sd. 163—165° (*A.* 295, 186).
 13) **2-Keto-1,3-Dimethyl-R-Pentamethylen.** Sd. 145—147° (*B.* 29, 404).
 14) **Propionyl-R-Tetramethylen.** Sd. 155—156°. + NaHSO₃ (*Soc.* 61, 51). — I, 1009.
 15) **Keton** (aus Trimethyläthylen u. Acetylchlorid). Sd. 147—154° (*Bl.* [3] 7, 581).
 16) **Keton** (aus camphoronsäurem Kalk). Sd. 100—115° (*A.* 159, 294). — I, 1010.
- C₇H₁₂O₂** C 65,6 — H 9,4 — O 25,0 — M. G. 128.
 1) **Diallyläther d. Dioxymethan.** Sd. 138—139° (*Bl.* [3] 11, 757).

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- 2) $\beta\delta$ -Diketoheptan (Acetylmethylpropylketon). Sd. 174—175°. Cu (B. 22, 1015). — I, 1019.
- 3) $\gamma\epsilon$ -Diketo- β -Methylhexan. Sd. 160—170°. Cu (B. 31, 1342).
- 4) $\delta\epsilon$ -Diketo- β -Methylhexan (Acetylisovaleryl). Sd. 138° (B. 22, 2122). — I, 1019.
- 5) $\beta\delta$ -Diketo- γ -Methylhexan (Acetylpropionyläthan). Sd. 167—170°. Cu (B. 22, 1017). — I, 1019.
- 6) $\beta\delta$ -Diketo- γ -Äthylpentan (α -Acetyl- α -Äthyl- β -Oxypropylen). Sd. 178 bis 179°. Cu (A. ch. [6] 12, 247; Soc. 61, 851; A. 277, 73; Am. 17, 436). — I, 1019.
- 7) $\beta\delta$ -Diketo- $\gamma\gamma$ -Dimethylpentan (Dimethylacetylaceton). Sd. 175—177° (Bl. [3] 7, 783; Soc. 65, 815). — I, 1019.
- 8) Äthyläther d. β -Oxy- δ -Keto- β -Penten (Ä. d. α -Acetyl- β -Oxypropen). Sd. 175—180° (A. 277, 73; Am. 17, 435).
- 9) Oxeton + H_2O (aus Oxetoncarbonsäure). Sd. 159,4° (A. 267, 197). — I, 316.
- 10) α -Hexen- δ -Carbonsäure (Äthylallylessigsäure). Sd. 208° (B. 29, 1856).
- 11) β -Hexen- α -Carbonsäure. Sd. 226—228°. Ca + 2 H_2O , Ba, Ag (A. 255, 77). — I, 518.
- 12) β -Hexen- ξ -Carbonsäure. Sd. 222—224°. Ca + H_2O , Cd, Ag (B. 30, 2048).
- 13) β -Methyl- α -Penten- α -Carbonsäure (β -Methyl- β -Propylakrylsäure). Fl. Na, Ba (J. r. 22, 52). — I, 519.
- 14) δ -Methyl- α -Penten- α -Carbonsäure. Sm. 16,5°; Sd. 227—228°. Ca + 4 H_2O , Ba + $7\frac{1}{2}$ H_2O , Ag (A. 283, 133, 276; B. 16, 1438). — I, 519.
- 15) δ -Methyl- α -Penten- β -Carbonsäure. Fl. Ca (C. 1897 [2] 572).
- 16) β -Methyl- β -Penten- α -Carbonsäure. Fl. Ag (A. 296, 210).
- 17) β -Methyl- β -Penten- ϵ -Carbonsäure. Sd. 216—218° (Bl. [3] 17, 751).
- 18) δ -Methyl- β -Penten- α -Carbonsäure. Sd. 217°. Ca + $1\frac{1}{2}$ H_2O , Ba, Ag (A. 255, 91; 283, 129, 269; M. 18, 728). — I, 518.
- 19) δ -Methyl- β -Penten- β -Carbonsäure. Sd. 115—116°₁₅. Ca, Ba, Ag (M. 19, 730).
- 20) β -Äthyl- α -Buten- α -Carbonsäure (β -Diäthylakrylsäure). Fl. Na, Ca, Ag (J. r. 22, 56). — I, 519.
- 21) Hexahydrobenzolcarbonsäure (Heptanaphtensäure). Sm. 28° (30,5 bis 31°); Sd. 232—233°. Na, Mg, Ca + 4(5) H_2O , Ba + $2\frac{1}{2}$ H_2O , Zn, Pb, Ag (B. 24, 1865; 25, 3357, 3658; 26, 2248; 27, 1232, 2468, 2829; A. 271, 260; 286, 265; Soc. 65, 103). — II, 1126.
- 22) Hexanaphtencarbonsäure. Sd. 215—217°. Na, K, Ca + 4 H_2O , Ba, Cd (B. 23, 871; 30, 1224). — I, 519.
- 23) 1-Methyl-R-Pentamethylen-2-Carbonsäure. Sd. 219,5—220,5°. Ag (Soc. 53, 194). — I, 519.
- 24) 1-Methyl-R-Pentamethylen-3-Carbonsäure. Sd. 220°. Ca, Ag (B. 28, 2958).
- 25) R-Pentamethylen-1-Methylcarbonsäure (R-Pentamethenylelessigsäure). Sd. 139—140°₃₆. Ag (B. 29, 1997).
- 26) Acetulminsäure (J. 1863, 330). — I, 980.
- 27) Damalursäure. Ba (A. 77, 30).
- 28) Terakrylsäure. Sd. 216—218°. Ca + 5 H_2O , Ag (B. 10, 521, 1659; 14, 1718; 15, 629; A. 208, 82). — I, 518.
- 29) Säure (aus Äthyl- $\alpha\alpha$ -Dichlorbutylketon). Sd. 215—218°. Ca (J. pr. [2] 51, 562).
- 30) Lakton d. γ -Oxyhexan- α -Carbonsäure. Sd. 234,5—235,5° (A. 255, 80). — I, 573.
- 31) Lakton d. ϵ -Oxyhexan- γ -Carbonsäure. Sd. 219,5° (216°) (A. 216, 38; B. 29, 1857). — I, 574.
- 32) $\alpha\gamma$ -Lakton d. γ -Oxy- β -Methylpentan- α -Carbonsäure. Sm. 47—48° (A. 296, 211).
- 33) Lakton d. δ -Oxy- β -Methylpentan- β -Carbonsäure. Sm. 52°; Sd. 86°₁₅ (A. 247, 107). — I, 574.
- 34) Lakton d. γ -Oxy- β -Methylpentan- δ -Carbonsäure. Sm. 50—51°. Ba (C. 1897 [2] 572).
- 35) Lakton d. γ -Oxy- β -Methylpentan- ϵ -Carbonsäure. Sd. 224—225° (A. 255, 94; M. 18, 729). — I, 573.
- 36) Lakton d. γ -Oxy- $\beta\gamma$ -Dimethylbutan- δ -Carbonsäure. Sm. 11°; Sd. 220° (A. 208, 86; B. 15, 629; Soc. 63, 1338). — I, 574.

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- 37) Lakton d. Säure $C_7H_{12}O_2$. Sd. 203—204° (B. 13, 955; 14, 1718).
 38) Aethylester d. α -Buten- γ -Carbonsäure (Aethylester d. Angelikasäure). Sd. 141,5° (B. 17, 2261). — I, 512.
 39) Aethylester d. α -Buten- δ -Carbonsäure (Aethylester d. Allylessigsäure). Sd. 142—144° (A. 187, 39). — I, 514.
 40) Aethylester d. β -Buten- β -Carbonsäure (Ae. d. Tiglinsäure). Sd. 152° (156°) (Z. 1870, 551; A. 191, 111; B. 17, 2262). — I, 513.
 41) Aethylester d. β -Methylpropen- α -Carbonsäure (Ae. d. $\beta\beta$ -Dimethylakrylsäure). Sd. 154—155° (Soc. 69, 1471).
 42) Aethylester d. R-Tetramethylen-carbonsäure (Aethylester d. R-Trimethylenessigsäure). Sd. 159—162° (151—151,5°₇₂₀) (B. 21, 2696; Soc. 51, 12). — I, 515.
 43) Allylester d. norm. Buttersäure. Sd. 142,5—143°₇₇₂ (A. 100, 360; 102, 296; A. ch. [3] 48, 289; Ph. Ch. 1, 385). — I, 423.
 44) Allylester d. Isobuttersäure. Sd. 133,5—134°₇₆₆ (Ph. Ch. 1, 385). — I, 426.
 45) Acetat d. γ -Oxy- α -Penten (Vinyläthylcarbinolester d. Essigsäure). Sd. 132°_{748,3} (J. r. 16, 321). — I, 412.
 46) Acetat d. δ -Oxy- α -Penten. Sd. 133°₇₄₃ (B. 27, 2434).
 47) Acetat d. γ -Oxy- β -Methyl- α -Buten (Methylisopropenylcarbinolester d. Essigsäure). Sd. 130—131°_{746,2} (J. r. 17, 299). — I, 412.
 48) Acetat d. δ -Oxy- β [oder γ]-Methyl- α -Buten. Sd. 120—130° (B. 28, 2956).
 49) Acetat d. Valerylenhydrat. Sd. 135° (Z. 1867, 174). — I, 412.
 50) Propionat d. α -Oxy- β -Buten. Sd. 150—151° (C. 1896 [2] 576).
 C 58,3 — H 8,3 — O 33,4 — M. G. 144.

 $C_7H_{12}O_3$

- 1) ϵ -Oxy- α -Hexen- δ -Carbonsäure (α -Allyl- β -Oxybuttersäure). Ba, Zn (A. 187, 45). — I, 607.
 2) ϵ -Oxy- α -Hexen- ϵ -Carbonsäure. Fl. Ca + 1½ H₂O, Ba (A. 303, 173).
 3) α -Oxy- β -Methyl- β -Penten- α -Carbonsäure (α -Oxy- β -Propylidenbuttersäure). Sm. 43°. Ca + 2H₂O, Ba + 3H₂O, Zn + 2H₂O (M. 11, 411; 15, 197, 418). — I, 607.
 4) Hydroxypentinsäure. Sm. 103—104° (A. ch. [5] 20, 492).
 5) 1-Oxyhexahydrobenzol-1-Carbonsäure. Sm. 106—107°. Ca + 3H₂O, Ag (B. 27, 1231).
 6) 2-Oxyhexahydrobenzol-1-Carbonsäure. Sm. 111°. Na, Ca + H₂O, Ba + 10H₂O, Cu (B. 27, 2472, 2476; 31, 1567). — II, 1483.
 7) 3-Oxyhexahydrobenzol-1-Carbonsäure. Sm. 132°. Ba + H₂O, Cu (A. 291, 298; B. 31, 1567).
 8) 1-Oxy-R-Tetramethylenäthyläther-1-Carbonsäure. Sm. 164—165°₉₀ (Soc. 61, 46). — I, 602.
 9) γ -Oxy- β -Butenäthyläther- β -Carbonsäure. Sm. 137,5° u. Zers. (A. 219, 357; 254, 243). — I, 602.
 10) β -Oxypropenpropyläther- α -Carbonsäure, nur Ester bekannt (A. 256, 208). — I, 582.
 11) β -Ketohehexan- δ -Carbonsäure (α -Aethyl- β -Acetylpropionsäure). Sd. 250 bis 252°. Ba (Soc. 39, 340; 71, 1161; A. 216, 39; B. 26, 1455). — I, 607.
 12) isom. β -Ketohehexan- δ -Carbonsäure. Ba, Ag (A. 216, 49). — I, 607.
 13) β -Ketohehexan- ζ -Carbonsäure (δ -Acetylvaleriansäure). Sm. 40—42°; Sd. 250—253°₂₈₀. Ag (Soc. 57, 229). — I, 606.
 14) δ -Keto- β -Methylpentan- β -Carbonsäure ($\alpha\alpha$ -Dimethyl- β -Acetylpropionsäure; Mesitonsäure; $\alpha\alpha$ -Dimethylävlulinsäure). Sm. 74° (74—77°); Sd. 138°₁₅. Ba, Ag (B. 14, 1073; 15, 585; 26, 1455; A. 247, 103; M. 13, 611). — I, 607.
 15) γ -Keto- β -Methylpentan- ϵ -Carbonsäure (δ -Dimethylävlulinsäure). Sm. 41° (42—43°); Sd. 250—255°. Ca + 3H₂O, Ba, Zn, Ag (A. 283, 275; 288, 182; B. 30, 434, 864; 31, 2311).
 16) γ -Keto- $\beta\beta$ -Dimethylbutan- α -Carbonsäure. Fl. (B. 30, 597).
 17) β -Methylbutan- δ -Ketocarbonsäure (Isobutylbrenztraubensäure). Sm. 22°. Ca, Ba + H₂O, Ag (A. 305, 60).
 18) 2,5-Dimethyltetrahydrofuran-2-Carbonsäure. Sd. 228°. Ca + 2H₂O, Ba, Ag (A. 303, 178).
 19) Säure (aus d. Verb. $C_{10}H_{14}O_2$ aus Campherchinion). Sm. 50—51° (B. 31, 3259).
 20) $\gamma\epsilon$ -Lakton d. $\beta\gamma$ -Dioxy- β -Methylpentan- ϵ -Carbonsäure. Sd. 145°₁₁ (B. 25, 3514).

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- 21) $\gamma\epsilon$ -Lakton d. $\gamma\delta$ -Dioxy- β -Methylpentan- ϵ -Carbonsäure. Sm. 112° (A. 283, 271; 288, 182).
- 22) $\delta\delta$ -Lakton d. $\beta\delta$ -Dioxy- β -Methylpentan- δ -Carbonsäure (Trimethyloxybutyllaktid) (A. 192, 358). — I, 1209.
- 23) Gem. Anhydrid d. Essigsäure u. Isovaleriansäure. Sd. 147—160° (B. 20, 3189; Bl. [3] 13, 331). — I, 463.
- 24) Methylester d. β -Oxypropenäthyläther- α -Carbonsäure (M. d. β -Oxyisocrotonäthyläthersäure). Sm. 12°; Sd. 195,7° (A. 256, 208). — I, 589.
- 25) Methylester d. β -Ketopentan- γ -Carbonsäure (Methylester d. Äthylacetessigsäure). Sd. 189,7° (Z. 1866, 457—458; A. 257, 356). — I, 603.
- 26) Methylester d. γ -Ketopentan- β -Carbonsäure (M. d. α -Propionylpropionsäure). Sd. 187° (A. 245, 84; Bl. [3] 4, 637). — I, 604.
- 27) Methylester d. γ -Keto- β -Methylbutan- β -Carbonsäure (Methylester d. Dimethylacetessigsäure). Sd. 172—173°₇₅₄ (175,6°_{759,5}) (J. pr. [2] 50, 129, 140).
- 28) Äthylester d. cis- β -Oxypropenmethyläther- α -Carbonsäure (Äe. d. cis- β -Oxyisocrotonmethyläthersäure). Sd. 187—188°₇₂₅ (B. 28, 1627).
- 29) Äthylester d. trans- β -Oxypropenmethyläther- α -Carbonsäure (Äe. d. β -Oxyisocrotonmethyläthersäure). Sd. 178,4° (A. 256, 209). — I, 589.
- 30) Äthylester d. β -Ketobutan- γ -Carbonsäure (Äthylester d. α -Acetylpropionsäure). Sd. 186,8° (A. 138, 335; 188, 231; 234, 189; J. 1865, 303; (J. pr. [2] 50, 128, 140; B. 28, 2618). — I, 601.
- 31) Äthylester d. β -Ketobutan- δ -Carbonsäure (Äthylester d. β -Acetylpropionsäure). Sd. 203—205° (205,2°) (A. 188, 225; 206, 221; B. 30, 950). — I, 599.
- 32) Äthylester d. Butan- $\beta\gamma$ -Oxyd- β -Carbonsäure (Äe. d. $\alpha\beta$ -Dimethylglycidsäure). Sd. 177—178° (B. 21, 2054). — I, 634.
- 33) Acetat d. ϵ -Oxy- β -Ketopentan (Acetylpropylacetat). Sd. 213—214°₇₂₅ (i. D.) (B. 22, 1205). — I, 414.

 $C_7H_{12}O_4$

- C 52,5 — H 7,5 — O 40,0 — M. G. 160.
- 1) Methyläther d. Isomannid. Sm. 44—45°; Sd. 174°₇₄ (Bl. 41, 124). — I, 317.
 - 2) Dimethylenäther d. Pentaerythrit. Sm. 50° (B. 27, 1894; A. 289, 28).
 - 3) 1,2-Dioxyhexahydrobenzol-1-Carbonsäure. Ca + 2H₂O (A. 271, 281). — II, 1730.
 - 4) β -Oxy- δ -Keto- β -Methylpentan- α -Carbonsäure (β -Oxy- γ -Acetylisovaleriansäure). Fl. Ba₂, Ag₁ + H₂O (A. 266, 351). — I, 677.
 - 5) Pentan- $\alpha\alpha$ -Dicarbonsäure (norm. Butylmalonsäure). Sm. 101,5°. Ba, Pb, Cu + H₂O, Ag₂ (B. 17, 2218; Ph. Ch. 8, 449; Bl. [3] 21, 277). — I, 676.
 - 6) Pentan- $\alpha\beta$ -Dicarbonsäure (Propylbernsteinsäure). Sm. 92° (B. 15, 608; 24, 87, 2036; 26, 1927; A. 214, 59; 304, 189; A. ch. [5] 20, 491; J. r. 23, 439; Ph. Ch. 8, 457). — I, 677.
 - 7) Pentan- $\alpha\gamma$ -Dicarbonsäure (α -Äthylglutarsäure). Sm. 60,5°; Sd. 194 bis 196°₉₀ (A. 292, 144, 213; B. 31, 1990).
 - 8) Pentan- $\alpha\delta$ -Dicarbonsäure. Sm. 63—64°. Ca, Ag₂ (B. 28 [2] 985; 29, 2058; Soc. 67, 115; G. 26 [2] 268).
 - 9) Pentan- $\alpha\epsilon$ -Dicarbonsäure (norm. Pimelinsäure). Sm. 105° (102°). Ca, Ba + H₂O, Pb, Cu, Ag₂ (A. 199, 148; 267, 81; 275, 359; 286, 261; J. pr. [2] 45, 480, 487; [2] 49, 434; B. 10, 1358; 17, 2213; 27, 331; 31, 626, 1550; Soc. 59, 825; J. r. 25, 556; M. 5, 358). — I, 676.
 - 10) Pentan- $\beta\beta$ -Dicarbonsäure (Methylpropylmalonsäure). Sm. 106—107°. Ca (M. 12, 593; A. 292, 136). — I, 677.
 - 11) fum. Pentan- $\beta\gamma$ -Dicarbonsäure (fum. ϵ -Methyläthylbernsteinsäure). Sm. 169—170° (174—175°; 179—180°). Ca + 5H₂O, Ba + 2H₂O (B. 22, 1817; 29, 1791; J. r. 21, 385; Ph. Ch. 5, 404; 8, 463; A. 292, 140; 298, 157). — I, 678.
 - 12) mal. Pentan- $\beta\gamma$ -Dicarbonsäure (mal. ϵ -Methyläthylbernsteinsäure). Sm. 84—85° (101—102°). Ca + H₂O, Ba + 5H₂O (J. r. 21, 385; Ph. Ch. 5, 404; 8, 463; A. 292, 141; 298, 159). — I, 678.
 - 13) fum. Pentan- $\beta\delta$ -Dicarbonsäure. Sm. 140—141° (145—145,5°). Ca, Ag₂ (A. 285, 267, 311; 292, 146; B. 28, 3264; siehe auch (B. 22, 2824; 23, 649, 1611, 1465; 24, 472, 1046, 1936; Soc. 67, 429; 69, 268; A. 285, 269). — I, 678.

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- 14) mal. Pentan- $\beta\delta$ -Dicarbonsäure (mal. s-Dimethylglutarsäure). Sm. 128°. Ag₂ (B. 22, 2824; 23, 649, 1465, 1611, 3402; 24, 1046, 1936; 28, 3264; A. 285, 255, 259, 327; Soc. 67, 428; 69, 268). — I, 678.
- 15) Pentan- $\gamma\gamma$ -Dicarbonsäure (Diäthylmalonsäure). Sm. 121° (125°). Na, K, Ca, Zn, Ag₂ (A. 204, 138; 209, 235; 249, 180; 292, 136; J. pr. [2] 39, 447; R. 5, 239; M. 13, 259; Ph. Ch. 8, 451). — I, 679.
- 16) isom. Pentan- η -Dicarbonsäure. Sd. 220°₂₂ (B. 28 [2] 985; G. 26 [2] 268).
- 17) β -Methylbutan- $\alpha\alpha$ -Dicarbonsäure (sec. Butylmalonsäure). Sm. 76°. Ag₂ (R. 6, 152; M. 14, 562; Soc. 67, 266). — I, 678.
- 18) β -Methylbutan- $\alpha\beta$ -Dicarbonsäure (Isopimelinsäure). Sm. 104°. Salze meist bekannt (J. 1878, 733; B. 23, 3407; 24, 1390, 1392; A. 292, 153, 182; 298, 166). — I, 678.
- 19) β -Methylbutan- $\alpha\gamma$ -Dicarbonsäure ($\alpha\beta$ -Dimethylglutarsäure). Sd. bei 200° (i. V.). Ag₂ (B. 29, 2058; G. 26 [2] 282).
- 20) isom. β -Methylbutan- $\alpha\gamma$ -Dicarbonsäure. Sm. 82—83° (Bl. [3] 15, 1238).
- 21) β -Methylbutan- $\alpha\delta$ -Dicarbonsäure (β -Methyladipinsäure). d-Modif. Sm. 84,5°; l-Modif. Sm. 89—90°; i-Modif. Sm. 93—94°; Sd. 210—212°₁₄₅. Ba, Cu, Ag₂ (B. 25, 3515; 26, 2257; 27, 1642, 1820; 29, 30, 908, 925; A. ch. [6] 7, 455; Bl. [3] 15, 227; A. 289, 378; 296, 122; Ph. Ch. 8, 493). — I, 680.
- 22) β -Methylbutan- $\beta\gamma$ -Dicarbonsäure (Trimethylbernsteinsäure). Sm. 147 bis 148° (151—152°). Ca + 3H₂O, Ba + H₂O, Pb + H₂O, Zn, Cu + 1(2)H₂O, Ag₂ (B. 24, 468, 471; 26, 2339; 27, 2093; 28, 264; 30, 291; A. 285, 212, 241, 256, 286, 302; 292, 109, 116, 142; 299, 159; Soc. 67, 427; C. 1895 [2] 591). — I, 681.
- 23) β -Methylbutan- $\beta\delta$ -Dicarbonsäure. Sm. 85° (83,5°). Ca + 3H₂O, Ag₂ (B. 28, 2176; 30, 254, 257; 31, 862, 885; C. 1895 [2] 447, 929; Bl. [3] 19, 284, 703; Soc. 73, 846).
- 24) isom. β -Methylbutan- $\beta\delta$ -Dicarbonsäure. Sm. 118° (Bl. [3] 15, 1238).
- 25) β -Methylbutan- $\gamma\gamma$ -Dicarbonsäure (Methylisopropylmalonsäure). Sm. 124°. Ca, Ag₂ (R. 5, 236). — I, 679.
- 26) β -Methylbutan- $\gamma\delta$ -Dicarbonsäure (Pimelinsäure; Isopropylbernsteinsäure). Sm. 114° (116°). Na₂, Mg, Ca, Sr, Ba, Cu, Ag₂. Lit. bedeutend. — I, 677.
- 27) β -Methylbutan- $\delta\delta$ -Dicarbonsäure (Isobutylmalonsäure). Sm. 107°. Ca, Ag₂ (B. 13, 600; A. 209, 236; J. 1882, 875; M. 15, 19; Ph. Ch. 8, 450). — I, 679.
- 28) β -Aethylpropan- $\alpha\gamma$ -Dicarbonsäure (β -Aethylglutarsäure). Sm. 66 bis 67° (73°). Ag₂ (A. 218, 167; 295, 125). — I, 677.
- 29) $\beta\beta$ -Dimethylpropan- $\alpha\gamma$ -Dicarbonsäure ($\beta\beta$ -Dimethylglutarsäure). Sm. 100—101°. Ag₂ (B. 28, 1131; 29 [2] 660; A. 292, 145; Soc. 69, 1473; 75, 54; Bl. [3] 19, 561; G. 28 [2] 309).
- 30) Metapimelinsäure. Ca (M. 4, 345; A. 292, 153). — I, 679.
- 31) Dioxyacetulminsäure (J. 1863, 330). — I, 980.
- 32) Säure (aus 3-Keto-1-Methylhexahydrobenzol). Sm. 69°(?). Ag₂ (A. 289, 344).
- 33) Säure (aus d. Laktonsäure aus Piperylendicarbonsäure) (B. 31, 1552).
- 34) Dimethylester d. Propan- $\alpha\beta$ -Dicarbonsäure (Dimethylester d. Methylbernsteinsäure). Sd. 197° (J. pr. [2] 47, 275; B. 26, 338).
- 35) Dimethylester d. Propan- $\beta\beta$ -Dicarbonsäure (Dimethylester d. Dimethylmalonsäure). Sd. 177—178°₁₃₃ (R. 4, 206). — I, 668.
- 36) Orthomonäthylester d. Propan- $\alpha\beta$ -Dicarbonsäure (Orthomonäthylester d. Methylbernsteinsäure). Sd. 160—161°₂₂ (J. pr. [2] 47, 280; B. 26, 339).
- 37) Monäthylester d. Propan- $\alpha\gamma$ -Dicarbonsäure (M. d. norm. Brenzweinsäure). Fl. (J. r. 9, 283). — I, 667.
- 38) Aethylester d. α -Acetoxypropionsäure. Sd. 177°₁₃₃ (A. 125, 59; Soc. 69, 828). — I, 556.
- 39) Aethylester d. d- α -Acetoxypropionsäure. Sd. 179,5—180,5° (C. 1895 [1] 1054).
- 40) Aethylester d. Propionoxylessigsäure. Sd. 200—201° (A. 208, 270). — I, 550.

- C₇H₁₂O₄**
- 41) **Methyläthylester d. Bernsteinsäure.** *Sd.* 208,2° (*A.* 221, 88). — *I*, 655.
 - 42) **Diäthylester d. Malonsäure.** *Sd.* 198,4°. *Na*, *Na*₂ (*A.* 133, 349; 204, 121; 218, 131; 253, 298; 266, 113; *B.* 13, 1651, 1949; 17, 2782; 27, 795, 800, 1659; 30, 952; *Ph. Ch.* 1, 381; *Soc.* 45, 508; *J. pr.* [2] 35, 349, 449; [2] 50, 140; *Am.* 15, 524; 16, 572). — *I*, 650.
 - 43) **Monoisoamylester d. Oxalsäure.** *Ca* + 2H₂O, *Ag* (*A. ch.* [3] 12, 309). — *I*, 648.
 - 44) **Diacetat d. αβ-Dioxypropan.** *Sd.* 186° (*A. ch.* [3] 55, 451; *B.* 25 [2] 463). — *I*, 413.
 - 45) **Diacetat d. αγ-Dioxypropan.** *Sd.* 209—210° (*A. ch.* [5] 14, 497). — *I*, 413.
 - 46) **Acetopropionat d. αα-Dioxyäthan.** *Sd.* 178,7° (*A.* 225, 281). — *I*, 926.
- C₇H₁₂O₅**
- C* 47,8 — *H* 6,8 — *O* 45,4 — *M. G.* 176.
- 1) **Dimethylenäther d. Adonit.** *Sm.* 145° (*B.* 27, 1893; *A.* 289, 24).
 - 2) **Coronillin** (*C.* 1896 [2] 431).
 - 3) **γ-Oxypentan-αβ-Dicarbonsäure** (Aethylitaminsäure). *Ca* + 5H₂O, *Ba* + 3H₂O, *Ag*₂ (*A.* 255, 59; *B.* 25, 3173). — *I*, 753.
 - 4) **δ-Oxypentan-αβ-Dicarbonsäure.** *Ba* (*B.* 16, 335, 1259). — *I*, 753.
 - 5) **δ-Oxypentan-αγ-Dicarbonsäure.** *Ca*, *Ba*, *Ag*₂ (*B.* 29, 2369).
 - 6) **δ-Oxypentan-αδ-Dicarbonsäure.** *Sm.* 92° (*B.* 30, 2051).
 - 7) **β-Oxypentan-βγ-Dicarbonsäure** (s-Methyläthyläpfelsäure). *Sm.* 131,5 bis 132°. *Zn* + 4H₂O, *Ag*₂ (*J. pr.* [2] 46, 302). — *I*, 753.
 - 8) **γ-Oxypentan-βδ-Dicarbonsäure.** *Sm.* 135—136° (136—137°). *Na*₂, *K*₂, *Ca*, *Ba* + 1½H₂O, *Ag*₂ (*B.* 28, 3263; *C.* 1898 [2] 886).
 - 9) **isom. γ-Oxypentan-βδ-Dicarbonsäure.** *Fl.* (*C.* 1898 [2] 886).
 - 10) **β-Oxy-β-Methylbutan-αδ-Dicarbonsäure** (β-Oxy-β-Methyladipinsäure). *Ag*₂ (*B.* 25, 3517).
 - 11) **γ-Oxy-β-Methylbutan-βγ-Dicarbonsäure** (Oxytrimethylbernsteinsäure). *Sm.* 159—160° (153—154°). *Ca* + ½H₂O, *Ag*₂ (*B.* 29, 1543, 1620).
 - 12) **isom. γ-Oxy-β-Methylbutan-βγ-Dicarbonsäure** (Oxytrimethylbernsteinsäure). *Sm.* 141° (*B.* 28, 1351).
 - 13) **α-Oxy-β-Methylbutan-γδ-Dicarbonsäure.** *Ba*, *Ag*₂ (*A.* 304, 240).
 - 14) **β-Oxy-β-Methylbutan-γδ-Dicarbonsäure** (Diaterebinsäure). *Ag* (*A.* 37, 297; 52, 391; 208, 54; 226, 370; *A. ch.* [3] 21, 27; *B.* 25, 3173; 26, 2047). — *I*, 753.
 - 15) **γ-Oxy-β-Methylbutan-γδ-Dicarbonsäure** (Isopropyläpfelsäure). *Sm.* 154°. *Ca*, *Pb* (*A.* 267, 132). — *I*, 755.
 - 16) **δ-Oxy-β-Methylbutan-δδ-Dicarbonsäure** (Isobutyltartronsäure). *Sm.* 110—114°. *Ca*, *Zn* + 2H₂O (*B.* 13, 600; 14, 617; *A.* 209, 238). — *I*, 755.
 - 17) **isom. Oxypentandicarbonsäure** (aus Chlormekonsäure). *Sm.* 149°. *Ag*₂ (*J. pr.* [2] 32, 148). — *I*, 755.
 - 18) **d-α-Oxyäthanpropyläther-αβ-Dicarbonsäure.** *Sm.* 63—66°. *K*, *K*₂ (*Soc.* 67, 954).
 - 19) **l-α-Oxyäthanpropyläther-αβ-Dicarbonsäure.** *Sm.* 67°. *Ba* (*Soc.* 67, 954).
 - 20) **i-α-Oxyäthanpropyläther-αβ-Dicarbonsäure.** *Sm.* 73—75°. *Ca*, *Ba*, *Pb* (*Soc.* 67, 949).
 - 21) **l-α-Oxyäthanisopropyläther-αβ-Dicarbonsäure.** *K*, *K*₂, *Ca*, *Ba* (*Soc.* 73, 291).
 - 22) **Digitoxosecarbonsäure.** *Sm.* 153—154°. *Ca* (*B.* 31, 2456).
 - 23) **Hydroshikiminsäure.** *Sm.* 175°. *Ag* (*B.* 24, 1287). — *I*, 755.
 - 24) **Lakton d. Digitalonsäure.** *Sm.* 138—139° (*B.* 25, 2117; 25 [2] 680). — *I*, 786.
 - 25) **Dimethylester d. i-α-Oxyäthanmethyläther-αβ-Dicarbonsäure** (Dimethylester d. i-Oxybernsteinmethyläthersäure). *Sm.* 28°; *Sd.* 218—220° (*Soc.* 59, 469). — *I*, 745.
 - 26) **Dimethylester d. d-α-Oxyäthanmethyläther-αβ-Dicarbonsäure.** *Sd.* 146°₇₅ (*Soc.* 67, 970).
 - 27) **Monäthylester d. α-Oxypropan-αβ-Dicarbonsäure** (*M.* d. β-Methyläpfelsäure). *Sm.* 166—167° (*B.* 25, 203). — *I*, 749.

- $C_7H_{12}O_5$ 28) Diäthylester d. Oxymethandicarbonsäure (D. d. Tartronsäure). Sd. 222—225° (B. 17, 786; 18, 757, 2853). — I, 740.
- 29) Diäthylester d. Carboglykolsäure. Sd. 240° (A. 154, 264). — I, 550.
- 30) Diacetat d. $\alpha\beta\gamma$ -Trioxypropan. Sd. 259—261° (175—176°₁₀) (A. ch. [3] 41, 278; Z. 1870, 344; B. 24, 3466; J. pr. [2] 55, 421). — I, 415.
- 31) isom. Diacetat d. $\alpha\beta\gamma$ -Trioxypropan. Sd. 250—253° (J. 1876, 343). — I, 415.
- $C_7H_{12}O_6$ C 43,8 — H 6,2 — O 50,0 — M. G. 192.
- 1) Di[Acetoxymethyl]äther d. Dioxymethan. Sd. 245—246° (G. 28 [2] 494).
- 2) Chinasäure (?-Tetraoxyhexancarbonsäure). Sm. 161,6°. Salze meist bek. Lit. bedeutend. — I, 804.
- 3) $\gamma\delta$ -Dioxy-pentan- $\alpha\beta$ -Dicarbonsäure. Ca + 1½ H₂O, Ba + H₂O, Ag₂ (A. 304, 228, 233).
- 4) $\beta\delta$ -Dioxy-pentan- $\beta\delta$ -Dicarbonsäure (Dioxydimethylglutarsäure). Sm. 98 bis 99° Ba + 2 H₂O (B. 23, 1614; 24, 4011, 4015; 25, 3244; A. 292, 203). — I, 805.
- 5) $\gamma\delta$ -Dioxy- β -Methylbutan- $\beta\delta$ -Dicarbonsäure. Ba (B. 32, 144).
- 6) $\alpha\gamma$ -Dioxypropandimethyläther- $\beta\beta$ -Dicarbonsäure (Dimethoxydimethylmalonsäure). Sm. 136—138° (A. 246, 102). — I, 802.
- 7) Rhamnonmethylenäthersäure. Na (A. 299, 326).
- 8) Lakton d. α -Rhamnohexonsäure (L. d. Isodulcitarbonsäure). Sm. 168° (B. 21, 1659; 23, 3104). — I, 830.
- 9) Lakton d. β -Rhamnohexonsäure. Sm. 134—138° u. Zers. (B. 27, 389).
- 10) Dimethylester d. Dioxymethandimethylätherdicarbonsäure (D. d. Dioxymalonsäure). Sd. 215—220° (B. 29, 1282, 1507).
- 11) Diäthylester d. Dioxymethandicarbonsäure (D. d. Dioxymalonsäure). Sm. 57°; Sd. bei 200° (J. r. 10, 75; B. 24, 3000; 25, 3615). — I, 788.
- $C_7H_{12}O_7$ C 40,4 — H 5,8 — O 53,8 — M. G. 208.
- 1) $\beta\delta\epsilon$ -Trioxypentan- $\alpha\beta$ -Dicarbonsäure. Ca, Ba (J. r. 22, 527; (J. pr. [2] 48, 527). — I, 834.
- 2) Dioxydihydroshikiminsäure. Sm. 156° (B. 24, 1294). — I, 834.
- 3) Lakton d. $\alpha\beta\gamma\delta\epsilon\zeta$ -Hexaoxyhexan- α -Carbonsäure (L. d. α -Glykoheptonsäure). Erweicht bei 145—148° (A. 270, 71; 299, 328; B. 19, 770; Bl. [3] 7, 394). — I, 849.
- 4) Lakton d. isom. $\alpha\beta\gamma\delta\epsilon\zeta$ -Hexaoxyhexan- α -Carbonsäure (L. d. β -Glykoheptonsäure). Sm. 151—152° (A. 270, 84; 299, 329). — I, 849.
- 5) Lakton d. $\alpha\beta\gamma\delta\epsilon\zeta$ -Hexaoxyhexan- β -Carbonsäure (L. d. Lävulosecarbonsäure). Sm. 126—130° (B. 19, 1914). — I, 849.
- 6) Lakton d. α -Galaheptonsäure (Lakton d. Galaktosecarbonsäure). Sm. 142—147° (B. 21, 917; A. 288, 142). — I, 850.
- 7) Lakton d. β -Galaheptonsäure (A. 288, 154).
- 8) Lakton d. d-Mannoheptonsäure (L. d. Mannosecarbonsäure). Sm. 148 bis 150° (B. 22, 372; 23, 2228). — I, 850.
- 9) Lakton d. l-Mannoheptonsäure. Sm. 153—155° (A. 272, 184). — I, 850.
- 10) Lakton d. i-Mannoheptonsäure. Sm. 85° (A. 272, 185). — I, 850.
- $C_7H_{12}O_8$ C 37,5 — H 5,4 — O 57,1 — M. G. 224.
- 1) Glycerinweinsäure (J. 1859, 500). — I, 795.
- $C_7H_{12}O_9$ C 35,0 — H 5,0 — O 60,0 — M. G. 240.
- 1) $\alpha\beta\gamma\delta\epsilon$ -Pentaoxypentan- $\alpha\epsilon$ -Dicarbonsäure (α -Pentaoxypimelinsäure). Ca + 4 H₂O, Ba + 3 H₂O (B. 19, 1917; A. 270, 91). — I, 868.
- 2) isom. $\alpha\beta\gamma\delta\epsilon$ -Pentaoxypentan- $\alpha\epsilon$ -Dicarbonsäure (β -Pentaoxypimelinsäure) (A. 270, 89). — I, 869.
- 3) isom. Pentaoxypimelinsäure. Ca + 4 H₂O (A. 272, 194). — I, 869.
- 4) Pentaoxypentandicarbonsäure (Carboxygalaktonsäure; α -Galaheptanpentoldisäure). Sm. 171° u. Zers. K + 1½ H₂O, Ba + 3 H₂O, Cd + 2 H₂O (B. 22, 522, 1385; A. 288, 155). — I, 869.
- 5) isom. Pentaoxypentandicarbonsäure (β -Galaheptanpentoldisäure). Fl. Ca + 2 H₂O (A. 288, 155).
- $C_7H_{12}N_2$ C 61,7 — H 9,7 — N 22,6 — M. G. 124.
- 1) 3,5-Dimethyl-1-Aethylpyrazol. (2HCl, PtCl₄) (G. 23 [1] 524). — IV, 523.

- C₇H₁₂N₂**
- 2) 1,3,4,5-Tetramethylpyrazol. Sd. 190—193° (A. 279, 235, 246). — IV, 527.
 - 3) 3,4,4,5-Tetramethylisopyrazol. Sm. 50—55°; Sd. 237°₇₄₀ (A. 279, 247). — IV, 529.
 - 4) 2-Isobutylimidazol. Sm. 127° (120—121°); Sd. 273—274°. HCl, (2HCl, PtCl₄), HBr, Oxalat (B. 16, 747; 17, 1291; J. 1886, 71; A. ch. [6] 24, 540). — IV, 529.
 - 5) 2-Methyl-1-Propylimidazol. Sd. 224—225° (B. 16, 489). — IV, 518.
 - 6) 1-Methyl-2-Propylimidazol. Sd. 214—216°₇₂₂. (2HCl, PtCl₄) (M. 9, 606). — IV, 527.
 - 7) 5-Methyl-4-Propylimidazol. (HCl, AuCl₃), Pikrat (B. 28, 2042). — IV, 530.
 - 8) 1-Methyl-2-Isopropylimidazol. Sd. 205—206°. (2HCl, PtCl₄) (M. 9, 611). — IV, 528.
- C₇H₁₂N₄**
- 9) 1,2-Diäthylimidazol. Sd. 219—220° (B. 16, 490; 17, 1290). — IV, 524.
C 55,3 — H 7,9 — N 36,8 — M. G. 152.
 - 1) 2,3,4,5-Tetraamido-1-Methylbenzol. H₂SO₄, 2H₂SO₄ (B. 23, 3217). — IV, 1245.
 - 2) Verbindung (aus Amidoguanidinchlorhydrat u. Acetonylaceton). Sm. 151°. HCl, HNO₃ (A. 302, 297). — IV, 1245.
- C₇H₁₂Cl₄**
C₇H₁₂Br₂
- 1) Tetrachlorheptan (Bl. 49, 72). — I, 156.
 - 1) 1,2-Dibrom-R-Heptamethylen. Sd. 230° u. Zers. (J. pr. [2] 49, 429).
 - 2) 2-Dibrom-1-Methylhexahydrobenzol. Sd. 117—118°₃₀ (A. 297, 159).
 - 3) αβ-Dibrom-α-Hepten (Oenanthyldenbromid) (A. 142, 296).
 - 4) Bromid d. Verbindung C₇H₁₄O₂ (Soc. 1882, 167).
- C₇H₁₂Br₄**
- 1) ααββ-Tetrabromheptan (Oenanthylidentetrabromid). Fl. (A. 142, 296).
 - 2) Tetrabromheptan (aus Methylpropylallylenglykol) (Soc. 41, 169).
- C₇H₁₂N**
- 1) Methyldiallylamin. Sd. 112° (B. 30, 619).
 - 2) γ-Isobutylamidopropin (Isobutylpropargylamin). Sd. 134—136°. HCl, (2HCl, PtCl₄), Dioxalat (B. 24, 3045). — I, 1146.
 - 3) 1-Amido-5-Methyl-1,2,3,4-Tetrahydrobenzol. Sd. 152—155°. HCl, (2HCl, PtCl₄) (A. 281, 101). — IV, 50.
 - 4) 2-Aethenylhexahydropyridin (2-Vinylpiperidin). Sd. 146—148° (B. 22, 2587). — IV, 51.
 - 5) 2-Aethyl-1,2,3,4-Tetrahydropyridin (α-Aethylpiperidein). Sd. 149 bis 151°. (2HCl, PtCl₄) (B. 20, 1646). — IV, 51.
 - 6) 1,2-Dimethyl-1,2,3,4-Tetrahydropyridin. Fl. (HCl, AuCl₃), Pikrat (B. 22, 1362). — IV, 50.
 - 7) 1,6-Dimethyl-1,2,3,4-Tetrahydropyridin. Sd. 145—146°₇₉₀. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (A. 289, 216; B. 26, 1401). — IV, 49.
 - 8) 5,6-Dimethyl-1,2,3,4-Tetrahydropyridin. Sd. 154—156°. (HCl, 5HgCl₂), (HCl, AuCl₃), Pikrat (B. 32, 62).
 - 9) Dimethylpiperidein. Sd. 137—140°. (2HCl, PtCl₄), (HCl, AuCl₃) (A. 247, 59; B. 17, 2142). — IV, 6.
 - 10) Tropanin (Norhydrotropidin). Krystalle. Sd. bei 161°. HCl, (2HCl, PtCl₄) (B. 20, 1649; 29, 484, 489, 2974; G. 27 [1] 384). — III, 790.
 - 11) Nitril d. Hexan-α-Carbonsäure (N. d. Oenanthsäure). Sd. 175—178° (i. D.) (A. 185, 368; B. 23 [2] 405; 24, 983; 25 [2] 637; Bl. [3] 11, 1068). — I, 1467.
C 50,3 — H 7,8 — N 41,9 — M. G. 167.
- C₇H₁₂N₅**
- 1) Pentaamido-1-Methylbenzol. 3HCl, (6HCl, 3PtCl₄) (B. 21, 3501; 26, 2307). — IV, 1317.
 - 2) 4,6-Diamido-2-Isobutyl-1,3,5-Triazin (Butylenguanamin). Sm. 172 bis 173°. HCl, H₂SO₄, + AgNO₃ (B. 9, 240). — IV, 1317.
- C₇H₁₃Cl**
- 1) δ-Chlor-ε-Methyl-α-Hexen. Sd. 125—130° u. Zers. (Bl. [3] 15, 886).
 - 2) Chlorhepten (aus Butyron). Sd. 141° (B. 9, 1442). — I, 162.
 - 3) Chlorhepten (aus Isobutyron). Sd. 118—120° (B. 8, 400). — I, 162.
 - 4) Chlorhepten (aus Heptin). Sd. 140° u. Zers. (A. ch. [6] 19, 23). — I, 162.
 - 5) Chlorhepten (aus Oenanthylidenchlorid). Sd. 155° (148°) (A. 103, 83; B. 30, 1496). — I, 162.
 - 6) Chlor-R-Heptamethylen (Suberylchlorid). Sd. 173—175°₇₄₆ (J. pr. [2] 49, 416; J. r. 25, 370).

- $C_7H_{13}Cl$ 7) 3-Chlor-1-Methylhexahydrobenzol. *Sd.* 56—57°₁₀ (*A.* 289, 143; 297, 153).
- $C_7H_{13}Cl_2$ 8) 2-Chlor-1-Methylhexahydrobenzol. *Sd.* 158° (*J. r.* 23, 41). — II, 15.
- $C_7H_{13}Br$ 1) Trichlorheptan (*Bl.* 49, 72). — I, 156.
- 2) 3-Brom-1-Methylhexahydrobenzol. *Sd.* 61,5—62° (*B.* 30, 1534; *A.* 297, 153).
- 3) 1-[α -Brompropyl]-R-Tetramethylen. *Sd.* 110°₁₃₀ (*Soc.* 61, 58). — I, 186.
- 4) α [oder β]-Brom- α -Hepten. *Sd.* 99—101°₉₅ (*B.* 30, 1495).
- 5) Bromhepten (aus Heptylenbromid). *Sd.* 156—158° (*Am. Soc.* 4, 255). — I, 179.
- $C_7H_{13}J$ 5) Bromhepten (aus Oenanthyldenbromid). *Sd.* 165° (*B.* 8, 409). — I, 186.
- 1) Jod-R-Heptamethylen. *Fl.* (*J. pr.* [2] 49, 417).
- 2) 3-Jod-1-Methylhexahydrobenzol. *Sd.* 201—202° u. ger. Zers. (*A.* 289, 343; 297, 154; *B.* 30, 1534).
- 3) 1-[α -Jodpropyl]-R-Tetramethylen. *Sd.* 105—107°₉₀ (*Soc.* 61, 57). — I, 199.
- $C_7H_{14}O$ C 73,7 — H 12,3 — O 14,0 — M. G. 114.
- 1) δ -Oxy- δ -Methyl- α -Hexen (Methyläthylallylcarbinol). *Sd.* 139° (*J. pr.* [2] 49, 49).
- 2) δ -Oxy- ϵ -Methyl- α -Hexen (Isopropylallylcarbinol). *Sd.* 139—141° (*Bl.* [3] 11, 359).
- 3) Oxy-R-Heptamethylen (Suberylalkohol). *Sd.* 184—185°₇₅₅ (*J. pr.* [2] 49, 415; *J. r.* 25, 369).
- 4) 2-Oxy-1-Methylhexahydrobenzol. *Sd.* 168—169° (*B.* 29, 731).
- 5) 3-Oxy-1-Methylhexahydrobenzol. *Sd.* 175—176° (173—174°₇₅₀) (*A.* 289, 342; *B.* 30, 1534).
- 6) *cis*-3-Oxy-1-Methylhexahydrobenzol. *Sd.* 174—175°₇₅₀ (*A.* 297, 150).
- 7) *trans*-3-Oxy-1-Methylhexahydrobenzol. *Sd.* 175—176° (*A.* 289, 141; 291, 176).
- 8) 2-Oxy-1,3-Dimethyl-R-Pentamethylen. *Sd.* 154°₇₄₄ (*B.* 29, 404).
- 9) 1-[α -Oxypropyl]-R-Tetramethylen. *Sd.* 162° (*Soc.* 61, 54). — I, 254.
- 10) Alkohol (aus d. Kohlenwasserstoff C_7H_{14} aus Naphta). *Sd.* 144—145° (*B.* 30, 976).
- 11) Aethyläther d. α -Oxy- β -Methyl- α -Buten (Aethylvaleryläther). *Sd.* 111 bis 114° (*B.* 10, 706; *J. r.* 9, 173). — I, 303.
- 12) β -Ketoheptan (Methylamylketon). *Sd.* 151—152° (148,5—149°) (*A.* 161, 279; 217, 150; *B.* 25 [2] 504; *A. ch.* [6] 15, 270; *J. r.* 25, 488; *C.* 1897 [1] 992). — I, 1000.
- 13) γ -Ketoheptan (Aethylbutylketon). *Sd.* 147—148°_{742,9} (*G.* 28 [2] 272; *J. pr.* [2] 58, 396).
- 14) δ -Ketoheptan (Dipropylketon; Butyron). *Sd.* 144° (141—142,5°) (*A.* 52, 296; 161, 207; 186, 261; *J. r.* 13, 346; *Bl.* 50, 358; *A. ch.* [6] 15, 416; *J. pr.* [2] 50, 140; *B.* 29, 96). — I, 1000.
- 15) δ -Keto- β -Methylhexan (Aethylisobutylketon). *Sd.* 134,8—135°₇₃₅ (*A.* 202, 327; *J. pr.* [2] 44, 274). — I, 1000.
- 16) ϵ -Keto- β -Methylhexan (Methylisoamylketon). *Sd.* 144°. + $NaHSO_3$ (*A.* 145, 283; 166, 169; 190, 308; *B.* 5, 604; 7, 501; *Z.* 1865, 578; *J. r.* 16, 705; *Soc.* 39, 467). — I, 1000.
- 17) β -Keto- γ -Methylhexan (Methyl- α -Methylbutylketon). *Sd.* 142—147° (*A.* 226, 293). — I, 1000.
- 18) δ -Keto- γ -Methylhexan (Aethyl- α -Butylcarbonyl). *Sd.* 134—135° (*Bl.* [3] 1, 550). — I, 1000.
- 19) γ -Keto- β -Aethylpentan (Methyl- α -Aethylpropylketon). *Sd.* 137,5—139°. + $NaHSO_3$ (*A.* 138, 212; *A. ch.* [6] 12, 250). — I, 1001.
- 20) γ -Keto- $\beta\beta$ -Dimethylpentan (Aethylpseudoobutylpinakolin). *Sd.* 125,5 bis 126° (*A.* 178, 104). — I, 1001.
- 21) δ -Keto- $\beta\beta$ -Dimethylpentan (Methylpseudoamylketon). *Sd.* 125—130° (*A.* 189, 78; *J. r.* 9, 70; *B.* 15, 1575). — I, 1001.
- 22) δ -Keto- $\beta\gamma$ -Dimethylpentan (Methylisopropylaceton). *Sd.* 135—140° (*R.* 5, 233). — I, 1001.
- 23) γ -Keto- $\beta\delta$ -Dimethylpentan (Diisopropylketon). *Sd.* 123,7° (*B.* 6, 1255; 8, 400; 24, 1309; *Z.* 1870, 518; *A.* 180, 327; *J. r.* 20, 679; *J.* 1884, 206; *M.* 17, 93). — I, 1001.

$C_7H_{14}O$

24) β -Keto- $\gamma\gamma$ -Dimethylpentan (Methylamylpinakolin). *Sd.* 131,5—132,5° (*A.* 178, 103). — I, 1001.

25) Keton (aus Petroleum). *Sd.* 142—146° (*A.* 166, 173). — I, 1001.

26) Aldehyd d. Hexan- α -Carbonsäure (Oenanthol). *Sd.* 155—156° (152,2 bis 153,2°). Hydrat + $\frac{1}{2}H_2O$, + $NaHSO_3$ + H_2O . Lit. bedeutend. — I, 954.

27) polym. Aldehyd d. Hexan- α -Carbonsäure (polym. Oenanthol) = $(C_7H_{14}O)_4$? *Sm.* 52—53° (*B.* 8, 415; 16, 1034; *Soc.* 43, 80). — I, 955.

 $C_7H_{14}O_2$

28) Verbindung (aus Dibutyryl). *Sd.* 175—185° (*A.* 118, 38).

C 64,6 — *H* 10,8 — *O* 24,6 — *M. G.* 130.

1) $\beta\gamma$ -Dioxy- γ -Hepten? + H_2O (Methylpropylallylenglykol). *Sm.* 106° (89,5° wasserfrei); *Sd.* 195,6° (*Soc.* 41, 169; *Chem. N.* 20, 76). — I, 270.

2) γ -Oxy- β -Keto- γ -Methylhexan (Methylacetobutylalkohol). *Fl.* (*B.* 32, 62).

3) Diäthyläther d. $\gamma\gamma$ -Dioxypropen (Akroleïnacetal). *Sd.* 123,5°₇₆₂ (140 bis 145°) (*A. Spl.* 3, 184; *B.* 31, 1798). — I, 958.

4) Aethylenäther d. $\delta\delta$ -Dioxy- β -Methylbutan (Amylidenäthylenäther). *Sd.* 145°_{758,4} (*A. ch.* [6] 16, 34). — I, 952.

5) Aether (aus Diallylcarbinol) (*J. r.* 21, 294). — I, 315.

6) Methyläther d. α -Oxy- β -Keto- γ -Methylpentan. *Sd.* 130—132° (*A.* 231, 241).

7) Aethyläther d. γ -Oxy- β -Ketopentan? (Aethoxyläthylaceton). *Sd.* 112 bis 115° (*A.* 234, 195). — I, 311.

8) Hexan- α -Carbonsäure (Oenanthsäure). *Sm.* —10,5°; *Sd.* 222,4°_{748,4}. *K*, *Ca* + H_2O , *Ba*, *Zn* + $\frac{1}{2}H_2O$, *Pb*, *Cd* + $\frac{1}{2}H_2O$, *Cu*, *Ag*. Lit. bedeutend. — I, 434.

9) Isoönanthsäure. *Sd.* 210—213° (216,5—218°). *Na* + H_2O , *Ca* + $2H_2O$, *Ag* (*A.* 166, 168; 218, 66). — I, 436.

10) Hexan- β -Carbonsäure (Methylbutylelessigsäure). *Sd.* 210°. *Ca* + $6H_2O$, *Sr* + $4H_2O$ (*B.* 18, 3071; 19, 225).

11) isom. β -Hexan- β -Carbonsäure (Isoheptylsäure). *Sd.* 211,5°_{745,8}. *Na*, *K*, *Li*, *Ba* + $1\frac{1}{2}H_2O$, *Sr* + $2H_2O$, *Ca* + $1\frac{1}{2}H_2O$, *Ag* (*B.* 11, 1781; *A.* 209, 309). — I, 435.

12) Hexan- γ -Carbonsäure (Aethylpropylelessigsäure). *Sd.* 209,2° (cor.). *Sr* + $2H_2O$, *Ca* + $2H_2O$, *Cu*, *Pb* + $3H_2O$, *Ag* (*B.* 19, 227). — I, 436.

13) β -Methylpentan- δ -Carbonsäure (Methylisobutylelessigsäure). *Sd.* 204 bis 205°₇₅₅ (*Soc.* 67, 511).

14) β -Methylpentan- ϵ -Carbonsäure (Isoamylelessigsäure). *Sd.* 208—210°. *Ca* (*A.* 138, 339; *B.* 23, 1498). — I, 436.

15) γ -Methylpentan- γ -Carbonsäure (Methyldiäthylelessigsäure). *Sd.* 207 bis 208°₇₅₃. *Ba* + $5H_2O$ (*A.* 185, 120; *J. r.* 8, 84). — I, 436.

16) $\beta\beta$ -Dimethylbutan- α -Carbonsäure. *Sd.* 209—210°. *Ag* (*Soc.* 73, 18, 35).

17) $\beta\gamma$ -Dimethylbutan- δ -Carbonsäure? (Methylisopropylpropionsäure). *Sd.* 220° (*A.* 202, 322). — I, 437.

18) Amethensäure. *Sd.* 185—230°. *Sr* + $8H_2O$, *Zn*, *Ag* (*A.* 157, 213; *J. r.* 7, 170). — I, 437.

19) Methylester d. norm. Capronsäure. *Sd.* 149,6° (*A.* 233, 278). — I, 431.

20) Methylester d. Isobutylelessigsäure. *Sd.* 150° (*A.* 53, 410). — I, 432.

21) Aethylester d. norm. Valeriansäure. *Sd.* 144,6°_{736,3} (*A.* 165, 117; 206, 239; 233, 274; *B.* 14, 1084; 28, 2434, 2439). — I, 426.

22) Aethylester d. Isovaleriansäure. *Sd.* 134,3°₇₆₀ (*P.* [2] 12, 42; *A.* 145, 85; 163, 292; 218, 318; 220, 334; 223, 83; 234, 343; 249, 64; *B.* 14, 113, 118). — I, 428.

23) Aethylester d. isom. β -Isovaleriansäure. *Sd.* 131—133° (*A. ch.* [6] 1, 253). — I, 429.

24) Aethylester d. Methyläthylelessigsäure. *Sd.* 133,5° (*A.* 188, 262; 195, 119; 208, 262). — I, 430.

25) Aethylester d. d-Butan- β -Carbonsäure. *Sd.* 131—133°₇₃₀ (*Bl.* [3] 15, 295).

26) Aethylester d. Isobutylameisensäure. *Sd.* 134—135° (*A.* 160, 266; 193, 102). — I, 429.

27) Aethylester d. Trimethylelessigsäure. *Sd.* 118,5° (*A.* 173, 372). — I, 430.

28) norm. Propylester d. norm. Buttersäure. *Sd.* 142,7° (*A.* 161, 33; 218, 322; 220, 333; 223, 80; 234, 344; *P.* [2] 12, 41; *B.* 15, 2463; *M.* 14, 84). — I, 423.

- C₇H₁₄O₂**
- 29) Isopropylester d. norm. Buttersäure. *Sd.* 128° (*A.* 153, 135; 163, 272; *M.* 2, 690; *B.* 15, 2463). — *I.* 423.
 - 30) norm. Propylester d. Isobuttersäure. *Sd.* 133,9° (*P.* [2] 12, 42; *M.* 2, 689; *A.* 218, 334; 220, 333; 223, 82; 234, 343). — *I.* 425.
 - 31) Isopropylester d. Isobuttersäure. *Sd.* 118—121°₇₇ (*M.* 2, 691). — *I.* 425.
 - 32) norm. Butylester d. Propionsäure. *Sd.* 146° (145,4°) (*A.* 161, 194; 233, 265). — *I.* 420.
 - 33) Isobutylester d. Propionsäure. *Sd.* 136,8° (*A.* 163, 283; 218, 326; 220, 332; 223, 79; 234, 343; *P.* [2] 12, 41; *B.* 15, 2463; *M.* 2, 694). — *I.* 420.
 - 34) norm. Amylester d. Essigsäure (Acetat d. α -Oxypentan). *Sd.* 147,6° (148,4°₇₅) (*A.* 159, 74; 233, 260; *M.* 13, 342). — *I.* 409.
 - 35) Methylpropylcarbinolester d. Essigsäure (Acetat d. β -Oxypentan). *Sd.* 133—135° (*A.* 148, 132; 161, 269; *Z.* 1869, 486). — *I.* 409.
 - 36) Diäthylcarbinolester d. Essigsäure (Acetat d. γ -Oxypentan). *Sd.* 132° (*A.* 175, 366). — *I.* 410.
 - 37) Methyläthylcarbinolester d. Essigsäure (Acetat d. α -Oxy- β -Methylbutan). *Sd.* 141,6°_{74,5} (*M.* 7, 61; *Bl.* [3] 15, 280). — *I.* 409.
 - 38) Dimethyläthylcarbinolester d. Essigsäure (Acetat d. β -Oxy- β -Methylbutan). *Sd.* 124—124,5°_{74,9} (*A.* 179, 348; *B.* 15, 2512; *Ph. Ch.* 2, 6; *C. r.* 95, 648; *J. pr.* [2] 48, 479; *Bl.* [3] 7, 578; *J. r.* 18, 350; 25, 443). — *I.* 410.
 - 39) Methylisopropylcarbinolester d. Essigsäure (Acetat d. γ -Oxy- β -Methylbutan). *Sd.* 125° (*A.* 129, 367). — *I.* 409.
 - 40) Isoamylester d. Essigsäure (Acetat d. δ -Oxy- β -Methylbutan). *Sd.* 138,5 bis 139°_{75,8} (*J.* 1860, 7; 1866, 527; *A.* 133, 208; 220, 110; 223, 77; 234, 344; 275, 369; *R.* 14, 110, 116). — *I.* 409.
 - 41) $\beta\beta$ -Trimethyläthylester d. Essigsäure (Acetat d. α -Oxy- $\beta\beta$ -Dimethylpropan). *Sd.* 125° (*B.* 24 [2] 558). — *I.* 409.
 - 42) norm. Hexylester d. Ameisensäure. *Sd.* 153,6° (146°) (*B.* 16, 745; *A.* 233, 255). — *I.* 396.
- C₇H₁₄O₃**
- C* 57,5 — *H* 9,6 — *O* 32,9 — *M. G.* 146.
- 1) $\delta\gamma$ -Trioxy- α -Hepten. *Sd.* 203—204°₃₇ (*J. r.* 21, 467). — *I.* 279.
 - 2) Dimethyläther d. $\epsilon\epsilon$ -Dioxy- β -Ketopentan (Lävulinmethylal). *Sd.* 87 bis 88°₁₇ (*B.* 31, 41).
 - 3) Diäthyläther d. $\alpha\gamma$ -Dioxy- β -Ketopropan (Diäthyläther d. ϵ -Dioxydimethylketon). *Sd.* 195°. *Na* (*Bl.* 51, 12; *A.* 269, 30; *M.* 15, 805). — *I.* 315.
 - 4) Diäthyläther d. $\gamma\gamma$ -Dioxypropan- $\alpha\beta$ -Oxyd (Epihydrinaldehydacetal). *Sd.* 165° (*B.* 31, 1799).
 - 5) α -Oxyhexan- α -Carbonsäure (α -Oxyönanthsäure). *Sm.* 59—60° (65°). *Cu*, *Ag* (*B.* 8, 1169; *J. r.* 9, 141). — *I.* 573.
 - 6) γ -Oxyhexan- α -Carbonsäure (γ -Oxyönanthsäure). *Fl.* *Ba*, *Ag* (*B.* 19, 1128; 21, 918; *A.* 255, 76). — *I.* 573.
 - 7) δ -Oxyhexan- α -Carbonsäure. *Ba*, *Ag* (*B.* 30, 2049).
 - 8) ϵ -Oxyhexan- γ -Carbonsäure (γ -Oxy- α -Aethylvaleriansäure). *Ba*, *Ag* (*A.* 216, 42). — *I.* 573.
 - 9) ζ -Oxyhexan- γ -Carbonsäure (δ -Oxy- α -Aethylvaleriansäure). *Ag* (*B.* 24, 2446). — *I.* 574.
 - 10) β -Oxy- β -Methylpentan- α -Carbonsäure (β -Oxy- β -Methyl- β -Propylpropionsäure). *Ca*, *Ba*, *Ag* (*J. pr.* [2] 23, 263; *J. r.* 11, 403). — *I.* 573.
 - 11) δ -Oxy- β -Methylpentan- β -Carbonsäure (γ -Oxy- $\alpha\alpha$ -Dimethylvaleriansäure) (*A.* 247, 107). — *I.* 574.
 - 12) γ -Oxy- β -Methylpentan- δ -Carbonsäure. *Fl.* *Ca*, *Pb* (*C.* 1897 [2] 572).
 - 13) γ -Oxy- β -Methylpentan- ϵ -Carbonsäure (γ -Oxyisoönanthsäure). *Sm.* 63 bis 64°. *Ba*, *Ag* (*A.* 255, 94; 283, 146; *M.* 18, 729). — *I.* 573.
 - 14) δ -Oxy- β -Methylpentan- ϵ -Carbonsäure (β -Oxyisoönanthsäure). *Sm.* 64,5°. *Ca* + 1½ H₂O, *Ba* + 2 H₂O, *Ag* (*A.* 283, 143; *B.* 27, 2435).
 - 15) ϵ -Oxy- β -Methylpentan- ϵ -Carbonsäure (Isoamylhydroxalsäure). *Sm.* 60,5°. *Ba*, *Cu*, *Zn* (*Z.* 1866, 491, 492). — *I.* 573.
 - 16) β -Oxy- γ -Methylpentan- γ -Carbonsäure (β -Oxy- α -Methyl- α -Aethylbutter-säure). *Fl.* *Na*, *Cu*, *Ag* (*A.* 188, 266). — *I.* 574.
 - 17) α -Oxy- β -Aethylbutan- α -Carbonsäure. *Sm.* 82°. *Ag* (*B.* 31, 2955).

- $C_7H_{14}O_3$
- 18) β -Oxy- β -Aethylbutan- α -Carbonsäure (β -Oxy- $\beta\beta$ -Diäthylpropionsäure). Sm. 38—39°. Li + H_2O , Ca + H_2O , Ba + $2H_2O$, Pb + $2H_2O$, Cu + $5H_2O$, Ag (*J. pr.* [2] 23, 201; *J. r.* 11, 408; 22, 54). — I, 574.
 - 19) γ -Oxy- $\beta\gamma$ -Dimethylbutan- β -Carbonsäure. Sm. 152—153°; Sd. 192—193°. Na, Ca, Pb, Ag (*B.* 28, 2839).
 - 20) γ -Oxy- $\beta\gamma$ -Dimethylbutan- δ -Carbonsäure (β -Methyl- β -Isopropyl- β -Oxypropionsäure). Ba, Ag (*A.* 208, 88; *Soc.* 63, 1337). — I, 574.
 - 21) δ -Oxyvalerianäthyläthersäure. Sd. 252° (*Am.* 19, 779).
 - 22) α -Oxyisovalerianäthyläthersäure. Zn (*Bl.* 30, 506). — I, 569.
 - 23) Oxyessigisocamyläthersäure. Sd. 235°. Na + $2H_2O$, K + H_2O , Ba, Zn, Cu, Hg, Ag (*J.* 1859, 361; 1861, 449). — I, 550.
 - 24) Methylester d. α -Oxydiäthylessigsäure. Sd. 165° (*A.* 135, 27). — I, 570.
 - 25) Methylester d. α -Oxybutteräthyläthersäure. Sd. 156—158° (*A. ch.* [5] 17, 540). — I, 561.
 - 26) Aethylester d. α -Oxyvaleriansäure. Sd. 190° (*G.* 14, 19). — I, 565.
 - 27) Aethylester d. γ -Oxyvaleriansäure. Fl. (*A.* 227, 101). — I, 566.
 - 28) Aethylester d. α -Oxyisovaleriansäure. Sd. 175° (*A.* 193, 110). — I, 568.
 - 29) Aethylester d. β -Oxyisovaleriansäure. Sd. 180° (*A.* 197, 73). — I, 568.
 - 30) Aethylester d. α -Oxy- α -Methylbuttersäure. Sd. 165,5° (*A.* 135, 39). — I, 567.
 - 31) Aethylester d. α -Oxybuttermethylethersäure. Sd. 148°, ₇₀₀ (*A.* 197, 16, 21; *A. ch.* [5] 17, 553). — I, 561.
 - 32) Aethylester d. α -Oxypropionäthyläthersäure. Sd. 155° (*A.* 197, 13, 21; *A. ch.* [3] 59, 174). — I, 555.
 - 33) Aethylester d. Oxyessigpropyläthersäure. Sd. 184,5°, ₇₀₀ (*A.* 197, 8, 21). — I, 550.
 - 34) β -Oxyäthylester d. Isovaleriansäure. Sd. 240° (*A.* 114, 123). — I, 428.
 - 35) Propylester d. Oxyessigäthyläthersäure. Sd. 166°, ₇₀₀ (*A.* 197, 8, 21). — I, 549.
 - 36) Dipropylester d. Kohlensäure. Sd. 168,2° (*J.* 1874, 333; *A.* 205, 231). — I, 543.
 - 37) Aethylisobutylester d. Kohlensäure. Sd. 160,1° (*A.* 205, 246). — I, 543.
 - 38) Verbindung (aus Natriummalonsäurediäthylester). Sd. 209—212° (*Am.* 19, 779).
- $C_7H_{14}O_4$
- C 51,9 — H 8,6 — O 39,5 — M. G. 162.
- 1) $\beta\delta\gamma$ -Trioxiheptan- $\alpha\eta$ -Oxyd? Fl. (*A.* 185, 141; *J. pr.* [2] 41, 57). — I, 317.
 - 2) $\gamma\delta$ -Dioxy- β -Methylpentan- δ -Carbonsäure. Sm. 114—115° (*M.* 19, 733).
 - 3) $\gamma\delta$ -Dioxy- β -Methylpentan- ϵ -Carbonsäure. Ca + H_2O , Ba, Ag (*A.* 283, 272).
 - 4) $\delta\epsilon$ -Dioxy- β -Methylpentan- ϵ -Carbonsäure. Sm. 114°. Ca + $3H_2O$, Ba + H_2O , Ag (*A.* 283, 277).
 - 5) Aceton- α -Oxyisobuttersäure + H_2O . Sm. 105°. Ba (*B.* 15, 2311, 2312; 20, 2448). — I, 272.
 - 6) norm. Butylester d. $\alpha\beta$ -Dioxypropionsäure. Sd. 138,5°, ₁₆ (*Soc.* 63, 516, 1411).
 - 7) Isobutylester d. $\alpha\beta$ -Dioxypropionsäure. Sd. 128—130°, ₁₃ (*Soc.* 63, 517, 1415).
 - 8) sec. Butylester d. $\alpha\beta$ -Dioxypropionsäure. Sd. 123—126°, _{13,5} (*Soc.* 63, 519, 1415).
 - 9) Monobutyrat d. $\alpha\beta\gamma$ -Trioxypentan (Glycerinmonobutyrin) (*A. ch.* [3] 41, 261). — I, 424.
- $C_7H_{14}O_5$
- C 47,2 — H 7,8 — O 45,0 — M. G. 178.
- 1) Methylrhamnosid. Sm. 108—109° (*B.* 26, 2410; 28, 1159).
 - 2) Aethylarabinosid. Sm. 132—135° (*B.* 26, 2408).
- $C_7H_{14}O_6$
- C 43,3 — H 7,2 — O 49,5 — M. G. 194.
- 1) Rhamnenitan (*A.* 120, 296; *B.* 15, 1187).
 - 2) Rhamnohexose. Sm. 180—181° (*B.* 23, 3104). — I, 1057.
 - 3) Bornesit (Monomethyläther d. *i*-Inosit). Sm. 175° (199—203°) (*Z.* 1871, 335—336; *A.* 272, 289). — I, 1051.
 - 4) Pinitt (Matezit; Monomethyläther d. *d*-Inosit). Sm. 186°. 2PbO (*A. ch.* [3] 46, 76; [6] 22, 267; *Bl.* 21, 220; *J.* 1886, 413). — I, 1052.

- C₇H₁₄O₈**
- 5) Quebrachit (Monomethyläther d. l-Inosit). Sm. 186—187°; Sd. 210° (i. V.) (B. 23 [2] 26). — I, 1052.
 - 6) α -Methyl-d-Glykosid. Sm. 165—166° (B. 26, 2405; 27, 2986; 28, 1151; Am. 17, 537; C. 1898 [2] 1080).
 - 7) β -Methyl-d-Glykosid + $\frac{1}{2}$ H₂O. Sm. 104° (wasserfrei) (B. 27, 2986; 28, 1151; R. 13, 183).
 - 8) α -Methyl-l-Glykosid. Sm. 165—166° (B. 28, 1152; C. 1898 [2] 1081).
 - 9) β -Methyl-l-Glykosid (B. 28, 1153).
 - 10) Methyl-i-Glykosid. Sm. 163—166° (B. 28, 1152).
 - 11) Methylfruktosid. Fl. (B. 28, 1160).
 - 12) α -Methylgalaktosid + H₂O. Sm. 110° (111—112° wasserfrei) (B. 27, 2480; 28, 1154).
 - 13) β -Methylgalaktosid. Sm. 173—175° (178—180° cor.) (B. 28, 1155, 1429).
 - 14) Methyl-d-Mannosid. Sm. 193—194° (cor.) (B. 29, 2928; R. 15, 223; C. 1898 [2] 1081).
 - 15) Methyl-l-Mannosid. Sm. 193—194° (B. 29, 2929; C. 1898 [2] 1081).
 - 16) Methyl-i-Mannosid. Sm. 166,5—167,5° (B. 29, 2929; C. 1898 [2] 1081).
 - 17) Methylsorbosid. Sm. 120—122° (B. 28, 1159).
 - 18) $\alpha\gamma\delta\epsilon\zeta$ -Tetraoxyhexan- α -Carbonsäure. Fl. Ca (J. pr. [2] 41, 71). — I, 786.
- C₇H₁₄O₇**
- 19) Digitalonsäure. Ca, Ag (B. 25, 2116; 25 [2] 680; 31, 2460). — I, 786.
C 40,0 — H 6,7 — O 53,3 — M. G. 210.
 - 1) α -Galaheptose. Fl. (A. 288, 144).
 - 2) β -Galaheptose. Sm. 190—194° (195—199° cor.) u. Zers. (A. 288, 154).
 - 3) α -Glykoheptose. Sm. 180—190° u. Zers. (A. 270, 72; Bl. [3] 7, 395). — I, 1057.
 - 4) β -Glykoheptose. Fl. (A. 270, 87). — I, 1057.
 - 5) d-Mannoheptose. Sm. 134—135° (B. 23, 2228). — I, 1058.
 - 6) l-Mannoheptose (A. 272, 186). — I, 1058.
 - 7) i-Mannoheptose. Fl. (A. 272, 188). — I, 1058.
 - 8) Rhamnohexonsäure (Isodulcitarbonsäure). Ca, Ba, Cd (B. 21, 1658, 1815, 2174; 27, 386; A. 299, 327). — I, 830.
 - 9) β -Rhamnohexonsäure. Ca, Cd (B. 27, 387).
C 37,2 — H 6,2 — O 56,4 — M. G. 226.
- C₇H₁₄O₆**
- 1) $\alpha\beta\gamma\delta\epsilon\zeta$ -Hexaoxyhexan- α -Carbonsäure (α -Glykoheptonsäure; Dextrose-carbonsäure). Ca (Bl. 36, 144; B. 19, 770; 29, 1862; A. 270, 71; 272, 199). — I, 849.
 - 2) isom. $\alpha\beta\gamma\delta\epsilon\zeta$ -Hexaoxyhexan- α -Carbonsäure (β -Glykoheptonsäure) (A. 270, 83). — I, 849.
 - 3) isom. $\alpha\beta\gamma\delta\epsilon\zeta$ -Hexaoxyhexan- α -Carbonsäure (Galaktosecarbonsäure; α -Galaheptonsäure). Sm. 145°. K + $\frac{1}{2}$ H₂O, Pb + H₂O (B. 21, 916; 21 [2] 139; 22, 521; A. 288, 141). — I, 849.
 - 4) β -Galaheptonsäure (A. 288, 152).
 - 5) $\alpha\beta\gamma\delta\epsilon\zeta$ -Hexaoxyhexan- β -Carbonsäure (Lävulosecarbonsäure). NH₄, Ca (B. 18, 3070; 19, 223; 23, 451; 24, 348). — I, 849.
 - 6) d-Mannoheptonsäure (Mannosecarbonsäure). Sm. 175°. Na, Ca, Sr, Ba, Cd (B. 22, 370; 23, 2226; A. 272, 191). — I, 850.
 - 7) l-Mannoheptonsäure. Ba (A. 272, 183). — I, 850.
 - 8) i-Mannoheptonsäure. Ca + 2H₂O (A. 272, 185). — I, 850.
C 66,7 — H 11,1 — N 22,2 — M. G. 126.
- C₇H₁₄N₂**
- 1) Dipropylcyanamid. Sd. 220° (B. 26 [2] 188, 189; Bl. [3] 9, 239). — I, 1437.
 - 2) Dipropyldimidomethan. Sd. 171° (B. 26 [2] 189; Bl. [3] 9, 239). — I, 1437.
 - 3) Nitril d. α -Dimethylamidovaleriansäure. Sd. 175—176° (C. 1899 [1] 194).
 - 4) Nitril d. β -Dimethylamidobutan- β -Carbonsäure. Sd. 171° (C. 1899 [1] 194).
- C₇H₁₄N₄**
- C 46,1 — H 7,7 — N 46,1 — M. G. 182.
- 1) polym. Nitril d. Phenylhydrazidoameisensäure (Dianildicyandiamid). Sm. 185° u. Zers. HCl, Pikrat (G. 22 [1] 231). — IV, 742.
- C₇H₁₄Cl₂**
- 1) $\alpha\alpha$ -Dichlorheptan^p (Oenanthylidenchlorid). Sd. 191° (82—84°₃₀) (A. 103, 81; B. 30, 1496).
 - 2) $\alpha\eta$ -Dichlorheptan (C. 1899 [1] 26).

- $C_7H_{14}Cl_2$ 3) $\delta\delta$ -Dichlorheptan. *Sd.* 181° (*B.* 9, 1442).
 4) $\gamma\gamma$ -Dichlor- $\beta\delta$ -Dimethylpentan (*B.* 8, 400).
 $C_7H_{14}Br_2$ 5) Dichlorheptan (aus Aethylamyl). *Sd.* 190° (*A.* 129, 245).
 1) $\alpha\alpha$ -Dibromheptan (Oenanthylidenbromid) (*B.* 8, 409). — I, 179.
 2) $\alpha\beta$ -Dibromheptan. *Sd.* 105—107°₁₅ (*B.* 30, 1495).
 3) $\alpha\eta$ -Dibromheptan. *Sd.* 254—256° u. ger. Zers. (*C.* 1899 [1] 26).
 4) $\beta\gamma$ -Dibrom- γ -Aethylpentan. *Sd.* 106—109°₂₀ (*J. r.* 27, 374; *J. pr.* [2] 53, 285).
 5) ?-Dibromheptan (aus Fuselölhepten). *Sd.* 110°₂₀ (*Bl.* [1863] 5, 307). — I, 120.
 6) Dibromheptan (aus Paraffinhepten) (*A.* 165, 12). — I, 179.
 7) ?-Dibromheptan. *Sd.* 209—211° (*Am. Soc.* 4, 22, 255). — I, 179.
 8) ?-Dibromheptan. *Fl.* (*J. pr.* [2] 39, 435). — I, 120.
 $C_7H_{14}S$ 1) Verbindung (aus Asa foetida) (*B.* 24, 79). — III, 545.
 $C_7H_{14}S_2$ 1) Verbindung (aus Asa foetida). *Sd.* 210—212° u. ger. Zers. + 2HgCl₂ (*B.* 24, 79). — III, 545.
 $C_7H_{13}N$ C 74,3 — H 13,3 — N 12,4 — M. G. 113.
 1) ϵ -Amido- δ -Methyl- α -Hexen. *Sd.* 133—136°. (2HCl, PtCl₄), (HCl, AuCl₃) (*A.* 278, 12).
 2) ϵ -Dimethylamido- α -Penten (Dimethylpiperidin). *Sd.* 118°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃). HJ, + J₂, + ClJ, + (ClJ, AuCl₃) (*A. ch.* [3] 38, 94; *B.* 14, 660, 1346; 25, 3071; *A.* 247, 56; 279, 351). — IV, 6.
 3) γ -Isobutylamidopropen (Isobutylallylamin). *Sd.* 123°. HCl, (HCl, AuCl₃), (2HCl, PtCl₄), HBr, Dioxalat (*B.* 21, 3193; 24, 3043). — I, 1143.
 4) γ -Diäthylamidopropen (Diäthylallylamin). *Sd.* 100—103° (110—113°). HCl, (2HCl, PtCl₄), (HCl, PtCl₃) (*A.* 168, 265; *B.* 16, 526, 530). — I, 1142.
 5) Amido-*R*-Heptamethylen (Suberylamin). *Sd.* 169°₇₅₁. HCl, (2HCl, PtCl₄) (*J. pr.* [2] 49, 425; *J. r.* 25, 375). — IV, 30.
 6) Heptanaphtenamin. *Sd.* 151—153°. HCl, (2HCl, PtCl₄) (*B.* 24, 2715). — I, 1146.
 7) 3-Amido-1-Methylhexahydrobenzol. *Sd.* 151°. HCl, (2HCl, PtCl₄) (*A.* 272, 124; 289, 340). — IV, 30.
 8) 1-Dimethylamido-*R*-Pentamethylen. *Sd.* 133,5—135° (*A.* 298, 139).
 9) 1,2,4-Trimethyltetrahydropyrrol. *Sd.* 111—113°. (2HCl, PtCl₄), (HCl, AuCl₃) (*A.* 278, 9). — IV, 25.
 10) 1,2,5-Trimethyltetrahydropyrrol. *Sd.* 115—116°₇₅₀. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (*B.* 23, 1548; 25, 3071; *A.* 264, 334). — IV, 26.
 11) 2,2,4-Trimethyltetrahydropyrrol. *Fl.* (*A.* 232, 213). — I, 1210.
 12) 2,3,5-Trimethyltetrahydropyrrol. *Sd.* 126—128°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (*A.* 278, 13). — IV, 30.
 13) 1-Aethylhexahydropyridin. *Sd.* 128°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃). Pikrat (*A. ch.* [3] 38, 96; *B.* 14, 660; 16, 739; 17, 155; 23, 2570; 31, 1556; *Ph. Ch.* 16, 216; *J.* 1882, 1085; *Soc.* 71, 523). — IV, 7.
 14) 2-Aethylhexahydropyridin. *Sd.* 141—143°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (*A.* 247, 70; *B.* 31, 290). — IV, 29.
 15) 3-Aethylhexahydropyridin. *Sd.* 154—154° (162—165°₇₆₂). HCl, (2HCl, PtCl₄ + $\frac{1}{2}$ H₂O), (HCl, AuCl₃), HJ, Pikrat (*B.* 13, 2041; 31, 2140; *J. pr.* [2] 45, 44; [2] 48, 18; *A.* 301, 151). — IV, 30.
 16) *d*-3-Aethylhexahydropyridin. *Fl.* HCl, *d*-Bitartrat (*B.* 31, 2142).
 17) *l*-3-Aethylhexahydropyridin. *Sd.* 155°. HCl, *d*-Bitartrat (*B.* 31, 2141).
 18) 4-Aethylhexahydropyridin. *Sd.* 156—158°. (2HCl, PtCl₄), (HCl, AuCl₃) (*A.* 247, 72). — IV, 30.
 19) 1,2-Dimethylhexahydropyridin. *Sd.* 126—127°₇₆₀ (127,9° cor.). HCl, (HCl, SnCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (*A.* 264, 339; 289, 225, 232; *B.* 25, 3071; 31, 292, 590). — IV, 27.
 20) 1,3-Dimethylhexahydropyridin. *Sd.* 124—126°. (2HCl, PtCl₄), (HCl, AuCl₃) (*A.* 278, 6). — IV, 28.
 21) 2,4-Dimethylhexahydropyridin. *Sd.* 140—142°. HCl, (2HCl, PtCl₄), HBr (*A.* 247, 88). — IV, 30.
 22) 2,6-Dimethylhexahydropyridin. *Sd.* 127—130°. HCl, (2HCl, PtCl₄), HBr (*A.* 247, 87; *B.* 27, 1329). — IV, 30.
 23) Amidoderivat *d.* Kohlenw. C_7H_{14} (aus Naphta). *Sd.* 131—132° (*B.* 30, 976).

- C₇H₁₅N₅** C 49,7 — H 8,9 — N 41,4 — M. G. 169.
 1) **Piperyldiguanid.** Sm. bei 163°. 2HCl, (2HCl, PtCl₄), H₂SO₄, (Cu, H₂SO₄), Cu (B. 24, 903). — IV, 1311.
- C₇H₁₅Cl**
 1) ***α*-Chlorheptan** (norm. Heptylchlorid). Sd. 159,2°₇₅₀ (A. 189, 3). — I, 155.
 2) ***β*-Chlorheptan.** Sd. 138–142° (J. 1863, 528; A. 136, 266; 177, 307; 217, 152). — I, 155.
 3) ***ε*-Chlor-*β*-Methylhexan.** Sd. 135–137° (A. 190, 312). — I, 155.
 4) ***γ*-Chlor-*βγ*-Dimethylpentan** (Methyläthylisopropylcarbinolchlorid). Sd. 135–138°₇₈₇ (J. r. 13, 90). — I, 155.
 5) ***γ*-Chlor-*ββγ*-Trimethylbutan** (Pentamethylätholchlorid). Sm. 123°; Sd. 130° (A. 177, 183; 209, 81; B. 16, 398–399; J. r. 14, 384). — I, 155.
 6) **Chlorheptan** (aus Aethylamyl). Sd. 140–150° (A. 166, 166). — I, 155.
 7) **Chlorheptan** (aus Petroleum). Sd. 144–158° (A. 166, 173). — I, 155.
 8) **Chlorheptan** (aus Ricinusöl). Sd. 168–170° (J. 1865, 514). — I, 155.
- C₇H₁₅Br**
 1) ***α*-Bromheptan** (norm. Heptylbromid). Sd. 178,5°₇₅₀ (A. 189, 3; Soc. 73, 921). — I, 179.
 2) ***β*-Bromheptan** (sec. Heptylbromid). Sd. 165–167° (A. 188, 254; B. 13, 1650; Soc. 73, 921). — I, 179.
 3) ***γ*-Brom-*ββγ*-Trimethylbutan.** Sm. 152° (A. 209, 81). — I, 179.
- C₇H₁₅J**
 1) ***α*-Jodheptan** (norm. Heptyljodid). Sd. 201° (203,8°) (A. 189, 4; 200, 102; 243, 28). — I, 195.
 2) ***β*-Jodheptan** (Methylamylcarbinoljodid). Sd. 98°₅₀ (B. 13, 1650). — I, 195.
 3) ***δ*-Jodheptan** (Dipropylcarbinoljodid). Sd. 185° (J. 1869, 514). — I, 195.
 4) ***ε*-Jod-*β*-Methylhexan** (Methylisoamyljodid). Sd. 165–175° u. Zers. (A. 190, 313). — I, 195.
 5) ***γ*-Jod-*γ*-Methylhexan.** Sd. 145–147° u. Zers. (J. r. 13, 90). — I, 195.
 6) ***β*-Jod-*βδ*-Dimethylpentan.** Sd. 165° (B. 28, 2847).
 7) ***γ*-Jod-*ββγ*-Trimethylbutan** (Dimethylpseudobutylcarbinoljodid). Sd. 140 bis 142° (A. 177, 184). — I, 196.
 8) **isom. Jodheptan** (aus Heptylalkohol). Sd. 190° (A. 127, 316). — I, 196.
 9) **isom. Jodheptan** (aus Petroleumheptylen). Sd. 170° (A. 127, 318). — I, 196.
- C₇H₁₅O** C 72,4 — H 13,8 — O 13,8 — M. G. 116.
 1) ***α*-Oxyheptan** (norm. Heptylalkohol). Sd. 175,5°₇₈₅ (A. 118, 69; 124, 352; 127, 315; 161, 278; 177, 303; 189, 2; 200, 102; 224, 84; J. 1853, 507, 508; 1862, 412; Z. 1865, 737; B. 16, 1723). — I, 236.
 2) ***β*-Oxyheptan** (Methylamylcarbinol). Sd. 164–165° (A. 127, 315; 161, 278; 177, 308; J. 1863, 528; H. [3] 9, 677). — I, 236.
 3) ***γ*-Oxyheptan** (Aethylbutylcarbinol). Sd. 140–141° (A. 177, 308; B. 15, 1573; J. pr. [2] 26, 109). — I, 237.
 4) ***δ*-Oxyheptan** (Dipropylcarbinol). Sd. 154–155° (J. 1869, 513; A. 161, 213; J. r. 13, 345; J. pr. [2] 34, 469). — I, 236.
 5) ***δ*-Oxy-*β*-Methylhexan** (Aethylisobutylcarbinol). Sd. 147–148°_{780,5} (J. r. 16, 287). — I, 237.
 6) ***ε*-Oxy-*β*-Methylhexan** (Methylisoamylcarbinol). Sd. 148–150° (A. 166, 167; 190, 309; J. r. 19, 199). — I, 237.
 7) ***ζ*-Oxy-*β*-Methylhexan** (Isohexylcarbinol). Sd. 163–165° (170°) (A. 166, 167, 172). — I, 236.
 8) ***γ*-Oxy-*γ*-Methylhexan** (Methyläthylpropylcarbinol). Sd. 140,3° (A. 188, 122; J. pr. [2] 39, 431). — I, 236.
 9) ***γ*-Oxy-*γ*-Aethylpentan** (Triäthylcarbinol). Sd. 140–142° (Z. 1871, 274; J. pr. [2] 34, 463). — I, 237.
 10) ***γ*-Oxy-*βγ*-Dimethylpentan** (Methyläthylisopropylcarbinol). Sd. 124–127° (138–140°₇₅₀) (A. 188, 124; B. 14, 2065; J. r. 13, 89). — I, 237.
 11) ***β*-Oxy-*βδ*-Dimethylpentan** (Dimethylisobutylcarbinol). Sd. 130° (A. 173, 192; J. r. 6, 170; Z. 1871, 269). — I, 237.
 12) ***γ*-Oxy-*βδ*-Dimethylpentan** (Diisopropylcarbinol). Sd. 131–132° (140°) (A. 180, 334; B. 24, 1310). — I, 237.
 13) ***γ*-Oxy-*ββγ*-Trimethylbutan** (tert. Pentamethyläthol). Sm. 17°; Sd. 131°; Hydrat Sm. 80° (83°) (J. r. 7, 37; 8, 30; 13, 86; A. 177, 176; 180, 245; 209, 89; B. 8, 165; 14, 2065, 2066). — I, 237.
 14) **Aethyläther d. *α*-Oxy-*β*-Methylbutan.** Sd. 107,5–109°_{715,7} (Bl. [3] 15, 301).

- C₇H₁₆O** 15) Aethyläther d. β -Oxy- β -Methylbutan (Aethylpentyläther). *Sd.* 102 bis 103°₇₄₀ (A. 144, 244; Z. 1867, 439; J. r. 19, 301). — I, 299.
- 16) Aethyläther d. δ -Oxy- β -Methylbutan (Aethylisoamyläther). *Sd.* 112° (A. 77, 37; 81, 79; 105, 37; Z. 1867, 439; J. pr. [2] 23, 461; Am. 6, 246). — I, 299.
- 17) norm. Propyläther d. α -Oxybutan (norm. Propyl-norm. Butyläther). *Sd.* 117,1° (A. 243, 7). — I, 299.
- C₇H₁₆O₂** C 63,6 — H 12,1 — O 24,2 — M. G. 132.
- 1) Dimethyläther d. $\delta\delta$ -Dioxy- β -Methylbutan (Amylidendimethyläther). *Sd.* 124° (J. 1864, 486). — I, 953.
- 2) Diäthyläther d. $\alpha\alpha$ -Dioxypropan (Propylidendiäthyläther). *Sd.* 122,8°₇₄₄ (Am. 12, 520; B. 30, 3054). — I, 944.
- 3) Diäthyläther d. $\alpha\gamma$ -Dioxypropan. *Sd.* 140—141°₇₆₀ (Am. 19, 768).
- 4) Methylisobutyläther d. $\alpha\alpha$ -Dioxyäthan (Aethylidenmethylisobutyläther). *Sd.* 125—127° (B. 19, 3005; A. 218, 47). — I, 924.
- 5) Aethylpropyläther d. $\alpha\alpha$ -Dioxyäthan. *Sd.* 124—126° (A. 218, 47). — I, 924.
- 6) Dipropyläther d. Dioxymethan + H₂O. *Sd.* 90° (137,2°; 140,5° wasserfrei) (A. 240, 199; 276, 164; Bl. [3] 11, 754, 881). — I, 912.
- 7) Diisopropyläther d. Dioxymethan + H₂O. *Sd.* 79—80° (139°; 118,5° wasserfrei) (A. 240, 199; Bl. [3] 11, 754). — I, 912.
- 8) Verbindung (aus Tetrahydrotoluol) (A. ch. [6] 1, 231). — II, 16.
- C₇H₁₆O₃** C 56,7 — H 10,8 — O 32,4 — M. G. 148.
- 1) β -Trioxyheptan (Heptylglycerin). *Fl.* (J. pr. [2] 49, 51).
- 2) $\gamma\delta$ -Trioxy- β -Methylhexan. *Sd.* 194—197°₃₀ (Bl. [3] 13, 122).
- 3) $\alpha\gamma$ -Diäthyläther d. $\alpha\beta\gamma$ -Trioxypropan. *Sd.* 191° (A. 92, 303; 119, 237; A. Spl. 1, 236; C. 1898 [1] 238). — I, 313.
- 4) Triäthyläther d. Trioxymethan (Orthoameisensäuretriäthyläther). *Sd.* 145—146°. *Lit.* bedeutend. — I, 311.
- C₇H₁₆O₄** C 51,2 — H 9,7 — O 39,0 — M. G. 164.
- 1) $\alpha\alpha$ -Diäthyläther d. $\alpha\alpha\beta\gamma$ -Tetraoxypropan. *Sd.* 130°_{20,7} (B. 31, 1800).
- 2) Di[γ -Oxypropyläther] d. Dioxymethan. *Sd.* 90° (Bl. [3] 11, 760).
- C₇H₁₆O₅** C 46,7 — H 8,9 — O 44,4 — M. G. 180.
- 1) $\alpha\beta\delta\gamma$ -Pentaoxyheptan. *Fl.* (J. r. 21, 467; J. pr. [2] 35, 17; A. 185, 138). — I, 283.
- C₇H₁₆O₆** C 42,8 — H 8,1 — O 49,0 — M. G. 196.
- 1) Rhamnohexit. *Sm.* 173° (B. 23, 3106). — I, 291.
- 2) Di-[$\beta\gamma$ -Dioxypropyläther] d. Dioxymethan (Methylenglycerinäther). *Fl.* (A. 240, 241). — I, 313.
- C₇H₁₆O₇** C 39,6 — H 7,5 — O 52,8 — M. G. 212.
- 1) α -Galaheptit. *Sm.* 183—184° (187—188° cor.) (A. 288, 147).
- 2) α -Glykoheptit. *Sm.* 127—128° (A. 270, 80).
- 3) l-Mannoheptit (Perseit). *Sm.* 188° (B. 23, 936, 2231; A. ch. [6] 3, 297; [6] 19, 5; J. pr. [2] 45, 332; A. 272, 188). — I, 291.
- 4) l-Mannoheptit. *Sm.* 203° (A. 272, 189).
- 5) Volemit. *Sm.* 151—153° (140—142°) (B. 28, 1973; C. 1896 [1] 28).
- C₇H₁₆N₂** C 65,5 — H 12,5 — N 21,9 — M. G. 128.
- 1) α -Imido- α -Amidoheptan (Heptenylamidin). HCl, (2HCl, PtCl₄), HNO₃, H₂CrO₄, Pikrat (B. 28, 474).
- 2) 1-[β -Amidoäthyl]hexahydropyridin. *Sd.* 183—184°. 2HBr (B. 24, 1121). — IV, 7.
- 3) 4-Amido-2,6-Dimethylhexahydropyridin. *Sd.* 195—196°. 2HCl, (2HCl, PtCl₄), Pikrat (B. 27, 1330). — IV, 484.
- 4) α -2,3,5-Trimethylhexahydro-1,4-Diazin. *Sd.* 169—169,5°₇₅₆. 2HCl, (2HCl, PtCl₄ + 2H₂O), Pikrat (J. pr. [2] 55, 62). — IV, 484.
- 5) β -2,3,5-Trimethylhexahydro-1,4-Diazin. *Sd.* 174—175°₇₀₃. (2HCl, PtCl₄ + 2H₂O), Pikrat (J. pr. [2] 55, 61). — IV, 484.
- C₇H₁₆N₃** C 39,6 — H 7,5 — N 52,8 — M. G. 212.
- 1) $\beta\delta$ -Di[Imidoamidomethylhydrazon]pentan (Acetylacetonbisamidoguanidin). 2HNO₃ (*Sm.* 197—199°) (A. 302, 203).
- C₇H₁₆S** 1) Merkaptoheptan (Heptylmerkaptan). *Sd.* 174—175° (J. 1887, 1280). — I, 350.
- 2) Aethyläther d. δ -Merkapto- β -Methylbutan (Aethylisoamylsulfid). *Sd.* 158—159° (J. pr. [2] 17, 449; A. 139, 361; 144, 145). — I, 363.

- $C_7H_{16}S_2$ 1) Aethylisoamyldisulfid (B. 19, 3134). — I, 363.
2) Diäthyläther d. $\beta\beta$ -Dimerkaptopropan (Dithioäthylmethylmethan).
Sd. 190—191° (B. 18, 887; 19, 2806; 22, 2594; H. 17, 460). — I, 994.
- $C_7H_{16}S_3$ 1) Triäthyläther d. Trimerkaptomethan (Orthothioameisensäuretriäthyl-
äther) (B. 10, 186; J. pr. [2] 15, 176). — I, 367.
- $C_7H_{17}N$ C 73,0 — H 14,8 — N 12,2 — M. G. 115.
1) α -Amidoheptan (Heptylamin). Sd. 153—155°. (2HCl, PtCl₄), Pikrat
(B. 15, 772; 19, 1928; 20, 729; 25 [2] 637; R. 6, 386; Am. 20, 210).
— I, 1137.
2) β -Amidoheptan. Sd. 141—142° (145—147°). (2HCl, PtCl₄) (A. 127,
318; J. 1863, 528; J. r. 25, 489). — I, 1137.
3) δ -Amidoheptan (norm. Dipropylcarbinamin). Sd. 139—140°. HCl, (2HCl,
PtCl₄) (Am. 15, 542).
4) isom. ρ -Amidoheptan (A. 118, 74).
5) γ -Amido- γ -Aethylpentan (tert. Heptylamin). HCl, (2HCl, PtCl₄) (J. pr.
[2] 48, 377; B. 26, 137).
6) δ -Aethylamido- β -Methylbutan (Aethylisoamylamin). Sd. 127° (2HCl,
PtCl₄), (HCl, AuCl₃), Oxalat (Bl. [3] 17, 406).
7) δ -Dimethylamido- β -Methylbutan (Isoamyldimethylamin). Sd. 113 bis
114° (Soc. 57, 774). — I, 1134.
8) α -Propylamido- β -Methylpropan (Isobutylpropylamin). Sd. 123—125°.
HCl, Dioxalat (B. 24, 3048). — I, 1132.
9) α -Methylpropylamidopropan (norm. Dipropylmethylamin). Sd. 117°.
HCl, (2HCl, PtCl₄) (B. 24, 1680). — I, 1130.
10) Methyläthylisobutylamin. Sd. 105°. (2HCl, PtCl₄), (HCl, AuCl₃) (B.
32, 562).
- $C_7H_{17}N_3$ C 58,7 — H 11,9 — N 29,4 — M. G. 143.
1) Diäthylidiamidoäthylimidomethan (Triäthylguanidin). (2HCl, PtCl₄)
(B. 2, 601; J. 1861, 516). — I, 1164.
- $C_7H_{17}P$ 1) Isopropylisobutylphosphin. Sd. 139—140° (B. 6, 300). — I, 1504.
2) Diäthylpropylphosphin. Sd. 146—149°. HCl (Soc. 53, 721). — I, 1503.
- $C_7H_{18}Sn$ 1) Zinnmethyltriäthyl. Sd. 162—163° (A. 122, 60). — I, 1529.
- $C_7O_3Br_4$ 1) 2,4,5,6-Tetrabrom-1,3-Phenyleneester d. Kohlensäure (B. 14, 1753).
— II, 921.
- C_7O_3Fe 1) Verbindung (aus Kohlenoxydeisen) (Soc. 59, 1090).
- C_7NCl_5 1) Nitril d. Pentachlorbenzocarbonsäure. Sm. 210° (B. 16, 2885). —
II, 1221.
- C_7NBr_5 1) Nitril d. Pentabrombenzocarbonsäure. Sm. oberh. 300° (B. 16, 2892).
— II, 1225.
- $C_7Cr_6Fe_9$ 1) Kohlenstoffchromeisen (Bl. [3] 19, 1024).
- $C_7Cr_9Fe_3$ 1) Kohlenstoffchromeisen (C. 1898 [2] 83).

C₇-Gruppe mit drei Elementen.

- $C_7HO_2Cl_5$ 1) Pentachlorbenzocarbonsäure. Sm. 199—200°. Ba + 4H₂O (B. 20,
1627). — II, 1221.
- $C_7HO_2Br_5$ 1) Pentabrombenzocarbonsäure. Sm. 234—235°. NH₄, Ca + 6H₂O
(Z. 1869, 110). — II, 1225.
- C_7HNCl_4 1) Nitril d. 2,3,4,5-Tetrachlorbenzol-1-Carbonsäure. Sm. 84° (J. pr.
[2] 56, 66).
2) Nitril d. 2,3,4,6-Tetrachlorbenzol-1-Carbonsäure. Sm. 81° (J. pr.
[2] 56, 66).
3) Nitril d. 2,3,5,6-Tetrachlorbenzol-1-Carbonsäure. Sm. 72° (J. pr.
[2] 56, 66).
- C_7HNBr_4 1) Nitril d. 2,3,4,5-Tetrabrombenzol-1-Carbonsäure. Sm. 124° (J. pr.
[2] 56, 56).
2) Nitril d. 2,3,4,6-Tetrabrombenzol-1-Carbonsäure. Sm. 102° (123°)
(J. pr. [2] 56, 52).
3) Nitril d. 2,3,5,6-Tetrabrombenzol-1-Carbonsäure. Sm. 124° (J. pr.
[2] 56, 65).
- $C_7H_2OCl_4$ 1) Chlorid d. 2,4,5-Trichlorbenzol-1-Carbonsäure. Sm. 41°; Sd. 272°
(A. 152, 238). — II, 1220.

- $C_7H_5OCl_4$ 2) Chlorid d. 2,4,6-Trichlorbenzol-1-Carbonsäure. Sd. 275° (Soc. 65, 1030). — II, 1220.
- 3) Chlorid d. 3,4,5-Trichlorbenzol-1-Carbonsäure. Sm. 36° (A. 163, 32). — II, 1221.
- $C_7H_3O_2Cl_4$ 1) 3,5,6-Trichlor-2-Chlormethyl-1,4-Benzochinon (A. 143, 159; 185, 352). — III, 358.
- 2) 2,3,4,5-Tetrachlorbenzol-1-Carbonsäure. Sm. 186°. $Ca + 4H_2O$, $Ba + 3\frac{1}{2}(4)H_2O$, $Cu + 3\frac{1}{4}H_2O$ (A. 179, 286; B. 20, 1626, 2439). — II, 1221.
- 3) 2,3,4,6?-Tetrachlorbenzol-1-Carbonsäure. Sm. 187° (A. 152, 245). — II, 1221.
- $C_7H_3O_2Br_4$ 1) 2,3,4,6-Tetrabrombenzol-1-Carbonsäure. Sm. 173—174° (B. 27, 1583). — II, 1225.
- $C_7H_3O_2Cl_4$ 1) 2,4,5,6-Tetrachlor-3-Oxybenzol-1-Carbonsäure. Sm. 170—172° (A. 261, 242). — II, 1519.
- $C_7H_2O_2Cl_5$ 1) 1,1,3,3,4,5-Hexachlor-2-Keto-1,2,3,4-Hexahydrobenzol-6-Carbonsäure. Sm. 190° u. Zers. (A. 261, 236). — II, 1519.
- $C_7H_2O_2J_4$ 1) Verbindung (aus 3-Oxybenzol-1-Carbonsäure) (B. 22, 2321). — II, 1520.
- $C_7H_4NCl_3$ 1) Nitril d. 2,4,6-Trichlorbenzol-1-Carbonsäure. Sm. 75° (Soc. 71, 231).
- $C_7H_4NBr_3$ 1) Nitril d. 2,4,6-Tribrombenzol-1-Carbonsäure. Sm. 127° (Soc. 71, 230).
- $C_7H_4N_2Cl_3$ 1) anti-2,4,6-Trichlor-1-Diazobenzolcyanid. Sm. 100—101° (B. 30, 2544). — IV, 1521.
- 2) syn-2,4,6-Trichlor-1-Diazobenzolcyanid. Sm. 55° (B. 30, 2544). — IV, 1521.
- $C_7H_4N_2Br_3$ 1) anti-2,4,6-Tribrom-1-Diazobenzolcyanid. Sm. 147° (B. 30, 2543). — IV, 1523.
- 2) syn-2,4,6-Tribrom-1-Diazobenzolcyanid. Sm. 59—60° (B. 30, 2543). — IV, 1523.
- $C_7H_3OCl_3$ 1) Aldehyd d. 2,3,4-Trichlorbenzol-1-Carbonsäure. Sm. 90° (A. 237, 149). — III, 14.
- 2) Aldehyd d. 2,4,5-Trichlorbenzol-1-Carbonsäure. Sm. 112—113° (A. 152, 238; 237, 147). — III, 14.
- 3) Chlorid d. 2,6-Dichlorbenzol-1-Carbonsäure. Sd. 244° (A. 187, 273). — II, 1219.
- 4) Chlorid d. 3,4-Dichlorbenzol-1-Carbonsäure. Sd. 242° (A. 152, 228). — II, 1220.
- $C_7H_2OCl_4$ 1) 2,3,4,5,6-Pentachlor-1-Oxymethylbenzol (Pentachlorbenzylalkohol). Sm. 193° (A. 152, 246). — II, 1057.
- 2) Methyläther d. Pentachloroxybenzol. Sm. 108°; Sd. 289°_{45.5} u. Zers. (A. ch. [6] 20, 545; B. 18, 336). — II, 672.
- $C_7H_3O_2Cl_3$ 1) 4,5,6-Trichlor-3-Methyl-1,2-Benzochinon. Sm. 98° (A. 296, 185).
- 2) 3,5,6-Trichlor-4-Methyl-1,2-Benzochinon. Sm. 97—98° (103°) (Bl. [3] 11, 736; A. 296, 163; C. 1898 [1] 1025). — II, 959.
- 3) 3,5,6-Trichlor-2-Methyl-1,4-Benzochinon (Trichlortoluchinon). Sm. 232° (A. 152, 249; 168, 274; 172, 210; 210, 176; 237, 145; 293, 275; J. pr. [2] 39, 59; [2] 52, 559; B. 16, 1602). — III, 357.
- 4) 2,3,4-Trichlorbenzol-1-Carbonsäure. Sm. 129° (A. 237, 150). — II, 1220.
- 5) 2,4,5-Trichlorbenzol-1-Carbonsäure. Sm. 163°. NH_4 , $Ca + 2H_2O$, $Sr + 4H_2O$, $Ba + 2H_2O$ (A. 142, 301; 152, 234). — II, 1220.
- 6) 2,4,6-Trichlorbenzol-1-Carbonsäure. Sm. 160° (B. 27, 3152; Soc. 65, 1030). — II, 1220.
- 7) 3,4,5-Trichlorbenzol-1-Carbonsäure. Sm. 203°. $Ca + 6H_2O$, $Ba + 4H_2O$, Ag (A. 163, 27; B. 20, 1626). — II, 1120.
- 8) Aldehyd d. 2,4,6-Trichlor-3-Oxybenzol-1-Carbonsäure. Sm. 115 bis 116° (B. 32, 123).
- 9) Chlorid d. 3,5-Dichlor-2-Oxybenzol-1-Carbonsäure. Sm. 79° (B. 30, 222).
- $C_7H_3O_2Cl_5$ 1) 1,2,2,5,6-Pentachlor-3,4-Diketo-1-Methyl-1,2,3,4-Tetrahydrobenzol + 2H_2O. Sm. 90° (A. 296, 159).
- 2) 1,1,2,5,6-Pentachlor-3,4-Diketo-2-Methyl-1,2,3,4-Tetrahydrobenzol + 2H_2O. Sm. 86—88° (A. 296, 183).

- C₇H₃O₂Cl₅ 3) 1,1,3,3,5-Pentachlor-2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydrobenzol. Sm. 120,5° HClO (A. 163, 175; 169, 265; Z. 1871, 229; B. 26, 317). — II, 962.
- C₇H₃O₂Br₃ 1) 3,5,6-Tribrom-4-Methyl-1,2-Benzochinon. Sm. 117—118° (Bl. 13] 11. 736; C. 1898 [1] 1025). — II, 959.
- 2) 3,5,6-Tribrom-2-Methyl-1,4-Benzochinon. Sm. 235—236° (G. 12. 470; B. 16, 793; 29, 2350). — III, 358.
- 3) 2,4,6-Tribrombenzol-1-Carbonsäure. Sm. 186,5° (188—189°). Ba + 5 $\frac{1}{2}$ H₂O (B. 10, 1708; 27, 512; M. 18, 217). — II, 1225.
- 4) 3,4,5-Tribrombenzol-1-Carbonsäure. Sm. 234—235°. NH₄, Ca + 5 H₂O (Z. 1869, 110; A. 266, 208; B. 27, 513). — II, 1225.
- 5) 3,4,6-Tribrombenzol-1-Carbonsäure. Sm. 195°. Ba + 5 H₂O (B. 10, 1706). — II, 1225.
- 6) isom. Tribrombenzolkarbonsäure. Sm. 178°. Ba + 3 H₂O (B. 10, 1705). — II, 1225.
- 7) Aldehyd d. 2,4,6-Tribrom-3-Oxybenzol-1-Carbonsäure. Sm. 119° (B. 32, 122).
- C₇H₃O₂Br₅ 1) 1,1,3,3,5-Pentabrom-2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydrobenzol. Sm. 126° (A. 163, 180; 169, 252, 263; B. 11, 1440). — II, 963.
- C₇H₃O₂N C 56,4 — H 2,0 — O 32,2 — N 9,4 — M. G. 149.
- 1) Anhydrid d. Pyridin-2,3-Dicarbonsäure. Sm. 134,5° (B. 20, 1209; A. 288, 255). — IV, 161.
- 2) Anhydrid d. Pyridin-3,4-Dicarbonsäure. Sm. 77—78° (M. 11, 134). — IV, 164.
- C₇H₃O₄Cl₃ 1) Methyläther d. 3,5,6-Trichlor-4-Oxy-1,2-Benzochinon. Sm. 93—94° (B. 27, 555). — III, 327.
- 2) 2,4,6-Trichlor-3-Oxybenzol-1-Carbonsäure + H₂O. Sm. 104—105° (113—114° wasserfrei). Ag (A. 261, 239). — II, 1519.
- C₇H₃O₄Cl₅ 1) 1,1,3,3,4-Pentachlor-2-Keto-1,2,3,4-Tetrahydrobenzol-5-Carbonsäure. Sm. 180—181° (A. 261, 249). — II, 1536.
- C₇H₃O₄Cl₇ 1) Methylester d. ααβγγεεε-Heptachlor-δ-Keto-β-Penten-α-Carbonsäure. Sm. 90° (B. 25, 2695). — I, 621.
- C₇H₃O₄Br₃ 1) 2-Tribrom-2-Oxybenzol-1-Carbonsäure. Na (J. pr. [2] 51, 212; A. 52, 339). — II, 1506.
- 2) 2,4,6-Tribrom-3-Oxybenzol-1-Carbonsäure + $\frac{1}{2}$ H₂O. Sm. 146 bis 147° (Bl. 46, 276; Soc. 73, 407; M. 19, 92; B. 32, 123). — II, 1520.
- C₇H₃O₄Br₅ 1) Pentabrom-2,5-Dimethylfuran-3-Carbonsäure (Pentabrompyrotritar-säure). Sm. 197° (B. 20, 1082). — III, 708.
- C₇H₃O₄J₃ 1) 2-Triiod-2-Oxybenzol-1-Carbonsäure. Sm. 157° u. Zers. Na (A. 120, 306; 174, 104). — II, 1507.
- C₇H₃O₄N₃ C 43,5 — H 1,5 — O 33,2 — N 21,8 — M. G. 193.
- 1) 1,4-Anhydrid d. 2-Nitro-1-Diazobenzol-4-Carbonsäure (A. 173, 63). — IV, 1554.
- 2) Nitril d. 2,6-Dinitrobenzol-1-Carbonsäure. Sm. 58° (J. pr. [2] 56, 67 Anm.).
- C₇H₃O₄Cl₃ 1) 2,4,6-Trichlor-3,5-Dioxybenzol-1-Carbonsäure. Sm. 192° (B. 25, 2688). — II, 1747.
- C₇H₃O₄Br₃ 1) 2,5,6-Tribrom-3,4-Dioxybenzol-1-Carbonsäure. Sm. 205—206° u. Zers. (A. 293, 182 Anm.).
- 2) 2,4,6-Tribrom-3,5-Dioxybenzol-1-Carbonsäure. Sm. 183° (187 bis 189°) (A. 159, 225; M. 19, 91). — II, 1747.
- C₇H₃O₅N₃ C 40,2 — H 1,4 — O 38,3 — N 20,1 — M. G. 209.
- 1) 2-Nitro-1,3-Diazoxybenzol-5-Carbonsäure (A. 175, 159). — IV, 1344.
- 2) Nitril d. 3,5-Dinitro-2-Oxybenzol-1-Carbonsäure. Sm. 175° (177°) (B. 26, 1255; 31, 3043). — II, 1511.
- C₇H₃O₅N C 42,6 — H 1,5 — O 48,7 — N 7,1 — M. G. 197.
- 1) Aloëresinsäure (J. 1849, 331). — III, 617.
- C₇H₃O₅N₃ C 37,3 — H 1,3 — O 42,7 — N 18,7 — M. G. 225.
- 1) 3,5-Dinitro-2-Oxyphenylisocyanat. Sm. 222—223°. Na, K (J. pr. [2] 48, 426). — II, 733.
- C₇H₃O₆Cl 1) Chlormekensäure + H₂O. Sm. 146° u. Zers. Ba, Ba₃ (J. pr. [2] 32, 134). — II, 1993.
- C₇H₃O₆N₃ C 32,7 — H 1,2 — O 49,8 — N 16,3 — M. G. 257.
- 1) 2,4,6-Trinitrobenzol-1-Carbonsäure. Sm. 190° (K + CH₃OK +

- $\frac{1}{2}\text{CH}_4\text{O}$), Ag (B. 3, 224; 27, 1581, 1635, 3153; J. 1877, 742; R. 15, 90). — II, 1239.
 C 30,7 — H 1,1 — O 52,7 — N 15,4 — M. G. 273.
- C₇H₃O₃N₃** 1) p-Trinitro-3-Oxybenzol-1-Carbonsäure. NH₄, Ba + 3 H₂O, Ag (A. 117, 29; 139, 12). — II, 1521.
 2) isom. p-Trinitro-3-Oxybenzol-1-Carbonsäure + H₂O. Sm. 105° (wasserfrei). Ba + 2 H₂O, Cu + 5 H₂O (B. 8, 1491). — II, 1521.
- C₇H₃NCl₂** 1) Nitril d. 2,6-Dichlorbenzol-1-Carbonsäure. Sm. 49° (A. 269, 227). — II, 1120.
 2) Nitril d. 3,5-Dichlorbenzol-1-Carbonsäure. Sm. 65° (A. 269, 225). — II, 1120.
- C₇H₃NBr₂** 1) Nitril d. 2,4-Dibrombenzol-1-Carbonsäure. Sm. 79—80° (A. 269, 222). — II, 1224.
 2) Nitril d. 2,5-Dibrombenzol-1-Carbonsäure. Sm. 132° (A. 269, 222). — II, 1224.
 3) Nitril d. 2,6-Dibrombenzol-1-Carbonsäure. Sm. 151° (A. 269, 220). — II, 1224.
 4) Nitril d. 3,5-Dibrombenzol-1-Carbonsäure. Sm. 89° (A. 269, 223). — II, 1224.
- C₇H₃N₃Br₂** 1) anti-2,4-Dibrom-1-Diazobenzolcyanid. Sm. 141° (B. 30, 2540). — IV, 1522.
 2) syn-2,4-Dibrom-1-Diazobenzolcyanid. Sm. 70—71° (B. 30, 2540). — IV, 1522.
 3) anti-2,5-Dibrom-1-Diazobenzolcyanid. Sm. 122—123° (B. 30, 2542). — IV, 1522.
 4) syn-2,5-Dibrom-1-Diazobenzolcyanid. Sm. 42—43° (B. 30, 2542). — IV, 1522.
 5) syn-2,6-Dibrom-1-Diazobenzolcyanid. Sm. 44—45° (B. 30, 2542). — IV, 1522.
 6) anti-3,4-Dibrom-1-Diazobenzolcyanid. Sm. 100—101° (B. 30, 2541). — IV, 1522.
 7) syn-3,4-Dibrom-1-Diazobenzolcyanid. Sm. 56—57° (B. 30, 2541). — IV, 1522.
 8) anti-3,5-Dibrom-1-Diazobenzolcyanid. Sm. 85° (B. 30, 2542). — IV, 1522.
 9) syn-3,5-Dibrom-1-Diazobenzolcyanid. Sm. 60° (B. 30, 2542). — IV, 1522.
- C₇H₃N₃J₂** 1) anti-2,4-Dijod-1-Diazobenzolcyanid. Sm. 186° (B. 30, 2541). — IV, 1524.
 2) syn-2,4-Dijod-1-Diazobenzolcyanid. Sm. 96° (B. 30, 2541). — IV, 1524.
- C₇H₃Cl₄Br** 1) 2,3,5,6-Tetrachlor-4-Brom-1-Methylbenzol. Sm. 213° (J. pr. [2] 39, 480). — II, 62.
- C₇H₃OCl₂** 1) Aldehyd d. 2,4-Dichlorbenzol-1-Carbonsäure. Sm. 70—71° (A. 260, 68). — III, 13.
 2) Aldehyd d. 2,5-Dichlorbenzol-1-Carbonsäure. Sm. 57—58°. + NaHSO₃ (A. 260, 70; 272, 163; 296, 62; B. 17, 753; 29, 875). — III, 13.
 3) Aldehyd d. 3,4-Dichlorbenzol-1-Carbonsäure. Sm. 43—44°; Sd. 247 bis 248°. + NaHSO₃ (A. 152, 228; 260, 72; 296, 66; B. 29, 875). — III, 14.
 4) Chlorid d. 2-Chlorbenzol-1-Carbonsäure. Sm. 137°; Sd. 235—238° (B. 8, 883; 29, 2299; Am. 17, 332). — II, 1217.
 5) Chlorid d. 3-Chlorbenzol-1-Carbonsäure. Sd. 225° (A. 102, 263; 138, 200). — II, 1218.
 6) Chlorid d. 4-Chlorbenzol-1-Carbonsäure. Sm. 16°; Sd. 220—222° (B. 8, 881; A. 264, 175). — II, 1218.
- C₇H₃OCl₄** 1) p-Tetrachlor-1-Oxymethylbenzol (Tetrachlorbenzylalkohol) (A. 152, 245). — II, 1057.
 2) 2,4,5,6-Tetrachlor-3-Oxy-1-Methylbenzol. Sm. 150° (J. 1856, 621). — II, 744.
 3) Methyläther d. isom. 2,3,5,6-p-Tetrachlor-1-Oxybenzol. Sm. 100°; Sd. 278°_{745,3} (A. ch. [6] 20, 529). — II, 671.
- C₇H₃OBr₄** 1) 3,4,5,6-Tetrabrom-2-Oxy-1-Methylbenzol. Sm. 207—208° (Bl. [3] 19, 757).
 2) 2,4,5,6-Tetrabrom-3-Oxy-1-Methylbenzol. Sm. 194° (Bl. [3] 19, 757, 759).

- $C_7H_4OBr_4$ 3) 2,3,5,6-Tetrabrom-4-Oxy-1-Methylbenzol. Sm. 198—199° (*Bl.* 3, 19, 757).
 4) p-Tribrom-3-Bromoxy-1-Methylbenzol. *Fl.* (*Bl.* 46, 276). — II, 745.
 5) p-Tribrom-4-Bromoxy-1-Methylbenzol. Sm. 108—110° u. Zers. (*B.* 12, 804; *H.* 6, 184; *Bl.* 46, 278). — II, 751.
- $C_7H_4O_2N_2$ C 56,7 — H 2,7 — O 21,6 — N 18,9 — M. G. 148.
 1) Anhydrodiazobenzol-1-Carbonsäure (Diazoanthranilsäure) (*B.* 29, 1535).
 2) Nitril d. 2-Nitrobenzol-1-Carbonsäure. Sm. 109° (*B.* 10, 1713; 14, 2338; 18, 1494; 28, 151; 29, 624; 30, 1039; *J. pr.* [2] 51, 405). — II, 1231.
 3) Nitril d. 3-Nitrobenzol-1-Carbonsäure. Sm. 115° (117—118°) (*A.* 146, 336; 149, 297; *Grh.* 3, 130; *B.* 7, 1321; 16, 522; 18, 1063, 1494; *J. pr.* [2] 51, 400; *G.* 26 [1] 459). — II, 1234.
 4) Nitril d. 4-Nitrobenzol-1-Carbonsäure. Sm. 147° (139°) (*B.* 7, 1321; 28, 675; *A.* 149, 298; *J. pr.* [2] 51, 404). — II, 1237.
 5) Imid d. Pyridin-2,3-Dicarbonsäure. Sm. 230° (227°). K + H₂O (*B.* 27, 839, 1788; *A.* 288, 257). — IV, 161.
 6) Imid d. Pyridin-3,4-Dicarbonsäure. Sm. 229—230° (*M.* 11, 142). — IV, 164.
- $C_7H_4O_2N_4$ C 47,7 — H 2,3 — O 18,2 — N 31,8 — M. G. 176.
 1) Anhydrid d. 2,3,5,6-Tetraoximido-1-Methylbenzol. Sm. 47° (*B.* 20, 1609). — II, 962.
 2) anti-4-Nitrodiazobenzolcyanid. Sm. 86° (*B.* 28, 674). — IV, 1453.
 3) syn-4-Nitrodiazobenzolcyanid. Sm. 28—29° (*B.* 28, 674). — IV, 1453.
 4) isom. p-4-Nitrodiazobenzolcyanid. + CHN (Sm. 126°) (*B.* 28, 674). — IV, 1453.
- $C_7H_4O_2N_6$ C 41,2 — H 2,0 — O 15,7 — N 41,1 — M. G. 204.
 1) 3,5-Ditriazobenzol-1-Carbonsäure. *Ba* (*B.* 21, 1564). — IV, 1333.
- $C_7H_4O_2Cl_2$ 1) p-Dichlor-2-Methyl-1,4-Benzochinon (o-Dichlortoluchinon) (*A.* 168, 274). — III, 357.
 2) p-Dichlor-2-Methyl-1,4-Benzochinon (m-Dichlortoluchinon) (*A.* 168, 269). — III, 357.
 3) 2,3-Dichlorbenzol-1-Carbonsäure. Sm. 166° (*A.* 237, 162; *C.* 1895 [2] 529; siehe auch *B.* 5, 658; 6, 721; 8, 948; 20, 1621). — II, 1219.
 4) 2,4-Dichlorbenzol-1-Carbonsäure. Sm. 158°; subl. *Ba* + 3½ H₂O (*A.* 231, 316). — II, 1219.
 5) 2,5-Dichlorbenzol-1-Carbonsäure. Sm. 156°; Sd. 301°. NH₄, K + 2H₂O, Ca + 2H₂O, Ba + 3½ H₂O, Pb + H₂O, Fe, Cu + 2H₂O, Ag (*A.* 179, 287; 187, 268; 222, 201; 231, 319; *A. ch.* [6] 6, 479). — II, 1219.
 6) 2,6-Dichlorbenzol-1-Carbonsäure. Sm. 126,5° (132—133°). NH₄ + H₂O, K + 5H₂O, Ba + 3½ H₂O, Zn + 1½ H₂O (*A.* 187, 270; 269, 228). — II, 1219.
 7) 3,4-Dichlorbenzol-1-Carbonsäure. Sm. 201—202° (203°). Ca + 3H₂O, Ba + 4H₂O (*A.* 122, 147; 123, 226; 142, 306; 152, 224, 232; 179, 284; *J. pr.* [2] 13, 433; *B.* 29, 875). — II, 1220.
 8) 3,5-Dichlorbenzol-1-Carbonsäure. Sm. 182—182,5°. Ba + 3½ H₂O (*A.* 231, 324; 269, 225). — II, 1220.
 9) Aldehyd d. 3,5-Dichlor-2-Oxybenzol-1-Carbonsäure. Sm. 172° (*Berz. J.* 20, 311; *Am.* 14, 295). — III, 70.
 10) Aldehyd d. 3,5-Dichlor-4-Oxybenzol-1-Carbonsäure. Sm. 156° (*B.* 10, 2196; 29, 2356). — III, 82.
 11) Chlorid d. 3-Chlor-2-Oxybenzol-1-Carbonsäure. Sm. 62—63° (*B.* 30, 222).
- $C_7H_4O_2Cl_4$ 1) p-Tetrachlor-2,5-Dioxy-1-Methylbenzol? (*A.* 185, 353). — II, 957.
 2) Monomethyläther d. 3,4,5,6-Tetrachlor-1,2-Dioxybenzol. Sm. 185 bis 186° (*J. pr.* [2] 53, 251).
- $C_7H_4O_2Br_2$ 1) 3,5-Dibrom-2-Methyl-1,4-Benzochinon. Sm. 115° (*J. pr.* [2] 39, 60, 370). — III, 358.
 2) p-Dibrom-2-Methyl-1,4-Benzochinon. Sm. 85° (*G.* 12, 473; *B.* 16, 793). — III, 358.
 3) 2,3-Dibrombenzol-1-Carbonsäure. Sm. 147°. K + 2H₂O, Sr + 4H₂O, Ba + 4½ H₂O, CuOH (*A.* 222, 105); siehe auch (*B.* 7, 1146; 10, 1705; 13, 963, 965; 14, 1170). — II, 1223.

- $C_7H_4O_2Br_2$ 4) **2,4-Dibrombenzol-1-Carbonsäure.** Sm. 166,5° (169°; 163—164°). Ba + 3(4)H₂O (B. 13, 972; 27, 1584; A. 269, 222; Soc. 61, 1032; 67, 603). — II, 1224.
- 5) **2,5-Dibrombenzol-1-Carbonsäure.** Sm. 153°. K + H₂O, Ca + 3½H₂O, Ba + 1½H₂O, Zn (A. 222, 107; 266, 207). — II, 1224.
- 6) **2,6-Dibrombenzol-1-Carbonsäure.** Sm. 146,5°. Ba + 3H₂O (A. 269, 220; B. 27, 1585; 28, 1255; Soc. 67, 603). — II, 1224.
- 7) **3,4-Dibrombenzol-1-Carbonsäure.** Sm. 232—233°. K + xH₂O, Sr + 4H₂O, Ba + 4H₂O, CuOH, Ag (B. 8, 559; 13, 970; 14, 908, 2215; 27, 3392; A. 222, 184). — II, 1224.
- 8) **3,5-Dibrombenzol-1-Carbonsäure.** Sm. 209° (223—227°). Ba + 2(4)H₂O (A. 158, 10; 269, 224). — II, 1224.
- 9) **isom. ? 3,5-Dibrombenzol-1-Carbonsäure.** Sm. 209° (213—214°). Na + H₂O, Ca + 6H₂O, Ba + 4H₂O, Cd + 4H₂O (A. 139, 4; 222, 171; B. 8, 1423; 13, 967; Soc. 65, 56). — II, 1224.
- 10) **Aldehyd d. 3,5-Dibrom-2-Oxybenzol-1-Carbonsäure.** Sm. 85° (83°) (Berz. J. 25, 486; A. 251, 170; B. 22, 1135; Bl. 46, 277). — III, 70.
- 11) **Aldehyd d. 3,5-Dibrom-4-Oxybenzol-1-Carbonsäure.** Sm. 181° (178 bis 179°) (Bl. 46, 278; B. 10, 2198; 28, 2407, 3234; 29, 2356). — III, 83.
- $C_7H_4O_2Br_4$ 1) **Monomethyläther d. 3,4,5,6-Tetrabrom-1,2-Dioxybenzol.** Sm. 162 bis 163° (160°) (Am. 20, 424; Bl. [3] 21, 90).
- $C_7H_4O_2J_2$ 1) **3,5-Dijod-2-Methyl-1,4-Benzochinon.** Sm. 112—113° (J. pr. [2] 39, 401). — III, 358.
- 2) **2,4-Dijodbenzol-1-Carbonsäure.** Sm. 169—170° (A. 241, 63). — II, 1227.
- 3) **Aldehyd d. 3,5-Dijod-2-Oxybenzol-1-Carbonsäure.** Sm. 108° (J. pr. [2] 57, 205; [2] 58, 115).
- 4) **Aldehyd d. 3,5-Dijod-4-Oxybenzol-1-Carbonsäure.** Sm. 198—199° (199—200°). Na, Ag (B. 10, 2198; 28, 2412; 29, 2302, 2356; J. pr. [2] 57, 205; [2] 58, 126). — III, 83.
- $C_7H_4O_2F_2$ 1) **2-Difluorbenzol-1-Carbonsäure.** Sm. 232°. Ca + 3H₂O, Ba (Am. 7, 346). — II, 1216.
- $C_7H_4O_3N_2$ C 51,2 — H 2,4 — O 29,3 — N 17,1 — M. G. 164.
- 1) **1,3-Diazoxybenzol-4-Carbonsäure.** Ba (A. 175, 161). — IV, 1344.
- 2) **1,3-Diazoxybenzol-5-Carbonsäure.** Ba, Zn, Ag (A. 175, 154; B. 20, 408). — IV, 1344.
- 3) **Benzoxdiazol-4-Carbonsäure.** Zers. bei 116—121° (B. 29, 1758). — IV, 1557.
- 4) **1,3-Anhydrid d. 4-Oxy-1-Diazobenzol-3-Carbonsäure.** HCl + H₂O, (2HCl, PtCl₄) (J. 1864, 384; J. pr. [2] 18, 192; [2] 19, 361). — IV, 1556.
- 5) **Nitril d. 5-Nitro-2-Oxybenzol-1-Carbonsäure.** Sm. 190° (194—196°) (B. 26, 1255; 31, 3043). — II, 1509.
- 6) **Nitril d. 6-Nitro-2-Oxybenzol-1-Carbonsäure.** Sm. 207—208° (B. 31, 3043).
- 7) **Nitril d. 2-Nitro-3-Oxybenzol-1-Carbonsäure.** Sm. 182—183° (J. pr. [2] 16, 228). — II, 1521.
- 8) **Nitril d. 3-Nitro-4-Oxybenzol-1-Carbonsäure.** Sm. 143—145° (B. 30, 997).
- 9) **2-Nitrophenylisocyanat.** Sm. 41° (Am. 19, 313).
- 10) **3-Nitrophenylisocyanat.** Sm. 49—50° (Am. 19, 338).
- 11) **4-Nitrophenylisocyanat.** Sm. 44° (Am. 19, 318).
- $C_7H_4O_3N_4$ C 43,7 — H 2,1 — O 25,0 — N 29,2 — M. G. 192.
- 1) **6-Nitro-4-Keto-3,4-Dihydro-1,2,3-Benzotriazin (m-Nitrobenzazimid).** Sm. 185° u. Zers. Na, Ag (J. pr. [2] 53, 213). — IV, 1555.
- 2) **Azid d. 2-Nitrobenzol-1-Carbonsäure.** Sm. 36° (J. pr. [2] 52, 231).
- 3) **Azid d. 3-Nitrobenzol-1-Carbonsäure.** Sm. 68° (J. pr. [2] 52, 228).
- 4) **Azid d. 4-Nitrobenzol-1-Carbonsäure.** Sm. 69° (J. pr. [2] 52, 232).
- $C_7H_4O_3Cl_2$ 1) **2-Dichlor-2-Oxy-1-Methyl-2-Benzochinon.** Sm. 157° (B. 13, 1306). — II, 962.
- 2) **3,5-Dichlor-2-Oxybenzol-1-Carbonsäure.** Sm. 214°. Na, K, Mg, Ba + 4H₂O, Pb (B. 11, 1225; J. pr. [2] 13, 430; A. 261, 253; Am. 12, 505). — II, 1504.
- 3) **3,5-Dichlor-4-Oxybenzol-1-Carbonsäure.** Sm. 255—256° (J. pr. [2] 13, 434; A. 261, 250). — II, 1536.

- $C_7H_4O_3Cl_2$ 4) **2-Dichlor-4-Oxybenzol-1-Carbonsäure**. Sm. 156°. Ag (B. **16**, 1600). — II, 1536.
- $C_7H_4O_3Cl_3$ 1) **$\alpha\alpha\gamma\epsilon\epsilon\epsilon$ -Hexachlor- δ -Keto- β -Methyl- β -Penten- α -Carbonsäure** ($\alpha\alpha\gamma$ -Trichlor- γ -Trichloracetyl- β -Methyleteronsäure). Sm. 140.5° (B. **26**, 322).
 2) **Methylester d. $\alpha\alpha\beta\gamma\epsilon\epsilon\epsilon$ -Hexachlor- δ -Keto- β -Penten- α -Carbonsäure**. Sm. 93° (B. **25**, 2691). — I, 621.
 3) **Methylester d. 2,2,3,3,4,5-Hexachlor-1-Oxy-2,3-Dihydro-R-Penten-1-Carbonsäure**. Sm. 62° (B. **21**, 2727). — I, 620.
- $C_7H_4O_3Cl_4$ 1) **Methylester d. $\alpha\alpha\alpha\gamma\gamma\delta\epsilon\epsilon$ -Oktochlor- β -Ketopentan- ϵ -Carbonsäure**. Sm. 68° (B. **24**, 915). — I, 603.
- $C_7H_4O_3Br_2$ 1) **2-Dibrom-2-Oxy-2-Methyl-1,4-Benzochinon**. Sm. 196—197° (G. **13**, 312). — III, 360.
 2) **3,5-Dibrom-2-Oxybenzol-1-Carbonsäure**. Sm. 223° (218—219°). Ba + 4H₂O, Pb (A. **52**, 338; B. **10**, 1707; **16**, 401; **17**, 2728; G. **16**, 416; J. pr. [2] **51**, 211). — II, 1505.
 3) **3,5-Dibrom-4-Oxybenzol-1-Carbonsäure**. Sm. 266—268° u. Zers. Ca + 3H₂O (G. **13**, 69; **15**, 243; B. **28**, 3236). — II, 1537.
 4) **3,4-Dibrom-2-Oxybenzol-1-Carbonsäure**. Sm. 218° (B. **10**, 1706). — II, 1506.
 5) **3,6-Dibrom-2-Oxybenzol-1-Carbonsäure**. Sm. 221° (B. **10**, 1706). — II, 1506.
 6) **α -Brom- β -(5-Brom-2-Furanyl)akrylsäure**. Sm. 178—179°. K, Ba + 2H₂O, Ag (Am. **12**, 323). — III, 711.
- $C_7H_4O_3Br_4$ 1) **2-Tetrabrom-2,5-Dimethylfuran-3-Carbonsäure**. Sm. 161—162° (B. **20**, 1078). — III, 708.
- $C_7H_4O_3Br_5$ 1) **Oktochrom-2,5-Dimethyltetrahydrofuran-3-Carbonsäure**. Sm. 179 bis 180° (B. **20**, 1080). — III, 708.
- $C_7H_4O_3J_2$ 1) **3,5-Diod-2-Oxybenzol-1-Carbonsäure**. Sm. 220—230° u. Zers. NH₄ + $\frac{1}{2}$ H₂O, Na + $2\frac{1}{2}$ H₂O, K + $\frac{1}{2}$ H₂O, Ca + 5H₂O, Ba + 3H₂O (A. **120**, 304; **174**, 103; A. Spl. **7**, 141; B. **7**, 1437; **15**, 459; **16**, 81). — II, 1507.
 2) **3,5-Diod-4-Oxybenzol-1-Carbonsäure**. Sm. 237°. Na + 7H₂O, Na₂ + 6H₂O, Ca + 2H₂O, Ba, Pb, Ag, Ag₂ (A. **146**, 294; B. **29**, 2303). — II, 1538.
- $C_7H_4O_4N_2$ C 46.7 — H 2.2 — O 35.5 — N 15.5 — M. G. 180.
 1) **1-Keto-3-Nitro-1,2-Dihydrobenzoxazol**. Sm. 240—241° (B. **19**, 2271; J. pr. [2] **42**, 441). — II, 708.
- $C_7H_4O_4N_4$ C 40.4 — H 1.9 — O 30.8 — N 26.9 — M. G. 208.
 1) **1,4-Anhydrid d. 6-Nitro-2-Amido-1-Diazobenzol-4-Carbonsäure** (A. **128**, 176; **163**, 61). — IV, 1555.
 2) **Verbindung** (aus 2,3,5,6-Tetraoximido-1-Methylbenzol). Sm. 103° (B. **20**, 1609). — II, 962.
- $C_7H_4O_4Cl_2$ 1) **2-Chlor-2-Dioxy-2-Chlormethyl-1,4-Benzochinon**. K₂ (A. **185**, 354). — III, 361.
 2) **2,4-[oder 2,6]-Dichlor-3,5-Dioxybenzol-1-Carbonsäure**. Sm. 202° (B. **25**, 2687). — II, 1747.
 3) **Säure** (aus 1,2,2,5,6-Pentachlor-3,4-Diketo-1-Methyl-1,2,3,4-Tetrahydrobenzol). Sm. 218°. Ba (A. **296**, 178).
- $C_7H_4O_4Br_2$ 1) **2-Dibrom-2,4-Dioxybenzol-1-Carbonsäure + H₂O**. Sm. 214° u. Zers. (wasserfrei). K₂ + $3\frac{1}{2}$ H₂O, Ca + $8\frac{1}{2}$ H₂O, Pb, Cu + H₂O, Ag (M. **2**, 475). — II, 1737.
- $C_7H_4O_4S$ 1) **Anhydrid d. Benzol-1-Carbonsäure-2-Sulfonsäure**. Sm. 128° (129.5°) (B. **22**, 757; Am. **11**, 334; **20**, 260). — II, 1295.
- $C_7H_4O_5N_2$ C 42.8 — H 2.0 — O 40.8 — N 14.3 — M. G. 196.
 1) **Verbindung** (aus Pyrazoltricarbonsäuretrimethylester). Sm. 70°; Sd. 202°₃₀. — IV, 547.
- $C_7H_4O_5N_4$ C 37.5 — H 1.8 — O 35.7 — N 25.0 — M. G. 224.
 1) **Oxalylmalondiureid + H₂O** (A. ch. [6] **28**, 290; Bl. [3] **9**, 170). — I, 1375.
- $C_7H_4O_5Cl_2$ 1) **2,6-Dichlor-3,4,5-Trioxybenzol-1-Carbonsäure + 2H₂O**. Sm. 190° u. Zers. (Bl. [3] **15**, 905).
- $C_7H_4O_5Br_2$ 1) **2,6-Dibrom-3,4,5-Trioxybenzol-1-Carbonsäure + H₂O**. Sm. 139° wasserfrei u. Zers. NH₄, Na, Ba + 5H₂O, Zn, Pb (Z. **1867**, 431; B. **3**, 644; **11**, 1882; Bl. [3] **7**, 412; Ph. Ch. **3**, 257). — II, 1923.

- C₇H₄O₆N₂** C 39,6 — H 1,9 — O 45,3 — N 13,2 — M. G. 212.
 1) Methylenäther d. 4,5-Dinitro-1,2-Dioxybenzol. Sm. 101° (A. 199, 75). — II, 912.
 2) 2,3-Dinitrobenzol-1-Carbonsäure. Sm. 201°. Ba + 4H₂O (B. 28, 2564).
 3) 2,4-Dinitrobenzol-1-Carbonsäure. Sm. 179°. Mg + 9H₂O, Ca + 2½H₂O, Ba + 3H₂O (B. 3, 323; 7, 1225; 13, 461, 815; A. 222, 79). — II, 1238.
 4) 2,5-Dinitrobenzol-1-Carbonsäure. Sm. 177°. Ba + 4H₂O (B. 7, 1224; 28, 375). — II, 1238.
 5) 2,6-Dinitrobenzol-1-Carbonsäure. Sm. 202°. Ba + 2H₂O (B. 7, 1225). — II, 1238.
 6) 3,4-Dinitrobenzol-1-Carbonsäure. Sm. 163—164°. Ca + 3H₂O, Ba + 4H₂O (B. 13, 815; 27, 2209). — II, 1239.
 7) 3,5-Dinitrobenzol-1-Carbonsäure. Sm. 202° (204°). Salze meist bekannt (Z. 1870, 641; J. 1847 48, 533; 1882, 902; A. 175, 152; 217, 194; 222, 73; B. 3, 224; 14, 902; 27, 3158; 28, 1800; Ph. Ch. 5, 387). — II, 1239.
 8) 1,4-Diazin-2,3,5-Tricarbonsäure + H₂O. Sm. 164° (180° wasserfrei). Ca₃ + 12H₂O, Sr₃ + 12H₂O, Ba₃ + 4H₂O, Cd₃ + 9H₂O, Ag₃ + H₂O (J. pr. [2] 47, 490; [2] 55, 249). — IV, 836.
- C₇H₄O₆N₄** C 35,0 — H 1,7 — O 40,0 — N 23,3 — M. G. 240.
 1) 2-Dinitro-1,4-Benzochinonmonourein (G. 27 (1) 242).
- C₇H₄O₆S** 1) Thiophen-2,3,5-Tricarbonsäure. Ag₃ (B. 18, 2302). — III, 761.
- C₇H₄O₇N₂** C 36,8 — H 1,7 — O 49,1 — N 12,4 — M. G. 228.
 1) 3,5-Dinitro-2-Oxybenzol-1-Carbonsäure + H₂O. Sm. 173°. NH₄, Na, K, K₂ + H₂O, Ca + 1½H₂O, Ba, Ba + 3H₂O, Pb, Ag (A. 69, 230; 78, 8; 173, 43; 195, 47; B. 12, 1345; M. 19, 150). — II, 1510.
 2) 3,5-Dinitro-4-Oxybenzol-1-Carbonsäure. Sm. 235—237° (245—246°). K, K₂ + 2H₂O, Ba + 5(3½)H₂O, Ag, Ag₂ (A. 163, 36; Am. 19, 32). — II, 1538.
 3) isom. 2-Dinitro-4-Oxybenzol-1-Carbonsäure (A. 163, 50; Z. 1866, 647). — II, 1539.
- C₇H₄O₈N₆** C 28,0 — H 1,3 — O 42,7 — N 28,0 — M. G. 300.
 1) Verbindung (aus d. Verb. C₉H₅O₈N₆; Sm. 240°). Na₄ (J. pr. [2] 56, 500).
- C₇H₄O₁₀N₆** C 25,3 — H 1,2 — O 48,2 — N 25,3 — M. G. 332.
 1) 2,3,4,6-Tetranitro-1-Methylnitroamidobenzol. Sm. 145—146° u. Zers. (R. 8, 274). — II, 326.
- C₇H₄NCI** 1) Nitril d. 2-Chlorbenzol-1-Carbonsäure. Sm. 42—43°; Sd. 232° (B. 2, 492). — II, 1217.
 2) Nitril d. 3-Chlorbenzol-1-Carbonsäure. Sm. 139° (A. 106, 35; B. 2, 370). — II, 1218.
 3) Nitril d. 4-Chlorbenzol-1-Carbonsäure. Sm. 92° (93—94°); Sd. 223°_{1,50} (B. 28, 673; Am. 18, 169; R. 16, 114).
 4) Isonitril d. 4-Chlorbenzol-1-Carbonsäure (B. 7, 1233). — II, 1219.
 5) Verbindung (Base aus 2-Nitrobenzol-1-Carbonsäurealdehyd). Sm. 82 bis 84°. HCl + H₂O (B. 13, 311). — III, 15.
- C₇H₄NBr** 1) Nitril d. 2-Brombenzol-1-Carbonsäure. Sm. 51°; Sd. 251—253° (B. 23, 3436). — II, 1222.
 2) Nitril d. 3-Brombenzol-1-Carbonsäure. Sm. 38°; Sd. 225° (B. 4, 708; 18, 1495; 23, 3437). — II, 1222.
 3) Nitril d. 4-Brombenzol-1-Carbonsäure. Sm. 113°; Sd. 235—237° (B. 23, 3437). — II, 1223.
- C₇H₄NJ** 1) Nitril d. 3-Jodbenzol-1-Carbonsäure. Sm. 41° (B. 2, 370). — II, 1227.
- C₇H₄N₂Br₂** 1) 3,2-Dibromindazol. Sm. 239—240° (A. 227, 312). — IV, 865.
- C₇H₄N₂Cl** 1) anti-4-Chlordiazobenzolcyanid. Sm. 105—106° (B. 28, 672). — IV, 1452.
 2) syn-4-Chlordiazobenzolcyanid. Sm. 29° (B. 28, 671; 31, 638). — IV, 1452.
 3) isom. 2-4-Chlordiazobenzolcyanid. + CHN (Sm. 103°) (B. 28, 671). — IV, 1453.
- C₇H₄N₂Cl₃** 1) 4,6,7-Trichlor-5-Methyl-1,2,3-Benzotriazol. Sm. 240° (A. 249, 370 Anm.). — IV, 1145.
- C₇H₄N₂Br** 1) anti-2-Brom-1-Diazobenzolcyanid. Sm. 107—108° (B. 30, 2539). — IV, 1521.

- C₇H₄N₃Br** 2) **syn-2-Brom-1-Diazobenzolcyanid**. Sm. 51° (*B.* 30, 2539). — **IV**, 1521.
 3) **syn-3-Brom-1-Diazobenzolcyanid**. Sm. 25–26° (*B.* 30, 2540). — **IV**, 1521.
 4) **anti-4-Brom-1-Diazobenzolcyanid**. Sm. 129–130°. CHN, + AgCN (*B.* 30, 2539, 2547; 31, 637). — **IV**, 1521.
 5) **syn-4-Brom-1-Diazobenzolcyanid**. Sm. 42° (*B.* 30, 2538). — **IV**, 1521.
- C₇H₄N₃J** 6) **6-Brom-1,2,4-Benzotriazin** (*B.* 22, 2818). — **IV**, 1155.
 1) **anti-4-Jod-1-Diazobenzolcyanid**. Sm. 152° (*B.* 30, 2539). — **IV**, 1523.
 2) **syn-4-Jod-1-Diazobenzolcyanid**. Sm. 48° (*B.* 30, 2539). — **IV**, 1523.
- C₇H₄Cl₃S** 1) **polym. Aldehyd d. 2,5-Dichlorbenzol-1-Thiocarbonsäure**. Sm. 194 bis 197° (*A.* 299, 349).
- C₇H₄Cl₃Br** 1) **Trichlor-4-Brom-1-Methylbenzol**. Sm. 55–60°; Sd. 265–275° (*J. pr.* [2] 39, 480). — **II**, 62.
- C₇H₄Br₂J₂** 1) **3,5-Dibrom-2,4-Dijod-1-Methylbenzol**. Sm. 68° (*A.* 192, 212). — **II**, 75.
- C₇H₅ON** C 70,6 — H 4,2 — O 13,4 — N 11,8 — M. G. 119.
 1) **Benzoxazol** (Methenyl-o-Amidophenol). Sm. 30,5°; Sd. 182,5° (*B.* 10, 1124; 30, 3064). — **II**, 705.
 2) **Inn. Anhydrid d. 2-Amidobenzol-1-Carbonsäure** (Anthranil). Sd. 210 bis 215° u. Zers. + HgCl₂ (*B.* 15, 2105; 16, 2222). — **II**, 1246.
 3) **Nitril d. 2-Oxybenzol-1-Carbonsäure**. Sm. 98°. NH₄, Ag (*B.* 20, 3083, 3389; 22, 2771; 26, 1254; 31, 3040; *G.* 26 [1] 462). — **II**, 1501.
 4) **polym. Nitril d. 2-Oxybenzol-1-Carbonsäure**. Sm. 296–299° (*A.* 98, 261; *B.* 2, 492; 22, 2798; *Bl.* 13, 26). — **II**, 1501.
 5) **isom. polym.? Nitril d. 2-Oxybenzol-1-Carbonsäure**. Sm. 195° (*Bl.* 13, 26). — **II**, 1501.
 6) **Nitril d. 3-Oxybenzol-1-Carbonsäure**. Sm. 82° (*B.* 8, 859; 20, 2953; *J. pr.* [2] 16, 221). — **II**, 1518.
 7) **Nitril d. 4-Oxybenzol-1-Carbonsäure**. Sm. 113°. Na + 3H₂O (*J. pr.* [2] 16, 55). — **II**, 1530.
 8) **Phenylisocyanat** (Carbanil). Sd. 166°₇₀₀. HCl (*J.* 1858, 348; *A.* 47, 9, 36; 217, 3; *B.* 3, 655; 17, 1284; 18, 764, 1178; 23, 1225, 1536; 25, 1086; *J. pr.* [2] 31, 121; [2] 41, 301). — **II**, 374.
 9) **Verbindung** (aus 3-Nitrobenzol-1-Carbonsäurealdehyd) = (C₇H₅ON)_x (*B.* 28, 250). — **III**, 15.
- C₇H₅ON₂** C 57,1 — H 3,4 — O 10,9 — N 28,6 — M. G. 147.
 1) **Benzoylazimid** (Benzazid). Sm. 29–30° (32%) (*B.* 23, 3029; 27, 779; *J. pr.* [2] 52, 210). — **II**, 1309.
 2) **2-Nitrosoindazol**. Sm. 73–74° (*A.* 227, 310). — **IV**, 865.
 3) **4-Keto-3,4-Dihydro-1,2,3-Benzotriazin** (o-Benzazimid). Sm. 211–212° u. Zers. Na (*J. pr.* [2] 35, 262; [2] 37, 432; [2] 43, 446; *A.* 305, 359). — **IV**, 1553.
 4) **Nitril d. 1-Diazobenzol-3-Carbonsäure**. Tribromid, Nitrat, Sulfat (*B.* 2, 370). — **IV**, 1554.
 5) **Nitril d. anti-4-Oxy-1-Diazobenzol-1-Carbonsäure**. Zers. bei 117 bis 118° (*B.* 29, 1532). — **IV**, 1546.
- C₇H₅OCl** 1) **Aldehyd d. 2-Chlorbenzol-1-Carbonsäure**. Sm. –4,5° bis –3°; Sd. 213–214° (*J.* 1869, 508; *A.* 247, 368; 260, 55; 272, 152; *Soc.* 53, 140, 803; *B.* 29, 875). — **III**, 13.
 2) **Aldehyd d. 3-Chlorbenzol-1-Carbonsäure**. Sm. 17–18°; Sd. 213 bis 214° (*A.* 247, 368; 260, 59; 262, 135; *B.* 29, 875). — **III**, 13.
 3) **Aldehyd d. 4-Chlorbenzol-1-Carbonsäure**. Sm. 47,5°; Sd. 213–214° (*A.* 147, 352; 151, 140; 247, 368; *B.* 4, 699; 11, 1043; *Am.* 3, 30; *G.* 17, 209; *C.* 1898 [2] 743). — **III**, 13.
 4) **Chlorid d. Benzolcarbonsäure**. Sd. 198–198,3°₇₄₀. + AlCl₃, + TiCl₄. Lit. bed. — **II**, 1155.
- C₇H₅OCl₃** 1) **?-Trichlor-1-Oxymethylbenzol** (?-Trichlorbenzylalkohol) (*A.* 152, 241). — **II**, 1057.
 2) **?-Trichlor-3-Oxy-1-Methylbenzol**. Sm. 96°; Sd. 270° (*J.* 1856, 620). — **II**, 744.
 3) **Methyläther d. 2,4,6-Trichlor-1-Oxybenzol**. Sm. 60,5°; Sd. 240°_{738,2} (*A. ch.* [6] 20, 521; *B.* 30, 2840). — **II**, 670.
- C₇H₅OBr** 1) **Aldehyd d. 2-Brombenzol-1-Carbonsäure**. Sm. 21–22°; Sd. 230° (*Am.* 3, 32; *Soc.* 53, 140, 804). — **III**, 14.

- C₇H₅OBr** 2) Aldehyd d. 3-Brombenzol-1-Carbonsäure. *Sd.* 215—216°₇₁₆ (*Am.* **3**, 32; *A.* **284**, 141, 154; *B.* **23**, 1890). — III, **14**.
- 3) Aldehyd d. 4-Brombenzol-1-Carbonsäure. *Sm.* 57° (*Am.* **3**, 32; *B.* **11**, 1043; **29**, 153; *G.* **17**, 206). — III, **14**.
- C₇H₅OBr₃** 4) Bromid d. Benzolcarbonsäure. *Sd.* 218—219° (*B.* **14**, 2473). — II, **1156**.
- 1) 2-Tribrom-3-Oxy-1-Methylbenzol. *Sm.* 81—82° (*Bl.* **46**, 276; *J. pr.* [2] **39**, 59). — II, **745**.
- 2) Methyläther d. **2,4,6-Tribrom-1-Oxybenzol**. *Sm.* 87° (*Z.* 1866, 366; *B.* **32**, 162 Anm.). — II, **674**.
- 3) **1,2-Anhydrid** d. **1,3,5-Tribrom-2-Oxy-1-Oxymethyl-1,2-Dihydrobenzol**. *Sm.* 116—118° (*A.* **302**, 146).
- C₇H₅OJ** 1) Aldehyd d. 2-Jodbenzol-1-Carbonsäure. *Sm.* 37° (*Soc.* **53**, 141; **69**, 1006). — III, **14**.
- 2) Aldehyd d. 3-Jodbenzol-1-Carbonsäure. *Sm.* 37° (*Soc.* **69**, 1002).
- 3) Aldehyd d. 4-Jodbenzol-1-Carbonsäure. *Sm.* 77° (*B.* **11**, 1043; *Am.* **3**, 32; *Ph. Ch.* **13**, 520; *Soc.* **69**, 1005). — III, **14**.
- 4) Jodid d. Benzolcarbonsäure (*A.* **3**, 266). — II, **1156**.
- C₇H₅OF** 1) Fluorid d. Benzolcarbonsäure. *Sd.* 154° (161,5°₇₄₅) (*Bl.* [3] **5**, 887; [3] **15**, 878; *A.* **126**, 601). — II, **1155**.
- C₇H₅O₂N** C 62,2 — H 3,7 — O 23,7 — N 10,4 — M. G. 135.
- 1) **1-Keto-1,2-Dihydrobenzoxazol** (o-Oxycarbanil). *Sm.* 141—142° (136 bis 138°); *Sd.* über 360° Ag (*Bl.* **25**, 177; *B.* **18**, 1828; **19**, 2269, 2656, 2951; **20**, 177, 2126; *J. pr.* [2] **37**, 29; [2] **41**, 327; *H.* **12**, 299; **22**, 329). — II, **706**.
- 2) Lakton d. 3-Oxymethylpyridin-2-Carbonsäure (Pyridinphthalid). *Sm.* 161. (2HCl, PtCl₄ + 2H₂O) (*A.* **290**, 353). — IV, **154**.
- 3) Aldehyd d. 3-Nitrosobenzol-1-Carbonsäure. *Sm.* 106,5—107° (*B.* **28**, 250; **29**, 3039). — III, **14**.
- 4) Aldehyd d. 4-Nitrosobenzol-1-Carbonsäure. *Sm.* 137—138° (*B.* **29**, 3038; **30**, 1599).
- 5) Nitril d. **2,4-Dioxybenzol-1-Carbonsäure**. *Sm.* 175° (*B.* **24**, 3651). — II, **1736**.
- C₇H₅O₂N₃** C 51,5 — H 3,1 — O 19,6 — N 25,8 — M. G. 163.
- 1) 6-Nitroindazol. *Sm.* 181°. Ag (*B.* **23**, 3636; **25**, 3156; **26**, 2349). — IV, **865**.
- 2) 2-Nitrobenzimidazol. *Sm.* 203° (*A.* **273**, 340). — IV, **868**.
- 3) **1,4-Diketo-1,2,3,4-Tetrahydro-2,3,5-Benzotriazin** (Hydrazid d. Pyridin-3,4-Dicarbonsäure). *Sm.* noch nicht bei 380°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (*M.* **16**, 709). — IV, **165**.
- 4) 1-Diazobenzolimid-2-Carbonsäure. *Sm.* 145° (*Z.* 1867, 165). — IV, **1153**.
- 5) 1-Diazobenzolimid-3-Carbonsäure. *Sm.* 160°. Ag (*Z.* 1867, 164; *B.* **9**, 1658). — IV, **1153**.
- 6) 1-Diazobenzolimid-4-Carbonsäure. *Sm.* 185° (*Z.* 1867, 164). — IV, **1153**.
- 7) **1,2,3-Benzotriazol-4** oder 7-Carbonsäure (γ-Diazoimidobenzoësäure). Ba + 2H₂O (*B.* **2**, 436; **5**, 201; **15**, 2199; *J. pr.* [2] **5**, 239). — IV, **1153**.
- 8) **1,2,3-Benzotriazol-5-Carbonsäure**. *Sm.* noch nicht bei 270°. + C₂H₄O₂, Ca + 4H₂O, Ba + 7H₂O (*B.* **26**, 2736). — IV, **1153**.
- 9) **1,2,3-Benzotriazol-5-Carbonsäure** (β-Diazoimidobenzoësäure). *Sm.* noch nicht bei 270°. Na + 1/2 CH₄O, Ba + 4H₂O (*B.* **2**, 436; **5**, 201; **15**, 1880, 2198; *J. pr.* [2] **5**, 239; **4**, 291, 336). — IV, **1153**.
- 10) **1,2-Anhydrid** d. 4-Amido-1-Diazobenzol-2-Carbonsäure + 3H₂O. 2 + HCl, (2 + 2HCl, PtCl₄), (2 + HCl, AuCl₃) (*B.* **5**, 200; **17**, 604). — IV, **1555**.
- 11) Azid d. 2-Oxybenzol-1-Carbonsäure. *Sm.* 27° (*J. pr.* [2] **52**, 240).
- 12) Azid d. 3-Oxybenzol-1-Carbonsäure. *Sm.* 95° (*J. pr.* [2] **52**, 235).
- 13) Azid d. 4-Oxybenzol-1-Carbonsäure. *Sm.* 132° (*J. pr.* [2] **52**, 237).
- C₇H₅O₂N₃** C 44,0 — H 2,6 — O 16,7 — N 36,7 — M. G. 191.
- 1) **5-[3-Nitrophenyl]-1,2,3,4-Tetrazol**. *Sm.* 145°. Ba + 3H₂O, Ag (*A.* **298**, 103). — IV, **1267**.
- 2) **5-[4-Nitrophenyl]-1,2,3,4-Tetrazol**. *Sm.* 219° (*A.* **298**, 50). — IV, **1267**.
- C₇H₅O₂Cl** 1) **6-Chlor-2-Methyl-1,4-Benzochinon**. *Sm.* 90° (*B.* **19**, 928; *J. pr.* [2] **38**, 328). — III, **277**.

- C₇H₅O₂Cl**
- 2) p-Chlor-2-Methyl-1,4-Benzochinon. Sm. 105° (B. 20, 2286). — III, 357.
 - 3) 2-Chlorbenzol-1-Carbonsäure. Sm. 137°. Ca + 2H₂O, Ba + 3H₂O, Ag (A. 83, 317; 102, 264; 115, 183; 117, 157; 132, 311; 147, 263; 179, 289; 222, 192; 276, 54; B. 4, 463; 8, 880; Ph. Ch. 3, 255). — II, 1217.
 - 4) 3-Chlorbenzol-1-Carbonsäure. Sm. 153° (152°). Ca + 3H₂O, Ba + 4H₂O, Pb, Ag (A. 55, 1; 65, 55; 102, 259; 115, 194; 117, 14; 122, 157; 133, 244; 168, 200; B. 4, 463; 6, 175; Ph. Ch. 3, 255). — II, 1218.
 - 5) 4-Chlorbenzol-1-Carbonsäure. Sm. 236°; subl. Na, Ca + 3H₂O, Ba + 4H₂O, Ag (Z. 1869, 137; A. 128, 270; 133, 243; 139, 336; 207, 339; 212, 215; B. 8, 880; Ph. Ch. 3, 256; Am. 16, 530). — II, 1218.
 - 6) Aldehyd d. 5-Chlor-2-Oxybenzol-1-Carbonsäure. Sm. 99.5°. Ba + 2H₂O (Berz. J. 20, 311; A. 30, 169; 85, 196; Am. 14, 295; C. 1896 [2] 921; G. 28 [1] 235). — III, 69.
 - 7) Aldehyd d. α-Chlor-β-[2-Furanyl]-akrylsäure (Furfurchlorakrolein). Sm. 79° (B. 21, 423). — III, 727.
 - 8) Phenylester d. Chlorameisensäure. Fl. (J. pr. [2] 36, 316). — II, 661.
- C₇H₃O₂Cl₃**
- 1) 4,5,6-Trichlor-2,3-Dioxy-1-Methylbenzol. Sm. 168° (A. 296, 184).
 - 2) 3,4,6-Trichlor-2,5-Dioxy-1-Methylbenzol. Sm. 211—212° (A. 152, 251; 168, 275; 172, 211; B. 16, 1603). — II, 957.
 - 3) 2,5,6-Trichlor-3,4-Dioxy-1-Methylbenzol + 2H₂O. Sm. 179—180° (wasserfrei) (Bl. [3] 11, 735; A. 296, 162; C. 1898 [1] 1025). — II, 958.
 - 4) 2,4,6-Trichlor-3,5-Dioxy-1-Methylbenzol + 2 1/2 H₂O. Sm. 59° (127° wasserfrei) (A. 54, 271; 163, 177; Z. 1871, 230; A. ch. [4] 6, 200; B. 26, 318). — II, 962.
 - 5) Monomethyläther d. 3,4,5-Trichlor-1,2-Dioxybenzol. Sm. 107—108° (G. 28 [1] 230).
 - 6) Monomethyläther d. p-Trichlor-1,2-Dioxybenzol. Sm. 114—115° (Bl. [3] 21, 90).
- C₇H₃O₂Br**
- 1) 5-Brom-2-Methyl-1,4-Benzochinon. Sm. 106° (B. 20, 2286; 27, 1931; A. 303, 241). — III, 358.
 - 2) 6-Brom-2-Methyl-1,4-Benzochinon. Sm. 93° (J. pr. [2] 38, 326). — III, 358.
 - 3) 2-Brombenzol-1-Carbonsäure. Sm. 150° (147—148°). Na, K + 2H₂O, Ca + 3H₂O, Ba, Zn, Pb, Cu + H₂O (A. 198, 99; 207, 353; 276, 56; B. 4, 465; 7, 1502; 25, 2189; Ph. Ch. 3, 256; J. pr. [2] 52, 73). — II, 1221.
 - 4) 3-Brombenzol-1-Carbonsäure. Sm. 155°; Sd. oberh. 280°. K, Ca + 3H₂O, Ba + 4H₂O (Z. 1865, 116; 1866, 367; 1869, 109; 457; A. 28, 246; 117, 25; 143, 233; 149, 131; 158, 5; 19, 159; 12, 236; 168, 156; 176, 149; B. 4, 464; 28, 1265; Ph. Ch. 3, 256; J. pr. [2] 52, 73; Am. 19, 364). — II, 1222.
 - 5) 4-Brombenzol-1-Carbonsäure. Sm. 251°. Ca + 1 1/2 H₂O, Ba, Pb + H₂O, Ag (A. 143, 247; 144, 283; 207, 351; 212, 231; B. 8, 717; 14, 910; 15, 698; 27, 3396; 28, 260; 29, 1407; H. 5, 63; Am. 9, 84; G. 17, 213; J. pr. [2] 52, 73). — II, 1222.
 - 6) Aldehyd d. 5-Brom-2-Oxybenzol-1-Carbonsäure. Sm. 104—105°. Cu (A. 30, 171; 85, 196; B. 2, 275; 22, 1135; 31, 3042; Berz. J. 25, 484; P. 46, 57; C. 1896 [2] 921). — III, 70.
 - 7) Aldehyd d. 3-Brom-4-Oxybenzol-1-Carbonsäure. Sm. 124°. Na, Ag (B. 28, 2409). — III, 82.
- C₇H₃O₂Br₃**
- 1) p-Tribrom-2-Oxy-1-Oxymethylbenzol (Tribromsaligenin). Sm. 91° (C. 1896 [2] 921).
 - 2) 3,4,6-Tribrom-2,5-Dioxy-1-Methylbenzol. Sm. 201—202° (G. 12, 471; B. 16, 793). — II, 957.
 - 3) 2,5,6-Tribrom-3,4-Dioxy-1-Methylbenzol. Sm. 162—164° (Bl. [3] 11, 736; C. 1898 [1] 1025). — II, 959.
 - 4) 2,4,6-Tribrom-3,5-Dioxy-1-Methylbenzol. Sm. 98° (103°) (A. 68, 96; 117, 313; 134, 257; 203, 298). — II, 963.
 - 5) Methyläther d. p-Tribrom-1,2-Dioxybenzol. Sm. 115—116° (B. 14, 2017; Am. 15, 164). — II, 911.

- $C_7H_5O_2Br$ 6) Methyläther d. 2-Tribrom-1,3-Dioxybenzol. Sm. 104° (99°) (B. 13, 2364; M. 1, 368). — II, 221.
- $C_7H_5O_2J$ 1) 6-Jod-2-Methyl-1,4-Benzochinon. Sm. $116-117^\circ$ (J. pr. [2] 37, 340; [2] 39, 398). — III, 358.
 2) 2-Jodbenzol-1-Carbonsäure. Sm. 162° . Ca + $2H_2O$, Ba + $6H_2O$ (B. 4, 521, 554; 7, 1007; 26, 1744; 29, 1407; Am. 4, 101; J. pr. [2] 52, 73). — II, 1226.
 3) 3-Jodbenzol-1-Carbonsäure. Sm. $186-187^\circ$. Na + H_2O , Mg + $4H_2O$, Ca + $2H_2O$, Ba + $4H_2O$ (A. 135, 108; 136, 201; B. 4, 522; 15, 458; 29, 1407; J. pr. [2] 18, 324; [2] 52, 73; J. 1859, 466; Ph. Ch. 5, 389). — II, 1226.
 4) 4-Jodbenzol-1-Carbonsäure. Sm. $265-266^\circ$. Na + $\frac{1}{2}H_2O$, K, Ca + H_2O , Sr + H_2O , Ba + $1\frac{1}{2}H_2O$, Zn + $4H_2O$ (Z. 1868, 327; A. 207, 333; B. 8, 562; 16, 111; 18, 137; 28, 338; 29, 1407; J. pr. [2] 52, 73). — II, 1227.
 5) Aldehyd d. 5-Jod-2-Oxybenzol-1-Carbonsäure. Sm. 102° (C. 1896 [2] 901; J. pr. [2] 57, 205).
 6) Aldehyd d. 3-Jod-4-Oxybenzol-1-Carbonsäure. Sm. 108° (B. 28, 2413). — III, 83.
 7) Aldehyd d. 2-Jodosobenzol-1-Carbonsäure. Zers. bei 210° (Soc. 69, 1007).
 8) Aldehyd d. 3-Jodosobenzol-1-Carbonsäure. Zers. bei 190° (Soc. 69, 1003).
 9) Aldehyd d. 4-Jodosobenzol-1-Carbonsäure. Zers. bei 115° (Soc. 69, 1005).
- $C_7H_5O_2J_3$ 1) 2,4,6-Trijod-3,5-Dioxy-1-Methylbenzol (A. 134, 212). — II, 263.
- $C_7H_5O_2F$ 1) 2-Fluorbenzol-1-Carbonsäure. Sm. $117-118^\circ$. Ca + $2H_2O$, Ba + $2H_2O$ (G. 12, 91). — II, 1216.
 2) 3-Fluorbenzol-1-Carbonsäure. Sm. $123-124^\circ$. Na + H_2O , Ca + $3H_2O$, Ba + $3H_2O$, Ag (G. 12, 88; Ph. Ch. 3, 258). — II, 1216.
 3) 4-Fluorbenzol-1-Carbonsäure. Sm. 182° . Ca + $3H_2O$, Ba + $2H_2O$, Ag (G. 12, 86; 13, 534; J. pr. [2] 1, 394; A. 235, 263). — II, 1216.
 C 55,6 — H 3,3 — O 31,8 — N 9,3 — M. G. 151.
- $C_7H_5O_2N$ 1) Benzoylnitrit. Fl. (B. 9, 1464). — II, 1156.
 2) 2-Nitrosobenzol-1-Carbonsäure. Sm. bei 210° u. Zers. (B. 29, 2064).
 3) Aldehyd d. 2-Nitrobenzol-1-Carbonsäure. Sm. 46° ($43,5-44,5^\circ$). + NaHSO₃ (B. 13, 310; 14, 829, 2332, 2801; 15, 2105, 2861; 17, 121; 30, 1041; M. 8, 92; Soc. 71, 1058). — III, 14.
 4) Aldehyd d. 3-Nitrobenzol-1-Carbonsäure. Sm. 58° . + (NH₄)HSO₃, + $\frac{1}{2}H_2O$, + NaHSO₃, + Anilindisulfid, 4 + PH₃ (A. 79, 260; 85, 190; 195, 301; B. 9, 1463; 13, 678; 14, 2802; 15, 838, 2010; 21, 333; 29, 156, 3039; Bl. [3] 13, 1047; M. 8, 91). — III, 15.
 5) Aldehyd d. 4-Nitrobenzol-1-Carbonsäure. Sm. 106° (B. 13, 670; 14, 2317, 2525, 2577, 2802; 16, 2714; 17, 1903; 19, 1061; 29, 3038; 30, 1049; A. 229, 212; Soc. 71, 1058). — III, 15.
 C 46,9 — H 2,8 — O 26,8 — N 23,5 — M. G. 179.
- $C_7H_5O_2N_2$ 1) 5-Nitro-2-Oxybenzimidazol (Nitrophenylenharnstoff). Sm. noch nicht bei 300° (B. 17, 2630). — IV, 559.
- $C_7H_5O_2N_3$ C 40,6 — H 2,4 — O 23,2 — N 33,8 — M. G. 207.
 1) 5-Diazo-3-Triazobenzol-1-Carbonsäure. Salze siehe (B. 21, 1563). — IV, 1556.
- $C_7H_5O_2Cl$ 1) 2-Chlor-2-Dioxy-2-Methyl-1,4-Benzochinon (A. 210, 177; 249, 69). — III, 361.
 2) 3-Chlor-2-Oxybenzol-1-Carbonsäure. Sm. 178° . Ba + $3H_2O$ (J. pr. [2] 36, 22). — II, 1503.
 3) 4-Chlor-2-Oxybenzol-1-Carbonsäure. Sm. 207° (J. pr. [2] 36, 27). — II, 1503.
 4) 5-Chlor-2-Oxybenzol-1-Carbonsäure. Sm. 172° ($167,5^\circ$). Li + $2H_2O$, Na, K, Ca + $3H_2O$, Ba + $3H_2O$, Pb, Cu, Ag (J. 1864, 385; B. 6, 174, 175; 8, 816; 10, 2190; 11, 1227; 16, 2190; J. pr. [2] 36, 19; C. 1898 [1] 499; G. 28 [1] 212). — II, 1503.
 5) 6-Chlor-3-Oxybenzol-1-Carbonsäure. Sm. $169-170^\circ$ (G. 28 [1] 214).

- $C_7H_5O_3Cl$** 6) 3-Chlor-4-Oxybenzol-1-Carbonsäure. Sm. 169—170° (187,5—188°; 164 bis 165°). Ba + 6 H₂O (A. 146, 287; J. pr. [2] 13, 432; B. 10, 2192; 30, 1474). — II, 1535.
- $C_7H_5O_3Cl_2$** 7) α -Chlor- β -[2-Furanyl]akrylsäure. Sm. 142° (B. 21, 426). — III, 710.
1) 2-Methyläther d. 3,5,6-Trichlor-1,2,4-Trioxymethylbenzol. Sm. 116° (B. 27, 559). — II, 1017.
2) 4-Methyläther d. 3,5,6-Trichlor-1,2,4-Trioxymethylbenzol. Sm. 118° (B. 27, 556). — II, 1017.
3) Äthylester d. 3,4,5-Trichlorfuran-2-Carbonsäure. Sm. 62—63° (Am. 12, 123). — III, 702.
- $C_7H_5O_3Cl_3$** 1) $\alpha\alpha\gamma\epsilon\epsilon$ -Pentachlor- δ -Keto- β -Methyl- β -Penten- α -Carbonsäure (γ -Dichloracetyl- $\alpha\alpha\gamma$ -Trichlor- β -Methylcrotonsäure). Sm. 115° (B. 26, 319).
2) Pentachlor-3-Oxy-1-Methyl- β -Dihydro-R-Penten-3-Carbonsäure + H₂O. Sm. 99,5° (A. 296, 164).
3) β -Pentachlor-2-Oxy-1-Methyl- β -Dihydro-R-Penten-2-Carbonsäure + 2 H₂O. Sm. 90° (123° wasserfrei) (A. 296, 187).
- $C_7H_5O_3Br$** 1) 3-Brom-2-Oxybenzol-1-Carbonsäure. Sm. 219—220° Pb (Z. 1871, 709; A. 52, 338). — II, 1504.
2) isom. β -3-Brom-2-Oxybenzol-1-Carbonsäure. Sm. 184° Ca + 12 H₂O, Ba + 3 H₂O, Pb (B. 17, 2725). — II, 1504.
3) 5-Brom-2-Oxybenzol-1-Carbonsäure. Sm. 164—165°. Ba + 3 H₂O, Pb, Cu, Ag, Anilinsalz (B. 2, 275; Z. 1871, 711; A. 234, 133; 273, 122; C. 1898 [1] 499). — II, 1504.
4) 3-Brom-4-Oxybenzol-1-Carbonsäure. Sm. 148° (B. 28, 2411).
5) β -[5-Brom-2-Furanyl]akrylsäure. Sm. 176—177°. Na, Ca + 3 H₂O, Ba + H₂O, Ag (Am. 12, 319). — III, 711.
- $C_7H_5O_3Br_2$** 1) $\alpha\beta$ -Dibrom- β -[5-Brom-2-Furanyl]propionsäure (Am. 12, 316). — III, 709.
2) Äthylester d. 3,4,5-Tribromfuran-2-Carbonsäure. Sm. 104° (A. 232, 95). — III, 704.
- $C_7H_5O_3J$** 1) 3-Jod-2-Oxybenzol-1-Carbonsäure. Sm. 198°. Ba + 3½ H₂O (A. 220, 125; B. 16, 81). — II, 1506.
2) 5-Jod-2-Oxybenzol-1-Carbonsäure. Sm. 197° (193,5°). Na + H₂O, Mg + 6 H₂O, Ca + 6 H₂O, Ba + 4 H₂O, Pb, Ag (A. 120, 302; 180, 346; 220, 123; A. Spl. 7, 136; B. 7, 1437; 12, 1347; 15, 459; 16, 81; J. pr. [2] 19, 368; Soc. 37, 749; C. 1898 [1] 499). — II, 1506.
3) 4-[β] Jod-3-Oxybenzol-1-Carbonsäure (A. 174, 105). — II, 1520.
4) 6-Jod-3-Oxybenzol-1-Carbonsäure. Sm. 196° (subl. bei 160°) (A. 263, 234). — II, 1520.
5) 3-Jod-4-Oxybenzol-1-Carbonsäure + ½ H₂O. Sm. 173,5—174,5° (160°); Zers. bei 192°. Na + 6 H₂O, Na₂ + 5 H₂O, Ba + 7 H₂O, Ag (A. 146, 288; B. 30, 1475). — II, 1537.
6) 2-Jodosobenzol-1-Carbonsäure. Sm. 244° u. Zers. (155°). Na, Ca, Ag (B. 25, 2632; 26, 1357; 29, 1408; J. pr. [2] 49, 478; Soc. 69, 1007). — II, 1227.
7) 3-Jodosobenzol-1-Carbonsäure. Zers. bei 175—180° (B. 27, 2328). — II, 1227.
8) 4-Jodosobenzol-1-Carbonsäure. Zers. bei 210° (B. 27, 2331). — II, 1227.
9) Aldehyd d. 3-Jodobenzol-1-Carbonsäure (Soc. 69, 1004).
10) Aldehyd d. 4-Jodobenzol-1-Carbonsäure. Zers. bei 216° (Soc. 69, 1005).
- $C_7H_5O_3As$** 1) Anhydrophenylarsenigesäure-4-Carbonsäure (A. 208, 14). — IV, 1692.
 $C_7H_5O_4N$ C 50,3 — H 3,0 — O 38,3 — N 8,4 — M. G. 167.
1) Methylenäther d. 4[β]-Nitro-1,2-Dioxybenzol. Sm. 148° (A. 199, 73). — II, 911.
2) β -Nitro-2-Methyl-1,4-Benzochinon? Sm. 237° (A. ch. [5] 22, 275). — III, 358.
3) 2-Nitrobenzol-1-Carbonsäure. Sm. 147° (148°). Ca + 2 H₂O, Ba + 3 H₂O, Pb + H₂O, Ag. Lit. bedeutend. — II, 1230.
4) 3-Nitrobenzol-1-Carbonsäure. Sm. 140—141°. Salze meist bekannt. Lit. bedeutend. — II, 1231.
5) 4-Nitrobenzol-1-Carbonsäure. Sm. 238° (241°). Salze meist bekannt. Lit. bedeutend. — II, 1235.

$C_5H_5O_4N$

- 6) **Pyridin-2,3-Dicarbonsäure** (Chinolinsäure). Sm. 190—195° u. 231°. NH_4 , $K + 2H_2O$, $K_2 + 2H_2O$, $Ba + H_2O$, $Cu + H_2O$, $Ag + H_2O$, Ag_2 (A. 204, 117; 276, 33; 288, 254; B. 12, 747; 13, 65; 16, 425; 17, 258, 755; M. 2, 148; 3, 590; 8, 312; R. 1, 107; 12, 253; Ph. Ch. 2, 902; 3, 389). — IV, 160.
- 7) **Pyridin-2,4-Dicarbonsäure** + H_2O (op-Lutidinsäure). Sm. 239—240°. NH_4 + H_2O , $(NH_4)_2$, $K + \frac{1}{2}H_2O$, $Mg + 5H_2O$, $Ca + 2H_2O$, $CaH + 3H_2O$, $Ba + 1(5)H_2O$, $Cd + 4H_2O$, $Cu + 3H_2O$ (J. 1877, 436; M. 1, 20; 4, 727; B. 14, 68; 17, 93; 18, 2470, 3162; A. 228, 54; 247, 37; J. pr. [2] 44, 409; Ph. Ch. 3, 389). — IV, 161.
- 8) **Pyridin-2,5-Dicarbonsäure** + $1(1\frac{1}{2})H_2O$ (Isocinchomeronsäure). Sm. 236°. Salze meist bek. (Z. 1871, 116; J. 1877, 437; 1878, 438; M. 1, 5; 6, 980; 7, 290; B. 11, 325; 19, 1311; A. 247, 44). — IV, 162.
- 9) **Pyridin-2,6-Dicarbonsäure** + $1\frac{1}{2}H_2O$. Sm. 226°. $Ca + 2H_2O$, $Cu + 2H_2O$, Ag_2 (A. 231, 26; 247, 32; B. 18, 1748; 19, 790; 30, 1502). — IV, 163.
- 10) **Pyridin-3,4-Dicarbonsäure** (Cinchomeronsäure). Sm. 258—259°. NH_4 , Na , $Na_2 + 2H_2O$, $K + H_2O$, $Ca + 3H_2O$, $Ba + 1\frac{1}{2}H_2O$, $Cu + 3\frac{1}{2}H_2O$, Ag , Ag_2 , HCl , $(2HCl, PtCl_4)$ (J. 1875, 772; M. 1, 184; 2, 426; 3, 604; 10, 642; 11, 140; 13, 348; A. 173, 96; 204, 106; 241, 16; B. 12, 1146; 13, 1637; 14, 646; R. 2, 23; 4, 287; Ph. Ch. 3, 389). — IV, 163.
- 11) **Pyridin-3,5-Dicarbonsäure** (Dinikotinsäure). Sm. 323°. $Pb + 2H_2O$, $Ag_2 + 1(1\frac{1}{2})H_2O$, $HCl + 2H_2O$, $(2HCl, PtCl_4)$ (B. 18, 1613; 19, 286; 23, 1114; A. 241, 12; 280, 59; Ph. Ch. 3, 389). — IV, 165.
- 12) **isom. Pyridindicarbonsäure**. Zers. bei 241—245°. $(NH_4)_2$, $Ca + H_2O$, Ag_2 (J. 1878, 439). — IV, 166.
- 13) **isom. Pyridindicarbonsäure** + $1\frac{1}{2}H_2O$. Zers. bei 244—245°. $Ca + 2H_2O$, $Pb + 2H_2O$, Fe_2 , Ag_2 (J. 1878, 438). — IV, 166.
- 14) **Aldehyd d. 3-Nitro-2-Oxybenzol-1-Carbonsäure**. Sm. 109—110°. Na , $Ba + 2H_2O$ (Berr. J. 20, 314; J. 1876, 488; A. 85, 96; 135, 169; 305, 187; B. 20, 1928, 2109). — III, 70.
- 15) **Aldehyd d. 5-Nitro-2-Oxybenzol-1-Carbonsäure**. Sm. 126°. $Na + 2H_2O$, $Ba + 6H_2O$ (J. 1876, 488; B. 20, 1930, 2109; A. 305, 187). — III, 70.
- 16) **Aldehyd d. 2-Nitro-3-Oxybenzol-1-Carbonsäure**. Sm. 128° (B. 15, 2053, 3052). — III, 80.
- 17) **Aldehyd d. 6-Nitro-3-Oxybenzol-1-Carbonsäure**. Sm. 166° (B. 15, 2054, 3052). — III, 80.
- 18) **Aldehyd d. 3-Nitro-4-Oxybenzol-1-Carbonsäure**. Sm. 139—140,5° (141—142°; 131—133°). $K + H_2O$, Ag (J. 1877, 617; B. 10, 1269; 24, 3776; 28, 2413; 30, 996, 2857 Anm.; J. pr. [2] 56, 118; [2] 57, 539). — III, 83.

$C_7H_5O_4N_3$

- C 43.1 — H 2.6 — O 32.8 — N 21.5 — M. G. 195.
- 1) **3-Nitro-5-Amido-2-Oxyphenylisocyanat**. $Ba + xH_2O$, $HCl + H_2O$ (J. pr. [2] 5, 4). — II, 734.
 - 2) **Metapurpursäure**. K , Ag (A. 157, 334; Z. 1865, 470). — II, 685.
 - 3) **4-Nitrodiazobenzol-N-Carbonsäure**. K (B. 28, 2077). — IV, 1453.
 - 4) **3-Methyläther d. 5-Nitro-2,3-Dioxy-1-Diazobenzol-1,2-Anhydrid** + $\frac{1}{2}H_2O$. Zers. bei 169—170° (Soc. 69, 1332). — IV, 1551.

$C_7H_5O_4N_3$

- C 37.3 — H 3.1 — O 28.4 — N 31.1 — M. G. 225.
- 1) **3-Nitrobenzenyldioxytetrazotsäure**. NH_4 , K , Ba , Ag , Phenylhydrazinsalz, 3-Nitrobenzenylamidinsalz (A. 263, 88). — IV, 1268.

$C_7H_5O_4Cl_3$

- 1) **Chloralid d. Acetonoxalsäure**. Sm. 137—138° (B. 31, 1305).
- 2) **Acetylderivat d. $\delta\delta\delta$ -Trichlor- γ -Keto- α -Buten- α -Carbonsäure**. Sm. 86° (A. 254, 153). — I, 618.

$C_7H_3O_4Br$

- 1) **p-Brom-2,4-Dioxybenzol-1-Carbonsäure** + H_2O . Sm. 184° u. Zers. (wasserfrei). $K + 1\frac{1}{2}H_2O$, $Ba + 7\frac{1}{2}H_2O$, $Pb + 3H_2O$, $Cu + 4\frac{1}{2}H_2O$, $Ag + H_2O$ (M. 2, 480; 8, 293). — II, 1736.
- 2) **5-Brom-3,4-Dioxybenzol-1-Carbonsäure**. Sm. 224° (A. 142, 246; 293, 120, 181). — II, 1744.
- 3) **p-Brom-3,5-Dioxybenzol-1-Carbonsäure** + H_2O . Sm. 253°. $Cu + 8H_2O$, Ag_2 (A. 164, 115). — II, 1747.
- 4) **Methylester d. p-Brom-1,2-Pyron-5-Carbonsäure** (M. d. Bromcumalinsäure). Sm. 134° (B. 17, 2397; A. 273, 173). — I, 774.

- $C_7H_5O_4J$ 1) 2-Jodobenzol-1-Carbonsäure. Zers. bei 233°. Ba, Ag + $1\frac{1}{2}H_2O$ (B. 26, 1727; 27, 1600). — II, 1227.
- $C_7H_5O_4As$ 2) 3-Jodobenzol-1-Carbonsäure. Zers. bei 243° (B. 27, 2330). — II, 1228.
- 1) Anhydrophenylarsinsäure-4-Carbonsäure (Arsinobenzoessäure) (A. 208, 5). — IV, 1693.
- $C_7H_5O_5N$ C 45,9 — H 2,7 — O 43,7 — N 7,6 — M. G. 183.
- 1) Coleopterin (Farbstoff) (Bl. [3] 19, 42).
- 2) Nitro-2-Oxybenzol-1-Carbonsäuren. Aeltere Lit. (Berz. J. 8, 281; 9, 246; 22, 407; J. 1854, 628; 1855, 488; 1859, 309; A. ch. [1] 72, 131; A. 45, 26; 48, 333; 97, 253; 105, 299; 195, 6). — II, 1507.
- 3) 3-Nitro-2-Oxybenzol-1-Carbonsäure + H_2O . Sm. 125° (144° wasserfrei). Na, K, Mg + $2H_2O$, Sr, Ba, Ba + $1\frac{1}{2}H_2O$, Pb, Ag (A. 195, 31; 198, 265; B. 10, 2187; 12, 1346; J. pr. [2] 42, 551; Ph. Ch. 3, 260). — II, 1507.
- ✓ 4) 5-Nitro-2-Oxybenzol-1-Carbonsäure. Sm. 228°. Salze meist bek. (A. 195, 9; 198, 258; B. 10, 2188; 11, 1730; 30, 2095; J. pr. [2] 42, 550; [2] 53, 220; Ph. Ch. 3, 260; Bl. [3] 11, 1185). — II, 1508.
- 5) 2-Nitro-3-Oxybenzol-1-Carbonsäure + H_2O . Sm. 178°. Ba + $1\frac{1}{2}H_2O$ (B. 11, 1734; 20, 405; J. pr. [2] 43, 467). — II, 1520.
- 6) 4-Nitro-3-Oxybenzol-1-Carbonsäure. Sm. 230°. Ba + H_2O (B. 5, 856; 20, 406). — II, 1520.
- 7) 5-Nitro-3-Oxybenzol-1-Carbonsäure + H_2O . Sm. 167°. Ba + $6H_2O$ (B. 10, 1704; 20, 407). — II, 1520.
- 8) 6-Nitro-3-Oxybenzol-1-Carbonsäure. Sm. 169°. Ba + $6H_2O$ (B. 11, 1733). — II, 1521.
- 9) 3-Nitro-4-Oxybenzol-1-Carbonsäure. Sm. 185°. Ba + $4H_2O$ (Z. 1866, 647; J. pr. [2] 42, 552; B. 5, 856; 10, 2188; 12, 520; 20, 408; 29, 1756). — II, 1538.
- 10) Pyrrol-2-Carbonsäure-5-Ketocarbonsäure. Ag₂ (B. 19, 1957). — IV, 96.
- 11) 6-Oxypyridin-2,3-Dicarbonsäure. Zers. bei 254°. Ba + $4H_2O$, Ag (B. 16, 2158; M. 16, 766). — IV, 173.
- 12) 6-Oxypyridin-2,5-Dicarbonsäure. Sm. 287—289° u. Zers. Ba, Ag₂ (M. 7, 292; Ph. Ch. 3, 390). — IV, 173.
- 13) 4-Oxypyridin-2,6-Dicarbonsäure + H_2O (Chelidamsäure; Ammonchelidonsäure). Zers. bei 220° (255—260°). Ca + $2H_2O$, Ca₃ + $8H_2O$, (NH₄, Ca + $2H_2O$), ([NH₄]₂, Ca₃ + $8H_2O$), Pb, Pb₃, (NH₄, Pb), (K, Pb + $3H_2O$), (Ba, Pb₂ + $3H_2O$), Ag, Ag₂, HCl + H_2O (M. 5, 383; 6, 285; Soc. 67, 403; Ch. Ph. 3, 400). — IV, 172.
- 14) 4-Keto-1,4-Dihydropyridin-3,5-Dicarbonsäure. Sm. 315° u. Zers. (B. 31, 1691).
- 15) 3-Aldehyd d. 2,6-Dioxypyridin-3,4-Dicarbonsäure + $2H_2O$. Na₂ + $2(5)H_2O$ (Soc. 69, 1449). — IV, 173.
- $C_7H_5O_5N_3$ C 39,8 — H 2,4 — O 37,9 — N 19,9 — M. G. 211.
- 1) Aldehyd d. 2-Dinitro-4-Amidobenzol-1-Carbonsäure. Sm. 168° (J. pr. [2] 57, 537).
- 2) Amid d. 3,5-Dinitrobenzol-1-Carbonsäure. Sm. 183° (177°) (A. 99, 105; Z. 1870, 642). — II, 1239.
- $C_7H_5O_5Br$ 1) 2-Brom-3,4,5-Trioxybenzol-1-Carbonsäure + $3H_2O$. Sm. oberh. 200° u. Zers. NH₄, Pb (Z. 1867, 431; A. 142, 250; Bl. [3] 9, 241; Ph. Ch. 3, 257). — II, 1923.
- $C_7H_5O_5P$ 1) Verbindung (aus d. Verb. C₇H₄O₅Cl₃P). Sm. 145° (A. 228, 318). — II, 1498.
- $C_7H_5O_6N$ C 42,2 — H 2,5 — O 48,2 — N 7,0 — M. G. 199.
- 1) 3,6-Dichlor-5-Nitro-2-Methyl-1,4-Benzochinon. Sm. 180° u. Zers. K₂ + $3H_2O$, Ba + $4H_2O$ (J. pr. [2] 39, 378). — III, 361.
- 2) Monamid d. Mekonsäure + H_2O . NH₄, (NH₄)₂, Cu + $2H_2O$ (A. 83, 363; J. pr. [2] 26, 461). — II, 2042.
- $C_7H_5O_6N_3$ C 37,0 — H 2,2 — O 42,3 — N 18,5 — M. G. 227.
- 1) 2,4,6-Trinitro-1-Methylbenzol. Sm. 82° (78,8°; 80,5°) (A. 128, 178; 155, 27; 215, 365, 378; J. 1879, 395). — II, 93.
- 2) 3,4,6-Trinitro-1-Methylbenzol. Sm. 104° + C₁₀H₈ (A. 215, 366, 378). — II, 93.
- 3) isom. Trinitro-1-Methylbenzol. Sm. 112° (A. 215, 370, 378). — II, 93.

- $C_7H_5O_6N_3$ 4) 3,5-Dinitro-2-Oxybenzaldoxim. Sm. 204° (B. 26, 1255 Anm.). — III, 77.
 5) 3,5-Dinitro-2-Amidobenzol-1-Carbonsäure. Sm. 256°. $NH_4 + H_2O$ (A. 173, 45). — II, 1286.
 6) 3,5-Dinitro-4-Amidobenzol-1-Carbonsäure. Sm. 259°. NH_4 , Ag (A. 128, 168; 163, 1; B. 11, 1976; A. ch. [3] 27, 439; J. pr. [2] 43, 461). — II, 1286.
- $C_7H_5O_6Cl$ 1) Chlordihydromukonsäure. Sm. 145° u. Zers. (J. pr. [2] 32, 146). — II, 1991.
- $C_7H_5O_6Sb$ 1) Hydroxyantimonylgallussäure. Salze siehe (C. 1898 [2] 599).
 $C_7H_5O_6N$ C 39.1 — H 2.3 — O 52.1 — N 6.5 — M. G. 215.
 1) Oximidokomensäure + H_2O . Zers. bei 190°. Na_2 , Ca + $2H_2O$, CaH + $4H_2O$, Ba + $10H_2O$, Ag, + H_2O (B. 17, 2081). — II, 2043.
 C 34.6 — H 2.0 — O 46.1 — N 17.3 — M. G. 243.
- $C_7H_5O_6N_3$ 1) 3,4,5-Trinitro-2-Oxy-1-Methylbenzol. Sm. 102° (B. 17, 270). — II, 740.
 2) 2,4,6-Trinitro-3-Oxy-1-Methylbenzol. Sm. 105—106°. NH_4 , K, Pb, Ag (A. 92, 319; 109, 135; 128, 165; 163, 101; 303, 30; B. 4, 655; 9, 326; 1094; 12, 1799; 14, 987; 15, 1861; 18, 251). — II, 746.
 3) Methyläther d. 2,4,6-Trinitro-1-Oxybenzol. Sm. 64°. + $NaOCH_3$, + $Ba(OH)_2$ + $10H_2O$ (A. 69, 238; 174, 259; B. 8, 1552; 28, 858; J. 1879, 514; Am. 20, 448). — II, 691.
 C 32.4 — H 1.9 — O 49.4 — N 16.2 — M. G. 259.
- $C_7H_5O_6N_3$ 1) 2,4,6-Trinitro-3,5-Dioxy-1-Methylbenzol. Sm. 163.5° (162°). K_2 , Ba + $3H_2O$, Pb, Ag (B. 12, 2038; 15, 1863 Anm.; Z. 1871, 227; Bl. 50, 643). — II, 964.
 C 29.3 — H 1.7 — O 44.6 — N 24.4 — M. G. 287.
- $C_7H_5O_6N_3$ 1) Trinitro-1-Methylnitramidobenzol. Sm. 127° (B. 12, 1790, 1792; 19, 2126; R. 2, 108; 305; 8, 215). — II, 326.
 C 30.5 — H 1.8 — O 52.3 — N 15.3 — M. G. 275.
- $C_7H_5O_6N_3$ 1) 2,4,6-Trinitro-3-Methylnitroamido-1-Oxybenzol. Sm. 180—188° u. Zers. (R. 8, 275). — II, 736.
- $C_7H_5NCl_2$ 1) Chlorid d. Phenylisocyanid. Sd. 209—210° (B. 7, 1228; A. 270, 282). — II, 360.
- $C_7H_5NBr_2$ 1) Dibromid d. Nitrils d. Benzolcarbonsäure (A. 133, 144; 158, 29). — II, 1212.
 2) Bromid d. Phenylisocyanid. Sd. 127° (Am. 17, 100).
- $C_7H_5NBr_4$ 1) 2,4,5,6-Tetrabrom-3-Amido-1-Methylbenzol. Sm. 223—224° (B. 13, 975). — II, 475.
 2) 2,3,5,6-Tetrabrom-4-Amido-1-Methylbenzol. Sm. 226—227° (B. 14, 418). — II, 482.
- C_7H_5NS 1) Phenylsenföl (Thiocarbanil). Sd. 222° (B. 3, 772, 861; 6, 211; 9, 1266; 11, 2267; 12, 1127; 14, 445, 1083; 15, 985; 19, 568; J. 1858, 349; Z. 1869, 589; Am. 6, 258; J. r. 10, 184; Soc. 59, 327, 400, 548; J. pr. [2] 32, 294; G. 16, 70). — II, 388.
 2) Phenylrhodanid. Sd. 231° (B. 7, 1753; 23, 739). — II, 792.
 3) Benzthiazol (Methenylamidothiophenol). Sd. 230°. ($2HCl$, $PtCl_4$), (HCl , $AuCl_3$), Ferrocyanat (B. 13, 15, 1224; 21, 60). — II, 796.
 4) Benzisothiazol. Sd. 242—242.5° (2HCl, $PtCl_4$), Pikrat (B. 28, 1028; 29, 162; 31, 2185). — IV, 216.
- $C_7H_5NS_2$ 1) 1-Merkaptobenzthiazol. Sm. 174° (179°). + $HgCl_2$ (B. 20, 1789; 24, 1403; J. pr. [2] 42, 447). — II, 797.
 2) Thioamid d. Benzolthiocarbonsäure. Sm. 104—105° (A. 290, 183).
- C_7H_5NHg 1) Quecksilberphenylecyanid. Sm. 203—204° (J. pr. [2] 1, 181). — IV, 1704.
- C_7H_5NSe 1) Phenylselensenföl. Fl. (B. 19, 2350). — II, 401.
- $C_7H_5N_2Cl$ 1) 3-Chlorindazol. Sm. 148—148.5° (A. 305, 356).
- $C_7H_5N_2Br$ 1) 2-Bromindazol. Sm. 124° (A. 227, 311). — IV, 865.
- $C_7H_5N_2Br_2$ 1) 2,6-Dibrom-4-Methyl-1-Diazobenzolbromid. 2 isom. Formen (B. 30, 2347). — IV, 1531.
- $C_7H_5N_3S$ 1) Benzoldiazoniumrhodanid (B. 29, 948).
- $C_7H_5N_4Br$ 1) 5-[2-Bromphenyl]-1,2,3,4-Tetrazol (Brombenzenyltetrazotsäure). Sm. 265° (A. 298, 102). — IV, 1267.
- $C_7H_5N_4Br_5$ 1) Verbindung (aus Urocaninsäure). Sm. 133° (H. 24, 406).

- $C_7H_5ClBr_2$ 1) 2-Chlor-2-Dibrom-1-Methylbenzol. Sm. 100°; Sd. 275–280° (*J. pr.* [2] 39, 482). — II, 62.
- C_7H_5ClS 1) Aldehyd d. 4-Chlorbenzol-1-Thiocarbonsäure (*A.* 147, 353). — III, 19.
- $C_7H_5ClS_2$ 1) 4-Chlorbenzol-1-Dithiocarbonsäure. Fl. Pb, Hg (*Z.* 1868, 459). — II, 1294.
- $C_7H_5Cl_2Br$ 1) 2-Dichlor-4-Brom-1-Methylbenzol. Sm. 87°; Sd. 240–250° (*J. pr.* [2] 39, 480). — II, 62.
- $C_7H_5Cl_2J$ 1) 2-Jod-1-Dichlormethylbenzol. Sd. 243–250° u. Zers. (*Soc.* 53, 804). — II, 75.
- $C_7H_5Cl_2F$ 1) Dichlorfluormethylbenzol. Sd. 142,6° (*C.* 1898 [2] 26).
- $C_7H_5Br_2J$ 1) 3,5-Dibrom-2-Jod-1-Methylbenzol. Sm. 68°; Sd. 314° u. Zers. (*Soc.* 73, 691).
- 2) 3,5-Dibrom-4-Jod-1-Methylbenzol. Sm. 86°; Sd. 270° (*A.* 168, 190; 192, 209). — II, 75.
- $C_7H_5ON_2$ C 62,7 — H 4,5 — O 11,9 — N 20,9 — M. G. 134.
- 1) 6-Oxyindazol. Sm. 215–216° (*B.* 23, 3641; 25, 3152). — IV, 567.
- 2) 2-Oxybenzimidazol (1,2-Phenylharnstoff). Sm. 305° u. Zers. (*B.* 12, 1296; 19, 2654; 23, 1047; *A.* 228, 221). — IV, 559.
- 3) 1,3-Phenylharnstoff (*B.* 14, 2177; *A.* 228, 222; 281, 228; *J. pr.* [2] 54, 86). — IV, 575.
- 4) 1,4-Phenylharnstoff (*A.* 281, 230; *J. pr.* [2] 54, 87). — IV, 591.
- 5) 1-Amidobenzoxazol (Phenylharnstoff). Sm. 129–130° (*B.* 11, 2264). — II, 709.
- 6) 3-Keto-1,3-Dihydroindazol. Sm. 242° u. Zers. Na + xH₂O, HCl, + HgCl₂ (*A.* 212, 333; *B.* 13, 681; 27, 1139, 2555). — II, 1287.
- 7) Nitril d. 3-Amido-4-Oxybenzol-1-Carbonsäure. Sm. 157–158° (*B.* 30, 997).
- $C_7H_5ON_4$ C 51,8 — H 3,7 — O 9,9 — N 34,6 — M. G. 162.
- 1) 5-Oxy-1-Phenyl-1,2,3,4-Tetrazol. Sm. 185–186° (188°). K (*B.* 28, 80). — IV, 1231.
- 2) Benzenyloxytetrazotsäure + H₂O. Sm. 175° u. Zers. (170°). NH₄, Na + H₂O, K, Ca + 3H₂O, Ba + 3H₂O, Co + 2H₂O, Cu + 3H₂O, Ag (*A.* 263, 97; 297, 348; 298, 55). — IV, 1267.
- 3) 3-Diazoindazol. Zers. bei 128° (*A.* 305, 351).
- 4) 4-Oximido-3,4-Dihydro-1,2,3-Benzotriazin. Sm. 181°. + C₂H₆O (*B.* 29, 625). — IV, 1138.
- 5) Azid d. Phenylamidoameisensäure. Sm. 103–104° (*J. pr.* [2] 53, 530; [2] 58, 228).
- 6) Azid d. 3-Amidobenzol-1-Carbonsäure. Sm. 85° (*J. pr.* [2] 52, 242).
- $C_7H_5OCl_2$ 1) 2,5-Dichlor-1-Oxymethylbenzol (2,5-Dichlorbenzylalkohol). Sm. 77° (78°) (*A.* 147, 351; 296, 73). — II, 1057.
- 2) 2-Oxy-1-Dichlormethylbenzol. Sm. 82° (*B.* 2, 135). — II, 738.
- 3) 2-Dichlor-2-Oxy-1-Methylbenzol. Sm. 55° (*B.* 16, 1601; 19, 927). — II, 738.
- 4) 2-Dichlor-3-Oxy-1-Methylbenzol. Sm. 46° (*B.* 19, 930). — II, 744.
- 5) 3,5-Dichlor-4-Oxy-1-Methylbenzol. Sm. 39°. NH₄ (*B.* 16, 1599; *G.* 26 [2] 400). — II, 751.
- 6) Methyläther d. 2,4-Dichlor-1-Oxybenzol. Sm. 27–28°; Sd. 232 bis 233° (*A. ch.* [6] 20, 513). — II, 670.
- $C_7H_5OCl_4$ 1) 2-Tetrachlor-4-Keto-1,3-Dimethyl-2-Dihydro-R-Penten (α-Keton). Sd. 135° (*A.* 296, 209).
- 2) 2-Tetrachlor-4-Keto-1,3-Dimethyl-2-Dihydro-R-Penten (β-Keton). Sm. 60° (*A.* 296, 208).
- $C_7H_5OBr_2$ 1) 3,5-Dibrom-2-Oxy-1-Methylbenzol. Sm. 56–57° (*Bl.* 46, 278; *J. pr.* [2] 38, 326). — II, 739.
- 2) 3,5-Dibrom-4-Oxy-1-Methylbenzol. Sm. 48–49° (*B.* 17, 2532; *Bl.* 46, 278). — II, 751.
- 3) Methyläther d. 2,4-Dibrom-1-Oxybenzol. Sm. 59°; Sd. 272° (*A.* 52, 331; 137, 206; *B.* 29, 1410; 32, 162 Anm.). — II, 673.
- 4) Methyläther d. 3,5-Dibrom-1-Oxybenzol. Sm. 37–38° (*M.* 7, 633). — II, 674.
- 5) 1,2-Anhydrid d. 1,5-Dibrom-2-Oxy-1-Oxymethyl-1,2-Dihydrobenzol. Sm. 98° (*B.* 30, 754; *A.* 302, 142).

- C₇H₆OJ₂** 1) **p-Dijod-2-Oxy-1-Methylbenzol**. Sm. 69,5° (*J. pr.* [2] 39, 295). — II, 739.
 2) **p-Dijod-3-Oxy-1-Methylbenzol**. Sm. 76° (*J. pr.* [2] 39, 297). — II, 745.
 3) **3,5-Dijod-4-Oxy-1-Methylbenzol**. Sm. 61—61,5° (*B.* 17, 2534). — II, 751.
 4) **Methyläther d. 2,4-Dijod-1-Oxybenzol**. Sm. 68—69° (*B.* 29, 999 *J. pr.* [2] 58, 144).
- C₇H₆OS** 1) **Benzolthiocarbonsäure** + ½ H₂O. Ba + 4 H₂O (*A.* 140, 236; *B.* 15, 864). — II, 1291.
 2) **Benzolthiolcarbonsäure**. Sm. 24°. NH₄, K, Ba, Pb, Ag (*Z.* 1868, 353; *B.* 29, 2150). — II, 1290.
 C 56,0 — H 4,0 — O 21,3 — N 18,7 — M. G. 150.
- C₇H₆O₂N₂** 1) **2,3-Dinitroso-1-Methylbenzol**. Sm. 60° (*J. pr.* [2] 53, 342).
 2) **2,5-Dinitroso-1-Methylbenzol**. Sm. 144° (133°) (*B.* 21, 432, 734). — II, 78.
 3) **3,4-Dinitroso-1-Methylbenzol**. Sm. 96—97° (*J. pr.* [2] 53, 342).
 4) **1,4-Benzochinonmonourein**. Sm. oberh. 320° u. Zers. (*G.* 27 [1] 240).
 5) **Diazobenzolcarbonsäure**. K (*B.* 28, 1927, 2600). — IV, 737.
 6) **Nitril d. 6-Oxy-2-Keto-4-Methyl-2,5-Dihydropyridin-3-Carbonsäure**. Zers. bei 300—304°. Na + 4 H₂O, Ba + 7 H₂O, Cu + 7 H₂O, (Cu + 4 NH₃ + 2 H₂O), (Cu + 2 NH₃), Ag (*C.* 1896 [1] 602; 1897 [1] 368; *B.* 29 [2] 655).
 7) **Phenylnitrosamid d. Ameisensäure**. Sm. 39° (*B.* 10, 959). — II, 358.
 8) **Verbindung** (aus Acetylcyanessigsäureäthylester). NH₄, Na + 4 H₂O, Ba + 2 H₂O, Pb, Cu + 7 H₂O, Ag (*A. ch.* [6] 18, 493; *Bl.* [3] 15, 343). — I, 1223.
 C 47,2 — H 3,4 — O 18,0 — N 31,4 — M. G. 178.
- C₇H₆O₂N₄** 1) **4-Nitro-2-Methyl-1-Diazobenzolimid**. Sm. 73° (*B.* 25, 3340). — IV, 1147.
 2) **5-Nitro-2-Methyl-1-Diazobenzolimid**. Sm. 68° (*B.* 25, 3341). — IV, 1147.
 3) **3-Nitro-4-Methyl-1-Diazobenzolimid**. Sm. 69—70° (*B.* 25, 3341; 30, 2289). — IV, 1147.
 4) **Benzenyldioxytetrazotsäure**. NH₄, K, Hydrazinsalz, Anilinsalz, p-Toluidinsalz, Phenylhydrazinsalz, Benzenylamidinsalz (*A.* 263, 81; 297, 325, 340). — IV, 1267.
 5) **5-Nitro-1-Methyl-1,2,3-Benzotriazol**. Sm. 163° (*B.* 30, 2852). — IV, 1143.
 6) **5-Amido-1-Diazobenzolimid-3-Carbonsäure**. HCl, (2 HCl, PtCl₄) (*B.* 21, 1562). — IV, 1153.
 7) **Diamid d. αγ-Dicyanpropen-αγ-Dicarbonsäure**. Sm. oberh. 280° (*G.* 27, [2] 413).
- C₇H₆O₂Cl₂** 1) **p-Dichlor-2,5-Dioxy-1-Methylbenzol**. Sm. 171° (*B.* 19, 931). — II, 956.
 2) **p-Dichlor-2,5-Dioxy-1-Methylbenzol**. Sm. 167—169° (*A.* 168, 271). — II, 956.
 3) **p-Dichlor-2,5-Dioxy-1-Methylbenzol**. Sm. 120° (*B.* 19, 928). — II, 956.
 4) **p-Dichlor-2,5-Dioxy-1-Methylbenzol**. Sm. 119—121° (*A.* 168, 274). — II, 956.
 5) **Monomethyläther d. 4,5-Dichlor-1,2-Dioxybenzol**. Sm. 71—72° (*G.* 28 [1] 229).
 6) **2,3-Dichlor-1,4-Diketo-5-Methyl-1,2,3,4-Tetrahydrobenzol** (Toluchinondichlorid). Sm. 135—136° (*Am.* 14, 567). — III, 356.
 7) **Verbindung** (aus 2,5-Dimethylfuran-3-Carbonsäure). Fl. (*B.* 20, 1082). — III, 708.
- C₇H₆O₂Br₂** 1) **3,6-Dibrom-2,5-Dioxy-1-Methylbenzol**. Sm. 117° (*J. pr.* [2] 39, 60). — II, 957.
 2) **3,5-Dibrom-2-Oxy-1-Oxymethylbenzol**. Sm. 88—89° (*A.* 302, 139).
 3) **Monomethyläther d. p-Dibrom-1,2-Dioxybenzol** (*Bl.* [3] 21, 90).
 4) **Monomethyläther d. 2,5-Dibrom-1,4-Dioxybenzol** (*M.* 1, 368). — II, 944.
 5) **2,3-Dibrom-1,4-Diketo-5-Methyl-1,2,3,4-Tetrahydrobenzol** (Toluchinondibromid). Sm. 61—62° (*Am.* 14, 566). — III, 356.
- C₇H₆O₂J₂** 1) **3,5-Dijod-2-Oxy-1-Oxymethylbenzol** (Dijodsaligenin). Sm. 107° (106°) (*C.* 1896 [2] 921; *J. pr.* [2] 57, 205; [2] 58, 109).

- $C_7H_5O_3S$ 1) **2-Merkaptobenzol-1-Carbonsäure.** Sm. 163—164°. Ag, HgCl (*B.* 22, 2206; 31, 1666, 1668). — II, 1514.
 2) **3-Merkaptobenzol-1-Carbonsäure.** Sm. 146—147°. Ba + 2½ H₂O, Pb + 3 H₂O, Hg, CuOH, Ag (*B.* 7, 793). — II, 1521.
 3) **2-Oxybenzol-1-Thiolarbonsäure.** Ba (*A.* 129, 11). — II, 1514.
 4) **β-2-Thiänyl]akrylsäure.** Sm. 138°. Ag (*B.* 19, 1855). — III, 757.
- $C_7H_5O_3S_2$ 1) **2,4-Dioxybenzol-1-Dithiocarbonsäure + H₂O.** Sm. 150—155° u. Zers. (139°) (*M.* 9, 305; 10, 617; 13, 626; *J. pr.* [2] 54, 415). — II, 1737.
- $C_7H_5O_3Hg$ 1) **Formiat d. Quecksilberphenyloxydhydrat.** Sm. 171° (*A.* 154, 118). — IV, 1704.
- $C_7H_5O_3N$ 1) **1,2,3-Trioxycyanid = (C₇H₅O₃N)₂** (*J. pr.* [2] 15, 326). — II, 1012.
 C 50,6 — H 3,6 — O 28,9 — N 16,9 — M. G. 166.
- $C_7H_5O_3N_2$ 1) **2-Nitro-1-Nitrosomethylbenzol.** Sm. 96—97° (*B.* 14, 828, 2333; 15, 3060).
 2) **3-Nitro-1-Nitrosomethylbenzol.** Sm. 118—119° (115—118°). Na + 2 H₂O (*B.* 15, 838, 3060; 16, 522).
 3) **Methyläther d. 2,5-Dinitroso-1-Oxybenzol.** Sm. 94—96° u. geringer Zers. (*A.* 255, 187). — II, 678.
 4) **anti-2-Nitrobenzaldoxim.** Sm. 96—97° (*B.* 14, 826, 2336; 15, 3060; 16, 520; 26, 2101). — III, 46.
 5) **syn-2-Nitrobenzaldoxim.** Sm. 136° (*B.* 26, 2101). — III, 47.
 6) **anti-3-Nitrobenzaldoxim.** Sm. 118°. Na + 2 H₂O (*B.* 15, 838, 3060; 28, 2015, 2018; *A.* 229, 234). — III, 47.
 7) **syn-3-Nitrobenzaldoxim.** Sm. 116—118°. Na + 2 H₂O (*B.* 23, 2170; 28, 2016, 2019). — III, 48.
 8) **anti-4-Nitrobenzaldoxim.** Sm. 128,5—129° (*A.* 229, 213; 263, 348; *B.* 16, 2000). — III, 48.
 9) **syn-4-Nitrobenzaldoxim.** Sm. 173—175°. HCl (*B.* 24, 2550; *A.* 263, 349). — III, 49.
 10) **1-Diazobenzol-2-Carbonsäure.** Salze siehe (*B.* 9, 1653; 21, 979; 29, 1536; *A.* 117, 39; 135, 121; 234, 148; 284, 317; *Am.* 19, 552). — IV, 1552.
 11) **1-Diazobenzol-3-Carbonsäure.** Salze siehe (*A.* 120, 126; 135, 121; *J. pr.* [2] 1, 102; *J.* 1864, 351; *B.* 9, 1655; 18, 960; 21, 979). — IV, 1553.
 12) **1-Diazobenzol-4-Carbonsäure.** Nitrat (*J.* 1864, 353; *B.* 21, 979). — IV, 1554.
 13) **anti-4-Oxy-1-Diazobenzol-1-Carbonsäure.** K₂ (*B.* 29, 1533). — IV, 1546.
 14) **Pyrrylmesoxylamid.** Ag (*B.* 19, 1711). — IV, 83.
 15) **2-Amid d. Pyridin-2,3-Dicarbonsäure.** Sm. 168,5° u. Zers. NH₄ (*B.* 27, 839; *A.* 288, 255). — IV, 161.
 16) **Monamid d. Pyridin-3,4-Dicarbonsäure.** Sm. 229° u. Zers. NH₄, Ag (*M.* 11, 138). — IV, 164.
 17) **Amid d. 2-Nitrobenzol-1-Carbonsäure.** Sm. 174° (176°); Sd. 317° (*B.* 10, 1713; *A.* 163, 138; 239, 109; *J. pr.* [2] 51, 407; *Am.* 19, 320). — II, 1231.
 18) **Amid d. 3-Nitrobenzol-1-Carbonsäure.** Sm. 140—142° (143°); Sd. 310—315°. Ag (*A.* 65, 54; 132, 141; *J.* 1849, 327; *B.* 23, 1551; *J. pr.* [2] 51, 401; *Am.* 19, 320; *R.* 16, 254). — II, 1233.
 19) **Amid d. 4-Nitrobenzol-1-Carbonsäure.** Sm. 197—198° (*A.* 132, 143; *J. pr.* [2] 51, 404; *Am.* 19, 320). — II, 1236.
 20) **2-Nitrophenylamid d. Ameisensäure.** Sm. 122° (*A.* 209, 369). — II, 359.
 21) **3-Nitrophenylamid d. Ameisensäure.** Sm. 134°. Na, Ag (*Am.* 13, 516). — II, 359.
 22) **4-Nitrophenylamid d. Ameisensäure.** Sm. 187—194° (*Am.* 8, 346). — II, 359.
- $C_7H_5O_3N_4$ C 43,3 — H 3,1 — O 24,7 — N 28,9 — M. G. 194.
 1) **Methyläther d. 5-Nitro-2-Oxy-1-Diazobenzolimid** (*J.* 1866, 459). — IV, 1547.
 2) **Di[5-Keto-4,5-Dihydropyrazolyl(3)]keton.** Sd. 202—203° (*J. pr.* [2] 51, 58). — IV, 551.
 3) **Amid d. 3-Nitrodiazobenzol-N-Carbonsäure.** Sm. 168—169° (*Soc.* 73, 372). — IV, 1453.

- $C_7H_5O_3N_4$ 4) Amid d. 4-Nitrodiazobenzol-N-Carbonsäure. Sm. 183° (B. 28, 2075). — IV, 1453.
- $C_7H_5O_3Cl_2$ 1) p-Dichlor-p-Trioxyl-1-Methylbenzol (B. 13, 1306). — II, 962.
2) Aethylester d. 3,4-Dichlorfuran-2-Carbonsäure. Sm. 63–64° (Am. 12, 42). — III, 701.
3) Aethylester d. 3,5-Dichlorfuran-2-Carbonsäure. Sm. 2–3°; Sd. 116 bis 118°₁₆ (Am. 12, 50). — III, 701.
4) Aethylester d. 4,5[?]-Dichlorfuran-2-Carbonsäure. Sm. 72–73°; Sd. 122,5°₁₆ (Am. 12, 115). — III, 701.
- $C_7H_5O_3Cl_6$ 1) $\beta\beta\beta$ -Trichloräthylidenester d. $\beta\beta\beta$ -Trichlor- α -Oxyvaleriansäure (Trichlorvalerolaktinsäurechloralid). Sm. 87–88°; Sd. 295–299° (A. 193, 37). — I, 934.
2) Trichlormilchsäure + Butyrchloralid. Sm. 106–107° (A. 193, 47). — I, 945.
- $C_7H_5O_3Br_2$ 1) 3,5-Dibrom-2,4,6-Trioxyl-1-Methylbenzol + 3H₂O. Sm. 120–125° (137° wasserfrei) (A. 302, 178).
2) Aethylester d. 3,4-Dibromfuran-2-Carbonsäure. Sm. 67–68° (A. 232, 85). — III, 703.
3) Aethylester d. 3,5-Dibromfuran-2-Carbonsäure. Sm. 57–58°; Sd. 271–272° (A. 232, 77). — III, 704.
- $C_7H_5O_3S$ 1) 2-Methylthiophen-5-Ketocarbonsäure. Sm. 80°. Ca + 2H₂O, Ba + 1 $\frac{1}{2}$ H₂O, Ag (B. 20, 1747). — III, 758.
2) 3-Methylthiophen-p-Ketocarbonsäure. Sm. 142° (B. 20, 1748). — III, 758.
3) Lakton d. 2-Oxyphenylmethan- α -Sulfonsäure (Benzylsulton). Sm. 86° (B. 31, 1857).
4) Lakton d. 1-Oxymethylbenzol-2-Sulfonsäure. Sm. 112–113° (B. 31, 1666).
5) Methylester d. Thiophen-2-Ketocarbonsäure (M. d. Thiänylglyoxylsäure). Sm. 28,5° (B. 19, 2118). — III, 758.
6) Verbindung (aus d. Chlorid d. Benzol-1-Carbonsäure-2 Sulfonsäure). Sm. 287–289° u. Zers. (Am. 16, 367).
- $C_7H_5O_3S_2$ 1) 2,3,4-Trioxylbenzol-1-Dithiocarbonsäure + H₂O. Sm. 154° u. Zers. (wasserfrei) (M. 10, 620). — II, 1918.
- $C_7H_5O_4N_2$ C 46,1 — H 3,3 — O 35,2 — N 15,4 — M. G. 182.
1) 2-Nitro-1-Nitromethylbenzol. Sm. 72°. K + H₂O (R. 15, 367).
2) 3-Nitro-1-Nitromethylbenzol. Sm. 94°. NH₄ + H₂O, Na, K (R. 14, 123).
3) isom. 3-Nitro-1-Nitromethylbenzol? (R. 14, 127).
4) 4-Nitro-1-Nitromethylbenzol. Sm. 90° (91°). K + 2H₂O (R. 15, 365; B. 32, 621).
5) 4-Nitrophenylisonitromethan. Sm. 91°. Na + 2 $\frac{1}{2}$ H₂O (B. 32, 622).
6) 2,3-Dinitro-1-Methylbenzol. Sm. 63° (B. 22, 2681; 28, 2565). — II, 93.
7) 2,4-Dinitro-1-Methylbenzol. Sm. 70,5° (A. 155, 13; 216, 193; 223, 264; Berz. J. 22, 361; J. 1879, 395; B. 19, 1062; 26, 3085; 27, 2210). — II, 92.
8) 2,5-Dinitro-1-Methylbenzol. Sm. 52° (48°) (B. 18, 1402; 21, 433; 22, 2679; 28, 2565). — II, 93.
9) 2,6-Dinitro-1-Methylbenzol. Sm. 66° (60–61°) (A. 172, 222; 217, 206; B. 15, 3016; 16, 1597; 27, 2210; A. ch. [4] 27, 470; R. 16, 427). — II, 93.
10) 3,4-Dinitro-1-Methylbenzol. Sm. 60° (A. 155, 25; B. 27, 2209). — II, 93.
11) 3,5-Dinitro-1-Methylbenzol. Sm. 92–93° (90–91°) (B. 14, 901; 15, 2984; 20, 2418; 27, 2210; A. 217, 189; 222, 74; J. 1882, 368). — II, 93.
12) 3,5-Dinitroso-2,4-Dioxy-1-Methylbenzol. Zers. oberh. 160° (B. 20, 3135). — II, 954.
13) 2,4[?]-Dinitroso-3,5-Dioxy-1-Methylbenzol + H₂O. Zers. bei 110° (A. 188, 353; M. 18, 155). — II, 963.
14) 4-Nitrobenzhydroxamsäure. Zers. bei 171° (R. 16, 187).
15) 5-Nitro-2-Oxybenzaldoxim. HCl (B. 26, 1255). — III, 77.
16) 3-Nitro-4-Oxybenzaldoxim. Sm. 169° (B. 30, 996).
17) 3-Nitro-2-Amidobenzol-1-Carbonsäure. Sm. 204°. Na + xH₂O, K, Ca + 2H₂O, Sr + 2H₂O, Ba + 2H₂O, PbOH, Cu, Ag, HCl (A. 195, 37). — II, 1281.

- $C_7H_5O_4N_2$ 18) 4-Nitro-2-Amidobenzol-1-Carbonsäure. Sm. 264° u. Zers. NH_4 , Ag (Am. 20, 221).
- 19) 5-Nitro-2-Amidobenzol-1-Carbonsäure. Sm. 263° u. Zers. $K + 2H_2O$, $Ca + 3H_2O$, $Ba + 3H_2O$, $Pb + 2H_2O$, HCl (A. 195, 21; 198, 112; B. 11, 1730; 30, 1097). — II, 1282.
- 20) 2-Nitro-3-Amidobenzol-1-Carbonsäure. Sm. 156—157°. $K + 2H_2O$, $Ba + 2H_2O$ (B. 2, 435; 5, 198; 11, 1734; 18, 2915; 22, 2352). — II, 1284.
- 21) 4-Nitro-3-Amidobenzol-1-Carbonsäure. Sm. noch nicht bei 270°. $Ca + H_2O$, $Ba + 2H_2O$ (B. 2, 435; 5, 198; 11, 1734; 18, 2947; J. pr. 2, 43, 464; A. 291, 324). — II, 1284.
- 22) 5-Nitro-3-Amidobenzol-1-Carbonsäure. Sm. 208°. $NH_4 + 3H_2O$, $Na + H_2O$, $Ca + 5\frac{1}{2}H_2O$, $Ba + 4H_2O$, $Pb + 3\frac{1}{2}H_2O$, $Ag + H_2O$ (B. 10, 1703; A. 222, 81; Ph. Ch. 5, 388). — II, 1284.
- 23) 6-Nitro-3-Amidobenzol-1-Carbonsäure. $Ba + 3H_2O$ (B. 5, 198; 11, 1734). — II, 1285.
- 24) 3-Nitro-4-Amidobenzol-1-Carbonsäure. Sm. 284°. $K + H_2O$, $Ba + 5H_2O$ (B. 5, 855; 11, 1734; A. 173, 54). — II, 1285.
- 25) Amid d. 3-Nitro-2-Oxybenzol-1-Carbonsäure. Sm. 145—146°. $Ca + 4H_2O$, $Ba + 2H_2O$, $PbOH + 2H_2O$ (A. 195, 35). — II, 1508.
- 26) Amid d. 5-Nitro-2-Oxybenzol-1-Carbonsäure. Sm. 225°. $K + H_2O$, $Ca + 4H_2O$, $Ba + 4H_2O$, $Pb + 4H_2O$ (A. 195, 15). — II, 1509.
- $C_7H_5O_4N_4$ C 40.0 — H 2.9 — O 30.4 — N 26.7 — M. G. 210.
- 1) α -Methylen- β -2,4-Dinitrophenylhydrazin. Sm. 155° (G. 24 [1] 564). — IV, 744.
- $C_7H_5O_4S$ 1) Sulfonsäure (aus Tetraphenylthiophen). Ba, Zn (A. 144, 202). — III, 750.
- 2) Aldehyd d. Benzol-1-Carbonsäure-2-Sulfonsäure. Fl. Na, Ba (A. 299, 363).
- 3) Aldehyd d. Benzol-1-Carbonsäure-3-Sulfonsäure. Na, Mg, Ba (J. 1864, 350; B. 16, 150; 24, 791). — III, 20.
- $C_7H_5O_5N_2$ C 42.4 — H 3.0 — O 40.4 — N 14.1 — M. G. 198.
- 1) 3,5-Dinitro-2-Oxy-1-Methylbenzol. Sm. 85° (86—87°). $NH_4 + H_2O$, Na, $K + H_2O$, $Ca + H_2O$, $Ba + 2(3)H_2O$, Ag (B. 8, 685; 13, 1946; 14, 899, 987; 15, 1860, 2992; A. 217, 158; A. ch. [6] 4, 105; Bl. [3] 17, 200, 204; G. 28 [1] 307; C. 1897 [1] 289). — II, 740.
- 2) 2,4-Dinitro-3-Oxy-1-Methylbenzol. Sm. 99° (B. 23, 3479). — II, 746.
- 3) 2,6-Dinitro-4-Oxy-1-Methylbenzol (A. 215, 90). — II, 752.
- 4) 3,5-Dinitro-4-Oxy-1-Methylbenzol. Sm. 85° (80.5°). NH_4 , Na, K, Ba, Ag. Lit. bedeutend. — II, 752.
- 5) isom. 2-Dinitro-2-Oxy-1-Methylbenzol (Victoriagelb). Sm. 109—110°. $K + \frac{1}{2}H_2O$, Ag (B. 2, 206; 7, 178). — II, 756.
- 6) isom. 2-Dinitro-2-Oxy-1-Methylbenzol. Fl. (A. 109, 141). — II, 756.
- 7) Methyläther d. 2,3-Dinitro-1-Oxybenzol. Sm. 118° (B. 11, 2105). — II, 684.
- 8) Methyläther d. 2,4-Dinitro-1-Oxybenzol. Sm. 88° (89°) (A. 69, 236; 174, 263; B. 8, 1554; 12, 763; 31, 1710). — II, 684.
- 9) Methyläther d. 2,5-Dinitro-1-Oxybenzol. Sm. 96°; Sd. über 360° (B. 11, 1205; A. 215, 339). — II, 685.
- 10) Methyläther d. 2,6-Dinitro-1-Oxybenzol. Sm. 116° (118°) (A. 174, 273; J. 1875, 338—339; B. 8, 1552). — II, 686.
- 11) Methyläther d. 3,4-Dinitro-1-Oxybenzol. Sm. 70° (B. 11, 2105). — II, 686.
- 12) Methyläther d. 3,5-Dinitro-1-Oxybenzol. Sm. 105° (R. 9, 209). — II, 686.
- 13) 5-Nitro-3-Amido-2-Oxybenzol-1-Carbonsäure. Sm. 220° (B. 12, 1345). — II, 1514.
- 14) 2,6-Dioxy-3-Oximidomethylpyridin-4-Carbonsäure + H_2O (Soc. 69, 1450). — IV, 173.
- 15) Nitrat d. 4-Nitro-1-Oxymethylbenzol. Sm. 71° (B. 14, 903; 15, 1136; A. 147, 341; 217, 208). — II, 1069.
- 16) Diamid d. Mekonsäure (J. 1855, 494). — II, 2043.
- $C_7H_5O_5N_4$ C 37.2 — H 2.6 — O 35.4 — N 24.8 — M. G. 226.
- 1) 2,4-Dinitro-1-Methylnitrosamidobenzol. Sm. 85—86° (B. 31, 2530).
- 2) Säure (aus d. Säure $C_7H_5O_5N_4$ aus Toluallloxazin). Sm. 284° u. Zers. Ba (B. 28, 1968). — IV, 946.

- C₇H₆O₈S**
- 1) Benzol-1-Carbonsäure-2-Sulfonsäure + 3(4)H₂O. Sm. 68—69° (240° wasserfrei). NH₄, (NH₄)₂, K, K₂ + H₂O, CaH + 5H₂O, Ca + 6H₂O, BaH + 2H₂O, Ba + 2½H₂O, CuH + 3½H₂O, Ag₂, (AgNH₄), Anilinsalz, o-m-p-Toluidinsalz (B. 12, 473, 1349; 21, 244; 22, 755; Am. 9, 405; 11, 74, 332; 16, 367; 17, 311). — II, 1294.
 - 2) Benzol-1-Carbonsäure-3-Sulfonsäure. Salze meist bekannt (P. 32, 227; A. 27, 322; 106, 50; 122, 155; 131, 155; 148, 33; 280, 6; 298, 60; B. 3, 736; 4, 219; 10, 1715; J. 1885, 1597). — II, 1298.
 - 3) Benzol-1-Carbonsäure-4-Sulfonsäure. Sm. 200° u. Zers. Na + 2½H₂O, Ca, BaH + 3H₂O, Ba + 2H₂O (A. 173, 16; 178, 275; B. 10, 1715; Am. 1, 342). — II, 1300.
 - 4) Aldehyd d. 2-Oxybenzol-1-Carbonsäure-5-Sulfonsäure. Na + 2H₂O, Ba + 5H₂O, Ba + 3H₂O, Ag (M. 18, 132).
 - 5) Aldehyd d. 3-Oxybenzol-1-Carbonsäure-4-Sulfonsäure. Na + 2H₂O (A. 294, 381).
- C₇H₆O₈N₂**
- 1) 2,4-Dinitro-3,5-Dioxy-1-Methylbenzol. Sm. 164,5°. Ba + H₂O (A. 188, 358; Soc. 10, 548; M. 18, 162). — II, 964.
 - 2) 3,5-Dinitro-2,4-Dioxy-1-Methylbenzol. Sm. 90° (B. 20, 3136). — II, 954.
 - 3) 4,6-Dinitro-2,5-Dioxy-1-Methylbenzol + H₂O. Sm. 149—153°. K (J. pr. [2] 39, 387). — II, 957.
 - 4) p-Dinitro-3,5-Dioxy-1-Methylbenzol. Sm. 109—110° (B. 14, 483). — II, 964.
 - 5) 1-Methyläther d. 3,5-Dinitro-1,2-Dioxybenzol. Sm. 122—123° (123 bis 124°). K, Ba (M. 3, 827; 18, 488; Bl. [3] 6, 418; B. 30, 2446; Soc. 69, 1331; C. 1898 [2] 1169). — II, 911.
 - 6) Monomethyläther d. 2,3[p]-Dinitro-1,4-Dioxybenzol. Sm. 110° (G. 19, 221). — II, 947.
 - 7) Monomethyläther d. 2,5-Dinitro-1,4-Dioxybenzol. Sm. 102°. K (M. 2, 370). — II, 946.
 - 8) 2-Methyläther d. 4,6-Dinitroso-1,2,3,5-Tetraoxybenzol. Na + H₂O (B. 26, 2028). — II, 1030.
- C₇H₆O₈N₄**
- 1) 3,5-Dinitro-2-Oxyphenylharnstoff. Sm. 220° u. Zers. NH₄, Ba + 5H₂O, Ag (J. pr. [2] 5, 1; [2] 48, 429; B. 15, 450). — II, 733.
 - 2) 2,4,6-Trinitro-1-Methylamidobenzol. Sm. 110—111° (R. 2, 105). — II, 326.
 - 3) 2,4,6-Trinitro-3-Amido-1-Methylbenzol. Sm. 136° (B. 15, 1864; Am. 12, 5; A. 259, 222). — II, 476.
- C₇H₆O₈S**
- 1) 2-Oxybenzol-1-Carbonsäure-5-Sulfonsäure. Sm. 120°. Salze meist bek. (A. 103, 39; 179, 107; G. 18, 352). — II, 1515.
 - 2) isom. 2-Oxybenzol-1-Carbonsäure-p-Sulfonsäure. K₂ + 1½H₂O (A. 179, 107). — II, 1515.
 - 3) 3-Oxybenzol-1-Carbonsäure-5-Sulfonsäure + H₂O. Zers. bei 120°. K₂ + 3H₂O, Pb + 3½H₂O (M. 14, 694). — II, 1522.
 - 4) 3-Oxybenzol-1-Carbonsäure-p-Sulfonsäure + 1½H₂O. Sm. 208°. Ba + 4½H₂O, Cd + 2H₂O, Pb₂ (A. 148, 39; 152, 102; Z. 1871, 294). — II, 1522.
 - 5) isom. 3-Oxybenzol-1-Carbonsäure-p-Sulfonsäure. Ba (J. 1864, 351). — II, 1523.
 - 6) 4-Oxybenzol-1-Carbonsäure-2-Sulfonsäure. Ca + 5H₂O, Ba, Ba₂ (Am. 9, 415, 417). — II, 1542.
 - 7) 4-Oxybenzol-1-Carbonsäure-3-Sulfonsäure. K₂ + H₂O, K₃ + 2H₂O, Ba + 3½H₂O, Ba₃, Cd + 3H₂O, Cu, Ag₂ (A. 164, 150; J. pr. [2] 28, 196). — II, 1542.
 - 8) Phenylschwefelsäure-2-Carbonsäure (Salicylschwefelsäure). K₂ (B. 11, 1914). — II, 1514.
 - 9) Phenylschwefelsäure-3-Carbonsäure. K₂ (B. 11, 1915; H. 1, 244). — II, 1522.
 - 10) Phenylschwefelsäure-4-Carbonsäure. K₂ (B. 11, 1916). — II, 1542.
- C₇H₆O₈N₂**
- 1) 1-Methyläther d. 3,5-Dinitro-1,2,4-Trioxybenzol. Sm. 130°. Ba (B. 25, 282). — II, 1018.

- $C_7H_6O_7S$ 1) 2,4-Dioxybenzol-1-Carbonsäure-*p*-Sulfonsäure + 2H₂O. K₂ + 3½H₂O, BaH + 3H₂O, Ba + 2H₂O, Cu₂ + 15H₂O, Ag₂ + 2H₂O (M. 2, 469). — II, 1737.
- $C_7H_6O_8S$ 2) 2,5-Dioxybenzol-1-Carbonsäure-*p*-Sulfonsäure. K₂ + H₂O, BaH + 8½H₂O, Ba + 2H₂O, Pb + 2H₂O (M. 2, 455). — II, 1738.
- $C_7H_6O_8S$ 1) 3,4-Dioxybenzol-1-Carbonsäure-5[*p*]-Schwefelsäure (Gallusschwefelsäure). K₂ (B. 11, 1916). — II, 1924.
- $C_7H_6O_8S_2$ 1) Benzol-1-Carbonsäure-2,4-Disulfonsäure. Sm. oberh. 285°. K₂ + H₂O, K₃ + 2H₂O, Ca₃, Ba₃ + 7H₂O, Ba₃, Cu₃ + 7H₂O (B. 5, 1088; Am. 2, 188; J. 1879, 759). — II, 1301.
- 2) Benzol-1-Carbonsäure-3,5-Disulfonsäure. K₂ + 3H₂O, K₃ + 1½H₂O, Ba, Ba₃ + 7H₂O, Cu₃ + 8½H₂O, Ag₃ + 2H₂O (A. 159, 217; M. 14, 685). — II, 1301.
- $C_7H_6O_8S_2$ 1) 2-Oxybenzol-1-Carbonsäure-*p*-Disulfonsäure + 4H₂O. Sm. 80° (145 bis 146° wasserfrei). Na₃, K₃ + 3H₂O, Ca₃ + 12H₂O, Ba₃ + 6½H₂O, Zn + 15H₂O, Cd₃ + 18H₂O, Pb₃ + 10H₂O, Cu₃ + 12H₂O (G. 18, 347). — II, 1515.
- 2) 3-Oxybenzol-1-Carbonsäure-*p*-Disulfonsäure. Ba₃ + 8H₂O (B. 11, 862; J. pr. [2] 16, 230). — II, 1523.
- $C_7H_6O_{12}S_3$ 1) 3-Oxybenzol-1-Carbonsäure-*p*-Trisulfonsäure + 4H₂O. K₄ + 2H₂O, K₅ + 2H₂O, Ba₃, Cd₃ + 3H₂O, Pb₂ + 8H₂O, Pb₅ + 6H₂O, Cu₃ (B. 11, 858). — II, 1523.
- C_7H_6NCl 1) Chlorimidomethylbenzol (Soc. 69, 191).
- $C_7H_6NCl_3$ 1) 2,3,4-Trichlor-2-Amido-1-Methylbenzol. Sm. 105° (A. 237, 142). — II, 455.
- 2) 3,4,6-Trichlor-2-Amido-1-Methylbenzol. Sm. 94—95° (91°) (A. 187, 278; 237, 141). — II, 455.
- 3) 2,4,6-Trichlor-1-Methylamidobenzol. Sm. 28,5°; Sd. 256° (2HCl, PtCl₄) (B. 30, 2646).
- 4) *p*-Trichlor-1-Methylamidobenzol. Sd. 260°. HCl (B. 31, 249).
- 5) *p*-Trichlor-3-Aethylpyridin (Trichlorlutidin). (2HCl, PtCl₄) (J. 1881, 430). — IV, 132.
- $C_7H_6NBr_3$ 1) Tribrom-2-Amido-1-Methylbenzol. Sm. 105—106° (112°) (A. 169, 378, 379). — II, 456.
- 2) 2,4,6-Tribrom-3-Amido-1-Methylbenzol. Sm. 100—101,6° (97°) (A. 168, 195; B. 13, 975). — II, 475.
- 3) 2,5,6-Tribrom-3-Amido-1-Methylbenzol. Sm. 93—94° (B. 13, 974). — II, 475.
- 4) 4,5,6-Tribrom-3-Amido-1-Methylbenzol. Sm. 96—96,8° (B. 13, 974). — II, 475.
- 5) 2,3,5-Tribrom-4-Amido-1-Methylbenzol. Sm. 82,5—83° (B. 14, 418). — II, 482.
- 6) 2,3,6-Tribrom-4-Amido-1-Methylbenzol. Sm. 118—118,6° (B. 14, 418). — II, 482.
- 7) *p*-Tribrom-4-Amido-1-Methylbenzol. Sm. 113° (A. 173, 217). — II, 482.
- 8) isom. *p*-Tribrom-*p*-Amido-1-Methylbenzol. Sm. 82° (A. 174, 362). — II, 513.
- 9) isom. *p*-Tribrom-*p*-Amido-1-Methylbenzol. Sm. 72° (A. 174, 366). — II, 513.
- $C_7H_6NF_3$ 1) 3-Amido-1-Trifluormethylbenzol. Sd. 187,5°. HCl, HNO₃ (C. 1898 [2] 26).
- $C_7H_6N_2Br_4$ 1) 4-Brom-2-Methyldiazobenzoltribromid (B. 26, 2193). — IV, 1530.
- $C_7H_6N_2S$ 1) 2-Thiocarbonyl-2,3-Dihydrobenzimidazol (1,2-Phenylenthioharnstoff). Sm. 296—297° (A. 221, 9; G. 23 [1] 295; B. 15, 2146, 2839; 20, 231). — IV, 560.
- 2) 1,3-Phenylenthioharnstoff. Zers. bei 300° (G. 17, 524). — IV, 576.
- 3) 1,4-Phenylenthioharnstoff. Sm. 279°. (A. 221, 29; G. 23 [1] 298). — IV, 592.
- 4) 1-Amidobenzthiazol. Sm. 129° (132°). (2HCl, PtCl₄) (B. 12, 1129; 13, 11; A. 275, 47). — II, 797.
- 5) 5-Methylbenzthiodiazol. Sm. 42—43° (A. 277, 232). — IV, 1550.
- 6) 5-Methylbenzisoithiodiazol (Methylpiazthiol). Sm. 34°; Sd. 233—234° (2HCl, PtCl₄) (B. 22, 2900; A. 274, 263). — IV, 624.
- 7) 1,3,4-Benzthiodiazin (Phenylthiocarbin). Sm. 129°. HCl, (2HCl, PtCl₄), Chromat, Pikrat, Ag (A. 212, 326). — IV, 681.

- C₇H₅N₂Se** 1) 5-Methylbenzisoselendiazol (Methylpiaselenol). Sm. 72–73°; Sd. 267°.
(2HCl, PtCl₄) (B. 22, 863). — IV, 624.
- C₇H₅N₂Br** 1) 4-Brom-2-Methyl-1-Diazobenzolimid (B. 26, 2194). — IV, 1147.
2) 2-Brom-4-Methyl-1-Diazobenzolimid. Fl. (B. 26, 2195). — IV, 1147.
3) 5-Brom-1-Methyl-1,2,3-Benzotriazol. Sm. 79–80°. (2HCl, PtCl₄)
(A. 249, 364). — IV, 1143.
- C₇H₅N₂S** 1) 5-Merkapto-1-Phenyl-1,2,3,4-Tetrazol. Zers. bei 147–150°. Ag
(B. 28, 78). — IV, 1233.
2) 5-Thiocarbonyl-1-Phenyl-4,5-Dihydro-1,2,3,4-Tetrazol. Sm. 142
bis 145° (B. 28, 77). — IV, 1232.
- C₇H₅ClBr** 1) 4-Chlor-1-Brommethylbenzol. Sm. 48.5° (B. 11, 905; Am. 1, 102; 3,
252). — II, 62.
2) 4-Brom-1-Chlormethylbenzol. Sm. 38–39° (G. 18, 239). — II, 62.
3) 5-Chlor-3-Brom-1-Methylbenzol. Sm. 32–34° (B. 30, 2346).
4) 2-Chlor-2-Brom-1-Methylbenzol (J. pr. [2] 39, 465). — II, 62.
- C₇H₅ClJ** 1) 2-Chlor-2-Jod-1-Methylbenzol. Sd. 240° (A. 156, 82). — II, 75.
2) 2-Chlor-2-Jod-1-Methylbenzol. Sd. 242–243° (A. 168, 211). — II, 75.
3) 2-Chlor-2-Jod-1-Methylbenzol. Sd. 240° (A. 168, 211). — II, 75.
- C₇H₅Cl₃P** 1) 3-Chlor-4-Methylphenyldichlorphosphin. Sd. 265–266° (B. 31, 2915).
— IV, 1667.
- C₇H₅Cl₃P** 1) 3-Chlor-4-Methylphenylphosphortetrachlorid (B. 31, 2917).
- C₇H₅BrJ** 1) 4-Brom-2-Jod-1-Methylbenzol. Sd. 262–264° (B. 29, 1406).
2) 2-Brom-3[oder 5]-Jod-1-Methylbenzol. Sd. 260° (A. 168, 164; B. 29,
1406). — II, 75.
3) 2-Brom-4-Jod-1-Methylbenzol. Sd. 266–267° (B. 29, 1405).
4) 3-Brom-4-Jod-1-Methylbenzol. Sd. 265° (A. 168, 159). — II, 75.
5) 2-Jod-1-Brommethylbenzol. Sm. 52–53° (Am. 4, 101). — II, 75.
6) 4-Jod-1-Brommethylbenzol. Sm. 78,7° (B. 11, 55; Am. 1, 103; 2, 250;
3, 252). — II, 75.
7) 4-Brom-1-Jodmethylbenzol. Sm. 80–81° (B. 29, 2253).
- C₇H₅ON** C 69,4 — H 5,8 — O 13,2 — N 11,6 — M. G. 121.
1) 2-Nitroso-1-Methylbenzol. Sm. 72–72,5° (B. 28, 249).
2) 3-Nitroso-1-Methylbenzol. Sm. 53–53,5° (B. 28, 248).
3) 4-Nitroso-1-Methylbenzol. Sm. 48,5° (B. 28, 247; 31, 1524).
4) anti-Oxim d. Benzolcarbonsäurealdehyd (α-Benzaldoxim). Sm. 35°;
Sd. 152–153°₃₃. Na + H₂O, HCl, H₂SO₄ (B. 15, 2785; 16, 824, 1786;
17, 1570; 20, 2766; 22, 2888; 23, 1684; 26, 1432, 2858; 27 [2] 599;
28, 746, 1797, 2013; A. 263, 356; G. 21, 142; Ph. Ch. 16, 218; Soc. 69,
178; C. 1899 [1] 277). — III, 41.
5) syn-Oxim d. Benzolcarbonsäurealdehyd (β-Benzaldoxim). Sm. 128 bis
130° (130°). Na + 4H₂O, HCl, HBr, HJ, 2HF, H₂SO₄, 2 + Cu₂Cl₂ (A.
263, 356; B. 20, 2766; 22, 432; 23, 1685; 26, 625; 27 [2] 599; 28,
2015, 2018; 29, 1566, 2252; Soc. 69, 179; Am. 19, 488; C. 1899 [1] 277).
— III, 43.
6) 2-Acetylpyridin. Sd. 192°. Pikrat (B. 24, 2527). — IV, 183.
7) 3-Acetylpyridin. Sd. 220°. + HgCl₂ (B. 22, 597). — IV, 183.
8) Aldehyd d. 2-Amidobenzol-1-Carbonsäure. Sm. 39–40°. (2HCl,
PtCl₄), + NaHSO₃ (B. 15, 2004, 2572; 17, 456, 457). — III, 16.
9) Aldehyd d. 3-Amidobenzol-1-Carbonsäure. (2HCl, PtCl₄) (B. 15,
2044; 16, 1997; 28, 603). — III, 17.
10) Aldehyd d. 4-Amidobenzol-1-Carbonsäure. Sm. 69,5–71,5° (B. 16,
2002; J. pr. [2] 56, 102). — III, 18.
11) Amid d. Benzolcarbonsäure. Sm. 128°. HCl, 3 + 2HCl, Na, Hg,
+ HgJ, + HgJ₂, Ag. Lit. bedeutend. — II, 1158.
12) Phenylamid d. Ameisensäure. Sm. 46°; Sd. 216°₁₃₀. Na, Hg, Ag,
HgCl, HgBr, HgJ, 2 + C₆H₅ONa, 2 + HCl, HJ, 2 + HJ. Lit. bedeutend.
— II, 358.
13) Verbindung (aus Dibromkotinin). (2HCl, PtCl₄) (B. 26, 299). — IV, 859.
C 56,4 — H 4,5 — O 10,7 — N 28,2 — M. G. 149.
1) 4-Amido-1,2-Phenylenharnstoff. 2HCl, (2HCl, ZnCl₂), Pikrat (B. 17,
2631). — IV, 1123.
2) 4-Amido-1,3-Phenylenharnstoff. Zers. bei 200°. HCl, H₂SO₄, Oxalat
(J. pr. [2] 38, 130). — IV, 1123.

- $C_7H_7ON_3$ 3) Amid d. Diazobenzolcarbonsäure + $2H_2O$. Sm. 84° (114° wasserfrei). K (B. 28, 1927, 2599; Soc. 67, 1067). — IV, 737.
- $C_7H_7ON_5$ C 47,5 — H 3,9 — O 9,0 — N 39,5 — M. G. 177.
- C_7H_7OCl 1) Acetyladenin (H. 12, 246). — IV, 1321.
- 1) 4-Chlor-1-Oxymethylbenzol. Sm. 70,5^o (66°) (A. 147, 344; Am. 2, 88). — II, 1056.
- 2) 5-Chlor-2-Oxy-1-Methylbenzol. Sm. 33° ($48-49^\circ$); Sd. $220-225^\circ$ (J. pr. [2] 38, 328; G. 28 [1] 211). — II, 738.
- 3) 6-Chlor-3-Oxy-1-Methylbenzol. Sm. 52– 53° ; Sd. 235,9^o_{787,7} (G. 28 [1] 213).
- 4) 3-Chlor-4-Oxy-1-Methylbenzol. Sd. $195-196^\circ$ ($197-198^\circ$) (B. 17, 2528; 22, 359; G. 26 [2] 399; 28 [1] 217). — II, 750.
- 5) p-Chlor-p-Oxy-1-Methylbenzol. Sm. 56^o; Sd. 240° (B. 6, 326). — II, 755.
- 6) Methyläther d. 2-Chlor-1-Oxybenzol (B. 11, 1463; 29, 2598). — II, 669.
- 7) Methyläther d. 4-Chlor-1-Oxybenzol. Sd. $198-202^\circ$ ($195-196^\circ$) (B. 2, 711; 29, 2598; A. 176, 30; C. 1895 [1] 834; G. 28 [1] 226). — II, 662.
- C_7H_7OBr 1) 2-Brom-1-Oxymethylbenzol. Sm. 80° (Am. 2, 316). — II, 1057.
- 2) 3-Brom-1-Oxymethylbenzol. Fl. (J. 1880, 481). — II, 1057.
- 3) 4-Brom-1-Oxymethylbenzol. Sm. 75° (77°) (Am. 3, 246; B. 10, 1209; G. 18, 238; Bl. [3] 21, 289). — II, 1057.
- 4) 5-Brom-2-Oxy-1-Methylbenzol. Sm. 64° ; Sd. 235° (J. pr. [2] 38, 324; A. 302, 144). — II, 738.
- 5) p-Brom-2-Oxy-1-Methylbenzol. Sm. 88,5^o (A. 168, 165).
- 6) 5-Brom-3-Oxy-1-Methylbenzol. Sm. 56– 57° (B. 15, 2991). — II, 744.
- 7) 3-Brom-4-Oxy-1-Methylbenzol. Sd. 213– 214° (B. 17, 2530). — II, 751.
- 8) p-Brom-4-Oxy-1-Methylbenzol. Sm. $17-18^\circ$; Sd. $218-220^\circ$ (B. 15, 1081).
- 9) Methyläther d. 2-Brom-1-Oxybenzol. Sd. 210° (B. 27, 256; 29, 2598). — II, 672.
- 10) Methyläther d. 4-Brom-1-Oxybenzol. Sm. $9-10^\circ$; Sd. 223° (A. 137, 203; B. 2, 711; 29, 2598). — II, 672.
- C_7H_7OJ 1) 4-Jod-1-Oxymethylbenzol. Sm. 71,8^o (B. 11, 56; Am. 2, 251). — II, 1058.
- 2) p-Jod-3-Oxy-1-Methylbenzol. Fl. (J. pr. [2] 39, 297). — II, 745.
- 3) 3-Jod-4-Oxy-1-Methylbenzol. Fl. (B. 17, 2533). — II, 751.
- 4) Methyläther d. 2-Jod-1-Oxybenzol. Sd. 239– 240° ₇₃₀ (B. 29, 997, 1410; 31, 1710).
- 5) Methyläther d. 3-Jod-1-Oxybenzol. Sd. $244-245^\circ$ (B. 29, 1409).
- 6) Methyläther d. 4-Jod-1-Oxybenzol. Sm. $51-52^\circ$; Sd. 237^o₇₂₆ (B. 29, 1000, 1410, 2595).
- 7) 2-Jodoso-1-Methylbenzol (B. 26, 361). — II, 78.
- 8) 4-Jodoso-1-Methylbenzol. Zers. bei $175-178^\circ$ (B. 26, 359). — II, 78.
- C_7H_7OAs 1) 2-Methylphenylarsenoxyd. Sm. $145-146^\circ$ (A. 201, 251). — IV, 1691.
- 2) 4-Methylphenylarsenoxyd. Sm. 156^o (A. 201, 251). — IV, 1692.
- C_7H_7OB 1) 2-Methylphenylboroxyd. Sm. $160-161^\circ$ (B. 27, 248). — IV, 1700.
- C_7H_7OSb 1) Antimon-4-Methylphenyloxyd. Sm. 200^o (B. 31, 2914).
- $C_7H_7O_2N$ C 61,3 — H 5,1 — O 23,4 — N 10,2 — M. G. 137.
- 1) Nitromethylbenzol (Phenylnitromethan). Sd. 225– 227° u. ger. Zers. ($160-180^\circ$). Na (L. 18, 1254; 19, 1145; 24, 3867; 27, 2738; 28, 1860; 29, 699, 2251; R. 13, 403; 14, 121). — II, 92.
- 2) Phenylisonitromethan. Sm. 84^o Cu (B. 29, 700, 2251; 32, 620; R. 15, 356).
- 3) 2-Nitro-1-Methylbenzol. Sm. — $10,5^\circ$; Sd. 223^o (218°) (A. 155, 11; 158, 348; Z. 1867, 225; B. 19, 1602; 24, 1987; 27, 1929; Bl. 50, 44; Ph. Ch. 1, 657; J. pr. [2] 50, 567). — II, 91.
- 4) 3-Nitro-1-Methylbenzol. Sm. 16° ; Sd. $230-231^\circ$ (A. 155, 25; 158, 346; B. 12, 443; 18, 1337; 22, 829; Ph. Ch. 1, 658). — II, 91.
- 5) 4-Nitro-1-Methylbenzol. Sm. 54° ; Sd. 238^o $2 + Al_2Cl_3$ (Z. 1865, 223; 1869, 190; A. 155, 6; 158, 348; 223, 261; J. 1879, 395; 1880, 371; B. 18, 996; 27, 1930; Ph. Ch. 1, 659; G. 15, 402; Fr. 29, 215; C. 1895 [1] 1115). — II, 92.

C₇H₅O₂N

- 6) **Methyläther d. 4-Nitroso-1-Oxybenzol.** Sm. 83° (A. 277, 86; B. 31, 299). — II, 678.
- 7) **2,4-Dioxy-1-Imidomethylbenzol.** HCl (B. 32, 279).
- 8) **Methylenäther d. 4-Amido-1,2-Dioxybenzol.** Sm. 44°. HCl, (2HCl, PtCl₄), (HCl, CdCl₂), HBr, HNO₃, H₂SO₄, Oxalat, Pikrat (A. 199, 341; R. 16, 50). — II, 912.
- 9) **4-Oximido-1-Keto-2-Methyl-1,4-Dihydrobenzol (Toluchinoxim).** Sm. 134—135° u. Zers. Na + 3H₂O, K, Ag (B. 17, 370, 2063; A. 243, 308; G. 27 [2] 575; Am. 20, 767). — II, 739.
- 10) **4-Oximido-1-Keto-3-Methyl-1,4-Dihydrobenzol.** Zers. bei 145—150° (155°). Ag (B. 12, 1799; G. 12, 303; 27 [2] 578; Am. 20, 767). — II, 745.
- 11) **2-Oxybenzaldoxim (Salicylaldoxim).** Sm. 57°. HCl (B. 16, 1782). — III, 76.
- 12) **3-Oxybenzaldoxim.** Sm. 87,5° (B. 24, 827; 25, 1924). — III, 81.
- 13) **4-Oxybenzaldoxim + xH₂O.** Sm. 72—73° (112° wasserfrei). Na₂ + 3H₂O (B. 16, 1785; 25, 1925). — III, 86.
- 14) **Benzhydroxamsäure.** Sm. 124—125°. NH₄, Na + 3H₂O, K, Ca, Ba, Zn (A. 161, 347; 281, 172; B. 16, 874; 22, 1272, 2856; G. 20, 660). — II, 1195.
- 15) **Nitrit d. Oxymethylbenzol.** Sd. 136—138°_{ss} (R. 13, 410).
- 16) **2-Amidobenzol-1-Carbonsäure (Anthranilsäure).** Sm. 144—145°. HCl, HNO₃, H₂SO₄ + 2H₂O, Oxalat, Ba, Pb, Cu, Ag. Lit. bedeutend. — II, 1245.
- 17) **3-Amidobenzol-1-Carbonsäure (Benzaminsäure).** Sm. 174°. Salze meist bekannt. Lit. bedeutend. — II, 1256.
- 18) **4-Amidobenzol-1-Carbonsäure.** Sm. 186—187°. HCl, H₂SO₄, Ba, Pb, Cu. Lit. bedeutend. — II, 1270.
- 19) **2-Methylpyridin-4-Carbonsäure (Pikolincarbonsäure).** Ca + H₂O, Ba + 11H₂O, Cu, HCl, (2HCl, PtCl₄) (B. 14, 67; 17, 92). — IV, 147.
- 20) **2-Methylpyridin-5-Carbonsäure.** Sm. 207°. (2HCl, PtCl₄), 2Cu + Cu(C₂H₃O₂)₂ (A. 247, 42). — IV, 147.
- 21) **3-Methylpyridin-2-Carbonsäure.** Sm. 111°. (2HCl, PtCl₄ + 2H₂O (A. 290, 355). — IV, 148.
- 22) **3-Methylpyridin-4-Carbonsäure? (Homonikotinsäure).** Sm. 211—212°. K, Cu, Ag, HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (R. 2, 21; Bl. 43, 107; A. ch. [5] 27, 493). — IV, 148.
- 23) **3-Methylpyridin-5-Carbonsäure (β-Methylnikotinsäure).** Sm. 214—216° (B. 23, 1111). — IV, 148.
- 24) **4-Methylpyridin-3-Carbonsäure.** Sm. 213—214° (B. 27, 1503).
- 25) **Pyridinbetain + H₂O.** HCl, (HCl + 4HgCl₂), (2HCl, PtCl₄), HBr, (HJ, BiJ₃ + 2H₂O), HNO₃, H₂SO₄, H₂CrO₄, Pikrat, + AgNO₃ (B. 15, 1251; J. pr. [2] 43, 287). — IV, 111.
- 26) **Methylbetain d. Pyridin-2-Carbonsäure.** (2HCl, PtCl₄) (B. 19, 37). — IV, 142.
- 27) **Methylbetain d. Pyridin-3-Carbonsäure + H₂O (Trigonellin).** Sm. 130° (218° wasserfrei). HCl, (2HCl, PtCl₄ + H₂O), (4 + 3HCl, AuCl₃), (HCl, AuCl₃) (H. 15, 150; B. 18, 2521; 19, 32; 20, 2840; 27, 769; 30, 2123; 31, 275, 404; C. 1898 [1] 677). — IV, 145.
- 28) **Methylester d. Pyridin-2-Carbonsäure.** Sm. 14°; Sd. 232°. (2HCl, PtCl₄ + 2H₂O) (B. 27, 1785). — IV, 142.
- 29) **Methylester d. Pyridin-3-Carbonsäure.** Sm. 38°; Sd. 204°. HCl (B. 27, 1787). — IV, 144.
- 30) **Phenylester d. Amidoameisensäure.** Sm. 141° (J. pr. [2] 1, 405; A. 244, 43). — II, 663.
- 31) **Acetat d. 3-Oxypyridin.** Sd. 210° (B. 17, 1897). — IV, 116.
- 32) **Amid d. 2-Oxybenzol-1-Carbonsäure.** Sm. 138°; Sd. 270° u. Zers. Ca, Sr, Cu, Ag (A. 98, 258; Bl. 13, 25; B. 22, 2769; 24, 138; 31, 3274). — II, 1499.
- 33) **Amid d. 3-Oxybenzol-1-Carbonsäure.** Sm. 167° (Z. 1866, 1; J. pr. [2] 22, 290). — II, 1518.
- 34) **Amid d. 4-Oxybenzol-1-Carbonsäure + H₂O.** Sm. 162° u. Zers. Na, 2HCl (J. pr. [2] 16, 51). — II, 1529.

- $C_7H_7O_2N$ 35) Amid d. β -[2-Furanyl]akrylsäure. Sm. 168—169° (Am. 12, 315). — III, 710.
 $C_7H_7O_2N_2$ C 50.9 — H 4.2 — O 19.4 — N 25.4 — M. G. 165.
 1) 4-Nitroso-1-Methylnitrosamidobenzol. Sm. 101° (B. 19, 2992). — II, 325.
 2) 3-Nitro-1-Imidoamidomethylbenzol (3-Nitrobenzamidin). Sm. 89°. HCl, (2HCl, PtCl₄), HNO₃, H₂SO₄ (B. 23, 1552; 28, 482; A. 265, 146). — IV, 840.
 3) 4-Nitro-1-Imidoamidomethylbenzol (4-Nitrobenzamidin). Sm. 215°. HCl (A. 298, 49). — IV, 840.
 4) α -Nitro- α -Phenylhydrazonmethan. Sm. 84—85° (B. 27, 159; 29, 2906). — IV, 1374.
 5) 4-Semicarbazol-1-Keto-1,4-Dihydrobenzol. Sm. 172° (A. 302, 329).
 6) 3,5-Diamido-2-Oxyphenylisocyanat. HCl (J. pr. [2] 5, 5). — II, 734.
 7) Oxim d. 1,4-Benzochinonmonourein (G. 27 [1] 241).
 8) Amid d. 1-Diazobenzol-3-Carbonsäure. 2Chlorid + PtCl₄, Nitrat (A. 120, 127). — IV, 1554.
 9) Amid d. 1-Diazobenzol-4-Carbonsäure. Nitrat (Z. 1866, 1). — IV, 1554.
 10) Amid d. Pyridin-2,3-Dicarbonsäure. Sm. 209° (190°) (B. 27, 839, 1788; A. 288, 258). — IV, 161.
 11) Amid d. Pyridin-2,5-Dicarbonsäure. Sm. 295,5—297° (J. 1877, 437). — IV, 163.
 12) Amid d. Pyridin-3,4-Dicarbonsäure. Sm. 163—165° u. Zers. (M. 16, 700). — IV, 164.
 13) Verbindung + H₂O (aus d. Verb. C₁₀H₁₁O₄N₃). Zers. bei 206°. K₂ (B. 30, 2430; 31, 3036).
 $C_7H_7O_2N_3$ C 43.5 — H 3.6 — O 16.6 — N 36.3 — M. G. 193.
 1) Acetylguanin. Sm. noch nicht bei 260° (H. 17, 490). — III, 966.
 $C_7H_7O_2Cl$ 1) 5-Chlor-2-Oxy-1-Oxymethylbenzol (Chlorsaligenin). Sm. 93° (A. 56, 60; C. 1896 [2] 738). — II, 1102.
 2) 2-Chlor-2,5-Dioxy-1-Methylbenzol. Sm. 175° u. Zers. (B. 20, 2285). — II, 956.
 3) 2-Chlor-2,5-Dioxy-1-Methylbenzol. Sm. 115° (B. 19, 929). — II, 956.
 4) Monomethyläther d. 4-Chlor-1,2-Dioxybenzol. Sd. 239—241,5°_{25.7} (G. 28 [1] 228).
 $C_7H_7O_2Cl_3$ 1) $\alpha\gamma\delta$ -Trichlor- β -Methyl- $\alpha\gamma$ -Pentadien- α -Carbonsäure. Sm. 112° (A. 296, 210).
 $C_7H_7O_2Br$ 1) 5-Brom-2-Oxy-1-Oxymethylbenzol (Bromsaligenin). Sm. 113° (107 bis 109°) (C. 1896 [2] 738; A. 302, 138).
 2) 3-Brom-2,5-Dioxy-1-Methylbenzol. Sm. 112° (J. pr. [2] 38, 327). — II, 957.
 3) 4-Brom-2,5-Dioxy-1-Methylbenzol. Sm. 176—179° u. Zers. (B. 20, 2286; Am. 14, 569). — II, 957.
 4) 2-Brom-3,5-Dioxy-1-Methylbenzol. Sm. 135° (A. 134, 258). — II, 962.
 5) Lakton d. ?-Brom- δ -Oxy- β -Methyl- $\alpha\gamma$ -Pentadien- α -Carbonsäure? (Brommesitenlakton). Sm. 105° (106—107°); Sd. 194—196°₂₀₋₂₅ u. Zers. (A. 222, 18; 274, 279). — I, 622.
 $C_7H_7O_2J$ 1) 5-Jod-2-Oxy-1-Oxymethylbenzol (Jodsaligenin). Sm. 138° (C. 1896 [2] 738; 1897 [2] 1075; J. pr. [2] 57, 205; [2] 58, 109).
 2) 3-Jod-2,5-Dioxy-1-Methylbenzol. Sm. 110—111° (J. pr. [2] 39, 398). — II, 957.
 3) 2-Jod-3,5-Dioxy-1-Methylbenzol. Sm. 86,5° (A. 171, 310). — II, 963.
 4) 2-Jodo-1-Methylbenzol. Explodiert bei 210° (B. 26, 361). — II, 78.
 5) 4-Jodo-1-Methylbenzol. Explodiert bei 228° (B. 26, 361; 29, 1573). — II, 78.
 $C_7H_7O_2P$ 1) Anhydro-2-Methylphenylphosphinsäure (A. 293, 293). — IV, 1669.
 2) Anhydro-4-Methylphenylphosphinsäure. Sm. 101° (B. 25, 1748). — IV, 1669.
 $C_7H_7O_2As$ 1) Methyläther d. 4-Oxyphenylarsenoxyd (B. 20, 51). — IV, 1686.
 2) Anhydrid d. 2-Methylphenylarsinsäure (A. 201, 255). — IV, 1691.
 $C_7H_7O_2N$ C 54.9 — H 4.6 — O 31.4 — N 9.2 — M. G. 153.
 1) α -Nitro- α -Oxyphenylmethan. Fl. (Soc. 71, 1054).

C₇H₅O₂N

- 2) 2-Nitro-1-Oxymethylbenzol. Sm. 74° (*H.* 2, 47, 55; *B.* 14, 2804; 18, 2403; 25, 2962, 3291; *J. pr.* [2] 47, 400). — II, 1058.
- 3) 3-Nitro-1-Oxymethylbenzol. Sm. 27°; Sd. 175—180° (*Z.* 1867, 562; *B.* 15, 2090; 27, 2112). — II, 1059.
- 4) 4-Nitro-1-Oxymethylbenzol. Sm. 93° (*A.* 147, 343; 217, 184; *B.* 14, 899; 16, 2715). — II, 1059.
- 5) 3-Nitro-2-Oxy-1-Methylbenzol. Sm. 69,5° (*B.* 14, 569; 18, 1339; *A.* 224, 175). — II, 739.
- 6) 4-Nitro-2-Oxy-1-Methylbenzol. Sm. 118° (*B.* 17, 269; 23, 3636; 26, 2351). — II, 739.
- 7) 5-Nitro-2-Oxy-1-Methylbenzol. Sm. 94,6—95° (79—85°) (*B.* 15, 2978; 18, 1512). — II, 739.
- 8) 6-Nitro-2-Oxy-1-Methylbenzol. Sm. 142—143° (*B.* 15, 3019; 17, 1961). — II, 740.
- 9) 4-Nitro-3-Oxy-1-Methylbenzol. Sm. 56° (*B.* 15, 1131; *A.* 217, 52; 259, 210, 223). — II, 745.
- 10) 5-Nitro-3-Oxy-1-Methylbenzol + H₂O. Sm. 60—62° (90—91° wasserfrei) (*B.* 15, 2986). — II, 745.
- 11) 6-Nitro-3-Oxy-1-Methylbenzol. Sm. 129°. Na + 2H₂O, K + 2H₂O (*B.* 15, 1131; 16, 242; *A.* 217, 52; 259, 212). — II, 745.
- 12) 2-Nitro-4-Oxy-1-Methylbenzol. Sm. 77—77,4° (*B.* 15, 299, 2980; *A.* 215, 87). — II, 751.
- 13) 3-Nitro-4-Oxy-1-Methylbenzol. Sm. 33,5°. Na, Ag (*J.* 1876, 452; *B.* 7, 537; 14, 572; 15, 2982; 18, 1339; 24, 1960; *A.* 217, 53; 224, 138; *Am.* 19, 538). — II, 751.
- 14) 2-Nitro-2-Oxy-1-Methylbenzol. Fl. (*A.* 109, 140). — II, 756.
- 15) Methyläther des 2-Nitro-1-Oxybenzol. Sm. 9°; Sd. 265° (*B.* 8, 1552; *A.* 174, 278; 207, 237; *Z.* 1867, 204; *J. pr.* [2] 32, 153; *R.* 13, 124). — II, 679.
- 16) Methyläther d. 3-Nitro-1-Oxybenzol. Sm. 38°; Sd. 258° (*B.* 11, 2100; 12, 156). — II, 681.
- 17) Methyläther d. 4-Nitro-1-Oxybenzol. Sm. 54° (51°); Sd. 258—260°. 2 + Al₂Cl₆ (*A.* 74, 299; *Z.* 1867, 205; *B.* 8, 1552; 14, 2632; 15, 1004; *J. pr.* [2] 33, 153; *M.* 6, 761; *R.* 13, 130; *C.* 1895 [1] 1115). — II, 682.
- 18) 2-Nitroso-3,5-Dioxy-1-Methylbenzol (Nitrosoorcin). α Modif., Sm. 157° u. Zers.; β -Modif., Zers. bei 110—112°. Na, K, Ag (*B.* 17, 1883; 23, 723; 29, 989; *M.* 18, 150, 158, 160). — II, 963.
- 19) 2,3,4-Trioxo-1-Imidomethylbenzol. HCl (*B.* 32, 281).
- 20) 2,4,6-Trioxo-1-Imidomethylbenzol. H₂SO₄ (*B.* 32, 280).
- 21) 2-Methyläther d. 4-Oximido-2-Oxy-1-Keto-1,4-Dihydrobenzol (p-Nitrosogurjakol). Zers. bei 150° (165°). K (*A.* 255, 184; *B.* 30, 2444; *M.* 18, 469). — II, 911.
- 22) 2,4-Dioxybenzaloxim. Sm. 191° (*B.* 24, 3651). — III, 98.
- 23) 3,4-Dioxybenzaloxim. Sm. 149—151° u. Zers. (*M.* 17, 252).
- 24) 2-Oxybenzhydroxamsäure. Sm. 169°. Pb + 4H₂O (*B.* 22, 1273). — II, 1501.
- 25) 3-Amido-2-Oxybenzol-1-Carbonsäure. HCl + H₂O (*A.* 197, 37). — II, 1512.
- 26) 5-Amido-2-Oxybenzol-1-Carbonsäure. Mg + 8H₂O, Ca + 5½H₂O, Ba + 4H₂O, Zn + 10H₂O, HCl, (HCl, SnCl₂), HJ, H₂SO₄ + H₂O (*A.* 130, 243; 195, 18; *J.* 1864, 383; *J. pr.* [2] 19, 362; *B.* 26, 1850; 32, 81). — II, 1512.
- 27) 6-Amido-3-Oxybenzol-1-Carbonsäure. Sm. 230° (235°) u. Zers. HCl, H₂SO₄ (*A.* 263, 234; *B.* 27, 1933). — II, 1521.
- 28) 3-Amido-4-Oxybenzol-1-Carbonsäure + ½(1)H₂O. Sm. 100° (wasserfrei). HCl, H₂SO₄ (*Z.* 1866, 648; *B.* 29, 1757; 30, 992). — II, 1539.
- 29) 1-Methylpyrrol-2-Ketocarbonsäure. Sm. 141—142,5° u. Zers. Ag (*B.* 21, 2872; *G.* 22 [2] 7). — IV, 87.
- 30) Pyrrol-2-Carbonsäure-5-Ketocarbonsäure. Sm. 186°. Ca + 7H₂O, Ag (*B.* 17, 1156; *G.* 22 [2] 7). — IV, 88.
- 31) 3-Oxymethylpyridin-2-Carbonsäure. Ba + 2H₂O (*A.* 290, 355). — IV, 154.
- 32) 6-Oxypyridinmethyläther-3-Carbonsäure + H₂O. Sm. 237—238° (*B.* 17, 2394; 18, 318). — IV, 153.

- C₇H₇O₃N** 33) Gem. Anhydrid d. Essigsäure u. Pyrrol-2-Carbonsäure. Sm. 75° (B. 17, 1154). — IV, 80.
 34) Methylester d. Pyrrol-2-Ketocarbonsäure. Sm. 70–72°; Sd. 285° u. Zers. (B. 17, 2949). — IV, 87.
 35) Benzylsalpetersäure (Benzylnitrat) (B. 9, 1454, 1745). — II, 1050.
- C₇H₇O₃N₃** 36) 5-Acetat d. 2,5-Dioxy-pyridin. Sm. 156° (M. 18, 619).
 C 46,4 — H 3,9 — O 26,5 — N 23,2 — M. G. 181.
 1) 2-Nitro-1-Methylnitrosamidobenzol. Sm. 36° (J. pr. [2] 41, 164). — II, 326.
 2) 3-Nitro-1-Methylnitrosamidobenzol. Sm. 68–70° (B. 19, 548). — II, 326.
 3) 4-Nitro-1-Methylnitrosamidobenzol. Sm. 100° (104°) (B. 19, 2993; 27, 370, 520; 31, 2528; Soc. 53, 776). — II, 326.
 4) 2-Nitrophenylharnstoff. Sm. 181° (Am. 19, 316).
 5) 3-Nitrophenylharnstoff. Sm. 195° u. Zers. (Am. 19, 338; A. 67, 156; 70, 137). — II, 376.
 6) 2-Nitrophenyloximidoamidomethan (2-Nitrobenzenylamidoxim). Sm. 141–142° (wasserfrei) (146°) (B. 27, 2847; 28, 151). — II, 1231.
 7) 3-Nitrophenyloximidoamidomethan (3-Nitrobenzenylamidoxim). Sm. 174°. HCl, (2HCl, PtCl₄) (B. 18, 1063; 27, 2848). — II, 1235.
 8) 4-Nitrophenyloximidoamidomethan. Sm. 169° (165–167°). HCl (B. 22, 2418; 27, 2848). — II, 1237.
 9) 4-Nitro-2-Methyldiazobenzol. Nitrat (B. 28, 241 Anm.).
 10) Methyläther d. 2-Nitrodiazobenzol. Fl. (B. 28, 236). — IV, 1524.
 11) Methyläther d. 4-Nitrodiazobenzol. Sm. 83° (B. 27, 672, 2968, 3412; 28, 173, 238). — IV, 1525.
 12) Amid d. 5-Nitro-2-Amidobenzol-1-Carbonsäure. Sm. 230° (J. pr. [2] 30, 479; B. 24, 3811). — II, 1282.
 13) Amid d. 4-Nitro-3-Amidobenzol-1-Carbonsäure. Sm. 231–232° (J. pr. [2] 43, 465). — II, 1284.
 14) Amid d. 3-Nitro-4-Amidobenzol-1-Carbonsäure. Sm. 226–227° u. Zers. (B. 23, 3449; J. pr. [2] 43, 457). — II, 1285.
 15) Hydrazid d. 2-Nitrobenzol-1-Carbonsäure. Sm. 123°. Na, HCl (J. pr. [2] 51, 168).
 16) Hydrazid d. 3-Nitrobenzol-1-Carbonsäure. Sm. 152°. Na, HCl (J. pr. [2] 51, 169).
 17) Hydrazid d. 4-Nitrobenzol-1-Carbonsäure. Sm. 210°. Na, HCl (J. pr. [2] 51, 169).
 18) 2-Nitrophenylhydrazid d. Ameisensäure. Sm. 177° (B. 22, 2804). — IV, 663.
- C₇H₇O₃Cl** 19) Furylhydrazid d. Oxaminsäure. Sm. 264° u. Zers. (B. 30, 590).
 1) Aethylester d. 3-Chlorfuran-2-Carbonsäure. Sm. 29–30°; Sd. 217°₇₆₄ (Am. 12, 36). — III, 701.
 2) Aethylester d. 5-Chlorfuran-2-Carbonsäure. Sm. 1–2°; Sd. 216 bis 218° (Am. 12, 30). — III, 700.
- C₇H₇O₃Br** 1) Aethylester d. 3-Bromfuran-2-Carbonsäure. Sm. 28–29°; Sd. 235 bis 236° (A. 232, 61). — III, 702.
 2) Aethylester d. 5-Bromfuran-2-Carbonsäure. Sm. 17°; Sd. 235° (A. 232, 51). — III, 702.
- C₇H₇O₃P** 1) Anhydro-4-Methoxyphenylphosphinsäure (Phosphinoanisol). Sm. 52° (A. 293, 254). — IV, 1653.
- C₇H₇O₃As** 1) Anhydrid d. 4-Methoxyphenylarsinsäure (B. 20, 52). — IV, 1686.
- C₇H₇O₄N** C 49,7 — H 4,1 — O 37,9 — N 8,3 — M. G. 169.
 1) 2-Nitro-2,5-Dioxy-1-Methylbenzol. Sm. 122–124° (B. 28, 1543).
 2) 6-Nitro-3,4-Dioxy-1-Methylbenzol. Sm. 180° u. Zers. K + H₂O (Bl. [3] 9, 53, 157; C. 1898 [1] 1025). — II, 959.
 3) 5-Nitro-3,4-Dioxy-1-Methylbenzol. Sm. 79–80° (Bl. [3] 9, 53, 157; C. 1898 [1] 1025). — II, 959.
 4) 2[?] Nitro-3,5-Dioxy-1-Methylbenzol. Sm. 115°. Ba + 8H₂O (B. 11, 442). — II, 964.
 5) 4[?] Nitro-3,5-Dioxy-1-Methylbenzol. Sm. 120°. Ba (B. 7, 442). — II, 964.
 6) 1-Methyläther d. 5-Nitro-1,2-Dioxybenzol. Sm. 104° (C. 1896 [2] 350; B. 30, 2446).

- C₇H₅O₄N** 7) 1-Methyläther d. 4-Nitro-1,3-Dioxybenzol. Sm. 95° (M. 1, 898). — II, 924.
 8) 3-Methyläther d. 4-Nitro-1,3-Dioxybenzol. Sm. 144° (M. 1, 898). — II, 924.
 9) Monomethyläther d. 2-Nitro-1,4-Dioxybenzol. Sm. 83° (M. 2, 370). — II, 945.
 10) Pyromykursäure (2-Furanoylamidocessigsäure). Sm. 165°. Ba + 1½ H₂O (B. 20, 2312). — III, 698.
 11) Monomethylester d. Pyrrol-2-Dicarbonsäure. Sm. 243° (B. 20, 2601). — IV, 90.
 12) Methylester d. 2,6-Dioxypyridin-4-Carbonsäure (M. d. Citrazinsäure). Zers. oberh. 220° (B. 17, 2691). — I, 1406.
 13) Amid d. 3,4,5-Trioxybenzol-1-Carbonsäure + 1½ H₂O (Gallamid). Sm. 243° wasserfrei; Zers. bei 245°. Cu (J. 1852, 479; 1854, 431; B. 15, 2591; 18, 487). — II, 1922.
- C₇H₅O₄N₃** C 42,6 — H 3,5 — O 32,5 — N 21,3 — M. G. 197.
 1) 5-Nitro-2-Nitramido-1-Methylbenzol. Sm. 103°. Na, Ag (B. 28, 402; 30, 1255). — IV, 1532.
 2) 2-Nitro-4-Nitramido-1-Methylbenzol. Sm. 91,5—92,5° (B. 30, 836).
 3) 3-Nitro-4-Nitramido-1-Methylbenzol. Sm. 79—80°. Pb, Ag (B. 28, 402; 30, 1257). — IV, 1533.
 4) 2-Nitro-1-Methylnitramidobenzol. Sm. 67° (70°) (B. 30, 1256; 31, 2926). — IV, 1529.
 5) 4-Nitro-1-Methylnitramidobenzol. Sm. 141,5—142,5° (B. 30, 837, 1254; 31, 2926). — IV, 1530.
 6) 4-Nitro-1-Nitramidomethylbenzol (4-Nitrobenzylnitramin). Sm. 116° (B. 31, 181). — IV, 1533.
 7) 3,5-Dinitro-2-Amido-1-Methylbenzol. Sm. 208° (211°) (A. 217, 183; B. 14, 900; 15, 1133; 21, 1543; 30, 1255; B. [3] 13, 634). — II, 457.
 8) 4,6-Dinitro-2-Amido-1-Methylbenzol. Sm. 155° (R. 16, 426).
 9) 4,6-Dinitro-3-Amido-1-Methylbenzol. Sm. 195° (192—193°) (A. 215, 368; 259, 220; Am. 12, 2). — II, 476.
 10) 2,6-Dinitro-4-Amido-1-Methylbenzol. Sm. 171° (166,5—168°) (B. 3, 218; 13, 243; R. 16, 426). — II, 483.
 11) 3,5-Dinitro-4-Amido-1-Methylbenzol. Sm. 168° (166°) (A. 158, 341; 208, 312; 217, 187; 222, 74; B. 8, 877; 14, 900; 30, 1257). — II, 483.
 12) 2-Dinitro-4-Amido-1-Methylbenzol. Sm. 94° (A. 215, 371). — II, 483.
 13) 2,4-Dinitro-1-Methylamidobenzol. Sm. 175° (178°) (B. 15, 1234; 18, 1995; 30, 1254, 1257; 31, 2529). — II, 326.
 14) 2,6-Dinitro-1-Methylamidobenzol. Sm. 106° (B. 30, 1257).
 15) 2-Dinitro-1-Methylamidobenzol. Sm. 161° (R. 8, 253). — II, 326.
 16) 4-Nitrobenzylnitrosohydroxylamin. Sm. 125—128° (A. 263, 340). — II, 534.
 17) 2-Methyläther d. 5-Nitro-2-Oxy-1-Diazobenzol. Salze siehe (J. 1866, 459). — IV, 1547.
 18) Methyläther d. 2-Nitro-1-Diazobenzolsäure. Fl. (B. 30, 1257). — IV, 1529.
 19) Methyläther d. 4-Nitro-1-Diazobenzolsäure. Sm. 109,5° (B. 30, 1254). — IV, 1530.
 20) 5-Nitro-3,4-Diamidobenzol-1-Carbonsäure. NH₄ + H₂O (A. 128, 173). — II, 1287.
 21) Amid d. 2,6-Dioxypyridin-3,5-Dicarbonsäure. Zers. oberh. 300° (Soc. 59, 746). — IV, 175.
- C₇H₅O₄N₃** C 37,3 — H 3,1 — O 28,4 — N 31,1 — M. G. 225.
 1) Nitrotheobromin. Sm. oberh. 270° (B. 30, 2585).
- C₇H₅O₄Cl** 1) Lakton d. α-Chlor-γ-Oxy-γ-Methyl-α-Buten-αβ-Dicarbonsäure (Chlorterebilsäure). Sm. 200—203°. Ca + 2H₂O, Ag (A. 220, 265). — I, 768.
- C₇H₅O₄Cl₃** 1) Methylester d. 3,3,5-Trichlor-2,4-Dioxy-2,3-Dihydro-R-Penten-2-Carbonsäure. Sm. 126° (B. 20, 2783). — I, 693.
- C₇H₅O₄Cl₅** 1) Dimethylester d. ααβγγ-Pentachlorpropan-αγ-Dicarbonsäure (D. d. Pentachlorglutarsäure). Sm. 61—62° (B. 25, 2226). — I, 667.
- C₇H₅O₄As** 1) Phenylarsenigesäure-4-Carbonsäure. Ca + xH₂O, Ag (A. 208, 14). — IV, 1692.

- $C_7H_7O_5N$ C 45,4 — H 3,8 — O 43,2 — N 7,6 — M. G. 185.
 1) Aethylester d. *p*-Nitrofuran-2-Carbonsäure. Sm. 101° (*J. pr.* [2] 25, 52). — III, 705.
 2) Verbindung (aus Apioaldehyd). Sm. 137—138° (*B.* 21, 1629). — III, 110.
- $C_7H_7O_5N_2$ C 39,4 — H 3,3 — O 37,6 — N 19,7 — M. G. 213.
 1) 2,4-Dinitro-6-Amido-3-Oxy-1-Methylbenzol. Sm. 160° (*B.* 23, 3479). — II, 747.
 2) *p*-Dinitro-*p*-Amido-3-Oxy-1-Methylbenzol. Sm. 156° (151°). Mg (*A.* 128, 166; 163, 104; *B.* 9, 1095). — II, 747.
 3) Methyläther d. 4,6-Dinitro-2-Amido-1-Oxybenzol (*A.* 74, 306). — II, 733.
 4) Methyläther d. 2,6-Dinitro-4-Amido-1-Oxybenzol. Sm. 182° (*G.* 19, 221). — II, 735.
 5) Apokaffeïn. Sm. 147—148° (144—145°) (*B.* 14, 642; *M.* 3, 100; *A.* 215, 277). — III, 962.
- $C_7H_7O_5N_3$ C 34,8 — H 2,9 — O 33,2 — N 29,0 — M. G. 241.
 1) 3,5-Dinitro-2-Oxyphenylguanidin. HCl (*B.* 15, 450). — II, 734.
- $C_7H_7O_5Cl_3$ 1) Methylester d. Äpfelsäurechloralid. Sm. 85° (*A.* 193, 45). — I, 934.
- $C_7H_7O_5P$ 1) Phenylphosphinsäure-2-Carbonsäure (*o*-Benzophosphinsäure). Sm. 172°. Ag₃ (*A.* 293, 299). — IV, 1672.
 2) Phenylphosphinsäure-3-Carbonsäure. Sm. 245—246°. Ba₃, Pb₃, Ag₃ (*A.* 293, 311). — IV, 1672.
 3) Phenylphosphinsäure-4-Carbonsäure (*p*-Benzophosphinsäure). Sm. oberh. 300°. K + H₂O, Ca, Ba, Cu₃ + 1½ H₂O, Ag (*A.* 212, 231; 293, 276; *B.* 14, 405). — IV, 1672.
- $C_7H_7O_5As$ 1) Phenylarsinsäure-4-Carbonsäure (Benzarsinsäure). KH, Ca + H₂O, Ag₃ (*A.* 208, 5; *B.* 13, 2177). — IV, 1693.
- $C_7H_7O_6N$ C 41,8 — H 3,5 — O 47,7 — N 7,0 — M. G. 201.
 1) 4-Nitro-2,3,5,6-Tetraoxy-1-Methylbenzol. Sm. 157—162° (*J. pr.* [2] 39, 381). — II, 1033.
- $C_7H_7O_6N_2$ C 36,7 — H 3,1 — O 41,9 — N 18,3 — M. G. 229.
 1) Aethylester d. 5-Nitro-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin-6-Carbonsäure (Ac. d. Nitrouracilcarbonsäure). Sm. 250° u. Zers. (*A.* 236, 38). — I, 1353.
- $C_7H_7O_6N_3$ C 32,7 — H 2,7 — O 37,4 — N 27,2 — M. G. 257.
 1) 2,4,6-Trinitro-3,5-Diamido-1-Methylbenzol. Sm. 222° (*B.* 21, 3501). — IV, 625.
 2) α -Methyl- β -(2,4,6-Trinitrophenyl)hydrazin. Sm. 171° u. Zers. (*A.* 253, 13). — IV, 658.
- $C_7H_7O_6Cl_2$ 1) Säure (aus β -Galaktochloral). Sm. 307° (*C.* 1896 [2] 83).
- $C_7H_7O_6P$ 1) 2-Carboxylphenyl-*o*-Phosphorsäure. Sm. 140—142° (147°). Pb₃, Ag₃ (*B.* 20, 1165; *A.* 239, 306, 317, 321). — II, 1498.
 2) 3-Carboxylphenyl-*o*-Phosphorsäure. Sm. 200—201° (*A.* 239, 336). — II, 1517.
 3) 4-Carboxylphenyl-*o*-Phosphorsäure. Sm. 200° (*A.* 239, 345). — II, 1528.
- $C_7H_7NCl_2$ 1) 3,5-Dichlor-2-Amido-1-Methylbenzol. Sm. 53° (*A.* 274, 292). — II, 455.
 2) 4,6-Dichlor-2-Amido-1-Methylbenzol. Sm. 88°; Sd. 259° (*A.* 168, 213). — II, 455.
 3) 5,6-Dichlor-3-Amido-1-Methylbenzol. Sm. 88°; Sd. 292°₇₆₀ (*C.* 1895 [2] 529).
 4) 3,5-Dichlor-4-Amido-1-Methylbenzol. Sm. 60° (*A.* 231, 322). — II, 482.
 5) *p*-Dichlor-*p*-Amido-1-Methylbenzol. Sm. 87° (*A.* 237, 163). — II, 513.
 6) *p*-Dichlor-*p*-Amido-1-Methylbenzol. Sm. 48—50° (*A.* 237, 163). — II, 513.
 7) Amidodichlormethylbenzol (*B.* 10, 1891). — II, 1212.
 8) *p*-Dichloramido-1-Methylbenzol. Sm. 91—92° (*B.* 32, 221).
 9) Benzylidichloramin. Fl. (*B.* 26 [2] 188). — II, 514.
- $C_7H_7NBr_2$ 1) 3,5-Dibrom-2-Amido-1-Methylbenzol. Sm. 50°. (2 HCl, PtCl₄) (*A.* 168, 187; 265, 70; *B.* 13, 966; *J. pr.* [2] 24, 478; [2] 38, 288). — II, 455.
 2) 4,5-Dibrom-2-*p*-Amido-1-Methylbenzol. Sm. 96,8—98° (85°) (*B.* 13, 970; *A.* 168, 184). — II, 513.

- $C_7H_7NBr_2$ 3) **2,5-Dibrom-3-Amido-1-Methylbenzol**. Sm. 72,4—73,1° (B. 13, 974). — II, 475.
 4) **2,6-Dibrom-3-Amido-1-Methylbenzol**. Sm. 33—35° (B. 13, 971). — II, 475.
 5) **4,5-Dibrom-3-Amido-1-Methylbenzol**. Sm. 58—59° (B. 13, 975). — II, 475.
 6) **4,6-Brom-3-Amido-1-Methylbenzol**. Sm. 74,5—75,5° (B. 13, 971). — II, 475.
 7) **5,6-Dibrom-3-Amido-1-Methylbenzol**. Sm. 83—85° (86,4°) (B. 13, 964). — II, 475.
 8) **2,5-Dibrom-4-Amido-1-Methylbenzol**. Sm. 83° (84,5—85°) (A. 168, 186; B. 13, 963). — II, 482.
 9) **2,6-Dibrom-4-Amido-1-Methylbenzol**. Sm. 87° (B. 13, 962). — II, 482.
 10) **3,5-Dibrom-4-Amido-1-Methylbenzol**. Sm. 73° (73,5—74,5°) (A. 168, 188; 173, 216; B. 32, 221). — II, 482.
 11) **Amidodibrommethylbenzol**. Sm. 70° (A. 149, 307). — II, 1212.
 12) **3,5-Dibrom-2,6-Dimethylpyridin**. Sm. 65°. (2HCl, PtCl₄) (B. 20, 1350). — IV, 130.
- $C_7H_7NJ_2$ 1) **3,5-Dijod-4-Amido-1-Methylbenzol**. Sm. 124,5° (B. 11, 115). — II, 482.
 2) **Amidodijodmethylbenzol**. Sm. 135—140° u. Zers. (B. 25, 2536). — II, 1212.
- C_7H_7NS 1) **Amid d. Benzolthiocarbonsäure**. Sm. 115—116° (A. 192, 48; 259, 304; B. 1, 102; 10, 1241; 23, 158; J. 1847/48, 596; J. pr. [2] 29, 131). — II, 1292.
 2) **Phenylamid d. Thioameisensäure**. Sm. 137,5° (A. 192, 35; B. 10, 1095; 11, 338; 15, 211; Soc. 69, 97). — II, 359.
- $C_7H_7NS_2$ 1) **Phenylamidodithioameisensäure (Dithiocarbanilsäure)**. NH₄, K, Ba, Ni (B. 11, 958; 24, 3022; A. 166, 142). — II, 386.
- C_7H_7NSe 1) **Amid d. Benzolselencarbonsäure**. Sm. 126° (B. 7, 1273; A. 250, 314). — II, 1308.
- $C_7H_7N_2Cl$ 1) **2-Methyldiazobenzolchlorid** (B. 28, 2055). — IV, 1530.
 2) **4-Methyldiazobenzolchlorid**. 2 + PtCl₄ (B. 28, 2053). — IV, 1530.
- $C_7H_7N_2Cl_2$ 1) **4,5,6-Trichlor-2,3-Diamido-1-Methylbenzol**. Sm. 197—198° u. Zers. (A. 237, 144; 296, 182). — IV, 600.
 2) **3,4,6-Trichlor-2,5-Diamido-1-Methylbenzol**. Sm. 196° (A. 237, 143). — IV, 608.
- $C_7H_7N_2S$ 1) **2,4-Diamidophenylrhodanid**. (2HCl, SnCl₄) (Am. 11, 82). — II, 800.
- $C_7H_7Cl_8$ 1) **4-Chlor-1-Merkaptomethylbenzol**. Sm. 84—85° (19—20°). Hg (A. 116, 348; 147, 346; Am. 2, 167). — II, 1057.
- $C_7H_7Cl_2Hg$ 1) **Quecksilber-2-Methylphenylchlorid**. Sm. 145—146° (A. 242, 180; B. 27, 248; 32, 761). — IV, 1710.
 2) **Quecksilber-3-Methylphenylchlorid**. Sm. 159—160° (A. 242, 185; B. 28, 589). — IV, 1710.
 3) **Quecksilber-4-Methylphenylchlorid**. Sm. 232—233° (J. pr. [2] 1, 185; B. 15, 185). — IV, 1711.
- $C_7H_7Cl_2J$ 1) **2-Jod-1-Methylbenzoldichlorid**. Zers. bei 91° (B. 26, 360). — II, 74.
 2) **4-Jod-1-Methylbenzoldichlorid**. Zers. bei 85° (B. 26, 358). — II, 75.
 3) **isom. 4-Jod-1-Methylbenzoldichlorid**. Zers. bei 110—118° (B. 26, 358). — II, 75.
- $C_7H_7Cl_2P$ 1) **2-Methylphenyldichlorphosphin**. Sd. 244° (A. 212, 212; 293, 291). — IV, 1667.
 2) **3-Methylphenyldichlorphosphin**. Sd. 235° (A. 293, 302). — IV, 1667.
 3) **4-Methylphenyldichlorphosphin**. Sm. 25°; Sd. 245° (A. 212, 212). — IV, 1667.
- $C_7H_7Cl_2As$ 1) **Benzoyldichlorarsin**. Sd. 175°₅₀ (A. 233, 91). — IV, 1689.
 2) **2-Methylphenyldichlorarsin**. Sd. 264—265° (i. CO₂) (A. 201, 248). — IV, 1691.
 3) **4-Methylphenyldichlorarsin**. Sm. 31°; Sd. 267° (i. CO₂) (A. 201, 249). — IV, 1691.
- $C_7H_7Cl_2B$ 1) **2-Methylphenylborchlorid**. Sm. 6°; Sd. 193° (B. 27, 248). — IV, 1700.
 2) **Dichlorid d. 4-Methylphenylborsäure**. Sm. 27° (B. 15, 185). — IV, 1700.
- $C_7H_7Cl_2Sb$ 1) **Antimon-4-Methylphenyldichlorid**. Sm. 93,5°; Sd. oberh. 360° (B. 31, 2914). — IV, 1696.

- $C_7H_7Cl_3Si$ 1) **Silicium-4-Methylphenyltrichlorid.** *Sd.* 218—220° (*A.* 173, 165). — *IV*, 1702.
- $C_7H_7Cl_4P$ 1) **2-Methylphenylphosphortetrachlorid.** *Sm.* 63—66° (*A.* 212, 216; 293, 292). — *IV*, 1667.
2) **3-Methylphenylphosphortetrachlorid.** *Fl.* (*A.* 293, 304).
3) **4-Methylphenylphosphortetrachlorid.** *Sm.* 42° (*A.* 212, 213). — *IV*, 1667.
- $C_7H_7Cl_4As$ 1) **2-Methylphenylarsentetrachlorid.** *Fl.* (*A.* 201, 249). — *IV*, 1691.
2) **4-Methylphenylarsentetrachlorid.** (*A.* 201, 249). — *IV*, 1691.
- C_7H_7BrS 1) **6-Brom-3-Merkapto-1-Methylbenzol.** *Fl.* (*A.* 169, 41). — *II*, 820.
2) **4-Brom-1-Merkaptomethylbenzol.** *Hg* (*Am.* 5, 268). — *II*, 1058.
- C_7H_7BrHg 1) **Quecksilber-3-Methylphenylbromid.** *Sm.* 183—184° (*B.* 28, 590). — *IV*, 1710.
- C_7H_7JHg 1) **Quecksilber-3-Methylphenyljodid.** *Sm.* 161—162° (*B.* 28, 590). — *IV*, 1710.
2) **Quecksilber-4-Methylphenyljodid.** *Sm.* 220° (*A.* 154, 173). — *IV*, 1711.
- C_7H_7SSb 1) **Antimon-4-Methylphenylsulfid.** (*B.* 31, 2914).
 $C_7H_7ON_2$ C 61,8 — H 5,9 — O 11,8 — N 20,6 — M. G. 136.
- 1) **5-Nitroso-2-Amido-1-Methylbenzol.** *Sm.* 115—116° u. *Zers.* (*B.* 21, 731). — *II*, 456.
2) **6-Nitroso-3-Amido-1-Methylbenzol.** *Sm.* 178° (*B.* 21, 730). — *II*, 476.
3) **4-Nitroso-1-Methylamidobenzol.** *Sm.* 118° (114,5—115°). + *NaOH* (*B.* 19, 2991; 27, 373). — *II*, 325.
4) **Methylnitrosamidobenzol** (Methylphenylnitrosamin). *Fl.* (*A.* 190, 151; *B.* 10, 329; 20, 1252; 22, 1006; 27, 373). — *II*, 325.
5) **Phenylharnstoff.** *Sm.* 147° (*A.* 57, 265; 70, 130; 74, 13; *J.* 1874, 798; *B.* 8, 519; 9, 820; 18, 978; *M.* 13, 282). — *II*, 376.
6) **Phenylimidooxamidomethan** (Phenylisuretin). *Sm.* 138° u. *Zers.* (*A.* 280, 318).
7) **2-Amidobenzaldoxim.** *Sm.* 132—133° (*B.* 14, 2339; 29, 1262). — *III*, 51.
8) **3-Amidobenzaldoxim.** *Sm.* 88°. (2HCl, PtCl₄) (*B.* 16, 1998). — *III*, 51.
9) **4-Amidobenzaldoxim.** *Sm.* 124° (*B.* 16, 2001; *J. pr.* [2] 56, 113). — *III*, 51.
10) **α -Oximido- α -Phenylamidomethan** (Methenylphenylamidoxim). *Sm.* 116° (128—129°). HCl, (2HCl, PtCl₄) (*B.* 22, 2410; *J. pr.* [2] 57, 223). — *II*, 448.
11) **2-Oxybenzylidenhydrazin.** *Sm.* 96° (*B.* 31, 2806).
12) **2-Methyldiazobenzol** (*o*-Diazotoluol). *Salze* siehe (*B.* 28, 2050, 2055, 2058; *Am.* 19, 394, 561). — *IV*, 1530.
13) **3-Methyldiazobenzol.** *Sulfat* (*Am.* 9, 395). — *IV*, 1530.
14) **4-Methyldiazobenzol.** *Salze* siehe (*J.* 1866, 458; *B.* 12, 1638; 28, 2053; 30, 215; 31, 1261; *Am.* 10, 371; 19, 531). — *IV*, 1530.
15) **4-Methylisodiazobenzol.** *Fl.* (*B.* 29, 1385). — *IV*, 1530.
16) **Methyläther d. Isodiazobenzol.** *Fl.* (*B.* 28, 227; 31, 586). — *IV*, 1518.
17) **3-Acetylamidopyridin.** *Sm.* 131°; *Sd.* 326—327° (*B.* 28, 1908). — *IV*, 818.
18) **2[α -Oximidoäthyl]pyridin.** *Sm.* 120° (*B.* 24, 2528). — *IV*, 183.
19) **3-[α -Oximidoäthyl]pyridin.** HCl (*B.* 22, 599). — *IV*, 183.
20) **Amid d. Benzhydroxamsäure** (Phenylamidooximidomethan; Benzoxamidin). *Sm.* 79—80°. Na, K, CuOH, HCl, H₂SO₄, Oxalat (*B.* 17, 128, 185, 1588, 1685, 1693; 18, 1053, 1086; 19, 1479, 1668; 22, 3131; 24, 436; 27, 160; 31, 2111; *A.* 252, 214; *C.* 1895 [1] 45). — *II*, 1199.
21) **Amid d. 2-Amidobenzol-1-Carbonsäure.** *Sm.* 108° (112—113°). (HCl, SnCl₂) (*J. pr.* [2] 30, 475; *B.* 28, 152, 160). — *II*, 1246.
22) **Amid d. 3-Amidobenzol-1-Carbonsäure** + H₂O. *Sm.* 75°. HCl, (2HCl, PtCl₄), HNO₃, + AgNO₃ (*J.* 1849, 358; *A.* 132, 142; 251, 158). — *II*, 1257.
23) **Amid d. 4-Amidobenzol-1-Carbonsäure.** *Sm.* 178—179° (*A.* 132, 144). — *II*, 1273.
24) **Methylamid d. Pyridin-3-Carbonsäure.** *Sm.* 104—105° (*C.* 1898 [1] 677).
25) **Hydrazid d. Benzolcarbonsäure.** *Sm.* 112,5°. HCl, (2HCl, PtCl₄), Na (*J. pr.* [2] 50, 252, 295; *B.* 23, 3028; 26, 1269). — *II*, 1308.
26) **α -Formylphenylhydrazin** (Phenylhydrazid d. Ameisensäure). *Sm.* 140° (145°). Na, Na₂ (*B.* 19, 1201; 27, 1522, 1694; 28, 944; 30, 1264; *A.*

- 287, 368, 369; *Soc.* 55, 242; 67, 830; 69, 95; *Am.* 19, 572; 20, 677; *G.* 18, 201; *M.* 18, 528). — IV, 662.
- C₇H₅ON₂** 27) Verbindung (aus Methylisoformanilid). Sm. 130—131° (*Am.* 13, 528). — II, 358.
- C₇H₅ON₂** C 51,2 — H 4,9 — O 9,7 — N 34,1 — M. G. 164.
- 1) 4-Imidoamidomethylhydrazon-1-Keto-1,4-Dihydrobenzol (Chinonamidoguanidin). Sm. 212—215° u. Zers. HNO₃, K (*A.* 302, 316). — IV, 1223.
- 2) 6-Keto-1,7-Dimethylpurin + 3H₂O. Sm. 244—246°. + NaJ + 3H₂O (*B.* 26, 1921; 30, 2231, 2411; 31, 3269; 32, 476; *H.* 18, 436, 456). — III, 968.
- 3) 8-Keto-7,9-Dimethylpurin. Sm. 112° (*B.* 17, 334; 28, 2495; 32, 477). — I, 1337.
- C₇H₅OS** 1) 2-Propionylthiophen. Sd. 228° (*B.* 19, 677). — III, 764.
- 2) 5-Acetyl-2-Methylthiophen. Sm. 25°; Sd. 232—233° (*B.* 18, 3024; 19, 1859, 3275). — III, 764.
- 3) 2-Acetyl-3-Methylthiophen. Sd. 218° (*A.* 267, 154). — III, 764.
- C₇H₅OHg** 1) Quecksilber-2-Methylphenyloxydhydrat. Nitrat (*B.* 31, 1530).
- 2) Quecksilber-4-Methylphenyloxydhydrat. Salze, siehe diese (*J. pr.* [2] 1, 185; [2] 29, 137; *A.* 154, 171; 173, 163; *B.* 31, 1528). — IV, 1711.
- C₇H₅O₂N₂** C 55,3 — H 5,3 — O 21,0 — N 18,4 — M. G. 152.
- 1) Methylnitramidobenzol (Methylphenylnitroamin). Sm. 38,5—39,5° (*B.* 27, 368; 30, 1251). — IV, 1529.
- 2) 2-Nitro-1-Methylamidobenzol. Sm. 26—28° (35—36°) (*J. pr.* [2] 41, 164; [2] 46, 565; *B.* 27, 369, 378; 31, 2927; *M.* 19, 634). — II, 326.
- 3) 3-Nitro-1-Methylamidobenzol. Sm. 65—66° (*B.* 19, 548). — II, 326.
- 4) 4-Nitro-1-Methylamidobenzol. Sm. 152° (150—151°) (*Soc.* 53, 775; *B.* 27, 370, 379, 520; 31, 2529, 2926). — II, 326.
- 5) 2-Nitro-1-Amidomethylbenzol. Fl. HCl, (2HCl, PtCl₄ + 2H₂O), H₂SO₄ (*B.* 20, 2228; 24, 3092; 25, 3031; *J. pr.* [2] 47, 399). — II, 514.
- 6) 3-Nitro-1-Amidomethylbenzol. (2HCl, PtCl₄) (*B.* 20, 2869). — II, 515.
- 7) 4-Nitro-1-Amidomethylbenzol. HCl, (2HCl, PtCl₄) (*B.* 23, 338). — II, 515.
- 8) 2-Nitramido-1-Methylbenzol. Fl. Ag (*B.* 28, 400; 30, 1259). — IV, 1532.
- 9) 4-Nitramido-1-Methylbenzol. Sm. 52°. Ba, Ag (*B.* 28, 400; 30, 1258). — IV, 1532.
- 10) 3-Nitro-2-Amido-1-Methylbenzol. Sm. 97° (94—94,5°) (*A.* 228, 240; 304, 103; *B.* 30, 1259). — II, 456.
- 11) 4-Nitro-2-Amido-1-Methylbenzol. Sm. 104—105° (107°; 109°). H₂SO₄ (*B.* 17, 265, 268; 19, 2161; 26, 3085; *A.* 225, 385; 229, 343). — II, 456.
- 12) 5-Nitro-2-Amido-1-Methylbenzol. Sm. 127—128° (130°) (*A.* 158, 346; *B.* 30, 1259). — II, 456.
- 13) 6-Nitro-2-Amido-1-Methylbenzol. Sm. 91,5°. HCl (*A.* 172, 223; *B.* 15, 3017; *Soc.* 59, 1014). — II, 456.
- 14) 2-Nitro-3-Amido-1-Methylbenzol. Sm. 53°. HCl, H₂SO₄ (*B.* 18, 1402). — II, 476.
- 15) 4-Nitro-3-Amido-1-Methylbenzol. Sm. 109° (*A.* 259, 224). — II, 476.
- 16) 5-Nitro-3-Amido-1-Methylbenzol. Sm. 98—98,4°. HCl (*B.* 15, 1183, 2985; *A.* 217, 199). — II, 476.
- 17) 6-Nitro-3-Amido-1-Methylbenzol. Sm. 138° (*A.* 158, 348; 259, 214; *G.* 18, 304; *B.* 24, 564). — II, 476.
- 18) 2-Nitro-4-Amido-1-Methylbenzol. Sm. 77,5°. HCl, HNO₃, H₂SO₄ + 2H₂O, 4 + AgNO₃ (*A.* 155, 14; 209, 379; *J.* 1879, 432; *B.* 15, 3016; 17, 263; *Am.* 1, 241; *Bl.* [3] 21, 18). — II, 482.
- 19) 3-Nitro-4-Amido-1-Methylbenzol. Sm. 116—117° (114°). HCl, HNO₃ (*A.* 155, 23; 208, 313; *B.* 8, 876; 11, 1971; 15, 2009; 18, 1483; 21, 1543; 26, 579; 30, 1258). — II, 483.
- 20) Methyläther d. 5-Nitroso-2-Amido-1-Oxybenzol. Sm. 107° (*A.* 255, 186). — II, 730.
- 21) Methylenäther d. 4,5-Diamido-1,2-Dioxybenzol. 2HCl (*A.* 199, 343). — II, 912.
- 22) 2,3-Diimido-1,1-Diacetyl-R-Trimethylen. Sm. 162° (*B.* 31, 2945).
- 23) 3-Methylphenylnitrosohydroxylamin. Sm. 54—54,5° (*B.* 28, 248).

- C₇H₅O₂N₂** 24) 4-Methylphenylnitrosohydroxylamin. Sm. 59—59,5° (57—58°) (B. 28, 246; Bl. [3] 11, 1041).
- 25) Benzylnitrosohydroxylamin. Sm. 77—78°. Na, Ag (A. 263, 217; 275, 135). — II, 533.
- 26) Methyläther d. Phenylnitrosohydroxylamin (M. d. Phenylisonitramin). Sm. 37—38° (B. 29, 2412; 31, 179, 583).
- 27) α -Oximido- α -Oxyamidophenylmethan (Benzenyloryamidoxim). Sm. 115° u. Zers. Cu (B. 31, 2128).
- 28) 1,4-Dioximido-2-Methyl-1,4-Dihydrobenzol. Zers. bei 220° (234°) (B. 21, 430, 733; A. 286, 164). — III, 360.
- 29) 2-Oxyphenylharnstoff. Sm. 154° u. Zers. (B. 16, 375). — II, 709.
- 30) 4-Oxyphenylharnstoff. Sm. 168° u. Zers. (B. 16, 376). — II, 719.
- 31) α -Oxy- β -Phenylharnstoff. Sm. 144° u. Zers. (B. 22, 1935; 26, 2384; A. 263, 264). — II, 402, 453.
- 32) 2-Oxybenzenylamidoxim. Sm. 98—99°. (HCl, (2HCl, PtCl₄), Na, Na₂, Cu (B. 22, 2774). — II, 1502.
- 33) 3-Oxybenzenylamidoxim. Sm. 71° (B. 24, 829). — II, 1518.
- 34) 4-Oxybenzenylamidoxim. Sm. 153° u. Zers. (B. 24, 834). — II, 1530.
- 35) 2-Amidobenzhydroxamsäure. Sm. 82° (J. pr. [2] 33, 20). — II, 1247.
- 36) 2-Oxymethyl-1-Diazobenzol. Sulfat (B. 27, 1085). — IV, 1552.
- 37) 4-Methyläther d. 4-Oxydiazobenzol. Salze siehe (B. 7, 1010; 28, 2051, 2056, 2059; 30, 2645). — IV, 1545.
- 38) Methyläther d. Diazobenzolsäure. Fl. (B. 27, 374; 29, 1414; 30, 647, 1250). — IV, 1529.
- 39) 2,3-Diamidobenzol-1-Carbonsäure. H₂SO₄ + 1½ H₂O (B. 2, 435; 5, 199). — II, 1273.
- 40) 2,4-Diamidobenzol-1-Carbonsäure, nicht existenzfähig, siehe (B. 7, 149). — II, 1274.
- 41) 2,5-Diamidobenzol-1-Carbonsäure. HCl, H₂SO₄ (B. 5, 199; 15, 2729; J. pr. [2] 30, 480). — II, 1274.
- 42) 3,4-Diamidobenzol-1-Carbonsäure. Sm. 210—211° u. Zers. HCl + 1½ H₂O, H₂SO₄ (A. 173, 57; B. 2, 435; 5, 199, 856). — II, 1274.
- 43) 3,5-Diamidobenzol-1-Carbonsäure + H₂O. Sm. 236° (240°) wasserfrei. Ba + 1½ H₂O, Ag + 2H₂O, 2HCl, (2HCl, PtCl₄), H₂SO₄ (A. 99, 106; 154, 325; 222, 85; Z. 1865, 51; B. 7, 213; 15, 2728; Ph. Ch. 5, 388). — II, 1276.
- 44) Phenylhydrazin-2-Carbonsäure. HCl (B. 13, 679). — II, 1287.
- 45) Phenylhydrazin-3-Carbonsäure. Sm. 186° u. Zers. HCl, Ba + 4H₂O (B. 9, 1657; 10, 1335; 27, 2554; A. 236, 164). — II, 1288.
- 46) Phenylhydrazin-4-Carbonsäure. Sm. 220—225° u. Zers. HCl (A. 212, 337). — II, 1289.
- 47) β -Phenylhydrazidoameisensäure. Phenylhydrazinsalz (A. 190, 124). — IV, 737.
- 48) 2,5-Dimethyl-1,4-Diazin-3-Carbonsäure + H₂O. Sm. 117° (wasserfrei). Cu + 4H₂O (J. pr. [2] 47, 482). — IV, 834.
- 49) 5-Amidochinolin-4-Carbonsäure. Ag (B. 32, 719).
- 50) Aethylester d. α,β -Dicyanpropionsäure. Sm. 118° (Soc. 67, 422).
- 51) Nitril d. α -Imido- γ -Keto- β -Aethanoylbutan- α -Carbonsäure. Sm. 129 bis 131° u. Zers. (B. 31, 2944).
- 52) Hydrazid d. 2-Oxybenzol-1-Carbonsäure. Sm. 145° (J. pr. [2] 52, 239).
- 53) Hydrazid d. 3-Oxybenzol-1-Carbonsäure. Sm. 150° (J. pr. [2] 52, 234).
- 54) Hydrazid d. 4-Oxybenzol-1-Carbonsäure. Sm. 260° (J. pr. [2] 52, 236). C 46,7 — H 4,4 — O 17,8 — N 31,1 — M. G. 180.
- C₇H₅O₂N₄**
- 1) 4-Semicarbazol-1-Oximido-1,4-Dihydrobenzol. Zers. bei 238° (A. 302, 331).
- 2) Phenylnitrosamidoharnstoff (Nitrosophenylsemicarbazid). Sm. 126 bis 127° u. Zers. (B. 28, 1925). — IV, 673.
- 3) 4-Nitrobenzenylhydrazidin. Sm. 195°. Pikrat (A. 298, 50).
- 4) 2,6-Diketo-1,3-Dimethylpurin + H₂O (Theophyllin). Sm. 264°. Ag + H₂O, HCl + H₂O, (HCl, AuCl₃ + H₂O) (B. 28, 3139; 32, 470; H. 13, 298; C. 1898 [1] 1132). — III, 956.
- 5) 2,6-Diketo-1,7-Dimethylpurin (Paraxanthin; 1,7-Dimethylxanthin). Sm. 284° (295—296°). Na + 4H₂O, HCl + H₂O, (2HCl, PtCl₄ + H₂O), (HCl, AuCl₃ + ½ H₂O) (B. 16, 195; 18, 3406; 30, 2408; 31, 2622, 3269; 32,

- 471; *H.* **11**, 415; **13**, 302; **14**, 319; **24**, 376; *C.* 1898 [1] 1132). — III, 969.
- $C_7H_5O_2N$ 6) **6,8-Diketo-1,9-Dimethylpurin**. Sm. 360—362° (*B.* **32**, 258, 474).
 7) **2,6-Diketo-3,7-Dimethylpurin** (Theobromin; **3,7-Dimethylxanthin**). subl. bei 290—295°; Sm. 329—330° (unter Druck). Salze meist bek. Lit. bedeutend. — III, 954.
 8) **2,8-Diketo-3,7-Dimethylpurin** (β -Dioxydimethylpurin). Sm. 360—370° u. Zers. (HCl , $AuCl_3$) (*B.* **28**, 2487; **30**, 1851; **32**, 474). — IV, 1253.
 9) **6,8-Diketo-7,9-Dimethylpurin** (α -Dioxydimethylpurin) (*B.* **17**, 336; **30**, 1851; **32**, 474). — I, 1337.
 10) Pseudotheobromin. Sm. noch nicht bei 280°. $HCl + H_2O$, ($2HCl$, $PtCl_4 + 4H_2O$), (HCl , $AuCl_3$), HBr (*C.* 1898 [2] 349; 1898 [1] 1132).
 11) **4,4'-Di[5-Methyl-1,2,4-Oxdiazolyl]methan** (Malonendiazoximdiäthylenyl). Sm. 99° (*B.* **29**, 1170).
- $C_7H_5O_2Br$ 1) **1,2-Dibrom-1,2,3,4-Tetrahydrobenzol-5-Carbonsäure**. Sm. 166° (*B.* **26**, 456). — II, 1129.
- $C_7H_5O_2Br$ 1) **1,2,3,4-Tetrabromhexahydrobenzol-1-Carbonsäure**. Sm. 183° (*B.* **26**, 456). — II, 1127.
- $C_7H_5O_2S$ 1) **1-Methylbenzol-2-Sulfinsäure**. Sm. 80°. $Na + 4H_2O$, $Ca + 3H_2O$, $Sr + 3H_2O$, $Ba + 3H_2O$ (*B.* **20**, 1241; *J. pr.* [2] **54**, 513). — II, 110.
 2) **1-Methylbenzol-4-Sulfinsäure**. Sm. 85°. NH_4 , $K + 2H_2O$, $Ca + 4H_2O$, Ba , $Zn + 2H_2O$, Ag , Anilinsalz, o-Toluidinsalz, p-Toluidinsalz, m-Xylidinsalz, Hydrazinsalz, Phenylhydrazinsalz, Methylphenylhydrazinsalz, Benzylhydroxylaminsalz, Dibenzylhydroxylaminsalz (*A.* **142**, 92; *B.* **3**, 965; **9**, 1584; **15**, 130; **20**, 2088; *J. pr.* [2] **56**, 213). — II, 110.
 3) Phenylmethansulfinsäure (Benzylsulfinsäure). Na (*B.* **13**, 1286). — II, 111.
 4) **2-Aethylthiophen-2-Carbonsäure**. Sm. 71°. $Ca + 2\frac{1}{2}H_2O$, Ag (*B.* **18**, 3018). — III, 757.
 5) **2,4-Dimethylthiophen-5-Carbonsäure**. Sm. 171—172° (163—164°). Ag (*A.* **244**, 59; *B.* **28**, 1811). — III, 757.
 6) **2,5-Dimethylthiophen-3-Carbonsäure**. Sm. 117—118° (*B.* **28**, 1811). — III, 757.
 7) Aethylester d. Thiophen-2-Carbonsäure. Sd. 218° (*B.* **17**, 2195). — III, 754.
 8) Acetat d. 5-Oxy-2-Methylthiophen. Sd. 208—212° (*B.* **19**, 556). — III, 753.
 9) Methylphenylsulfon. Sm. 88° (*Am.* **6**, 254; *J. pr.* [2] **40**, 511; *B.* **18**, 156; *A.* **284**, 301). — II, 780.
- $C_7H_5O_4S_2$ 1) **1-Methylbenzol-2-Thiolsulfonsäure**. Na , K (*J. pr.* [2] **56**, 473).
 2) **1-Methylbenzol-4-Thiolsulfonsäure**. $Na + 2H_2O$, $K + H_2O$, ($K + Cu_2$), $Ag + H_2O$ (*B.* **3**, 962; **15**, 129; **20**, 2087; **24**, 494, 1148, 3878). — II, 162.
- $C_7H_5O_2Hg$ 1) **2-Methoxylphenylquecksilberoxydhydrat**. Acetat (*B.* **27**, 257).
- $C_7H_5O_2Se$ 1) Benzylselenige Säure. Sm. 85°. Ba , Ag (*A.* **179**, 13). — II, 1056.
- $C_7H_5O_2Si$ 1) **4-Methylphenylsiliconsäure**. Sm. 150° (*A.* **173**, 166). — IV, 1702.
- $C_7H_5O_3N_2$ C 50,0 — H 4,8 — O 28,5 — N 16,7 — M. G. 168.
 1) **5-Nitro-3-Amido-2-Oxy-1-Methylbenzol**. Sm. 165° (*Bl.* [3] **17**, 206).
 2) **3-Nitro-5-Amido-2-Oxy-1-Methylbenzol**. Sm. 118° (*B.* **23**, 3477). — II, 743.
 3) Methyläther d. 3-Nitro-2-Amido-1-Oxybenzol. Sm. 76° (*B.* **11**, 2106). — II, 730.
 4) Methyläther d. 4-Nitro-2-Amido-1-Oxybenzol. Sm. 118°. HCl , ($2HCl$, $PtCl_4$), HBr , HNO_3 , H_2SO_4 (*A.* **74**, 301; *Sec.* **69**, 1329; *C.* 1898 [2] 951). — II, 731.
 5) Methyläther d. 5-Nitro-2-Amido-1-Oxybenzol. Sm. 139—140° (*Sec.* **69**, 1330; *C.* 1898 [2] 951).
 6) Methyläther d. 4-Nitro-3-Amido-1-Oxybenzol. Sm. 129° (*B.* **11**, 2106). — II, 732.
 7) Methyläther d. 3-Nitro-4-Amido-1-Oxybenzol. Sm. 123° (129°). HCl (*J. pr.* [2] **43**, 63; *B.* **29**, 2595; *A.* **292**, 249). — II, 732.
 8) **2-Methyläther d. 1,4-Dioximido-2-Oxy-1,4-Dihydrobenzol**. Sm. 250° u. Zers. (*A.* **255**, 187; *M.* **18**, 473). — III, 347.
 9) **2-Nitrobenzylhydroxylamin**. Sm. 70°. HCl (*B.* **30**, 517).
 10) **3-Nitrobenzylhydroxylamin**. Sm. 80°. HCl (*A.* **265**, 245; **298**, 190). — II, 534.

- $C_7H_5O_3N_2$ 11) 4-Nitrobenzylhydroxylamin. Sm. 120—125°. HCl, $H_2SO_4 + H_2O$ (A. 257, 243; 263, 192). — II, 534.
 12) 3-Nitro-4-Methylphenylhydroxylamin (B. 27, 198).
 13) 2,4-Dioxybenzenylamidoxim. Sm. 166° u. Zers. (B. 24, 3651). — II, 1736.
 14) 2,4,5-Triketo-1-Methyl-3-Allyltetrahydroimidazol (Methylallylparabansäure). Sm. 42—43° (B. 31, 138).
 15) 5-Nitro-6-Oxy-2,4-Dimethylpyridin. Sm. 250° u. Zers. (Soc. 73, 231).
 16) 3-Nitro-4-Oxy-2,6-Dimethylpyridin. Sm. 290—300° u. Zers. (Soc. 73, 238).
 17) 4-Acetylimido-2,6-Diketo-hexahydropyridin? (Acetylglutazin). Sm. 285—290°. $NH_3 + H_2O$, HCl (B. 19, 2700). — I, 1396.
 18) 3,5-Diamido-2-Oxybenzol-1-Carbonsäure. 2HCl, 2HJ + $1\frac{1}{2}H_2O$, $H_2SO_4 + H_2O$ (A. 133, 321). — II, 1513.
 19) 6-Oxy-2-Aethyl-1,3-Diazin-4-Carbonsäure + $1\frac{1}{2}H_2O$. Sm. 216° u. Zers. (B. 25, 1424). — IV, 835.
 20) Hydrazid d. 2-Oxyphenylkohlenensäure. Sm. 154° (A. 300, 148).
 21) Hydrazid d. 4-Oxyphenylkohlenensäure. Sm. 168° (A. 300, 155).
 $C_7H_5O_3N_4$ C 42,8 — H 4,1 — O 24,5 — N 28,6 — M. G. 196.
 1) 3-Nitrophenylamidoharnstoff. Sm. 195° u. Zers. (Soc. 73, 372).
 2) 4-Nitro-1-Methyloxamidodiazobenzol. Sm. 231° (B. 29, 104; 30, 2284). — IV, 1583.
 3) Carmin. Zers. bei 230°. HCl, $(2HCl, PtCl_4) + Cu_2O$, 2 + $AgNO_3$ (A. 158, 359; 217, 302; Bl. 21, 204; J. Th. 1883, 69; J. pr. [2] 47, 547; B. 29, 2650). — III, 883.
 4) 2,6,8-Triketo-1,3-Dimethylpurin + H_2O (1,3-[γ]-Dimethylharnsäure). Sm. bei 410° u. Zers. (B. 28, 2475, 2477; 30, 560, 3094; 31, 3267; 32, 464). — IV, 1255.
 5) 2,6,8-Triketo-1,7-Dimethylpurin (1,7-Dimethylharnsäure). Sm. 390° u. Zers. K + H_2O (B. 30, 3095; 31, 3267; 32, 464). — IV, 1255.
 6) 2,6,8-Triketo-1,9-Dimethylpurin (1,9-Dimethylharnsäure). Sm. bei 400° (B. 32, 259, 464).
 7) 2,6,8-Triketo-3,7-Dimethylpurin (δ -Dimethylharnsäure) (B. 28, 2482; 30, 564; 31, 3267). — IV, 1255.
 8) 2,6,8-Triketo-3,9-Dimethylpurin + H_2O (3,9- α -Dimethylharnsäure). Zers. bei 340°. Na + 2 H_2O , $Na_2 + 4\frac{1}{2}H_2O$, K + $1\frac{1}{2}H_2O$, $K_2 + 4H_2O$, Ba + 3 H_2O (Am. 2, 305; B. 17, 337; 32, 268, 463). — I, 1336.
 9) 2,6,8-Triketo-7,9-Dimethylpurin (β -Dimethylharnsäure) (B. 17, 337, 1780; 31, 3267; 32, 463). — I, 1336.
 10) Triamid d. γ -Cyanpropen- $\alpha\alpha\gamma$ -Tricarbonsäure + $\frac{1}{2}H_2O$ (G. 27 [2] 414).
 11) Hydrazid d. 5-Nitro-2-Amidobenzol-1-Carbonsäure. Zers. bei 214 bis 218° (J. pr. [2] 53, 222).
 $C_7H_5O_3Cl_2$ 1) Chlorid d. α -Chlorterebinsäure (B. 15, 296).
 $C_7H_5O_3Cl_4$ 1) Aethylester d. 2,3,4,5-Tetrachlortetrahydrofuran-2-Carbonsäure. Sd. 152—153°₁₅ (A. 32, 41; Am. 12, 25). — III, 700.
 $C_7H_5O_3Cl_6$ 1) β -Hexachlor- α -Oxyhexan- α -Carbonsäure. Fl. (Bl. 49, 71). — I, 573.
 $C_7H_5O_3Br_2$ 1) Anhydrid d. $\beta\delta$ -Dibrompentan- $\beta\delta$ -Dicarbonsäure (A. d. s-Dibromdimethylglutarsäure). Sm. 95° (B. 23, 1614; 24, 1926; 25, 3239; A. 292, 231). — I, 678.
 $C_7H_5O_3Br_4$ 1) Aethylester d. 2,3,4,5-Tetrabromtetrahydrofuran-2-Carbonsäure. Sm. 46—48° (B. 11, 1086). — III, 700.
 $C_7H_5O_3S$ 1) 1-Methylbenzol-2-Sulfonsäure + 2 H_2O . Salze meist bekannt (B. 12, 1348, 1848, 1851; A. 169, 27; 172, 236; Am. 8, 176; 15, 108). — II, 131.
 2) 1-Methylbenzol-3-Sulfonsäure + H_2O . Salze meist bekannt (A. 169, 47; 173, 202; 176, 297; B. 12, 1348; 19, 2953; Am. 19, 183). — II, 131.
 3) 1-Methylbenzol-4-Sulfonsäure + 4 H_2O . Sm. 92°. Salze meist bekannt (B. 8, 1412; 12, 1848, 1851; 15, 131; 16, 621; 19, 1834, 2953; Am. 10, 140; J. pr. [2] 56, 214; G. 27 [2] 469). — II, 131.
 4) Benzylsulfonsäure (Phenylmethansulfonsäure). K + H_2O , Ca + 2 H_2O , Ba + 2 H_2O , PbOH, Pb, Ag (A. 154, 50; 221, 216; B. 5, 270, 687; 13, 1228; 19, 2625; G. 27 [2] 468). — II, 133.
 5) Methylester d. Benzolsulfonsäure. Sd. 150°₁₅ (A. 223, 237; B. 25, 2257). — II, 113.

- $C_7H_5O_3S$ 6) Aethylester d. Thiocarbonylacetessigsäure. Sm. 156—162° (142°) (B. 10, 703; 21, 347; 28, 2885). — I, 899.
- 7) Phenylester d. Methansulfonsäure. Sm. 61—62°; Sd. 279° (J. pr. [2] 48, 244). — II, 661.
- $C_7H_5O_3S$,
 $C_7H_5O_4N_2$ 8) Sulfonsäure-4-Methylphenylester. Na (J. pr. [2] 48, 251).
- 1) Benzylunterschweflige Säure. Sm. 74—75°. Na (G. 20, 25). — II, 163.
C 45,6 — H 4,3 — O 34,8 — N 15,2 — M. G. 184.
- 1) Methyläthylalloxan. + $KHSO_3$ (C. 1897 [1] 284). — III, 955.
- 2) 4[oder 6]-Nitro-6[oder 4]-Amido-2,5-Dioxy-1-Methylbenzol. HCl (J. pr. [2] 39, 389). — II, 957.
- 3) 1-Methyläther d. 5-Nitro-3-Amido-1,2-Dioxybenzol. Sm. 182° u. Zers. (Soc. 69, 1331).
- 4) 2-Aethylimidazol-4,5-Dicarbonsäure + H_2O (A. ch. [6] 24, 536). — IV, 548.
- 5) Dimethylester d. Pyrazol-3,5-Dicarbonsäure. Sm. 151,5°. + Ag, + Ag_2 (A. 273, 234, 247; B. 27, 1098; J. pr. [2] 52, 48). — IV, 543.
- 6) Aethylester d. 2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin-6-Carbonsäure (Ae. d. Uracilcarbonsäure). Sm. 189° (J. pr. [2] 55, 507; [2] 56, 488).
- 7) Verbindung (aus d. Imidazolverbindung $C_{11}H_{17}O_4N_2Cl$). Zers. bei 230 bis 235° (A. 271, 33). — IV, 502.
C 39,6 — H 3,8 — O 30,2 — N 26,4 — M. G. 212.
- $C_7H_5O_4N_2$ 1) 3,5-Dinitro-2,4-Diamido-1-Methylbenzol. Sm. oberh. 300° (B. 23, 3216). — IV, 601.
- 2) Diisonitramidomethylbenzol. Ba (A. 300, 124).
- 3) 2,3,5,6-Tetraoximido-1-Methylbenzol. Zers. bei 210° (B. 20, 1608). — II, 962.
- 4) 3-Nitro-5-Amido-2-Oxyphenylharnstoff. Ba + $3\frac{1}{2}H_2O$, HCl (J. pr. [2] 5, 2). — II, 734.
- $C_7H_5O_4Cl_2$ 5) Anhydrid d. Dihydrotheobromursäure. Sm. 255° u. Zers. (B. 30, 2611).
- $C_7H_5O_4Br_2$ 1) Methylester d. 3,5-Dichlor-2,4-Dioxy-2,3-Dihydro-R-Penten-2-Carbonsäure. Sm. 177—178° (B. 22, 1265). — I, 693.
- $C_7H_5O_4Br_4$ 1) 1,2-Dibrom-R-Pentamethylen-1,2-Dicarbonsäure. Sm. 183—184° u. Zers. (B. 28, 663; Soc. 65, 980).
- $C_7H_5O_4S$ 1) $\alpha\beta\delta\epsilon$ -Tetrabrompentan- $\alpha\delta$ -Dicarbonsäure? Sm. 218° u. Zers. (B. 28, 3290).
- 1) 1-Oxymethylbenzol-2-Sulfonsäure. K, Ba + H_2O , Cu + $2H_2O$, Ag (B. 31, 1667).
- 2) 2-Oxy-1-Methylbenzol-3-Sulfonsäure. K + $1\frac{1}{2}H_2O$, Ba (J. pr. [2] 38, 333). — II, 841.
- 3) 2-Oxy-1-Methylbenzol-4-Sulfonsäure. K + $\frac{1}{2}H_2O$, Ba + $1\frac{1}{2}H_2O$, Ba + $2H_2O$ (A. 172, 213; 174, 345; 221, 363; Z. 1869, 621; B. 20, 3210; siehe auch J. 1879, 758). — II, 841.
- 4) 2-Oxy-1-Methylbenzol-5-Sulfonsäure. K, + $2H_2O$, Ba + $2\frac{1}{2}H_2O$, Pb + $2\frac{1}{2}H_2O$, Cu + $5H_2O$ (A. 169, 386; B. 13, 1946; 20, 3210; J. pr. [2] 38, 330). — II, 842.
- 5) 3-Oxy-1-Methylbenzol-6-Sulfonsäure + H_2O . Sm. 118° (wasserfrei). K + $2\frac{1}{2}H_2O$, Ba + 1(2) H_2O , Cu + $3H_2O$ (Z. 1869, 622; B. 15, 1862; 20, 3089). — II, 843.
- 6) 4-Oxy-1-Methylbenzol-2-Sulfonsäure + $5H_2O$. Sm. 98,5° (187—188° wasserfrei). Ba (A. 172, 237). — II, 844.
- 7) 4-Oxy-1-Methylbenzol-3-Sulfonsäure. K + $2H_2O$, Ba + $2H_2O$, Pb + $3H_2O$ (Z. 1869, 619; A. 173, 203; H. 4, 313). — II, 844.
- 8) isom. p-Oxy-1-Methylbenzol-p-Sulfonsäuren (A. 109, 138; B. 6, 974). — II, 845.
- 9) 2- u. 4-Oxybenzylmethyläther-1-Sulfonsäure. K + H_2O , Ca + $4H_2O$ (A. 172, 47; Z. 1867, 201; M. 4, 173; B. 26 [2] 606; Am. 18, 860). — II, 831.
- 10) 2-Oxyphenylmethan- α -Sulfonsäure. NH_4 , Ba + $4H_2O$, Pb + $7H_2O$ (B. 31, 1858).
- 11) 4-Oxyphenylmethan- α -Sulfonsäure. K + $\frac{1}{2}H_2O$, Ba + $7\frac{1}{2}H_2O$ (A. 221, 221). — II, 844.
- 12) 2-Methylphenylschwefelsäure. K (B. 11, 1911; H. 2, 355). — II, 842.
- 13) 3-Methylphenylschwefelsäure (H. 2, 356). — II, 843.

- $C_7H_5O_4S$ 14) 4-Methylphenylschwefelsäure. K (A. 77, 18; 172, 24; B. 9, 1389, 1716). — II, 844.
- $C_7H_5O_5N_2$ C 42,0 — H 4,0 — O 40,0 — N 14,0 — M. G. 200.
1) Aethylester d. 5[?]-Oxy-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin-6-Carbonsäure (Ae. d. Oxyuracilcarbonsäure). Sm. 260° u. Zers. (A. 238, 48). — I, 1353.
- $C_7H_5O_5N_4$ C 36,8 — H 3,5 — O 35,1 — N 24,6 — M. G. 228.
1) Methyläther d. 3,5-Dinitro-2,4-Diamido-1-Oxybenzol. Sm. 250° (B. 25, 282). — II, 736.
2) Theobromursäure. Sm. 178° u. Zers. (B. 30, 2607).
3) Diformaldehydharnsäure. Ca, Ba (A. 299, 341).
- $C_7H_5O_5S$ 1) 3,4-Dioxy-1-Methylbenzol-2-Sulfonsäure. Sm. 93–94°. K + H_2O , Ba + 3 H_2O (Bl. [3] 11, 104; C. 1898 [1] 1026). — II, 959.
2) 1,2-Dioxybenzol-1-Methyläther-3-Sulfonsäure. K (C. 1898 [2] 477).
3) 1,3-Dioxybenzoldimethyläther-2-Sulfonsäure. 2 Modifik. K (B. 14, 2019). — II, 935.
4) 3-Oxyphenylmethyläther-1-Schwefelsäure (B. 13, 2364; 14, 2019). — II, 935.
- $C_7H_5O_6N_2$ C 39,0 — H 3,7 — O 44,4 — N 12,9 — M. G. 216.
1) Diacetat d. $\alpha\beta$ -Dioximidopropionsäure. Sm. 135° u. Zers. (Hydrat. Sm. 90–92°) (B. 25, 905). — I, 494.
- $C_7H_5O_6S_2$ 1) 1-Methylbenzol-2,4-Disulfonsäure. Fl. (NH_4)₂ + H_2O , Na₂ + 7 H_2O , K + H_2O , Mg + 8 H_2O , Ba + 8 H_2O , Zn + 8 H_2O , Cu + 8 H_2O , Ag₂ + 2 H_2O (A. 164, 126; B. 4, 717; 5, 1085; 10, 542, 1276; 12, 1052; 13, 1170; 19, 2890; Am. 2, 181; Soc. 73, 754). — II, 133.
2) 1-Methylbenzol-2,5-Disulfonsäure. K₂ + H_2O , Ba + H_2O (B. 5, 1084; 19, 2888; C. 1895 [2] 530; Soc. 73, 743, 757). — II, 133.
3) 1-Methylbenzol-2,6-Disulfonsäure. K₂ + $1\frac{1}{2}H_2O$, Ba + 4 H_2O (A. 221, 199; C. 1895 [2] 530). — II, 134.
4) 1-Methylbenzol-3,4-Disulfonsäure. K₂ + H_2O , Ba + 2 H_2O (B. 20, 356; C. 1895 [2] 530; Soc. 73, 751). — II, 134.
5) 1-Methylbenzol-3,5-Disulfonsäure. K₂ + $2\frac{1}{2}H_2O$, Ba + 3 $\frac{1}{2}H_2O$ (B. 15, 2993; 19, 2889; A. 230, 295, 326; C. 1895 [2] 530; Soc. 73, 748). — II, 134.
- $C_7H_5O_8S_2$ 1) 2-Oxy-1-Methylbenzol-3,5-Disulfonsäure. K₂ + $1\frac{1}{2}H_2O$, Ba + 3 $\frac{1}{2}H_2O$ (A. 230, 293; J. pr. [2] 38, 334). — II, 842.
2) 3-Oxy-1-Methylbenzol-2,6-Disulfonsäure. Fl. K, K₂ + 3 H_2O , Ba + $1\frac{1}{2}H_2O$ (B. 20, 3093). — II, 843.
3) 4-Oxy-1-Methylbenzol-2,3[oder 2,6]-Disulfonsäure. K₂ + $1\frac{1}{2}H_2O$, Ba + 4 H_2O (A. 230, 322). — II, 845.
4) 4-Oxy-1-Methylbenzol-3,5-Disulfonsäure. K₂ + 3 H_2O , Ba + 2 $\frac{1}{2}H_2O$ (Z. 1869, 620). — II, 845.
5) 1-Oxybenzoldimethyläther-2-Disulfonsäure. Ba + 4 H_2O (A. 103, 343; 172, 47; Am. 18, 859). — II, 833.
- $C_7H_5O_8S_2$ 1) 3,5-Dioxy-1-Methylbenzol-2-Disulfonsäure. Ba, Pb + 6 $\frac{1}{2}H_2O$, Pb₃ + 8 H_2O (A. 117, 324). — II, 966.
- $C_7H_5O_9S_3$ 1) 1-Methylbenzol-2,4,6-Trisulfonsäure + 6 H_2O . Sm. 145°. K + 3 $\frac{1}{2}H_2O$, Ba₃ + 4 H_2O , Pb₃ + 8 H_2O (B. 14, 307). — II, 134.
- $C_7H_5O_{19}N_6$ C 17,5 — H 1,7 — O 63,3 — N 17,5 — M. G. 480.
1) Hexanitrat d. α -Glykoheptose. Sm. 100° (B. 31, 79).
- C_7H_5NCl 1) Chloramidomethylbenzol (Benzylchloramin). Fl. (B. 26 [2] 188). — II, 514.
2) 2-Chlor-1-Amidomethylbenzol. Fl. HCl, (2HCl, PtCl₄), HBr, H_2CO_3 (A. 151, 144; Am. 2, 95). — II, 514.
3) 2-Amido-1-Chlormethylbenzol. HCl (B. 27, 3514).
4) 2-Chlor-1-Methylamidobenzol. Sd. 215–216°₇₀₄ (B. 31, 2531; M. 19, 638).
5) 3-Chlor-1-Methylamidobenzol. Sd. 234,5–235,5°₇₀₄ (240°) HCl (B. 18, 430; 31, 2531). — II, 326.
6) 4-Chlor-1-Methylamidobenzol. Sd. 239–240°₇₀₄ (B. 31, 2532).
7) 4-Chlor-2-Amido-1-Methylbenzol. Sm. 21–22°; Sd. 237°₇₂₂. HCl, (2HCl, PtCl₄ + 2 H_2O) (A. 158, 337; B. 7, 797; 19, 2441). — II, 455.
8) 5-Chlor-2-Amido-1-Methylbenzol. Sm. 29–30°; Sd. 236–238°₇₃₀ (A. 231, 317; 276, 347; B. 29, 307 Anm.). — II, 455.
9) 6-Chlor-2-Amido-1-Methylbenzol. Sd. 245°₇₃₀ (C. 1895 [2] 530).

- C₇H₇NCl** 10) **p-Chlor-2-Amido-1-Methylbenzol.** Sm. 29,5°; Sd. 241°. HCl, HNO₃ (A. 156, 81). — II, 455.
 11) **2-Chlor-3-Amido-1-Methylbenzol.** Sd. 228—229°₇₆₀ (C. 1895 [2] 529).
 12) **4-Chlor-3-Amido-1-Methylbenzol.** Sm. 29—30°; Sd. 230°. HCl (B. 7, 797; 18, 2601; 19, 2442). — II, 475.
 13) **5-Chlor-3-Amido-1-Methylbenzol.** Sd. 242°₇₃₀. HCl, HNO₃ (B. 20, 2419; C. 1895 [2] 529). — II, 475.
 14) **6-Chlor-3-Amido-1-Methylbenzol.** Sm. 83°; Sd. 241°. HCl, HNO₃, H₂SO₄ (A. 168, 206; B. 20, 200, 1567). — II, 475.
 15) **2-Chlor-4-Amido-1-Methylbenzol.** Sm. 83°; Sd. 245°₇₀₀. HNO₃ (A. 168, 206; B. 2, 308, 599; 19, 2443; C. 1895 [1] 529). — II, 481.
 16) **3-Chlor-4-Amido-1-Methylbenzol.** Sm. 7°; Sd. 218—219°₇₃₂. HCl, HNO₃, H₂SO₄, Dioxalat (A. 168, 197; 231, 311). — II, 481.
 17) **6-Chlor-2,4-Dimethylpyridin.** Sd. 212—214° (2 HCl, PtCl₄) (Soc. 71, 309). — IV, 128.
 18) **4-Chlor-2,6-Dimethylpyridin.** Sd. 178° (HCl, SnCl₂), (2 HCl, PtCl₄), H₂Cr₂O₇, Pikrat (B. 20, 164; 27, 1327; Soc. 59, 177; 67, 400). — IV, 129.
- C₇H₇NBr** 19) Chlorvinylat d. Pyridin. 2 + PtCl₄ (G. 15, 333). — IV, III.
 1) **4-Brom-1-Methylamidobenzol** (p-Brommethylanilin). Sd. 259—260° (B. 12, 1817). — II, 325.
 2) **2-Brom-1-Amidomethylbenzol.** Fl. HCl, (2 HCl, PtCl₄), H₂CO₃ (Am. 2, 317). — II, 514.
 3) **4-Brom-1-Amidomethylbenzol.** Fl. HCl, (2 HCl, PtCl₄), HBr, H₂CO₃ (Am. 3, 250). — II, 514.
 4) **2-Amido-1-Brommethylbenzol.** HBr (B. 27, 3513).
 5) **Bromamidomethylbenzole.** Uebersicht (B. 14, 419).
 6) **3-Brom-2-Amido-1-Methylbenzol.** Fl. (B. 13, 1945). — II, 455.
 7) **4-Brom-2-Amido-1-Methylbenzol.** Sm. 32°; Sd. 253—257° u. Zers. HCl, HNO₃, H₂SO₄ (Z. 1869, 636; A. 154, 299; 158, 340; 168, 177; B. 6, 799). — II, 455.
 8) **5-Brom-2-Amido-1-Methylbenzol.** Sm. 58° (59,5°); Sd. 240°. HCl, HBr, HNO₃, H₂SO₄ + 2 H₂O, Oxalat (A. 168, 163, 173; 177, 249). — II, 455.
 9) **4-Brom-3-Amido-1-Methylbenzol.** Sm. 35° (30,6—32°) (A. 168, 177; B. 6, 800; 13, 972; J. pr. [2] 46, 25). — II, 475.
 10) **5-Brom-3-Amido-1-Methylbenzol.** Sm. 35—36°; Sd. 255—260°. HCl, HNO₃, H₂SO₄ (A. 192, 203; B. 13, 964). — II, 475.
 11) **6-Brom-3-Amido-1-Methylbenzol.** Sm. 78,4—78,8°; Sd. 240°. HCl, HNO₃ (A. 168, 172; B. 6, 801; 13, 963, 969). — II, 475.
 12) **2-Brom-4-Amido-1-Methylbenzol.** Sm. 25—26°; Sd. 254—257°. HCl, HBr (B. 14, 418; 22, 2903; A. 235, 255). — II, 482.
 13) **3-Brom-4-Amido-1-Methylbenzol.** Sm. 26°; Sd. 240°. HCl, HNO₃, H₂SO₄, Oxalat (A. 168, 154; 173, 210; 234, 156; B. 15, 316; 16, 914). — II, 482.
- C₇H₇NJ** 1) **4-Jod-2-Amido-1-Methylbenzol.** Sm. 48—49°; Sd. 273° u. Zers. HNO₃ (A. 156, 338). — II, 456.
 2) **4-Jod-3-Amido-1-Methylbenzol.** Sm. 188—189°. HCl, HNO₃, H₂SO₄ (B. 8, 562). — II, 475.
 3) **2-Jod-1-Amidomethylbenzol.** Fl. (2 HCl, PtCl₄) (Am. 4, 103). — II, 514.
 4) **4-Jod-1-Amidomethylbenzol.** Fl. HCl, (2 HCl, PtCl₄), H₂CO₃ (Am. 2, 257). — II, 514.
- C₇H₇N₂Cl₂** 1) **4,6[P]-Dichlor-2,3-Diamido-1-Methylbenzol.** Sm. 110° (A. 237, 164). — IV, 600.
 2) **5,6-Dichlor-2,4-Diamido-1-Methylbenzol.** Sm. 137° (A. 237, 164). — IV, 601.
- C₇H₇N₂Br₂** 1) **3,5-Dibrom-4-Amido-2,6-Dimethylpyridin.** Sm. 152°. HCl, (2 HCl, PtCl₄), HBr, Pikrat (B. 27, 1332). — IV, 824.
- C₇H₇N₂Br₂** 1) **Dibromid d. 3,5-Dibrom-4-Amido-2,6-Dimethylpyridin.** HBr (B. 27, 1332). — IV, 824.
- C₇H₇N₂S** 1) **Phenylthioharnstoff.** Sm. 154° (2 HCl, PtCl₄), 2 + Cu₂Cl₂, 6 + Cu₂Cl₂ + 6 H₂O, 8 + SiBr₄ (J. 1858, 349; A. 148, 338; 207, 122; B. 9, 446, 819; 10, 494; 17, 305, 3037; 18, 3104; 24, 2728; J. pr. [2] 50, 436; Soc. 53, 857; 67, 1042). — II, 390.

- $C_7H_5N_2S$ 2) Amid d. 3-Amidobenzol-1-Thiocarbonsäure. (B. 1, 197; J. 1860, 353). — II, 1294.
3) Amid d. 4-Amidobenzol-1-Thiocarbonsäure. Sm. 170° (A. 149, 301). — II, 1294.
- $C_7H_5N_2S_2$ 1) β -Phenylhydrazidodithioameisensäure (Phenylsulfocarbaminsäure). Sm. 103–104°. NH_4 , K, Phenylhydrazinsalz (B. 27, 2515; 28, 2639 Anm.; 30, 845; A. 190, 116). — IV, 677.
- $C_7H_5N_2Se$ 1) Phenylselenharnstoff. Sm. 182° (B. 19, 1579). — II, 401.
- $C_7H_5N_4S$ 1) Methyläther d. 6-Merkapto-7-Methylpurin. Sm. 212–213° (cor.) (B. 31, 437). — IV, 1251.
- $C_7H_5N_5Cl$ 1) 2-Chlor-6-Methylamido-7-Methylpurin + 2H₂O. Sm. 261° u. Zers. (B. 31, 119, 544). — IV, 1321.
- C_7H_5ClP 1) Methylphenylchlorphosphin. Sm. 160° (B. 10, 814). — IV, 1653.
- $C_7H_5Br_2S$ 1) P-Dibrom-2-Propylthiophen. Sd. 248° (B. 20, 1741). — III, 747.
- C_7H_5ON C 68,3 — H 7,3 — O 13,0 — N 11,4 — M. G. 123.
1) 2-Amido-1-Oxymethylbenzol (2-Amidophenyl-Methylalkohol). Sm. 82°; Sd. 270–280°. HCl, H₂SO₄, Oxalat, Pikrat (B. 15, 2109; 25, 2968; 27, 1084). — II, 1061.
2) 3-Amido-1-Oxymethylbenzol. Sm. 97° (B. 30, 1065).
3) 4-Amido-1-Oxymethylbenzol. Sm. 65° (63–64°) (B. 28, 880; A. 305, 119). — II, 1062.
4) 3-Amido-2-Oxy-1-Methylbenzol (B. 14, 570). — II, 741.
5) 4-Amido-2-Oxy-1-Methylbenzol. Sm. 159–161° (B. 15, 2832, 2981; 17, 270). — II, 741.
6) 5-Amido-2-Oxy-1-Methylbenzol. Sm. 174–175° (172–173°). HCl (B. 15, 2979; 17, 365, 371; 27, 194, 1930). — II, 741.
7) 6-Amido-2-Oxy-1-Methylbenzol. Sm. 124–128°. HCl (B. 17, 1962). — II, 741.
8) 5-Amido-3-Oxy-1-Methylbenzol. HCl (B. 15, 2987).
9) 6-Amido-3-Oxy-1-Methylbenzol. Sm. 174° u. Zers. HCl (B. 17, 367; 27, 194, 1930; A. 259, 217). — II, 746.
10) 2-Amido-4-Oxy-1-Methylbenzol. Sm. 144,5°. HCl (B. 15, 300, 2834; 17, 610; A. 215, 91). — II, 752.
11) 3-Amido-4-Oxy-1-Methylbenzol. Sm. 135°. HCl (B. 7, 1270; 17, 360). — II, 753.
12) 2-Oxy-1-Amidomethylbenzol. Sm. 129° (B. 23, 2744, 3017). — II, 741.
13) 4-Oxy-1-Amidomethylbenzol. Sm. oberhalb 95° u. Zers. HCl, (2HCl, PtCl₄ + 2H₂O) (B. 22, 2243). — II, 754.
14) 2-Methylamido-1-Oxybenzol. Sm. 80° u. Zers. (J. pr. [2] 42, 453; Am. 20, 561). — II, 702.
15) 4-Methylamido-1-Oxybenzol (Metol). Sm. 85°. H₂SO₄ (C. 1897 [1] 833).
16) Methyläther d. 2-Amido-1-Oxybenzol. Sd. 218°_{155,5}. HCl, (2HCl, PtCl₄), HBr, HJ, H₂SO₄, Oxalat, Pikrat (Z. 1867, 205, 618; A. 207, 239; B. 15, 1684; J. pr. [2] 29, 288; G. 17, 492). — II, 702.
17) Methyläther d. 3-Amido-1-Oxybenzol. Sd. 251°. HCl (B. 16, 614, 1139; G. 17, 492). — II, 714.
18) Methyläther d. 4-Amido-1-Oxybenzol. Sm. 52° (55,5–56,5°); Sd. 239,5°₁₅₅. HCl, (2HCl, PtCl₄) (Z. 1867, 205; A. 74, 300; 175, 324; G. 17, 492; B. 7, 1009). — II, 716.
19) 2-Methylphenylhydroxylamin. Fl. (B. 28, 248; Bl. [3] 11, 1042; C. 1898 [2] 635).
20) 3-Methylphenylhydroxylamin. Sm. 68° (B. 28, 248).
21) 4-Methylphenylhydroxylamin. Sm. 93,5–94° (92–93°). HCl (B. 28, 245, 1221; Bl. [3] 11, 1040).
22) Benzylhydroxylamin. Sm. 57°. HCl, Tartrat, Bitartrat (B. 22, 438, 1533; 30, 1894; A. 257, 213; 263, 184; 298, 200). — II, 533.
23) Hydroxylaminbenzyläther. Sd. 123°₅₀. HCl (B. 16, 175; 22, 515; 26, 2155; A. 257, 207). — II, 532.
24) isom. 3-Oximidomethyl-1,2-Dihydrobenzol. Sm. 43–44° (B. 23, 2884). — III, 1.
25) 3-Oximidomethyl-1,2-Dihydrobenzol. Fl. (B. 23, 2884). — III, 1.
26) 1-Propionylpyrrol. Sd. 192–194° (B. 20, 1760). — IV, 67.
27) β -Propionylpyrrol. Sm. 52°; Sd. 222–225°. Ag (B. 20, 1761). — IV, 99.

- C₇H₉ON**
- 28) 2-Acetyl-1-Methylpyrrol. Sd. 200—202° (B. 17, 2952). — IV, 99.
 29) 1-Acetyl-2-Methylpyrrol. Sm. 197° (B. 19, 1409; 22, 1919). — IV, 69.
 30) 5-Acetyl-2-Methylpyrrol. Sm. 85—86°; Sd. 240°. Ag, (HCl, AuCl₃) (B. 19, 1409; G. 23 [2] 310). — IV, 99.
 31) Pyridinhydroxyäthylenammonium. 2 Chlorid + PtCl₄ (G. 15, 331; M. 15, 668). — IV, 110.
 32) Pyridinvinylammoniumhydrat (G. 15, 333). — IV, 111.
 33) 2-[β-Oxyäthyl]pyridin. Sd. 118—121°₁₅. (2HCl, PtCl₄), (HCl, AuCl₃) (B. 22, 2583; 24, 1620; A. 301, 124). — IV, 131.
 34) 3-[β-Oxyäthyl]pyridin. Fl. 2 + PtCl₄ (Bl. 48, 230). — IV, 132.
 35) Aethyläther d. 2-Oxypyridin. Sd. 155—156° (B. 24, 3148). — IV, 115.
 36) Aethyläther d. 3-Oxypyridin. Fl. (2HCl, PtCl₄) (B. 17, 1897; M. 6, 664). — IV, 116.
 37) 2-Keto-1-Aethyl-1,2-Dihydropyridin. Sd. 246—248° (249—250°). HCl, (2HCl, PtCl₄) (B. 24, 3147; J. pr. [2] 47, 30). — IV, 116.
 38) 2-Keto-4,6-Dimethyl-1,2-Dihydropyridin. Sm. 180°; Sd. 303—305°. K, HCl + 2H₂O, (2HCl, PtCl₄) (B. 17, 2904; 20, 446; A. 259, 169; 261, 205; Soc. 71, 307). — IV, 128.
 39) 4-Keto-2,6-Dimethyl-1,4-Dihydropyridin + 3H₂O. Sm. 225° (wasserfrei); Sd. 349—351°. (2HCl, PtCl₄), HNO₃, H₂Cr₂O₇, Pikrat (B. 18, 452; 20, 156; A. 257, 279; Soc. 59, 177; 73, 237). — IV, 130.
 40) Base (aus d-Lupatin) (C. 1897 [1] 1233; 1897 [2] 314; G. 27 [2] 192).
 41) Nitril d. 1-Oxy-5-Methyl-2,3-Dihydro-R-Penten-1-Carbonsäure. Sm. 49°; Sd. 240° (B. 27, 1540).
 42) Amid d. 1,2-Dihydrobenzol-3-Carbonsäure. Sm. 105° (B. 26, 455). — II, 1131.
 43) Amid d. 1,2-Dihydrobenzol-2-Carbonsäure. Sm. 152—153° (B. 24, 177). — II, 1131.
- C₇H₉ON₃**
- C 55,6 — H 6,0 — O 10,6 — N 27,8 — M. G. 151.
 1) Phenylamidoharnstoff (Phenylsemicarbazid). Sm. 172° (A. 190, 113; B. 20, 2359; 21, 1224; 26, 2613; G. 16, 202; H. 22, 534; Soc. 53, 551). — IV, 672.
 2) 3-Amidophenylharnstoff. HCl (A. 293, 384). — IV, 575.
 3) 4-Amidophenylharnstoff. Sm. 129—130°. HCl (B. 27, 400; A. 293, 375). — IV, 590.
 4) 2-Amidobenzenylamidoxim. Sm. 84—85°. 2HCl, Pikrat (B. 29, 625). — IV, 1138.
 5) 3-Amidobenzenylamidoxim. Fl. 2HCl (B. 18, 2472). — II, 1257.
 6) 4-Amidobenzenylamidoxim. Sm. 174° u. Zers. HCl (B. 22, 2428). — II, 1273.
 7) 1-Methyloxamidodiazobenzol (Phenylazohydroxymethylamid). Sm. 69 bis 70°. Cu (B. 30, 2283). — IV, 1583.
 8) Amid d. 3,5-Diamidobenzol-1-Carbonsäure. 2HCl, Pikrat (Z. 1870, 642). — II, 1276.
 9) Amid d. Phenylhydrazin-3-Carbonsäure. HCl (A. 251, 166). — II, 1288.
 10) Hydrazid d. Phenylamidoameisensäure. Sm. 122°. HCl, 2HCl, Na (J. pr. [2] 53, 526; [2] 58, 219).
 11) Hydrazid d. 2-Amidobenzol-1-Carbonsäure. Sm. 121° (J. pr. [2] 48, 93). — II, 1247.
 12) Hydrazid d. 3-Amidobenzol-1-Carbonsäure. Sm. 77°. 2HCl (J. pr. [2] 52, 241).
- C₈H₉ON₃**
- C 46,9 — H 5,0 — O 8,9 — N 39,1 — M. G. 179.
 1) Aethylguanin. Sm. noch nicht bei 280° (H. 17, 494). — III, 966.
 2) 2-Amido-6-Keto-1,7-Dimethylpurin + 2H₂O (1,7-Dimethylguanin). Sm. 338—340° (B. 30, 2413; 31, 544, 3270; 32, 481). — IV, 1323.
 3) 6-Amido-2-Keto-3,7-Dimethylpurin + 3H₂O. Sm. bei 380° (B. 30, 1843; 32, 481). — IV, 1323.
- C₇H₇O₂N**
- C 60,4 — H 6,5 — O 23,0 — N 10,1 — M. G. 139.
 1) 2-Amido-3,5-Dioxy-1-Methylbenzol. HCl + 2H₂O (B. 29, 992; M. 18, 164; 19, 483).
 2) 1-Methyläther d. 3-Amido-1,2-Dioxybenzol. HCl (Soc. 73, 690).
 3) 2-Methyläther d. 4-Amido-1,2-Dioxybenzol. Sm. 176—177° u. Zers. HCl (B. 30, 2447; M. 18, 474).

$C_7H_5O_2N$

- 4) Monomethyläther d. 4-Amido-1,3-Dioxybenzol. Sm. 137—138° (B. 22, 2382). — II, 928.
- 5) Aethyläther d. 2-Imidooxymethylfuran (Furfurimidoäthyläther). Sd. 180—181°. HCl (B. 25, 1416). — III, 699.
- 6) Aethyläther d. syn-2-Oximidomethylfuran (Ac. d. syn-Furfuraldoxim). Fl. (B. 16, 2990). — III, 725.
- 7) 4-Keto-3-Methyl-4-Isopropyliden-4,5-Dihydroisoxazol. Sm. 120 bis 121° (B. 30, 1340).
- 8) 2,6-Dioxy-3-Aethylpyridin. Sm. 175—176° (Soc. 63, 882). — IV, 132.
- 9) 6-Oxy-2-Keto-1-Aethyl-1,2-Dihydropyridin. Sm. 141°. HCl (A. 285, 69, 86). — IV, 119.
- 10) 3-Oxy-4-Keto-1-Aethyl-1,4-Dihydropyridin (Aethylpyromekonaminsäure). Sm. 166°. HCl (J. pr. [2] 32, 183). — IV, 119.
- 11) Monäthyläther d. 3,5-Dioxyppyridin. Sm. 127—128°. (2HCl, PtCl₄), HNO₃ (M. 6, 659). — IV, 118.
- 12) 1-Aethylpyrrol-2-Carbonsäure. Sm. 78°. Ag (B. 10, 1864). — IV, 80.
- 13) 2,4-Dimethylpyrrol-3-Carbonsäure. Sm. 183° (G. 22 [2] 12; A. 236, 326). — IV, 85.
- 14) 2,4-Dimethylpyrrol-5-Carbonsäure. Sm. 137° u. Zers. (B. 21, 38; G. 22 [2] 12). — IV, 86.
- 15) 2,5-Dimethylpyrrol-3-Carbonsäure. Zers. bei 210—213°. Ag (B. 18 1565; 23, 1474; G. 22 [2] 12). — IV, 86.
- 16) Nitrilsäure (aus Cyaneessigsäure u. Isobuttersäurealdehyd). Sm. 87—88°. Ca, Ag (M. 17, 219).
- 17) Aethylester d. Pyrrol-1-Carbonsäure (Tetrolurethan). Sd. 180°₇₇₀ (B. 15, 943, 2579). — IV, 67.
- 18) Aethylester d. Pyrrol-2-Carbonsäure. Sm. 39°; Sd. 230—232° (B. 17, 1152). — IV, 80.
- 19) Aethylester d. β -Cyancrotonsäure. Sm. 70—71° (B. 18, 2846). — I, 1221.
- 20) Amid d. Furan-2-[Aethyl- β -Carbonsäure] (A. d. Furfurpropionsäure). Sm. 98°; Sd. 270° (B. 20, 2812). — III, 709.
- 21) Aethylamid d. Furan-2-Carbonsäure. Sd. 258° (cor.) (A. 214, 229; B. 14, 752). — III, 698.
- 22) Imid d. cis-R-Pentamethylen-1,3-Dicarbonsäure. Sm. 154—155° (B. 31, 1957).
- 23) Allylimid d. Aethan- $\alpha\beta$ -Dicarbonsäure (Allylimid d. Bernsteinsäure). Sd. 244—245°₇₃₀ (J. 1886, 558; B. 26, 2850). — I, 1381.
- 24) Acetat d. α -Benzaldoxim. Sm. 14—16° (B. 27 [2] 600).
- 25) Verbindung (aus Ammoniak u. 2-Oxybenzolcarbonsäurealdehyd). Sm. 30° (B. 10, 1270). — III, 71.
- 26) Verbindung (aus Ammoniak u. 4-Oxybenzol-1-Carbonsäurealdehyd) (B. 10, 1270). — III, 84.

 $C_7H_5O_2N_3$

- C 50,3 — H 5,4 — O 19,2 — N 25,1 — M. G. 167.
- 1) 6-Nitro-2,4-Diamido-1-Methylbenzol. Sm. 132° (B. 3, 218). — IV, 601.
 - 2) p-Nitro-2,4-Diamido-1-Methylbenzol. Sm. 154°. (2HCl, PtCl₄) (B. 3, 219; 8, 1211; 14, 2657). — IV, 601.
 - 3) 4-Nitro-2-Amido-1-Methylamidobenzol. Sm. 177—178° (J. pr. [2] 46, 573; B. 28, 1708). — IV, 555.
 - 4) 2-Nitro-4-Amido-1-Methylamidobenzol. Sm. 109—110° (B. 28, 1708). — IV, 581.
 - 5) p-Diimido-p-Amido-3,5-Dioxy-1-Methylbenzol. HCl + H₂O, H₂SO₄ + 2H₂O, Oxalat, Pikrat (A. 167, 167). — II, 965.
 - 6) Triamido-2-Methyl-1,4-Benzochinon? (B. 26, 2307). — IV, 1317.
 - 7) 4-Nitro-2-Methylphenylhydrazin. Sm. 179—180° (B. 30, 516). — IV, 801.
 - 8) 2,3-Anhydro-2,3,4-Trioximido-1-Methylhexahydrobenzol. Sm. 128 bis 129° (B. 29, 1084).
 - 9) 2,3,5-Triamidobenzol-1-Carbonsäure. H₂SO₄ (B. 15, 2200). — II, 1277.
 - 10) 3,4,5-Triamidobenzol-1-Carbonsäure + $\frac{1}{2}$ H₂O. Ca, Zn + 6H₂O, 2HCl + $\frac{1}{2}$ H₂O, (2HCl, SnCl₂ + $3\frac{1}{2}$ H₂O), 2HNO₃, H₂SO₄ + H₂O (A. 163, 13). — II, 1277.
 - 11) Amid d. 6-Oxy-4-Methyl-1,3-Diazin-2-Methylcarbonsäure. Sm. 250° u. Zers. (B. 28, 479). — IV, 835.

- $C_7H_5O_2N$, C 43,1 — H 4,6 — O 16,4 — N 35,9 — M. G. 195.
 1) Di[Acetylamido]cyanurwasserstoff (B. 32, 695).
 2) **6-Amido-2,8-Diketo-3,7-Dimethylpurin** (B. 30, 1840; 32, 483). — IV, 1324.
 3) Amidotheobromin. Sm. oberh. 270° (B. 30, 2586).
- $C_7H_5O_2Cl$ 1) Dimethylpyronhydrochlorid + 2H₂O. Sm. 83—85° (154° wasserfrei) (B. 25, 1068; Soc. 59, 620). — I, 1022.
- $C_7H_5O_2Cl_3$ 1) **2-Pentachlorhexan-2-Carbonsäure** (Bl. 49, 71). — I, 476.
- $C_7H_5O_2Br$ 1) **1,3-Inn. Anhydrid d. 2-Brom-3-Oxyhexahydrobenzol-1-Carbonsäure**. Sm. 67° (A. 271, 249). — II, 1484.
- $C_7H_5O_2P$ 1) Methylphenylphosphinsäure. Sm. 133°. Ag (A. 293, 220; B. 31, 1044). — IV, 1653.
 2) **2-Methylphenylphosphinige Säure**. Fl. Ca + H₂O (A. 212, 223; 293, 293). — IV, 1667.
 3) **3-Methylphenylphosphinige Säure**. Fl. NH₄, K, Ba, Phenylhydrazinsalz (A. 293, 304). — IV, 1668.
 4) **4-Methylphenylphosphinige Säure**. Sm. 104—105°. NH₄, K, Ba + H₂O, Pb, Cu + 4H₂O, Phenylhydrazinsalz (A. 212, 218; 270, 134). — IV, 1668.
 5) **Benzylphosphinige Säure**. Fl. Mg + 5H₂O, Ca + H₂O, Ba + 4H₂O, Zn, Cd, Pb + H₂O. — IV, 1663.
- $C_7H_5O_2B$ 1) **2-Methylphenylborsäure**. Sm. 160—161° (B. 27, 248). — IV, 1700.
 2) **4-Methylphenylborsäure**. Sm. 240° (B. 15, 185). — IV, 1700.
- $C_7H_5O_2N$ C 54,2 — H 5,8 — O 31,0 — N 9,0 — M. G. 155.
 1) **1-Oxy-2,5-Dimethylpyrrol-3-Carbonsäure**. Zers. bei 138° (A. 236, 300). — IV, 88.
 2) **Methylester d. α-Cyan-β-Ketobutan-α-Carbonsäure** (M. d. Propionylcyanessigsäure). Sm. 39—40°; Sd. 130°₄₃ (Bl. [3] 13, 1034).
 3) **Methylester d. δ-Cyan-β-Ketobutan-δ-Carbonsäure**. Sd. 159—166°₂₆ (C. 1895 [2] 918).
 4) **Aethylester d. α-Cyan-β-Ketopropan-α-Carbonsäure** (Ae. d. Acetylcyanessigsäure). Sm. 26°; Sd. 119°₁₅₋₂₀. NH₄, Na, K, Ca + 3H₂O, Ba + 2H₂O, Pb + 2H₂O, Ag (A. ch. [6] 17, 204; A. 240, 61; 278, 64, 83; C. 1899 [1] 185). — I, 1222.
 5) **Aethylester d. γ-Cyan-β-Ketopropan-α-Carbonsäure** (Ae. d. Cyanacetylessigsäure). Sd. 135—138°₄₀₋₅₅ (A. ch. [6] 23, 160; A. 278, 64, 69, 83). — I, 1222.
 6) **Aethylester d. 2-Furanylamidoameisensäure**. Fl. (Bl. [3] 17, 424).
 7) **Imid d. γ-Ketopentan-α-Dicarbonsäure** (I. d. Hydrochelidonsäure). Sm. 117° (A. 267, 57). — I, 1397.
 8) **Ketolaktonimid d. β-Acetylpropan-αγ-Dicarbonsäure** (K. d. β-Acetylglutarsäure). Sm. 144—145° (A. 295, 112).
- $C_7H_5O_2N$, C 45,9 — H 4,9 — O 26,2 — N 23,0 — M. G. 183.
 1) Hypoäthyltheobromin. Sm. 142° (A. 215, 308). — III, 956.
 2) **5-Acetylamido-2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin** + 1½ H₂O (Acetylamidomethyluracil). Zers. bei 200—220° (A. 231, 253). — I, 1351.
- $C_7H_5O_2Cl$ 1) **α-Chlor-β-Oxy-β-Methylbuttersäure**. Ca + 2H₂O, Ba + 2H₂O, Cd, Zn, Cu (A. 292, 275).
- $C_7H_5O_2Cl_3$ 1) **ηηγ-Trichlor-δ'-Dioxy-β-Keto-γ-Hepten** (Acetylacetonchloral). Sm. 78 bis 79° (G. 28 [2] 84).
 2) **Monacetat d. βββ-Trichlor-αα-Dioxyäthanmonoallyläther**. Sd. 105 bis 107° (G. 14, 131. — I, 933).
 3) **ββγ-Trichlorbutylidenester d. α-Oxypropionsäure** (Milchsäurebutyrchloralid). Sd. 260—262° u. geringer Zers. (A. 193, 47). — I, 945.
- $C_7H_5O_2P$ 1) **2-Methylphenylphosphinsäure**. Sm. 141°. NH₄, Ba + H₂O, Pb, Cu, Ag₂ (A. 212, 232; 293, 293). — IV, 1668.
 2) **3-Methylphenylphosphinsäure**. Sm. 116—117°. K, Ba, Ag, Ag₂ (A. 293, 305). — IV, 1668.
 3) **4-Methylphenylphosphinsäure**. Sm. 189°. KH, Ca, Ba, Ag, Ag₂ (A. 212, 224; 293, 266). — IV, 1668.
 4) **Benzylphosphinsäure**. Sm. 166°. K₂, Mg + H₂O, Ca + H₂O, Ba + 2H₂O, Zn + H₂O, Cd + H₂O, Pb + H₂O, Cu + H₂O, Ag₂ (B. 22, 2144). — IV, 1663.

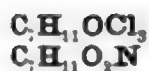
- $C_7H_9O_3P$ 5) α -Oxybenzylphosphinige Säure. Ba + $\frac{1}{2}H_2O$. — IV, 1663.
6) 4-Methoxyphenylphosphinige Säure. Sm. 112°. Pb, Phenylhydrazinsalz (A. 293, 250). — IV, 1650.
- $C_7H_9O_3As$ 1) 2-Methylphenylarsinsäure. Sm. 159–160°. Ca, Ba, Ag₂ (A. 201, 255). — IV, 1691.
2) 4-Methylphenylarsinsäure. Zers. oberh. 300°. K, Ca, Ba, Pb, Cu, Ag₂ (A. 201, 256). — IV, 1692.
- $C_7H_9O_3B$ 1) 2-Methoxyphenylborsäure. Sm. 165° (B. 27, 258). — IV, 1700.
2) 4-Methoxyphenylborsäure. Sm. 201–203° (B. 27, 255). — IV, 1700.
- $C_7H_9O_3Sb$ 1) 4-Methylphenylstibinsäure (B. 31, 2914). — IV, 1696.
- $C_7H_9O_4N$ C 49,1 — H 5,3 — O 37,4 — N 8,2 — M. G. 171.
1) γ -Acetoximido- α -Buten- α -Carbonsäure (Acetat d. stabil. Oxim d. β -Acetylakrylsäure). Sm. 155° (B. 25, 2207). — I, 618.
2) isom. γ -Acetoximido- α -Buten- α -Carbonsäure (Acetat d. labil. Oxim d. β -Acetylakrylsäure). Sm. 143° (B. 25, 2207). — I, 618.
3) Dimethylester d. α -Cyanäthan- $\alpha\beta$ -Dicarbonsäure (D. d. Cyanbernsteinsäure). Sd. 196–204°, (A. ch. [6] 27, 263). — I, 1224.
4) Aethylester d. 5-Keto-2-Methyl-2,5-Dihydroisoxazol-4-Carbonsäure. Sm. 96–97° (A. 297, 84; B. 30, 1086).
C 42,2 — H 4,5 — O 32,2 — N 21,1 — M. G. 190.
- $C_7H_9O_4N_3$ 1) 5-Nitro-2,4-Diketo-1-Methyl-3-Aethyl-1,2,3,4-Tetrahydro-1,3-Diazin + H_2O (Nitro- α -Methyl- β -Aethyluracil). Sm. 73° (A. 253, 86). — I, 1346.
2) 5-Nitro-2,4-Diketo-3-Methyl-1-Aethyl-1,2,3,4-Tetrahydro-1,3-Diazin + H_2O (Nitro- β -Methyl- α -Aethyluracil). Sm. 109° (A. 253, 86). — I, 1347.
3) Aethylester d. 5-Amido-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Diazin-6-Carbonsäure (Ac. d. Amidouracilcarbonsäure). Sm. 260° u. Zers. (A. 236, 45). — I, 1353.
4) $\alpha\beta$ -Imid- $\alpha\gamma$ -Diamid d. Propan- $\alpha\alpha\beta\gamma$ -Tetracarbonsäure. Sm. 237 bis 238° (Soc. 73, 1008).
C 37,0 — H 3,9 — O 28,2 — N 30,8 — M. G. 227.
- $C_7H_9O_4N_5$ 1) Anhydrodimethylalloxansemicarbazid. Zers. oberh. 190° (B. 30, 134).
- $C_7H_9O_4Cl$ 1) $\beta\delta$ -Lakton d. γ -Chlor- β -Oxy- β -Methylbutan- $\gamma\delta$ -Dicarbonsäure (β -Chlorterebinsäure). Sm. 168° u. Zers. (B. 15, 296; A. 220, 259; 226, 368). — I, 755.
2) $\beta\delta$ -Lakton d. δ -Chlor- β -Oxy- β -Methylbutan- $\gamma\delta$ -Dicarbonsäure (α -Chlorterebinsäure). Sm. 191° u. Zers. Ca + $2H_2O$, Pb + $3H_2O$ (B. 6, 1097; 15, 296; A. 220, 259). — I, 754.
- $C_7H_9O_4Cl_3$ 1) $\beta\gamma\gamma$ -Trichlor- α -Acetoxylvaleriansäure (Acetyltrichlorvalerolaktinsäure) + H_2O . Sm. 84° (B. 11, 1492). — I, 566.
- $C_7H_9O_4Br$ 1) $\beta\delta$ -Lakton d. δ -Brom- β -Oxypentan- $\beta\delta$ -Dicarbonsäure (Lakton d. α -Brom- γ -Oxydimethylglutarsäure). Sm. 197° (B. 25, 3240).
2) isom. $\beta\delta$ -Lakton d. δ -Brom- β -Oxypentan- $\beta\delta$ -Dicarbonsäure (isom. Lakton d. α -Brom- γ -Oxydimethylglutarsäure). Sm. 112° (B. 25, 3241).
3) $\alpha\gamma$ -Lakton d. β -Brom- α -Oxy- β -Methylbutan- $\gamma\delta$ -Dicarbonsäure (Bromisoterebinsäure). Sm. 130–131° (A. 304, 222).
4) $\beta\delta$ -Lakton d. γ -Brom- β -Oxy- β -Methylbutan- $\gamma\delta$ -Dicarbonsäure (β -Bromterebinsäure). Sm. 151° u. Zers. (A. 226, 336). — I, 755.
- $C_7H_9O_4P$ 1) 4-Methylphenylphosphorsäure. Sm. 116° (A. 224, 169). — II, 749.
2) α -Oxybenzylphosphinsäure. Sm. 173°. Ba, BaH (M. 7, 34). — IV, 1664.
3) 4-Methoxyphenylphosphinsäure. Sm. 158°. K + H_2O , Ba, Pb, Fe₂ + $3H_2O$, Ni, Cu, Ag₂, Phenylhydrazinsalz (A. 293, 251). — IV, 1653.
4) $\alpha,2$ -Dioxybenzylphosphinige Säure (A. ch. [6] 23, 341). — IV, 1673.
- $C_7H_9O_4As$ 1) 4-Methoxyphenylarsinsäure. Sm. 159–160°. Ag₂ (B. 20, 51). — IV, 1686.
- $C_7H_9O_5N_3$ C 39,1 — H 4,2 — O 37,2 — N 19,5 — M. G. 215.
1) Aethylester d. Cyanuroessigsäure. Sm. 208° (J. pr. [2] 42, 492). — I, 1446.
- $C_7H_9O_5Cl$ 1) Chlordiaterebinsäure. Ba (B. 6, 1097; A. 220, 259).
- $C_7H_9O_5Cl_3$ 1) α -Arabinochloral. Sm. 124° (C. 1895 [1] 478).
2) β -Arabinochloral. Sm. 183° (C. 1895 [1] 478).
3) Xylochloral. Sm. 132° (C. 1895 [1] 478).

- $C_7H_5O_3Br$ 1) Verbindung (aus Dibromhydroshikiminsäure). Sm. 235° u. Zers. (B. 24, 1292). — I, 755.
- $C_7H_5O_5N$ C 41,4 — H 4,4 — O 47,3 — N 6,9 — M. G. 203.
- $C_7H_5O_5Cl_3$ 1) α -Acetoximidopropionoxyleessigsäure. Sm. 105° (A. 288, 34).
- 1) Chloralsäure. Sm. 212° (Bl. [3] 11, 39).
- 2) Parachloralsäure + $2H_2O$. Sm. 202° (Bl. [3] 11, 41).
- $C_7H_5O_5N_2$ C 15,9 — H 1,7 — O 63,8 — N 18,6 — M. G. 527.
- 1) Heptanitrat d. Perseit. Sm. 138° (A. ch. [6] 19, 15). — I, 328.
- $C_7H_5NJ_2$ 1) β -Jodäthyljodid d. Pyridin (G. 15, 332). — IV, 110.
- C_7H_5NS 1) 4-Amido-2-Merkapto-1-Methylbenzol. Sm. 42°. HCl (B. 14, 488). — II, 820.
- 2) 4-Amido-3-Merkapto-1-Methylbenzol. Fl. HCl (B. 14, 492). — II, 820.
- 3) 2-Amido-4-Merkapto-1-Methylbenzol. Fl. HCl (B. 14, 490). — II, 822.
- 4) 2-Amido-1-Merkaptomethylbenzol. HCl (B. 28, 1026).
- 5) 3-Amido-1-Merkaptomethylbenzol. HCl (B. 30, 1069).
- 6) 2-Methylamido-1-Merkaptobenzol. Fl. (B. 27, 867).
- 7) Methyläther d. 2-Amido-1-Merkaptobenzol. Sd. 234° u. Zers. (B. 20, 1793). — II, 795.
- 8) 4-Thiocarbonyl-2,6-Dimethyl-1,4-Dihydropyridin (Thiolutidon). Sm. 210–215° (B. 20, 2113). — IV, 131.
- $C_7H_5N_2Cl$ 1) 2-Chlor-3,5-Diamido-1-Methylbenzol. Sm. 73° (B. 25, 3006). — IV, 625.
- $C_7H_5N_2Br$ 1) 5-Brom-2,3-Diamido-1-Methylbenzol. Sm. 59°. HCl, H_2SO_4 (B. 17, 776). — IV, 600.
- 2) p-Brom-2,4-Diamido-1-Methylbenzol. Sm. 107°. $2HCl$, $2HNO_3$, H_2SO_4 . Oxalat (A. 177, 262). — IV, 601.
- 3) p-Brom-2,4-Diamido-1-Methylbenzol. Sm. 104° (B. 3, 220; 14, 2659; A. 153, 134). — IV, 601.
- 4) 5-Brom-3,4-Diamido-1-Methylbenzol. Sm. 81–82° (B. 23, 1045). — IV, 611.
- 5) 4-Brom-2-Methylphenylhydrazin. Sm. 104°. HCl (B. 26, 2193). — IV, 801.
- 6) 2-Brom-4-Methylphenylhydrazin. Sm. 91°. HCl, HNO_3 , H_2SO_4 . Oxalat (Soc. 73, 175). — IV, 804.
- 7) p-Brom-4-Methylphenylhydrazin. Sm. 94,5–95° (B. 26, 2194). — IV, 804.
- 8) 3-Brom-4-Amido-2,6-Dimethylpyridin + H_2O . Sm. 89° (129° wasserfrei). HCl, ($2HCl$, $PtCl_4$), Pikrat (B. 27, 1331). — IV, 824.
- $C_7H_5N_2Br_3$ 1) p-Tribrom-2-Isobutylimidazol. Sm. 216–217° (B. 17, 1293). — IV, 529.
- $C_7H_5N_2S$ 1) Phenylamidothioharnstoff. Sm. 200–201° u. Zers. (A. 212, 324; Soc. 53, 552; G. 18, 203; B. 29, 2151). — IV, 677.
- 2) β -Amido- α -Phenylthioharnstoff. Sm. 140° (B. 26, 2812; 27, 616). — II, 401.
- $C_7H_5N_2J$ 1) Jodmethylat d. 7-Methylpurin. Sm. 225–226° (231–232° cor.) (B. 31, 2560).
- C_7H_5BrS 1) p-Brom-2-Propylthiophen. Sd. 189° (B. 20, 1741). — III, 746.
- C_7H_5JS 1) p-Jod-2-Propylthiophen. Fl. (B. 20, 1743). — III, 747.
- 2) 5-Jod-2,3,4-Trimethylthiophen. Fl. (B. 21, 1837). — III, 747.
- $C_7H_5ON_2$ C 60,9 — H 7,2 — O 11,6 — N 20,3 — M. G. 138.
- 1) 4,6-Diamido-3-Oxy-1-Methylbenzol. Sm. 170° u. Zers. (B. 26, 1849). — II, 747.
- 2) 3,5-Diamido-2-Oxy-1-Methylbenzol. $2HCl$ (Bl. [3] 17, 206).
- 3) p-Diamido-p-Oxy-1-Methylbenzol. H_2SO_4 + H_2O (A. 229, 349). — II, 756.
- 4) Methyläther d. 2-Oxyphenylhydrazin. Sm. 43°; Sd. 240°. HCl, Oxalat, Pikrat (A. 221, 318). — IV, 814.
- 5) Methyläther d. 4-Oxyphenylhydrazin. Sm. 65° (B. 25, 1849). — IV, 815.
- 6) 5-Keto-4-Allyl-3-Methyl-4,5-Dihydropyrazol. Sm. 195° (J. pr. [2] 51, 60). — IV, 825.
- 7) 5-Amido-6-Oxy-2,4-Dimethylpyridin. Sm. 205°. HCl, ($2HCl$, $PtCl_4$) (Soc. 73, 232). — IV, 825.
- 8) 3-Amido-4-Oxy-2,6-Dimethylpyridin + H_2O . HCl, $2HCl$ + $2H_2O$, ($2HCl$, $PtCl_4$ + $2H_2O$) (Soc. 73, 238). — IV, 825.

- $C_7H_{10}ON_2$ 9) **6-Oxy-4-Methyl-2-Aethyl-1,3-Diazin**. Sm. 160°. HCl, (2HCl, PtCl₂) (PINNER, Imidoäther 222). — IV, 825.
 10) **6-Oxy-2,4,5-Trimethyl-1,3-Diazin**. Sm. 176° (PINNER, Imidoäther 220). — IV, 825.
 11) **Nitril d. Hexahydropyridin-1-Ketocarbonsäure** (Piperidyloxamid-säurenitril). Sd. 264° (A. 237, 247). — IV, 15.
 12) **Methylamid d. 1-Methylpyrrol-2-Carbonsäure**. Sm. 89–90° (B. 10, 1866; 11, 1814). — IV, 80.
 $C_7H_{10}ON_4$ C 50,6 — H 6,0 — O 9,6 — N 33,7 — M. G. 166.
 1) **4-Oxyphenylamidoguanidin**. HCl (A. 302, 318). — IV, 1223.
 $C_7H_{10}OBr_2$ 1) **1,2-Dibrom-3-Keto-1-Methylhexahydrobenzol**. Fl. (A. 281, 98). — III, 111.
 $C_7H_{10}O_2N_2$ C 54,5 — H 6,5 — O 20,8 — N 18,2 — M. G. 154.
 1) **4,6-Diamido-2,5-Dioxy-1-Methylbenzol**. HCl + H₂O (J. pr. [2] 39, 389). — II, 957.
 2) **1-Methyläther d. 3,5-Diamido-1,2-Dioxybenzol** (2HCl, SnCl₂ + H₂O) (M. 3, 829; 18, 490). — II, 912.
 3) **Nitrosonortropinon**. Sm. 127° (B. 29, 1583). — III, 791.
 4) **2,4-Diketo-6-Methyl-3-Aethyl-1,2,3,4-Tetrahydro-1,3-Diazin?** (Methyläthyluracil). Sm. 195°. Ag (A. 244, 8; 253, 68). — I, 1351.
 5) **2,4-Diketo-1,3,6-Trimethyl-1,2,3,4-Tetrahydro-1,3-Diazin** (Trimethyluracil). Sm. 109° (A. 231, 256; 244, 2; 253, 73). — I, 1350.
 6) **Nitrososcopoligenin**. Sm. 174–175° (C. 1896 [1] 1200).
 7) **Anhydroverbindung d. β,γ-Dioximido-δ-Ketoheptan**. Sm. 242,5° u. Zers. (B. 28, 1821).
 8) **Aethylester d. β-Amido-α-Cyanpropen-α-Carbonsäure** (Ac. d. β-Amido-α-Cyancrotonsäure). Sm. 188° (A. ch. [6] 18, 486; Bl. [3] 15, 342). — I, 1223.
 9) **Aethylester d. 3-Methylpyrazol-5-Carbonsäure**. Sm. 82–83° (A. 279, 219). — IV, 538.
 10) **Imid d. γ-Imidopentan-αε-Dicarbonsäure**. Sm. 292°; subl. bei 250 bis 260° (B. 21, 1403). — I, 1397.
 11) **Ketodiimid d. β-Acetylpropan-αγ-Dicarbonsäure**. Sm. oberh. 275° (A. 295, 113).
 12) **Anhydroverbindung d. γ-Ketopentan-αε-Dicarbonsäurediamid** (Hydrochelidonsäurediimid). Zers. bei 270°. Ag₂ (A. 267, 59). — I, 1397.
 13) **Nitril d. βδ-Dioxyptentan-βδ-Dicarbonsäure** (N. d. Dioxydimethylglutarsäure). Sm. 134–136° u. Zers. (B. 24, 4007). — I, 1481.
 14) **Hydrocyanid d. α-Cyanpropionsäureäthylester**. Sm. 116–117°; Sd. 240° u. Zers. (J. r. 21, 163). — I, 1219.
 15) **Verbindung (aus Cyanessigsäureäthylester u. Aldehydammoniak)** (J. pr. [2] 54, 550).
 $C_7H_{10}O_2Cl_2$ 1) **Chlorid d. β-Methylbutan-αδ-Dicarbonsäure** (Chlorid d. β-Methyladipinsäure). Sd. 117–119°₁₀ (B. 26, 774; Bl. [3] 13, 828).
 2) **Chlorid d. β-Methylbutan-γδ-Dicarbonsäure** (Ch. d. Isopropylbernsteinsäure). Sd. 210° (A. 169, 173). — I, 677.
 $C_7H_{10}O_2Br_2$ 1) **1,2-Dibromhexahydrobenzol-1-Carbonsäure**. Sm. 142° (A. 271, 277). — II, 1126.
 2) **2,3-Dibromhexahydrobenzol-1-Carbonsäure**. Sm. 166° (A. 271, 246). — II, 1126.
 3) **Dibromid d. Säure C₇H₁₀O₂** (aus Carvenolsäure). Sm. 150° u. Zers. (A. 305, 256).
 $C_7H_{10}O_3N_2$ C 49,4 — H 5,9 — O 28,2 — N 16,5 — M. G. 170.
 1) **Aethylsuccinylharnstoff**. Sm. 94–95° (A. 178, 204). — I, 1383.
 2) **α-Carbamido-γ-Keto-β-Aethanoyl-α-Buten**. Sm. 187° u. Zers. (A. 297, 67).
 3) **2,4-Dioximido-3-Keto-1-Methylhexahydrobenzol**. Zers. bei 190° (B. 29, 1083).
 4) **2,4,5-Triketo-1,3-Diäthyltetrahydroimidazol** (Diäthylparabansäure). Sm. 46° (B. 31, 138).
 5) **Nitrososcopoligenin**. Sm. 174–175° (C. 1898 [1] 1196).
 6) **5-Keto-3-Methyl-4,5-Dihydropyrazol-1-[Aethyl-α-Carbonsäure]**. Sm. 215° (B. 29, 674). — IV, 512.
 7) **Aethylester d. 2-Keto-5-Methyl-4,5-Dihydropyrazol-4-Carbonsäure**. Sm. 220–221° (B. 27, 1144).

- C₇H₁₀O₃N₂** 8) Aethylester d. 3-Keto-2,3,4,5-Tetrahydro-1,2-Diazin-5-Carbonsäure. Sm. 171,5—172°. Ag (B. 26, 2062; J. pr. [2] 51, 144). — IV, 540.
9) Verbindung (aus Harnstoff u. Chloracetessigsäureäthylester). Sm. 218° (A. 229, 16). — I, 593.
- C₇H₁₀O₃N₄** C 42,4 — H 5,0 — O 24,2 — N 28,3 — M. G. 198.
1) 5-Harnstoff-2,4-Diketo-1,3-Dimethyl-1,2,3,4-Tetrahydro-1,3-Diazin (Hydroxytheophyllin). Sm. oberh. 290° (B. 29, 1954).
C 37,2 — H 4,4 — O 21,2 — N 37,2 — M. G. 226.
- C₇H₁₀O₃N₆** 1) 5-Triacetylhydrazido-1,2,3,4-Tetrazol. Sm. 192° (A. 287, 235). — IV, 1329.
- C₇H₁₀O₃Cl₂** 1) Aethylester d. ?-Dichlor-β-Ketobutan-γ-Carbonsäure. Sd. 210 bis 220° u. Zers. (A. 234, 191). — I, 601.
2) Akroleinchloracetyl. Sd. 140—145° (A. Spl. 3, 184). — I, 958.
- C₇H₁₀O₃Cl₄** 1) Aethylester d. n-Oxypropion[αβββ-Tetrachloräthyl]äthersäure (J. 1874, 511). — I, 554.
- C₇H₁₀O₄N₂** C 45,1 — H 5,4 — O 34,5 — N 15,0 — M. G. 186.
1) Methylester d. ?-Nitro-?-Tetrahydropyridin-1-Carbonsäure. Sm. 102 bis 103° (B. 16, 647). — IV, 12.
2) Dimethylester d. 4,5-Dihydropyrazol-3,5-Dicarbonsäure. Sm. 94°. Ag, Ag₂ (A. 273, 233). — IV, 494.
3) Dimethylester d. 4,5-Dihydropyrazol-4,5-Dicarbonsäure. Sm. 97° (B. 27, 1890). — IV, 494.
4) Diäthylester d. Cyanimidodiameisensäure (D. d. Cyanamidodikohlensäure). Sm. 32,8° (J. pr. [2] 16, 134). — I, 1439.
5) Diacetat d. αβ-Dioximidopropan (D. d. Methylglyoxim). Sm. 51° (B. 16, 2187). — I, 971.
6) Dioxim d. Hydrochelidonsäure + 2 H₂O? Zers. bei 248—250° (A. 267, 72; J. pr. [2] 44, 119). — I, 767.
7) Verbindung (aus Natriummalonsäurediäthylester u. Essigsäureamid). Na₂ (J. pr. [2] 35, 457).
C 39,2 — H 4,7 — O 29,9 — N 26,2 — M. G. 214.
- C₇H₁₀O₄N₄** 1) 5-Uramido-2,4,6-Triketo-1,3-Dimethylhexahydro-1,3-Diazin (Dimethylpseudoharnsäure). Sm. 210° u. Zers. K + H₂O, Cu + 2 H₂O (B. 27, 3088).
2) Dinitromethan + Phenylhydrazin. Sm. 101° u. Zers. (B. 26, 3007). — IV, 654.
- C₇H₁₀O₄Cl₂** 1) Diäthylester d. Dichlormalonsäure. Sd. 231—234° (B. 24, 2993). — I, 651.
- C₇H₁₀O₄Br₂** 1) βγ-Dibrompentan-αβ-Dicarbonsäure. Sm. 153—154° u. Zers. (A. 304, 190).
2) δε-Dibrompentan-αβ-Dicarbonsäure (Dibrompropylbernsteinsäure) (B. 16, 335).
3) γδ-Dibrompentan-αγ-Dicarbonsäure. Sm. 157—160° (B. 31, 2000).
4) αε-Dibrompentan-αε-Dicarbonsäure. Sm. 140—142° (B. 28, 659).
5) βδ-Dibrompentan-βδ-Dicarbonsäure (s-Dibromdimethylglutarsäure). Sm. 150° u. Zers. (B. 25, 3237).
6) Dibromid d. Dihydropiperylendicarbonsäure. Sm. 130° (B. 31, 1549).
7) Dibromid d. isom. Dihydropiperylendicarbonsäure. Sm. 140° (B. 31, 1550).
8) Aethylester d. αβ-Dibrom-β-Acetoxypropionsäure. Sd. 154°, (B. 25, 1050). — I, 560.
9) Methyläthylester d. αβ-Dibrombernsteinsäure. Sm. 62,5° (B. 15, 1846). — I, 659.
10) Diäthylester d. Dibrommalonsäure. Sd. 245—250° (250—256°) (A. 242, 77; B. 24, 2229, 3001). — I, 652.
C 41,6 — H 4,9 — O 39,6 — N 13,9 — M. G. 202.
- C₇H₁₀O₃N₂** 1) i-cis-1-Nitrosohexahydropyridin-2,3-Dicarbonsäure. Sm. 138—139° u. Zers. (B. 28, 3158; 29, 2662). — IV, 46.
2) l-cis-1-Nitrosohexahydropyridin-2,3-Dicarbonsäure. Sm. 152—153° u. Zers. (B. 29, 2663 Anm.). — IV, 47.
3) cis-trans-1-Nitrosohexahydropyridin-2,3-Dicarbonsäure. Sm. 154° u. Zers. Ba + 2 H₂O, Ag₂ (B. 28, 3155; 29, 2663). — IV, 46.
4) l-Nitrosohexahydropyridin-3,4-Dicarbonsäure (Nitrosohexahydrocinchomeronsäure). Ag (B. 29, 2189) — IV, 47.

- $C_7H_{10}O_5N_2$ 5) **Methylester d. α -Formylharnstoff- β -[α -Ketopropyl- γ -Carbonsäure]** (M. d. Formylsuccinursäure). Sm. 63—65° (B. 29, 2047).
 6) **Aethylester d. α -Carbamidoäthen- $\alpha\beta$ -Dicarbonsäure.** Ag (J. pr. [2] 56, 493).
- $C_7H_{10}O_5N_4$ C 36,5 — H 4,3 — O 34,8 — N 24,4 — M. G. 230.
 1) **p-Oxy-3,7-Dimethylharnsäure.** Sm. 201—203° u. Zers. (B. 31, 1450). — IV, 1257.
 2) **Iso-p-Oxy-3,7-Dimethylharnsäure.** Sm. 201—203° u. Zers. (B. 31, 1451). — IV, 1257.
 3) **Oxy-7,9-Dimethylharnsäure.** Sm. 173—174° (B. 17, 1781). — I, 1337.
 4) **Dihydrotheobromursäure + H₂O.** Zers. bei 225° (B. 30, 2611).
- $C_7H_{10}O_5Br_2$ 1) **Dibromhydroshikiminsäure.** Sm. 188° u. Zers. (B. 24, 1290). — I, 755.
- $C_7H_{10}O_6S_2$ 1) **Brenztraubendithioglykolsäure** (Dithiobrenztraubenessigsäure). Sm. 161—162° (B. 19, 1934; 21, 484). — I, 892.
- $C_7H_{10}O_{14}N_4$ C 22,5 — H 2,7 — O 59,9 — N 14,9 — M. G. 374.
 1) **Tetranitrat d. α -Methylglykosid.** Sm. 49—50° (B. 31, 80).
 2) **Tetranitrat d. Methyl-d-Mannosid.** Sm. 36° (B. 31, 80).
- $C_7H_{10}NCl$ 1) **Chlormethylat d. Thierölpikolin.** 2 + PtCl₄ (J. 1876, 782). — IV, 126.
 2) **Chloräthylat d. Pyridin.** + HgCl₂, 2 + PtCl₄ (M. 15, 177, 187). — IV, 110.
- $C_7H_{10}NBr$ 1) **Bromäthylat d. Pyridin.** Sm. 111—112° (C. 1897 [2] 592).
 $C_7H_{10}NBr_3$ 1) **Bromid d. Pyridinbromäthylat + 2H₂O.** Sm. 15° (C. 1897 [2] 593).
 $C_7H_{10}NJ$ 1) **Jodmethylat d. Thierölpikolin.** Sm. 226,5—227°. + J₂ (J. 1876, 782). — IV, 126.
 2) **Jodäthylat d. Pyridin.** Sm. 90,5° (A. 94, 364; B. 14, 1500; 16, 2059; 18, 2961; C. 1896 [1] 554). — IV, 109.
- $C_7H_{10}NJ_3$ 1) **Aethyltrijodid d. Pyridin.** Sm. 51° (C. 1896 [1] 42; 1897 [1] 1061). — IV, 110.
- $C_7H_{10}NJ_5$ 1) **Aethylpentajodid d. Pyridin.** Sm. 83° (C. 1897 [1] 1060; 1897 [2] 592). — IV, 110.
- $C_7H_{10}N_2Br_2$ 1) **p-Dibrom-2-Isobutylimidazol.** Sm. 157—158° (B. 17, 1292). — IV, 529.
- $C_7H_{10}N_2S_2$ 1) **Thiocarbaminsaures Diallylidenammonium** (A. 168, 237). — I, 95-8.
 $C_7H_{10}N_2J$ 1) **Jodmethylat d. 6-Methylamidopurin?** (H. 18, 431). — IV, 1320.
 $C_7H_{11}ON$ C 67,2 — H 8,8 — O 12,8 — N 11,2 — M. G. 125.
 1) **Isobutylderivat d. Nitroäthan.** Sd. 182—185° (A. 243, 128). — I, 206.
 2) **1-Oximido-5-Methyl-1,2,3,4-Tetrahydrobenzol.** Sm. 88—89° (63°); Sd. 130—131°, HCl (B. 26, 885; A. 281, 99).
 3) **Oxim d. Keton C₇H₁₀O** (aus Holztheeröl). Sm. 121,5° (C. 1898 [2] 1232).
 4) **Nortropinon.** Sm. 69—70°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Carbonat, Pikrat (B. 29, 1581, 1638). — III, 790.
 5) **Base** (aus d-Lupanin). HCl, (2HCl, PtCl₄ + 3H₂O) (C. 1897 [1] 1233; 1897 [2] 314).
 6) **Amid d. 1,2,3,4-Tetrahydrobenzol-1-Carbonsäure.** Sm. 144° (A. 271, 241). — II, 1130.
 7) **Amid d. 1,2,3,4-Tetrahydrobenzol-5-Carbonsäure.** Sm. 127—128° (A. 271, 273). — II, 1129.
 8) **Nitril d. γ -Keto- β -Methylpentan- α -Carbonsäure** (N. d. Dimethylpropionylessigsäure). Sd. 175° (Bl. 51, 173; [3] 1, 549). — I, 1475.
 9) **Nitril d. α -Oxy- β -Methyl- β -Penten- α -Carbonsäure.** Fl. (M. 11, 401). — I, 1475.
 10) **Verbindung** (aus Amidotrimethylbutyllaktid). Sm. 141,5°; Sd. 240° (A. 232, 211). — I, 1209.
- $C_7H_{11}ON_3$ C 54,8 — H 7,2 — O 10,5 — N 27,4 — M. G. 153.
 1) **4-Semicarbazonmethyl-2,3-Dihydro-R-Penten.** Sm. 208° u. Zers. (B. 30, 2108).
 2) **2-Imido-4-Keto-1,3,6-Trimethyl-1,2,3,4-Tetrahydro-1,3-Diazin** (Trimethylguaniciil). Sm. 320°. HJ (G. 20, 591). — I, 1164.
- $C_7H_{11}OCl$ 1) **Chlorid d. Hexahydrobenzol-1-Carbonsäure.** Sd. 179° (B. 30, 1941).
 2) **Chlorid d. Hexanaphtencarbonsäure.** Sd. 167—169° (B. 23, 874). — I, 519.
- $C_7H_{11}OCl_3$ 1) **p-Trichlor- γ -Keto- $\beta\beta$ -Dimethylpentan** (Trichlordiisopropylketon). Sd. 228—229° (B. 13, 1571). — I, 1001.



- 2) Verbindung (aus Oenanthol). Fl. (A. 61, 44).
C 59,6 — H 7,8 — O 22,7 — N 9,9 — M. G. 141.
- 1) 3,5-Dioxy-1-Methylbenzol + Ammoniak (A. ch. [4] 6, 193). — II, 960.
- 2) Tyroleucin. Zers. bei 250—280° (A. ch. [5] 16, 289). — IV, 1586.
- 3) Scopoligenin. Sm. 205—206°. (2HCl, PtCl₄), (HCl, AuCl₃) (C. 1896 [1] 1200; 1898 [1] 1196).
- 4) 1-Acetyl-5-Keto-2-Methyltetrahydropyrrol. Sd. 224—226° (B. 27, 2314). — IV, 25.
- 5) 1-Acetyl-2-Ketohexahydropyridin (Acetylpiiperidon). Sd. 238° (B. 21, 2242). — I, 1200.
- 6) 4,5-Diketo-1,3-Dimethylhexahydropyridin (Arekaïn). Sm. 213°. HCl, 2HCl, PtCl₄), (HCl, AuCl₃). — IV, 61.
- 7) 1-Methyl-1,2,3,4-Tetrahydropyridin-3-Carbonsäure + H₂O (Arekaïdin). Sm. 223—224° (wasserfrei). (2HCl, PtCl₄), (HCl, AuCl₃). — IV, 60.
- 8) isom. Methylhexahydropyridincarbonsäure. (HCl, AuCl₃) (M. 17, 370).
- 9) isom. Methylhexahydropyridincarbonsäure. (2HCl, PtCl₄) (M. 17, 371).
- 10) γ -Cyanpentan- γ -Carbonsäure. Sm. 57°; Sd. 162—164°₁₈ (Am. 18, 748).
- 11) γ -Cyan- β -Methylbutan- β -Carbonsäure. Sm. 126°. Ag (Soc. 67, 425).
- 12) Aethylester d. α -Cyanbuttersäure. Sd. 208,4—209,4°. Na (A. 182, 330; B. 48, 656; J. pr. [2] 49, 337). — I, 1220.
- 13) Aethylester d. β -Cyanbuttersäure. Sd. 105—106°₁₄ (A. 293, 351).
- 14) Aethylester d. α -Cyanisobuttersäure. Sd. 185° (B. 30, 1055).
- 15) Nitril d. α -Acetoxylvaleriansäure. Sd. 194°₇₈₃ (C. 1899 [1] 194).
- 16) Nitril d. α -Acetoxylisovaleriansäure. Sd. 192—193°₇₆₀ (C. 1896 [1] 199; 1897 [2] 938; 1898 [2] 661).
- 17) Nitril d. β -Acetoxylbutan- β -Carbonsäure. Sd. 195°₇₆₄ (C. 1899 [1] 194).
- 18) Imid d. Pentan- $\beta\delta$ -Dicarbonsäure. Sm. 173—174° (A. 285, 339).
- 19) Imid d. β -Methylbutan- $\beta\gamma$ -Dicarbonsäure (I. d. Trimethylbernsteinsäure). Sm. 121° (A. 285, 307).
- 20) Imid d. β -Methylbutan- $\gamma\delta$ -Dicarbonsäure (I. d. Pimelinsäure). Sm. 60° (A. 220, 276). — I, 1387.
- 21) Imid d. $\beta\beta$ -Dimethylpropan- $\alpha\gamma$ -Dicarbonsäure. Sm. 144° (Soc. 75, 53).
- 22) Aethylimid d. Propan- $\alpha\beta$ -Dicarbonsäure. Sd. 222—223° (B. 30, 3039).
- 23) Aethylimid d. Propan- $\alpha\gamma$ -Dicarbonsäure (Ae. d. Glutarsäure). Sd. 250—260°. — I, 1385.
- 24) Propylimid d. Aethan- $\alpha\beta$ -Dicarbonsäure (Pr. d. Bernsteinsäure). Sd. 247—248° (Am. 13, 524). — I, 1381.
- 25) Isopropylimid d. Aethan- $\alpha\beta$ -Dicarbonsäure. Sm. 61°; Sd. 230°₇₅₆ (C. 1895 [2] 86).
- 26) Allylimid d. Essigsäure. Sd. 88—90°₁₄ (B. 26, 2851).
- 27) Bernsteinsäureimidpropyläther. Sd. 153—154°₁₉ (Am. 13, 523). — I, 1381.



- C 49,7 — H 6,5 — O 18,9 — N 24,9 — M. G. 169.
- 1) 2,4,6-Triamido-3,5-Dioxy-1-Methylbenzol. HCl (A. 167, 170). — II, 965.
- 2) Butylenguanimid (B. 9, 242).
- 3) 5-Amido 2,4-Diketo-1,3,6-Trimethyl-1,2,3,4-Tetrahydro-1,3-Diazin (Amidotrimethyluracil). Sm. 166—167° (A. 244, 15). — I, 1351.
- 4) Nitrosoderivat d. Verb. C₇H₁₁ON₂ (aus d. 2-Amidohexahydrobenzol-1-Carbonsäureamid). Zers. bei 65° (A. 295, 210). — IV, 482.



- 1) Chlorpropylcrotonsäure (B. 10, 1178). — I, 519.
- 2) Chlorisopropylcrotonsäure (B. 10, 1178). — I, 519.
- 3) Chloracetylminsäure (J. 1863, 330). — I, 980.
- 4) Lakton d. Chloroxymethyläthyllessigsäure (B. 15, 1762, 1763).
- 5) Methylester d. β -Chlor- α -Penten- γ -Carbonsäure (Methylester d. β -Chlor- α -Aethyltetrakrylsäure). Sd. 166—167° (A. 249, 315). — I, 516.
- 6) Aethylester d. γ -Chlor- β -Buten- β -Carbonsäure (Aethylester d. Chlor- γ -glinsäure). Sd. 173—175° (178—180°) (A. 201, 59; B. 10, 1177). — I, 514.
- 7) Aethylester d. isom. γ -Chlor- β -Buten- β -Carbonsäure (Aethylester d. β -Chlor- α -Methylmethakrylsäure). Sd. 171—172° (A. 249, 308). — I, 514.

- C₇H₁₁O₂Cl** 8) Aethylester einer isom. Chlorbuten- β -Carbonsäure (Aethylester d. Chlorangelikasäure?). Fl. (B. 11, 1499). — I, 514.
9) Propylester d. β -Chlorisocrotonsäure. Sd. 175—177° (A. 256, 204). — I, 510.
10) Acetat d. γ -Chlor- δ -Oxy- β -Penten (Methylchlorallylcarbinolester d. Essigsäure). Sd. 172—173°_{734,4} (A. 223, 159). — I, 412.
- C₇H₁₁O₂Cl₃** 11) Verbindung (aus Diäthylacetessigsäureäthylester) (Am. 4, 28).
1) Methyltrichlorpropylcarbinolester d. Essigsäure. Sd. 227°₇₂₆ (A. 223, 151). — I, 410.
2) β -Methylbutylester d. Trichloressigsäure. Sd. 210—212°_{720,9} (Bl. [3] 15, 289).
3) Isoamylester d. Trichloressigsäure. Sd. 217° (Bl. 40, 302). — I, 471.
- C₇H₁₁O₂Br** 1) 1-Bromhexahydrobenzol-1-Carbonsäure? Sm. 63° (A. 271, 265). — II, 1126.
2) 2-Bromhexahydrobenzol-1-Carbonsäure. Sm. 108—109° (A. 271, 275). — II, 1126.
3) Methylester d. 1-Brom-R-Pentamethylen-1-Carbonsäure. Sd. 122—125°_{an} (Soc. 65, 101).
4) Verbindung (aus Terakrylsäure) (B. 14, 1718).
- C₇H₁₁O₃N** C 53,5 — H 7,0 — O 30,6 — N 8,9 — M. G. 157.
1) Pyridin $\alpha\beta$ -Dioxyäthylammoniumhydrat (G. 15, 333). — IV, 111.
2) Egoninsäure. Sm. 117—118°. Ca, Ba, Ag (B. 23, 2519; 24, 607, 613). — III, 872.
3) 3-Oximidohexahydrobenzol-1-Carbonsäure. Sm. 170° u. Zers. (B. 22, 2183). — II, 1484.
4) Oxim d. ρ -Acetyl-1-Methyl-R-Trimethylen- ρ -Carbonsäure. Sm. 153—155° u. Zers. (Soc. 61, 71). — I, 623.
5) Aethylester d. α -Amido- γ -Keto- α -Buten- β -Carbonsäure. Sm. 55°; Sd. 176—179°₁₆. Cu (A. 297, 29).
6) Monamid d. Mesakonsäuremonäthylester (Aethylester d. Mesakonaminsäure). Sm. 68—69° (A. ch. [5] 20, 473). — I, 1391.
7) Monopiperidid d. Oxalsäure. Sm. 128—129° (A. 237, 247). — IV, 14.
8) Verbindung (aus Maleinsäureäthylester). Sm. 144° (G. 19, 427). — I, 1212.
- C₇H₁₁O₃N₃** C 45,4 — H 5,9 — O 25,9 — N 22,7 — M. G. 185.
1) 5-Methylamido-2,4,6-Triketo-1,3-Dimethylhexahydro-1,3-Diazin (1,3,7-Trimethyluramil). Zers. bei 200° (B. 30, 564).
2) Diäthylester d. norm. Cyanursäure. Ba + 3(12)H₂O, Pb (B. 18, 3267; 19, 2077). — I, 1271.
3) Diäthylester d. Isocyanursäure (Diäthylcyanursäure). Sm. 173°. Ba + H₂O, Ag (A. 109, 112; J. 1856, 700 Anm.; B. 18, 3270; 19, 2078). — I, 1269.
- C₇H₁₁O₃Cl** 1) Aethylester d. γ -Chlor- α -Oxy- β -Buten- α -Carbonsäure (Aethylester d. Chlorangelaktinsäure). Sd. 230° u. Zers. (B. 11, 1497). — I, 601.
2) Aethylester d. γ -Chlor- β -Ketobutan- γ -Carbonsäure. Sd. 192—194°₁₁ (A. 259, 254). — I, 601.
3) Aethylester d. ρ -Chlor- β -Ketobutan- γ -Carbonsäure. Sd. 179—181° (A. 234, 190). — I, 601.
4) Aethylester d. γ -Chlor- β -Ketobutan- δ -Carbonsäure (Ae. d. β -Chlor- β -Acetylpropionsäure). Sd. 225—230° (B. 17, 2286). — I, 600.
5) Chlorid d. Oxalsäuremonoisoamylester. Sd. 183—185° (B. 14, 940; A. 254, 30). — I, 554.
- C₇H₁₁O₃Cl₃** 1) Aethylester d. $\beta\gamma\gamma$ -Trichlor- α -Oxyvaleriansäure. Sm. 40°; Sd. 255° u. ger. Zers. (B. 11, 1492). — I, 565.
2) Aethylester d. $\beta\beta\beta$ -Trichlor- α -Oxypropionäthyläthersäure. Sd. 128—130°₁₂ (A. 253, 134). — I, 557.
3) Isobutylester d. $\beta\beta\beta$ -Trichlor- α -Oxypropionsäure. Sd. 236—238° (A. 253, 125). — I, 557.
- C₇H₁₁O₃Br** 1) Methylester d. δ -Brom- γ -Keto- β -Methylbutan- β -Carbonsäure. Sd. 225—230° u. Zers. (B. 30, 856; 31, 2728).
2) Aethylester d. α -Brom- β -Ketobutan- γ -Carbonsäure. Fl. (Am. 17, 785).
3) Aethylester d. γ -Brom- β -Ketobutan- γ -Carbonsäure. Sd. 107°₃₀ (A. 266, 91; Am. 17, 783). — I, 602.

- $C_7H_{11}O_3Br$ 4) **Aethylester d. γ -Brom- β -Ketobutan- δ -Carbonsäure** (Ae. d. β -Brom- β -Acetylpropionsäure). Sd. 240° u. Zers. (B. 17, 2285). — I, 600.
- 5) **Verbindung** (aus $\beta\gamma$ -Dibrom- α -Oxy- β -Methylpentanocarbonsäure). Sm. 82—83° (M. 15, 193, 422).
- $C_7H_{11}O_4N$ C 48,6 — H 6,3 — O 37,0 — N 8,1 — M. G. 173.
- 1) **cis-Hexahydropyridin-2,3-Dicarbonsäure**. Sm. 227° u. Zers. HCl, (HCl, AuCl₃), Ca + 5H₂O (B. 28, 3158; 29, 2662). — IV, 46.
- 2) **cis-trans-Hexahydropyridin-2,3-Dicarbonsäure**. Sm. 253° u. Zers. HCl, (HCl, AuCl₃ + H₂O) (B. 28, 3156; 29, 2662). — IV, 46.
- 3) **Hexahydropyridin-3,4-Dicarbonsäure** (Hexahydrocinchomeronsäure). Sm. 256° u. Zers. (268—270°). HCl, (HCl, AuCl₃), HBr, Ca + 5H₂O (B. 28, 3150; 29, 2188; 30, 1329). — IV, 47.
- 4) **i-Hexahydropyridin-3,4-Dicarbonsäure** (Loiponsäure). Sm. 259—260° u. Zers. (268—270°). HCl, (HCl, AuCl₃ + H₂O), Br (M. 17, 377; B. 30, 1329). — III, 843.
- 5) **γ -Acetoximidovaleriansäure**. Sm. 74—75° (B. 25, 1930). — I, 496.
- 6) **Methylester d. δ -Imido- δ -Oxy- β -Ketopropanmethyläther- α -Carbonsäure**. (2HCl, Sm. 144° u. Zers.) (A. ch. [6] 23, 166). — I, 1222.
- 7) **Monamid d. γ -Ketopentan- $\alpha\epsilon$ -Dicarbonsäure** (Hydrochelidonaminsäure). Sm. 127°. Zn + 2H₂O (A. 267, 55). — I, 1397.
- 8) **Monamid d. β -Acetylpropan- $\alpha\gamma$ -Dicarbonsäure** (β -Acetylglutaraminsäure). NH₄ (A. 295, 111).
- 9) **Monamid d. β -Ketopropan- $\alpha\alpha$ -Dicarbonsäuremonäthylester** (Monamid d. Acetylmalonsäuremonäthylester). Sm. 110° (B. 26 [2] 314).
- 10) **Acetylamid d. α -Acetoxylpropionsäure**. Sm. 73°; Sd. 178°₁₅ (C. 1896 [1] 199; B. [3] 17, 55).
- 11) **Propylimid d. Traubensäure** (B. 29, 2720).
- $C_7H_{11}O_4N_2$ C 41,8 — H 5,5 — O 31,8 — N 20,9 — M. G. 201.
- 1) **4-Aethyläther-3[?]-Nitro-4-Oxy-2-Aethyl-1,2,6-Oxdiazin**. Sm. 69° (B. 26, 1007). — IV, 502.
- 2) **Methylkaffursäure** (Allokaffursäure). Sm. 167° (164—165°) (A. 228, 171; B. 31, 2160). — III, 963.
- $C_8H_{11}O_4N_2$ C 36,7 — H 4,8 — O 28,0 — N 30,6 — M. G. 229.
- 1) **Verbindung** (aus Tetramethylglykoluril). Sm. 225—226° (R. 7, 248). — I, 1315.
- $C_7H_{11}O_4Cl$ 1) **Glycerindiacetochlorhydrin**. Sd. 245°₇₄₀ (A. ch. [3] 52, 461; A. 138, 299; B. 16, 394).
- 2) **Diäthylester d. Chlormalonsäure**. Sd. 221—222°. Na (A. 209, 221; 297, 320; B. 13, 600; 16, 1045; J. pr. [2] 50, 140). — I, 651.
- $C_7H_{11}O_4Cl_3$ 1) **Verbindung** (aus Chloral und d-Oxypropionsäureäthylester). Fl. (J. 1874, 511). — I, 554.
- $C_7H_{11}O_4Br$ 1) **α - oder β -Brompentan- $\alpha\beta$ -Dicarbonsäure**. Sm. 119—121° (A. 304, 194).
- 2) **γ -Brompentan- $\alpha\beta$ -Dicarbonsäure**. Sm. 145—146° (A. 304, 193).
- 3) **δ -Brompentan- $\alpha\gamma$ -Dicarbonsäure**. Sm. 88—89° (B. 31, 2000).
- 4) **ρ -Brom- β -Methylbutan- $\gamma\delta$ -Dicarbonsäure** (Brompimelinsäure). Fl. Ca, Pb (A. 267, 126). — I, 677.
- 5) **Diäthylester d. Brommalonsäure**. Sd. 233—235° u. Zers. (B. 21, 1356; 24, 2997). — IV, 652.
- $C_7H_{11}O_5N$ C 41,4 — H 5,8 — O 42,3 — N 7,4 — M. G. 189.
- 1) **δ -Oxalylamidovaleriansäure + 2H₂O**. Sm. 64° (119—120° wasserfrei). Ag, Ag₂ (B. 26 [2] 92). — I, 1364.
- 2) **γ -Oximidopentan- $\alpha\epsilon$ -Dicarbonsäure**. Sm. 129° u. Zers. Ag₂ (A. 253, 225). — I, 767.
- 3) **Monäthylester d. β -Oximidopropan- $\alpha\alpha$ -Dicarbonsäure**. Sm. 148° (B. 26, 1691).
- 4) **Diäthylester d. Nitrosomalonsäure**. Sd. 92°₂ (A. 209, 212; B. 13, 599; M. 17, 632). — I, 652.
- 5) **Diäthylester d. Oxalamidoameisensäure**. Sm. 45° (J. pr. [2] 9, 292). — I, 1257.
- $C_7H_{11}O_5N_2$ C 34,3 — H 4,5 — O 32,6 — N 28,6 — M. G. 245.
- 1) **Dimethylalloxansemicarbazid**. Zers. oberh. 120° (B. 30, 133).
- $C_7H_{11}O_6N$ C 41,0 — H 5,4 — O 46,8 — N 6,8 — M. G. 205.
- 1) **Diäthylester d. Nitromalonsäure**. Fl. + NH₃ (R. 8, 283). — I, 653.

- $C_7H_{11}NBr_2$ 1) Nitril d. $\gamma\delta$ -Dibrom- β -Methylpentan- ϵ -Carbonsäure. Sm. 67° (M. 18, 727).
- $C_7H_{11}NS_2$ 1) 6-Methyl-1,2,3,4-Tetrahydropyridin-1-Dithiocarbonsäure. Methyltetrahydropyridinsalz. (Sm. 109–110°) (A. 289, 204). — IV, 50.
- $C_7H_{11}N_2Cl$ 1) Chlormethylat d. 2,5-Dimethyl-1,4-Diazin. + 5HgCl₂, 2 + PtCl₄ (J. pr. [2] 47, 462). — IV, 822.
- $C_7H_{11}N_2J$ 1) Jodmethylat d. 2,5-Dimethyl-1,4-Diazin. Sm. 230° u. Zers. (J. pr. [2] 47, 462). — IV, 822.
- $C_7H_{11}N_2S$ 1) 2-Allylimido-3,5-Dimethyl-2,3-Dihydro-1,3,4-Thiodiazol. (HJ, Sm. 115–116°) (B. 27, 629). — IV, 1107.
2) Aethylecyanamid d. Allylamidothioameisensäure. Sm. 63,2° (B. 23, 1663). — I, 1443.
3) Allylcyanamid d. Aethylamidothioameisensäure. Sm. 81,2° (B. 23, 1661). — I, 1443.
- $C_7H_{12}ON_2$ C 60,0 — H 8,6 — O 11,4 — N 20,0 — M. G. 140.
1) s-Diallylharnstoff (Sinapolin). Sm. 100°. HCl (P. 50, 377; A. 52, 27; 102, 300; C. 1898 [2] 768). — I, 1300.
2) 1,2-Hexahydrophenylenharnstoff. Sm. 230–231° (A. 295, 216). — IV, 482.
3) 2-Keto-4-Methyl-5-Propyl-2,3-Dihydroimidazol. Sm. 263° u. Zers. (B. 28, 2043). — IV, 530.
4) 2-Keto-4,4,6-Trimethyl-1,2,3,4-Tetrahydro-1,3-Diazin (Anhydro-Diacetonharnstoff). Sm. 194° (B. 27, 278).
5) Nitrosonorhydrotropidin. Sm. 139° (116–117°) (B. 20, 1649; 29, 484). — III, 790.
6) Oxim d. Nortropinon. Sm. 181–182° (B. 29, 1583). — III, 791.
7) Amid d. γ -Cyanpentan- γ -Carbonsäure. Sm. 121° (G. 26 [1] 206; Am. 18, 747).
8) Amid d. δ -Cyan- β -Methylbutan- δ -Carbonsäure. Sm. 93°; Sd. 275° (J. 1889, 639). — I, 1247.
9) Verbindung (aus d. Amid d. 2-Amidoheptahydrobenzol-1-Carbonsäure). Sm. 231–232° (B. 29, 964; A. 295, 209). — IV, 482.
- $C_7H_{12}ON_4$ C 50,0 — H 7,1 — O 9,5 — N 33,3 — M. G. 168.
1) Kaffeidin. Sm. 94°. HCl, (2HCl, PtCl₄ + 2 u. 4H₂O), HJ, HNO₃, H₂SO₄ (Z. 1867, 616; B. 14, 816; A. 123, 361; 157, 1; M. 4, 375; J. 1889, 1969). — III, 964.
2) Methyläther d. 2,3,4,5-Tetraamido-1-Oxybenzol. 2 + 3H₂SO₄ (B. 25, 283). — II, 726.
- $C_7H_{12}OCl_2$ 1) $\delta\delta$ -Dichlor- γ -Ketoheptan [oder $\gamma\gamma\delta$ -Form]. Sd. 174–178°₇₆₂ (J. pr. [2] 51, 559).
2) ρ -Dichlor- γ -Keto- $\beta\delta$ -Dimethylpentan (Dichlordiisopropylketon). Sd. 175–176° (B. 13, 1571). — I, 1001.
- $C_7H_{12}OBr_2$ 1) $\beta\gamma$ -Dibrom- δ -Keto- $\beta\gamma$ -Dimethylpentan (J. r. 26, 8).
2) Verbindung (aus Oxeton). Sm. 34,5° (A. 267, 199). — I, 317.
- $C_7H_{12}OBr_4$ 1) $\alpha\beta\gamma\eta$ -Tetrabrom- δ -Oxyheptan (Diallylcarbinoltetrabromid) (A. 185, 135). — I, 248.
- $C_7H_{12}O_2N_2$ C 53,8 — H 7,7 — O 20,5 — N 18,0 — M. G. 156.
1) 3,5-Dioximido-1-Methylhexahydrobenzol. Sm. 155° (A. 289, 172; B. 30, 1802).
2) 1-Nitroso-5-Keto-2,2,4-Trimethyltetrahydropyrrol. Sm. 98° (A. 232, 213). — I, 1210.
3) 2,4-Diketo-5-Isobutyltetrahydroimidazol (Isobutylhydantoïn). Sm. 209–210° (B. 20, 2356). — I, 1312.
4) 2,4-Diketo-5,5-Diäthyltetrahydroimidazol. Sm. 165° (G. 26 [1] 207).
5) 4-Aethyläther d. 4-Oxy-2-Aethyl-1,2,6-Oxdiazin. Sd. 215°₇₂₀ (B. 26, 1007). — IV, 502.
6) Nitrosotropigenin (A. 216, 346).
7) Isoamylester d. Diazoessigsäure. Sd. 160°₇₂₁ (J. pr. [2] 38, 408; [2] 44, 564). — I, 1493.
8) Amid d. α -Penten- $\alpha\beta$ -Dicarbonsäure (A. d. Aethylcitronensäure). Sm. 214–215° (A. ch. [5] 20, 489). — I, 719.
9) Amid d. γ -Methyl- α -Buten- $\alpha\beta$ -Dicarbonsäure (A. d. Isopropylfumar-säure). Sm. 240° u. Zers. (A. ch. [5] 20, 491). — I, 1392.

- $C_7H_{11}O_2N_2$ 10) Amid d. cis-R-Pentamethylen-1,3-Dicarbonsäure. Sm. 224—226° (B. 31, 1956).
 11) Monopiperidid d. Oxalsäuremonamid. Sm. 126—127° (A. 237, 246). — IV, 15.
- $C_7H_{11}O_2N_4$ C 45,7 — H 6,5 — O 17,4 — N 30,4 — M. G. 184.
 1) $\beta\delta$ -Di[Amidoformylimido]pentan (Acetylacetondiharnstoff). Sm. 199°. HCl, H_2SO_4 (Bl. [3] 7, 790; J. pr. [2] 46, 352; [2] 48, 499). — I, 1316.
 2) Diäthylester d. Amidocyanursäure. Sm. 97°. + $AgNO_3$, 2 + $AgNO_3$ (B. 3, 274; 19, 2079). — I, 1451.
- $C_7H_{11}O_2N_6$ C 39,6 — H 5,7 — O 15,1 — N 39,6 — M. G. 212.
 1) Azid d. β -Methylbutan- $\alpha\delta$ -Dicarbonsäure. Fl. (Bl. [3] 17, 806).
- $C_7H_{11}O_2Cl_2$ 1) Dichlorpropylester d. Buttersäure (Glycerinbutyrodichlorhydrin). Sd. 226—227°₃₈ (A. 138, 298). — I, 423.
 2) Isobutylester d. $\alpha\alpha$ -Dichlorpropionsäure. Sd. 183—185° (B. 9, 1879). — I, 473.
 3) β -Methylbutylester d. Dichloressigsäure. Sd. 198—200°_{20,9} (Bl. [3] 15, 289).
- $C_7H_{11}O_2Br_2$ 1) $\beta\gamma$ -[oder $\gamma\delta$]-Dibromhexan- γ -Carbonsäure. Fl. (J. pr. [2] 51, 562).
 2) $\gamma\delta$ -Dibrom- β -Methylpentan- δ -Carbonsäure. Sm. 73° (M. 19, 732).
 3) $\gamma\delta$ -Dibrom- β -Methylpentan- ϵ -Carbonsäure. Sm. 102—103° (A. 288, 180).
 4) $\delta\epsilon$ -Dibrom- β -Methylpentan- ϵ -Carbonsäure. Sm. 116—117° (A. 283, 138).
 5) Aethylester d. $\beta\gamma$ -Dibrombutan- β -Carbonsäure. Sd. 185° (A. 135, 298). — I, 486.
 6) Aethylester d. $\alpha\beta$ -Dibrom- β -Methylpropan- α -Carbonsäure. Sd. 155° (127—128°₃₀) (A. 292, 273; B. 29 [2] 660).
 7) Isobutylester d. $\alpha\alpha$ -Dibrompropionsäure. Sd. 213—218° (A. 171, 324). — I, 480.
 8) Dibrommethylisopropylcarbinolester d. Essigsäure (J. r. 17, 299). — I, 410.
 9) Acetat d. $\delta\epsilon$ -Dibrom- β -Oxypentan. Fl. (B. 27, 2434).
- $C_7H_{11}O_2S$ 1) Aethylester d. Tetrahydrothiophen-2-Carbonsäure. Fl. (B. 20, 519). — III, 756.
- $C_7H_{11}O_3N_2$ C 48,8 — H 7,0 — O 27,9 — N 16,3 — M. G. 172.
 1) $\beta\zeta$ -Dioximido- δ -Ketoheptan. Sm. 68,5° (B. 28, 1820).
 2) Methylester d. 1-Nitrosohexahydropyridin-2-Carbonsäure. Fl. (B. 24, 643). — IV, 45.
 3) Aethylester d. β -Formylhydrazonpropan- α -Carbonsäure. Sm. 91° (J. pr. [2] 51, 182).
 4) Aethylester d. β -Amidoformylamidopropen- α -Carbonsäure (Ae. d. β -Uramidocrotonsäure). Sm. 165—166° (A. 229, 5). — I, 1349.
 5) β -Allylamid d. α -Amidoäthan- $\alpha\beta$ -Dicarbonsäure (β -Allylasparagin). Sm. 258—261° u. Zers. (G. 18, 482). — I, 1379.
- $C_7H_{11}O_3Br_2$ 1) $\epsilon\zeta$ -Dibrom- β -Oxyhexan- β -Carbonsäure. Sm. 107° (A. 303, 177).
 2) $\beta\gamma$ -Dibrom- α -Oxy- β -Methylpentancarbonsäure. Sm. 124—125° (M. 15, 195, 420).
- $C_7H_{11}O_3S_2$ 1) Diäthylester d. Xanthogenessigsäure. Fl. (B. 8, 902). — I, 885.
- $C_7H_{11}O_4N_2$ C 44,7 — H 6,4 — O 34,0 — N 14,9 — M. G. 188.
 1) Dinitrohepten. Sm. 182° (Soc. 41, 174). — I, 135.
 2) Aethylsuccinursäure. Sm. 166,5—167°. Ag (A. 178, 206). — I, 1383.
- $C_7H_{11}O_4N_4$ C 38,9 — H 5,5 — O 29,6 — N 25,9 — M. G. 216.
 1) $\alpha\gamma$ -Diacetoximido- $\alpha\gamma$ -Diamidopropan (Malonendiacetyldiamidoxim). Sm. 153—159° (B. 29, 1170).
 2) Verbindung (aus Isoacetonitril). Sm. 175° (A. 149, 315). — I, 1269.
- $C_7H_{11}O_4S_2$ 1) Dimethylmethyldimerkaptodiessigsäure. Sm. 126—127° (B. 21, 482). — I, 394.
- $C_7H_{11}O_5N_2$ C 41,2 — H 5,9 — O 39,2 — N 13,7 — M. G. 204.
 1) $\epsilon\epsilon$ -Dinitro- δ -Keto- β -Methylhexan. Sm. 65—66° (G. 27 [1] 278; J. pr. [2] 55, 201).
 2) Aethylester d. Allophanylmilchsäure. Sm. 170° (B. 22, 1574). — I, 1308.
 3) Diäthylester d. Nitrosamidomethancarbonsäure - N - Carbonsäure (Nitrosourethanessigsäureäthylester). Fl. (B. 29, 1682).

- $C_7H_{12}O_5N_2$ 4) Diäthylester d. Carbonyldiamidoameisensäure (Carbonyldiurethan). Sm. 107°. Ag (*Am.* 19, 347).
- $C_7H_{12}O_5N_6$ C 32,3 — H 4,6 — O 30,8 — N 32,3 — M. G. 260.
- $C_7H_{12}O_5S$ 1) Verbindung (aus Amidocessigsäure u. harnsaurem Ammoniak) (*A.* 60, 38).
- $C_7H_{12}O_5N_4$ 1) β -Methylbutan- γ - δ -Dicarbonsäure- β -Sulfonsäure + 3 H₂O (α -Sulfoisopropylbernsteinsäure). Sm. 167° u. Zers. Ba₂ (*A.* 169, 181; *B.* 26, 816, 2046). — I, 905.
- $C_7H_{12}O_5N_4$ C 30,0 — H 4,3 — O 45,7 — N 20,0 — M. G. 280.
- $C_7H_{12}NBr$ 1) Dimethylester d. Trimethylendi- $\alpha\gamma$ -Nitramidoameisensäure. Sm. 89 bis 90° (*R.* 7, 349). — I, 1256.
- $C_7H_{12}N_2S$ 1) 1-Bromäthenylhexahydropyridin. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HBr (*B.* 17, 154). — IV, 8.
- $C_7H_{12}N_2S$ 1) s -Diallylthioharnstoff. Sm. 49,5° (51–52°). + 2HgCl₂ (*B.* 23, 287; *J. pr.* [2] 50, 445; *C.* 1898 [2] 768). — I, 1323.
- 2) 2-Allylimido-5-Methyltetrahydrothiazol. Sm. 56°. Pikrat (*B.* 23, 972). — I, 1325.
- 3) 2-Imido-3-Allyl-5-Methyltetrahydrothiazol. HJ, Pikrat (*B.* 23, 973). — I, 1325.
- 4) 2-Merkapto-4[oder 5]-Methyl-5[oder 4]-Propylimidazol. Sm. 254 bis 255° (*B.* 28, 2042). — IV, 530.
- 5) 2-Thiocarbonyl-4,4,6-Trimethyl-1,2,3,4-Tetrahydro-1,3-Diazin (Anhydro-Diacetonthioharnstoff). Sm. 249° (*B.* 27, 279).
- $C_7H_{12}N_4S_2$ 1) Acetylacetonedithioharnstoff. HCl (*J. pr.* [2] 48, 506).
- 2) Dimethylester d. Dithioäthylmelanurensäure. Sm. 114° (2HCl, PtCl₄) (*B.* 18, 2774). — I, 1452.
- 3) Diäthylester d. Dithiomelanurensäure. Sm. 112° (*J. pr.* [2] 33, 296). — I, 1451.
- $C_7H_{12}ON$ C 66,1 — H 10,2 — O 12,6 — N 11,0 — M. G. 127.
- 1) β -Aethylamido- δ -Keto- β -Penten (α -Aethylamidoäthenylaceton). Sd. 210 bis 215° (*Bl.* [3] 7, 781). — I, 1017.
- 2) s -Oximido- β -Methyl- γ -Hexen. Sd. 103°₁₅ (*M.* 19, 372).
- 3) δ -Oximido- $\beta\gamma$ -Dimethyl- β -Penten. Sd. 106–110°₃₁ (*J. r.* 26, 9).
- 4) Oximido-*R*-Heptamethylen (Suberoxim). Sm. 23,3°; Sd. 230°₇₈₁. HCl (*B.* 16, 497; *J. pr.* [2] 49, 418; *J. r.* 25, 372). — I, 1032.
- 5) 2-Oximido-1-Methylhexahydrobenzol. Sd. 108–109° (*B.* 30, 1533 Anm.).
- 6) *d*-3-Oximido-1-Methylhexahydrobenzol. Sm. 43°; Sd. 216–217° (*B.* 29, 917; 30, 24, 1533; *A.* 289, 339).
- 7) *i*-3-Oximido-1-Methylhexahydrobenzol. Fl. (*A.* 295, 184).
- 8) α -Oximidopropyl-*R*-Tetramethylen. Sd. 208–209°₇₅₀ (*Soc.* 61, 50). — I, 1032.
- 9) Hexyläther d. Isocyansäure. Sd. über 100° (*J.* 1863, 526). — I, 1265.
- 10) Tropigenin (Tropolin). Sm. 161°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HJ, Carbonat (*A.* 216, 343; *B.* 15, 289; 16, 244; 29, 1579, 1638, 2231; *G.* 12, 329). — III, 792.
- 11) Pseudotropigenin. (2HCl, PtCl₄), (HCl, AuCl₃), Carbonat (*B.* 29, 1637, 2231). — III, 792.
- 12) 5-Keto-2,2,4-Trimethyltetrahydropyrrol? Sm. 79,5°; Sd. 220° (*A.* 232, 212). — I, 1210.
- 13) 2-Keto-3-Aethylhexahydropyridin (β -Aethylpiperidon). Sm. 68°; Sd. 140–142°₄₈ (*B.* 23, 3694). — I, 1204.
- 14) 1-Aethylhexahydropyridin (Acetpiperidin). Sd. 224° (226–227°). HCl, (2HCl, PtCl₄), (HCl, AuCl₃), (HCl, 3HgCl₂), HBr, HJ (*B.* 15, 426; 16, 588; 27, 2088; *A.* 214, 238; *Soc.* 73, 366). — IV, 12.
- 15) Aldehyd d. 1-Piperidylessigsäure. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (*B.* 31, 2542).
- 16) Amid d. Hexahydrobenzolcarbonsäure. Sm. 185–186° (184°) (*B.* 25, 3362; *A.* 271, 264; *J. pr.* [2] 49, 88). — II, 1126.
- 17) Amid d. Hexanaphtencarbonsäure. Sm. 123,5° (*B.* 23, 874). — I, 1250.
- 18) Nitril d. γ -Oxy- $\beta\beta$ -Dimethylbutan- γ -Carbonsäure. Sm. 82–87° (*G.* 27 [2] 387).

- $C_7H_{13}ON_3$ C 54,2 — H 8,4 — O 10,3 — N 27,1 — M. G. 155.
- 1) Semicarbazonhexahydrobenzol. Sm. 166—167° (B. 30, 1542).
 - 2) 2-Semicarbazon-1-Methyl-R-Pentamethylen. Sm. 171° (C. 1896 [2] 1092).
 - 3) 3-Semicarbazon-1-Methyl-R-Pentamethylen. Sm. 184—185° (B. 30, 1542).
 - 4) δ -Amidoformylhydrazon- β -Methyl- β -Penten. Sm. 156° (B. 29, 612).
 - 5) 2-Imido-5-Keto-4-Butyltetrahydroimidazol (α -Amidocaprocyamidin) (J. 1887, 664). — I, 1203.
 - 6) 2-Imido-5-Keto-3,4-Diäthyltetrahydroimidazol (Aethylamido- α -Butyrocyamidin) (Bl. 42, 265). — I, 1197.
 - 7) Methylamidoisovaleryleyamidin (Isovalerylkreatinin) (B. 15, 2743; Bl. 39, 539). — I, 1201.
- $C_7H_{13}ON_5$ 8) Verbindung (aus Mesityloxyd). Sm. 129°; Sd. 212—213° (B. 29, 612). C 45,9 — H 7,1 — O 8,7 — N 38,2 — M. G. 183.
- $C_7H_{13}OCl$ 1) Diäthylammelmin. (2HCl, PtCl₄) (B. 18, 2776). — I, 1447.
- 1) γ -Chlor- δ -Ketoheptan (Chlordipropylketon). Sd. 167° (Bl. [3] 6, 835). — I, 1000.
 - 2) β -Chlor- δ -Keto- $\beta\gamma$ -Dimethylpentan. Sd. 75—78°₃₁ (Bl. [3] 7, 580; J. r. 26 [1] 6).
 - 3) ρ -Chlor- γ -Keto- $\beta\delta$ -Dimethylpentan (Chloridiisopropylketon). Sd. 141 bis 142° (B. 13, 1570). — I, 1001.
 - 4) Chlorid d. norm. Oenanthsäure. Sd. 170° (168—172°; 174—175°) (Bl. [3] 6, 133; [3] 13, 833; B. 25 [2] 637). — I, 460.
 - 5) Chlorid d. isom. ρ Oenanthsäure. Sd. 145° (B. 19, 2987). — I, 460.
 - 6) Chlorid d. β -Methylpentan- δ -Carbonsäure. Sd. 152—153°_{7,45} (Soc. 67, 511).
 - 7) Chlorid d. β -Methylpentan- ϵ -Carbonsäure. Sd. 168—169°_{73,4} (G. 28 [2] 277; J. pr. [2] 58, 399).
 - 8) Verbindung (Keton aus Heptan) (Bl. 29, 230). — I, 1001.
- $C_7H_{13}OBr$ 1) Aethylbromvaleryläther. Sd. 177—180° (A. 133, 84; 135, 372). — I, 303.
- $C_7H_{13}OBr_2$ 2) ζ -Brom- β -Keto- γ -Methylhexan. Sd. 112°₂₀ (B. 32, 62).
- $C_7H_{13}OJ$ 1) Bromid d. Aethylbromvaleryläther (A. 133, 86).
- 1) Aldehyd d. ρ -Jodhexan- α -Carbonsäure (Jodönanthol). Fl. (A. ch. [6] 16, 170). — I, 956.
- $C_7H_{13}O_2N$ C 58,7 — H 9,1 — O 22,4 — N 9,8 — M. G. 143.
- 1) β -Oximido- γ -Ketoheptan. Fl. (G. 28 [2] 273; J. pr. [2] 58, 396).
 - 2) δ -Oximido- γ -Ketoheptan. Fl. (G. 28 [2] 273; J. pr. [2] 58, 396).
 - 3) ϵ -Oximido- δ -Keto- β -Methylhexan. Sm. 64—65° (G. 27 [1] 276).
 - 4) δ -Nitroso- ϵ -Keto- β -Methylhexan (Methylnitrosoisoamylketon). Sm. 42° (B. 15, 2788). — I, 1001.
 - 5) 5-Keto-2,2,4-Trimethyltetrahydropyrrol (Amidotrimethylbutyllaktid). Sm. 202° (A. 189, 238; 192, 339; 232, 208). — I, 1209.
 - 6) Stachydrin + H₂O. Sm. 210° (wasserfrei). HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (B. 26, 939; 29, 2065; M. 18, 389). — III, 934.
 - 7) Nitroderivat d. Kohlenw. C₇H₁₄ (aus Naphta). Sd. 98—99°₄₀ (B. 30, 976).
 - 8) 2-Amidohexahydrobenzol-1-Carbonsäure. Sm. 274° u. Zers. Cu + 2H₂O, HBr (B. 27, 2470; A. 295, 187, 201, 203). — II, 1127.
 - 9) 4-Amidohexahydrobenzol-1-Carbonsäure. Sm. 303—304° (B. 27, 2833). — II, 1127.
 - 10) 1-Hexahydropyridylessigsäure + H₂O (Piperidoessigsäure). Sm. 123 bis 125° (215—217° wasserfrei). Cu + 4H₂O, + BaCl₂, HCl, (4 + 3HCl, 3AuCl₃), (HJ, BiJ₃) (A. 157, 66; 210, 320; B. 31, 2840; 32, 723). — IV, 20.
 - 11) 1-Methylhexahydropyridin-3-Carbonsäure + H₂O (Dihydroarekaidin). Sm. 162—163° (wasserfrei). (2HCl, PtCl₄), (HCl, AuCl₃). — IV, 44.
 - 12) 2-Methylhexahydropyridin-5-Carbonsäure. Sm. 239° (2HCl, PtCl₄), (HCl, AuCl₃) (B. 25, 3491). — IV, 45.
 - 13) isom. Methylhexahydropyridincarbonsäure. Fl. (HCl, AuCl₃ + $\frac{1}{2}$ H₂O; Sm. 174°) (M. 17, 370). — IV, 46.
 - 14) isom. Methylhexahydropyridincarbonsäure. Fl. (2HCl, PtCl₄ + $\frac{1}{2}$ H₂O), (HCl, AuCl₃; Sm. 197—198°) (M. 17, 371). — IV, 46.
 - 15) ρ -Methylhexahydropyridin- ρ -Carbonsäure. (HCl, AuCl₃). (G. 25 [1] 260). — IV, 45.

- C₇H₁₃O₂N** 16) Methylester d. Hexahydropyridin-1-Carbonsäure. *Sd.* 201° (*B.* 16, 647). — IV, 12.
 17) Methylester d. Hexahydropyridin-3-Carbonsäure. *HCl*, (2 *HCl*, *PtCl*) (*B.* 25, 2771). — IV, 44.
 18) Methylester d. β -Amido- β -Penten- γ -Carbonsäure. *Sm.* 36—37° (*Z.* 1866, 457—459; *B.* 20, 3055). — I, 1208.
 19) Aethylester d. γ -Amido- β -Buten- β -Carbonsäure. *Sm.* 52° (*B.* 20, 3056). — I, 1208.
 20) Aethylester d. β -Methylamidopropen- α -Carbonsäure. *Sd.* 215° (*B.* 18, 618; 32, 420 Anm.). — I, 1207.
 21) Amid d. ϵ -Oxy- α -Hexen- ϵ -Carbonsäure. *Sm.* 71° (*A.* 303, 176).
 22) Amid d. α -Oxy- β -Methyl- β -Penten- α -Carbonsäure (A. d. α -Oxy- β -Propylidenbuttersäure). *Sm.* 100—101° (*M.* 11, 406; 15, 196, 416). — I, 1355.
 23) Amid d. γ -Keto- β -Methylpentan- β -Carbonsäure (A. d. α -Methyl- α -Propionylpropionsäure). *Sm.* 66° (*Bl.* [3] 4, 639). — I, 1355.
 24) Amid d. 3-Oxyhexahydrobenzol-1-Carbonsäure. *Sm.* 161°; (*A.* 291, 301).
 25) Nitril d. α' -Oxydiisopropyläther- α^2 -Carbonsäure (Diacetonecyanhydrin). + *CaCl*₂ + 5 *H*₂*O* (*A.* 164, 260). — I, 980.
 26) Verbindung (aus α -Propionylpropionsäuremethylester). *Fl.* (*A.* 245, 86). — I, 605.
- C₇H₁₃O₂N₂** C 49,1 — H 7,6 — O 18,7 — N 24,6 — M. G. 171.
 1) Isoamylidenbiuret (*A.* 114, 164). — I, 1308.
- C₇H₁₃O₂Cl** 1) Aethylester d. δ -Chlorvaleriansäure. *Sd.* 205—206° (*B.* 26, 2574).
 2) Aethylester d. β -Chlorisovaleriansäure. *Sd.* 184—190° (*G.* 27 [2] 371; 28 [2] 305).
 3) α -Chloräthylester d. Isovaleriansäure. *Sd.* 162° (*A.* 225, 279). — I, 926.
 4) Propylester d. α -Chlorbuttersäure. *Sd.* 182—184° (*C.* 1898 [2] 273).
 5) Propylester d. β -Chlorbuttersäure. *Sd.* 182—183° (*C.* 1898 [2] 273).
 6) Propylester d. γ -Chlorbuttersäure. *Sd.* 197—198° (*C.* 1898 [2] 273).
 7) Isobutylester d. d- α -Chlorpropionsäure. *Sd.* 175—177°₆₀ (*C.* 1898 [2] 918).
 8) Isobutylester d. β -Chlorpropionsäure. *Sd.* 191—193° (*Bl.* [3] 9, 416).
 9) Isoamylester d. Chloressigsäure. *Sd.* 190°_{31,5} (*Bl.* 45, 329). — I, 468.
 10) α -Chlorisoamylester d. Essigsäure. *Sd.* 118—128° u. *Zers.* (*Bl.* 31, 410). — I, 953.
 11) β -Methylbutylester d. Chloressigsäure. *Sd.* 188—191°_{72,5} (*Bl.* [3] 15, 238).
- C₇H₁₃O₂Cl₂** 1) Chloralisomylalkoholat. *Sm.* 56°; *Sd.* 145—147° (*A.* 157, 244; *B.* 3, 445). — I, 933.
 2) $\beta\beta\beta$ -Trichlor- α -Oxyäthyläther d. β -Oxy- β -Methylbutan. *Fl.* (*C.* 1899 [1] 238).
 3) Äthylisopropyläther d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan. *Sd.* 198—204° (*G.* 26 [2] 473).
- C₇H₁₃O₂Br** 1) Äthylenäther d. β -Brom- $\delta\delta$ -Dioxy- β -Methylpropan. *Sd.* 94°_{10—15} u. *ger. Zers.* (*A. ch.* [6] 16, 69). — I, 952.
 2) α -Bromhexan- α -Carbonsäure. *Sd.* 250° (*A. Spl.* 2, 83; *B.* 8, 1168; 18, 625). — I, 487.
 3) γ -Bromhexan- α -Carbonsäure. *Fl.* (*A.* 255, 79). — I, 487.
 4) ϵ -Bromhexan- γ -Carbonsäure. *Fl.* (*Soc.* 65, 993).
 5) γ -Brom- β -Methylpentan- ϵ -Carbonsäure. *Fl.* (*A.* 255, 93). — I, 487.
 6) δ -Brom- β -Methylpentan- ϵ -Carbonsäure. *Sm.* 26—27° (*A.* 283, 140).
 7) Aethylester d. α -Brom-norm. Valeriansäure. *Sd.* 190—192° (*B.* 17, 2504; *Soc.* 75, 166). — I, 485.
 8) Aethylester d. α -Bromisovaleriansäure. *Sd.* 186° (190—194°) (*A. Spl.* 2, 78; *A.* 242, 163; 267, 120; *C.* 1899 [1] 164). — I, 485.
 9) Aethylester d. δ -Brombutan- β -Carbonsäure. *Fl.* (*Soc.* 69, 174).
 10) Aethylester einer isom. Brombutancarbonsäure. *Sd.* 185° (*A.* 204, 24). — I, 485.
 11) Isobutylester d. d- α -Brompropionsäure (*B.* 31, 1419).
 12) Isoamylester d. Bromessigsäure. *Sd.* 207° (*A.* 108, 110). — I, 478.
 13) β -Methylbutylester d. Bromessigsäure. *Sd.* 210—216° (*Bl.* [3] 15, 290).

- C₇H₁₃O₃N** C 52,8 — H 8,2 — O 30,2 — N 8,8 — M. G. 159.
- 1) **δ-Oximido-β-Methylpentan-β-Carbonsäure**(Isonitrosomesitonsäure). Sm. 94—95° (M. 13, 612).
 - 2) **γ-Oximido-β-Methylpentan-ε-Carbonsäure**. Sm. 88—89°. Ag (B. 31, 2312).
 - 3) **Aethylester d. γ-Oximidovaleriansäure**. Sm. 38—39° (J. pr. [2] 44, 117). — I, 496.
 - 4) **Aethylester d. γ-Oximidobutan-β-Carbonsäure**. Fl. (B. 16, 2997). — I, 496.
 - 5) **Aethylester d. β-Imido-β-Oxypropionäthyläthersäure** (Imidomalonäthylätheräthylester). Fl. HCl (B. 28, 478).
 - 6) **Aethylester d. Morpholin-4-Carbonsäure**. Sd. 220—221°₇₁₈ (A. 301, 7).
 - 7) **Isoamylester d. Oxaminsäure**. Sm. 92—93° (B. 13, 507). — I, 1362.
 - 8) **Monamid d. ββ-Dimethylpropan-αγ-Dicarbonsäure**. Sm. 146°; Sd. 268° (Bl. [3] 19, 561).
- C₇H₁₃O₃N₃** C 41,9 — H 6,9 — O 25,7 — N 22,5 — M. G. 187.
- 1) **Diacetylamidoacetylimidomethan** (Methenyltriacetamid) (B. 3, 2; 16, 1660; 17, 172). — I, 1159.
 - 2) **δ-Semicarbazonpentan-α-Carbonsäure**. Sm. 180° u. Zers. (wasserfrei). (173—174° u. Zers.) (A. 294, 269, 319; Soc. 69, 1513).
 - 3) **Aethylester d. β-Semicarbazonbuttersäure**. Sm. 129° (A. 283, 29).
 - 4) **Amid d. Aethylsuccinursäure**. Sm. 195—196° (A. 178, 208). — I, 1383.
 - 5) **Verbindung (aus Guanidin)**. Sm. 190—191° u. Zers. (J. pr. [2] 49, 39).
- C₇H₁₃O₃N₁₁** C 28,1 — H 4,3 — O 16,0 — N 51,5 — M. G. 299.
- 1) **Fulmitetraguanurat** (B. 8, 521; 9, 784). — I, 1462.
- C₇H₁₃O₃Br** 1) **Aethylester d. β-Brom-α-Oxypropionäthyläthersäure**. Sd. 202—204° u. Zers. (Am. 9, 121). — I, 557.
- C₇H₁₃O₄N** C 48,4 — H 7,4 — O 36,6 — N 8,0 — M. G. 175.
- 1) **Monäthylester d. α-Amidopropan-αγ-Dicarbonsäure** (Monoäthylester d. Glutaminsäure). Sd. 164—165° (A. 179, 253). — I, 1214.
 - 2) **Monäthylester d. α-Methylamidoäthan-αβ-Dicarbonsäure** (M. d. Methylasparaginsäure). Sm. 181,5°. Cu + 2H₂O (G. 19, 427; 26 [1] 433). — I, 1212.
 - 3) **α-Methylester-β-Aethylester d. β-Amidoäthan-α-Carbonsäure-β-N-Carbonsäure**. Sd. 134—137°₁₅ (Am. 15, 513).
 - 4) **β-Methylester-α-Aethylester d. β-Amidoäthan-α-Carbonsäure-β-N-Carbonsäure**. Sm. 15,5° (Am. 15, 512).
 - 5) **Diäthylester d. Amidomethancarbonsäure-N-Carbonsäure** (D. d. Urethansigsäure). Sm. 24,5—27°; Sd. 145—146°₃₃ (B. 29, 1681).
 - 6) **Acetat d. γ-Nitro-δ-Oxy-β-Methylbutan**. Sd. 159—168°₃₈ (C. 1898 [1] 439).
- C₇H₁₃O₄N₃** C 41,4 — H 6,4 — O 31,5 — N 20,7 — M. G. 203.
- 1) **Aethylester d. Guanidodikohlensäure**. Sm. 162° (B. 7, 1588; J. pr. [2] 49, 29). — I, 1257.
- C₇H₁₃O₅N** C 44,0 — H 6,7 — O 42,0 — N 7,3 — M. G. 191.
- 1) **Propylmonamid d. 1-Weinsäure** (B. 30, 1577).
- C₇H₁₃O₆N** C 40,6 — H 6,3 — O 46,4 — N 6,7 — M. G. 207.
- 1) **Lävulosecyanhydrin**. Sm. 110—115° (B. 18, 3068; 19, 221; 23, 449). — I, 1482.
- C₇H₁₃O₆N₃** C 35,7 — H 5,5 — O 40,8 — N 17,9 — M. G. 235.
- 1) **p-Trinitro-β-Methylhexan**. Sm. 194° u. Zers. (Soc. 73, 931).
- C₇H₁₃NS** 1) **norm. Hexylsenföl**. Sd. 212°₇₅₈ (B. 16, 746). — I, 1282.
- 2) **sec. Hexylsenföl**. Sd. 197—198° (B. 8, 56). — I, 1282.
 - 3) **α-Rhodanhexan** (norm. Hexylrhodanid). Sd. 215—220° (J. 1863, 526). — I, 1279.
 - 4) **β-Rhodanhexan** (sec. Hexylrhodanid). Sd. 206—207,5° (B. 8, 55). — I, 1279.
- C₇H₁₃NS₂** 1) **2-Merkapto-4,4,6-Trimethyl-4,5-Dihydro-1,3-Thiazin**. Sm. 180° (B. 30, 1321).
- 2) **Aethyläther d. 2-Merkapto-6-Methyl-4,5-Dihydro-1,3-Thiazin**. Sd. 256°₇₅₄. (2HCl, PtCl₄) (B. 29, 1429). — IV, 49.
 - 3) **Propyläther d. 2-Merkapto-5-Methyl-4,5-Dihydrothiazol**. Sd. 246 bis 248° (B. 23, 968). — I, 1176.

- C₇H₁₁NS₂** 4) 2-Methylhexahydropyridin-1-Dithiocarbonsäure (2-Methylhexahydropyridinsalz + 2C₂H₅O) (A. 247, 63; 289, 213). — IV, 27.
- C₇H₁₁N₂Cl** 1) Chlormethylat d. 1,3,5-Trimethylpyrazol. 2 + PtCl₄ (A. 279, 239). — IV, 523.
2) Chloräthylat d. 1-Aethylimidazol. 2 + PtCl₄ + 1/2 H₂O (B. 10, 1367). — IV, 501.
3) Chlorpropylat d. 1-Methylimidazol. 2 + PtCl₄ (A. 271, 37). — IV, 501.
- C₇H₁₁N₂Br** 1) Bromäthylat d. 1-Aethylimidazol (B. 10, 1368). — IV, 501.
- C₇H₁₁N₂J** 1) Jodmethylat d. 1,3,5-Trimethylpyrazol. + CHCl₃ (A. 279, 238). — IV, 523.
2) Jodmethylat d. 1-Methyl-2-Aethylimidazol (B. 16, 490). — IV, 524.
3) Jodmethylat d. 2-Methyl-1-Aethylimidazol. + J₂ (A. 214, 303). — IV, 517.
- C₇H₁₃N₃S** 1) Aethylcyanamid d. Propylamidothioameisensäure. Sm. 56° (B. 23, 1662). — I, 1443.
2) Propylcyanamid d. Aethylamidothioameisensäure. Sm. 74,7° (B. 23, 1660). — I, 1443.
3) Verbindung (aus α-Amido-β-Diacetonthioharnstoff). Sm. 211—214° (B. 27, 1045).
- C₇H₁₃N₃S₂** 1) Verbindung (aus Methylsenföl u. 2 Methylamido-5-Methyl-4,5-Dihydrothiazol). Sm. 64° (B. 23, 972). — I, 1325.
- C₇H₁₄ON₂** C 59,1 — H 9,9 — O 11,3 — N 19,7 — M. G. 142.
1) Carbylodiacetonamin (A. 189, 231; 192, 352). — I, 981.
2) Oxim d. 1-Piperidylessigsäurealdehyd (B. 31, 2543).
3) Nitrilodiacetonamin. (2HCl, PtCl₄), Oxalat (A. 192, 345, 352; J. 1882, 379). — I, 981.
4) Nitril d. β-Amido-δ-Oxy-β-Methylpentan-δ-Carbonsäure (Blausäure-diacetonamin). HCl (A. 189, 232; 232, 208). — I, 1472.
5) Amid d. 2-Amidohexahydrobenzol-1-Carbonsäure. Sm. 153,5° (2HCl, PtCl₄), HBr (B. 29, 964; A. 295, 207).
6) Methylamid d. Hexahydropyridin-1-Carbonsäure (s-Methylpiperidin-harnstoff) (A. ch. [3] 38, 85). — IV, 13.
- C₇H₁₄OS₂** 1) Methylester d. Merkaptothiolameisenoamyläthersäure (Methylisoamylester d. Dithiolkohlensäure). Sd. 140° (J. pr. [2] 32, 244). — I, 887.
2) Methylester d. Oxydithioameisenoamyläthersäure (Methylester d. Isoamylxanthogensäure) (A. 84, 341). — I, 886.
3) Aethylester d. Oxydithioameisenoisobutyläthersäure (Aethylester d. Isobutylxanthogensäure). Sd. 227—228° (B. 5, 975). — I, 885.
- C₇H₁₄O₂N₂** C 53,2 — H 8,8 — O 20,3 — N 17,7 — M. G. 158.
1) βγ-Dioximidoheptan? Sm. 141—144° (G. 28 [2] 263; J. pr. [2] 58, 363).
2) γδ-Dioximidoheptan. Sm. 167—168° (168—170°) (J. pr. [2] 51, 560; [2] 55, 194; [2] 58, 363; G. 28 [2] 263).
3) δε-Dioximido-β-Methylhexan. Sm. 170—172° (B. 22, 2122; J. pr. [2] 55, 200; G. 27 [1] 279). — I, 1033.
4) αβ-Di[Acetylamido]propan. Sm. 138—139° (B. 21, 2359; 26, 1178). — I, 1238.
5) αγ-Di[Acetylamido]propan. Sm. 79° (B. 21, 2365). — I, 1238.
6) 3-Oximido-1-Hydroxylamido-1-Methylhexahydrobenzol + H₂O. Sm. 83—84° (B. 31, 1383).
7) Amid d. β-Methylbutan-αδ-Dicarbonsäure (Amid d. β-Methyladipinsäure). Sm. 191° (B. 26, 774; Bl. [3] 13, 828). — I, 1387.
8) Di[Methylamid] d. Propan-αα-Dicarbonsäure. Sm. 177° (R. 16, 359).
9) Di[Methylamid] d. Propan-αβ-Dicarbonsäure (D. d. Brenzweinsäure). Sm. 113—115° (Bl. 43, 619). — I, 1385.
10) Di[Methylamid] d. Propan-ββ-Dicarbonsäure (D. d. Dimethylmalonsäure). Sm. 123° (R. 4, 206). — I, 1386.
11) Di[Aethylamid] d. Methandicarbonsäure (s-Diäthylamid d. Malonsäure). Sm. 149° (B. 14, 170; A. 285, 97; J. pr. [2] 58, 417). — I, 1371.
12) Monoisoamylamid d. Oxalsäure. Sm. 180—181° (B. 17, 1296). — I, 1366.
13) Isoamylnitrosamid d. Essigsäure. Fl. (B. 30, 879).
14) Carbat d. 1,2-Diamidohexahydrobenzol. subl. bei 170—180° (A. 295, 214). — IV, 482.

- $C_7H_{14}O_2N_4$ C 45,1 — H 7,5 — O 17,2 — N 30,1 — M. G. 186.
 1) α -1,4-Dinitroso-2,3,5-Trimethylhexahydro-1,4-Diazin. Sm. 95—96° (*J. pr.* [2] 55, 66). — IV, 484.
- $C_7H_{14}O_2Cl_2$ 1) Di[γ -Chlorpropyläther] d. Dioxymethan. Sd. 255—258° (*B.* 28 [2] 851).
 $C_7H_{14}O_2Br_2$ 1) Diäthyläther d. $\beta\gamma$ -Dibrom- $\alpha\alpha$ -Dioxypropan. Sd. 127—129°₁₁ (*B.* 31, 1015).
- $C_7H_{14}O_2S$ 1) Merkaptoessigisoamyläthersäure. Fl. (*Bl.* 23, 446). — I, 891.
 2) Aethylester d. Isobutylthiolkohlsäure. Sd. 190—195° (*B.* 6, 312). — I, 883.
 3) Isobutylester d. Aethylthiolkohlsäure. Sd. 190—193° (*B.* 6, 313). — I, 882.
- $C_7H_{14}O_2S_2$ 1) $\alpha\alpha$ -Dimerkaptopropiondiäthyläthersäure. Fl. NH_4 (*H.* 16, 584). — I, 898.
- $C_7H_{14}O_3N_2$ C 48,3 — H 8,0 — O 27,6 — N 16,1 — M. G. 174.
 1) δ -Nitroso- δ -Nitroheptan (s-Diäthylpropylpseudonitrol). Sm. 72—73° (*B.* 29, 96).
 2) γ -Nitroso- γ -Nitro- $\beta\delta$ -Dimethylpentan. Fl. Zers. bei 54° (*B.* 29, 99).
 3) Harnstoff- γ -Methylbutyl- α -Carbonsäure (Isobutylhydantoinsäure). Sm. 200°. Ba (*B.* 22, 696). — I, 1312.
 4) Isoamylester d. Harnstoffcarbonsäure (Isoamylester d. Allophansäure). Sm. 162° (*A.* 59, 23; *B.* 4, 267; 26, 2173). — I, 1306.
 5) Diacetopropiondiamid. Sm. 68°; Sd. 220° (*Z.* 1869, 128). — I, 1245.
- $C_7H_{14}O_3N_4$ C 41,6 — H 6,9 — O 23,8 — N 27,7 — M. G. 202.
 1) Harnstoff + Isocyanensäureäthyläther (*J.* 1861, 509). — I, 1295.
- $C_7H_{14}O_3Cl_2$ 1) *p*-Dichlor-*p*-Trioxyheptan. Fl. (*J. pr.* [2] 41, 56). — I, 279.
 2) Akroleinchloracetyl. Sd. 140—145° (*A. Spl.* 3, 194).
- $C_7H_{14}O_3S$ 1) Oenantholschwefligesäure. Ba (*A.* 110, 241). — I, 955.
- $C_7H_{14}O_4N_2$ C 44,2 — H 7,4 — O 33,7 — N 14,7 — M. G. 190.
 1) $\alpha\alpha$ -Dinitroheptan (*Am.* 20, 211).
 2) $\beta\delta$ -Dinitroheptan. Sd. 220—221° (*B.* 29, 97).
 3) $\beta\beta$ -Dinitro- γ -Aethylpentan. Sd. 211—219°₁₃₂ (*B.* 29, 100).
 4) $\gamma\gamma$ -Dinitro- $\beta\delta$ -Dimethylpentan. Sd. 203—207°₁₁₇ (*B.* 29, 99).
 5) Dimethylester d. Trimethylendi- $\alpha\gamma$ -[Amidoameisensäure]. Sm. 74 bis 75° (*R.* 7, 347). — I, 1256.
 6) Aethylester d. Butylnitramidoameisensäure. Fl. (*R.* 14, 22).
 7) Aethylester d. iso-Butylnitramidoameisensäure. Fl. (*R.* 14, 25).
 8) Aethylester d. sec. Butylnitramidoameisensäure. Fl. (*R.* 14, 24).
 9) Diäthylester d. Methylendi[amidoameisensäure]. Fl. (*J. pr.* [2] 52, 225).
 10) α -Monamid d. β -Imidopropan- $\alpha\gamma$ -Dicarbonsäure- γ -Monäthylester (Aethylester d. Imidoglutaminsäure). Sm. 86° (*B.* 18, 2291; 19, 2694). — I, 1396.
- $C_7H_{14}O_4S$ 1) Isopropylallylcarbinolschwefelsäure. Ba + 5 H₂O (*Bl.* [3] 15, 887).
 2) Aethylester d. α -Aethylsulfonpropionsäure. Fl. (*B.* 21, 994). — I, 894.
- $C_7H_{14}O_4S_2$ 1) Arabinoseäthylenmerkaptal. Sm. 154° (*B.* 29, 550).
- $C_7H_{14}O_5S$ 1) Diäthylester d. Aethan- α -Carbonsäure- β -Sulfonsäure (D. d. β -Sulfopropionsäure). Fl. (*A.* 233, 31). — I, 902.
- $C_7H_{14}O_5S_2$ 1) $\alpha\gamma$ -Di[Aethylsulfon]- β -Ketopropan (Diäthylsulfonaceton). Sm. 119° (*B.* 24, 869). — I, 995.
- $C_7H_{14}O_6S_3$ 1) Diäthyltrimethylentrisulfon? (*B.* 25, 242).
- $C_7H_{14}NBr$ 1) *p*-Brom- γ -Isobutylamidopropen. Fl. Oxalat (*B.* 21, 3194). — I, 1143.
- $C_7H_{14}N_2S$ 1) s-Allylpropylthioharnstoff. Sm. 60° (61°) (*B.* 23, 23, 285; 24, 261). — I, 1323.
 2) 2-Thiocarbonyl-4,4,5,5-Tetramethyltetrahydroimidazol (Pinakolylsulfoharnstoff). Sm. 240—243° (*M.* 17, 232).
 3) 2-Propylamido-5-Methyl-4,5-Dihydrothiazol. Sd. 237°. Pikrat (*B.* 23, 264). — I, 1323.
 4) 2-Aethylimido-3-Aethyltetrahydrothiazol. Sd. 224°₇₄₈ (*B.* 23, 2198). — I, 1324.
 5) Methylamid d. Hexahydropyridin-1-Thiocarbonsäure (s-Methylpiperidin-harnstoff). Sm. 129° (125°) (*B.* 17, 3040; 23, 287). — IV, 14.
- $C_7H_{14}N_2S_2$ 1) Diäthylformcarbothialdin. Sm. 75° (*Bl.* [3] 15, 899).
- $C_7H_{14}N_3S$ 1) 5-Aethylimido-3-Thiocarbonyl-1 [oder 2]-Methyl-4-Aethyltetrahydro-1,2,4-Triazol. Fl. HJ (*B.* 28, 955). — IV, 1235.

$C_7H_{15}ON$

C 65,1 — H 11,6 — O 12,4 — N 10,8 — M. G. 129.

- 1) α -Oximidoheptan (Oxim d. Oenanthsäurealdehyd). Sm. 55,5° (57—58°); Sd. 195°. 2 + AgNO₃ (B. 16, 2992; 17, 1572; 25, 1916, 2593; 26, 2860; J. pr. [2] 53, 432 Anm.). — I, 969.
- 2) δ -Oximidoheptan (Oxim d. norm. Propylketon). Sd. 190—195° (196°₇₇₂) (B. 20, 501; 26, 1433; 29, 98). — I, 1030.
- 3) ϵ -Oximido- β -Methylhexan (Oxim d. Methylisoamylketon). Sd. 195 bis 196°₇₆₁ (B. 26, 1427).
- 4) β -Oximido- γ -Aethylpentan. Sd. 186—188,5°₇₁₂ (B. 29, 100).
- 5) γ -Oximido- $\beta\delta$ -Dimethylpentan (Oxim d. Isopropylketon). Sm. 6—8°; Sd. 181—185° (B. 20, 502). — I, 1030.
- 6) β -Methylamido- δ -Keto- β -Methylpentan (Methyldiacetonamin). HCl, (2HCl, PtCl₄), (2HCl, PtCl₂), (HCl, AuCl₃), HNO₃, H₂SO₄, Oxalat (A. 197, 42). — I, 981.
- 7) α -Methylpropylamido- β -Ketopropan. Sd. 129°. (2HCl, PtCl₄) (B. 29, 869).
- 8) α -Diäthylamido- β -Ketopropan (Diäthylamidoacetone). Sd. 155—156°. HCl, (2HCl, PtCl₄) (B. 28, 2226).
- 9) γ -Diäthylamidopropan- $\alpha\beta$ -Oxyd (Diäthylglycidamin). Sd. 160° (Bl. 42, 261). — I, 1176.
- 10) Aethyläther d. α -Imido- α -Oxy- $\beta\beta$ -Dimethylpropan (Amenylimidoäthyläther). HCl (Sm. 118—119°) (B. 24, 2155). — I, 1489.
- 11) 1- $[\beta$ -Oxyäthyl]hexahydropyridin. Sd. 199°. HCl, (HCl, AuCl₃) (B. 14, 1877; M. 15, 667). — IV, 18.
- 12) 2- $[\beta$ -Oxyäthyl]hexahydropyridin. Sm. 39—40°; Sd. 234,5° (cor.). (2HCl, PtCl₄) (B. 22, 2585; 24, 1621; A. 301, 129). — IV, 29.
- 13) 1-Oxymethyl-2-Methylhexahydropyridin. (2HCl, PtCl₄ + 2H₂O) (B. 25, 3124). — IV, 27.
- 14) 1-Aethylhexahydropyridin-N-Oxyd. HBr, $\frac{1}{2}$ HJ, HJ, Pikrat (B. 31, 1555).
- 15) Amid d. Hexan- α -Carbonsäure (A. d. Oenanthsäure). Sm. 95°; Sd. 250 bis 258° (A. 91, 103; 185, 369; B. 15, 983; 20, 1021; 31, 2348). — I, 1248.
- 16) Amid d. β -Methylpentan- δ -Carbonsäure. Sm. 90° (Soc. 67, 511).
- 17) Dimethylamid d. β -Methylpropan- β -Carbonsäure (D. d. Trimethyl-essigsäure). Sd. 185—186°₇₅₄ (R. 6, 241). — I, 1247.
- 18) Aethylamid d. β -Methylpropan- β -Carbonsäure (Ac. d. Trimethyl-essigsäure). Sm. 49°; Sd. 203—204°₇₀₅ (R. 6, 241). — I, 1247.
- 19) Isopropylamid d. Propan- β -Carbonsäure (I. d. Isobuttersäure). Sm. 102°; Sd. 210° (B. 20, 505). — I, 1246.
- 20) Ekzemin (Base) (B. 26 [2] 502).

 $C_7H_{15}ON_3$

C 53,5 — H 9,5 — O 10,2 — N 26,8 — M. G. 157.

- 1) γ -Semicarbazon- $\beta\beta$ -Dimethylbutan. Sm. 157° (C. 1897 [2] 390).

 $C_7H_{15}ON_3$

C 28,3 — H 5,0 — O 5,4 — N 61,3 — M. G. 297.

- 1) Cyanmelamidin. Zers. bei 250° (ohne Sm.) (J. pr. [2] 20, 340). — I, 1164.

 $C_7H_{15}OCl$

- 1) Chloroxyheptan (Chlorheptylalkohol). Sd. 206—208° (Z. 1870, 411). — I, 248.

 $C_7H_{15}O_2N$

C 57,9 — H 10,3 — O 22,1 — N 9,7 — M. G. 145.

- 1) α -Nitroheptan. Sd. 193—196° (Am. 20, 210).
- 2) β -Nitroheptan. Sd. 194—196° (J. r. 25, 481; B. 13, 2029). — I, 211.
- 3) γ -Nitro- γ -Aethylpentan. Sd. 185—205° (J. pr. [2] 48, 377; B. 26, 137).
- 4) Nitrit d. α -Oxyheptan (Salpetrigsäure-norm. Heptylester). Sd. 155° (G. 18, 435). — I, 322.
- 5) Aethyläther d. 2-Oxy-4-Methyltetrahydro-1,4-Oxazin (B. 32, 729).
- 6) Coniinsäure. HCl, (2HCl, PtCl₄) (B. 15, 1949; 16, 643). — IV, 34.
- 7) α -Amidoheptan- α -Carbonsäure (α -Amidoönanthsäure). HCl, Cu (B. 8, 1168). — I, 1204.
- 8) η -Amidoheptan- α -Carbonsäure. HCl (Sm. 96—99°), (2HCl, PtCl₄) (B. 27, 3401).
- 9) ζ -Amidoheptan- γ -Carbonsäure (α -Aethylhomopiperidinsäure). Sm. 200 bis 200,5°. (2HCl, PtCl₄) (B. 23, 3693). — I, 1204.
- 10) α -Methylamidopentan- α -Carbonsäure (α -Methylamidocaprinsäure). HCl, (2HCl, PtCl₄), Cu + 2H₂O (A. ch. [5] 29, 166). — I, 1202.

- C₇H₁₅O₂N** 11) α -Aethylamidoisovaleriansäure. HCl, Cu (*Bl.* 33, 204). — I, 1200.
 12) α -Diäthylamidopropionsäure. Cu + H₂O (*Soc.* 56, 1139; *Bl.* [3] 3, 505). — I, 1195.
 13) Inn. Anhydrid d. α -Trimethylamidobuttersäure. (2HCl, PtCl₄ + H₂O) (*J.* 1887, 1651). — I, 1197.
 14) Aethylester d. γ -Amidovaleriansäure. HCl (Sm. 92°) (*B.* 22, 1862). — I, 1199.
 15) Aethylester d. Butylamidoameisensäure. Sd. 100°₁₅ (*R.* 14, 18).
 16) Aethylester d. iso-Butylamidoameisensäure. Sd. 96°₁₇ (*R.* 14, 20).
 17) Aethylester d. sec. Butylamidoameisensäure. Sd. 89,8°₁₅ (*R.* 14, 19).
 18) Aethylester d. tert. Butylamidoameisensäure. Sm. 20,5—22°; Sd. 72°₁₆ (*R.* 14, 20).
 19) Isoamylester d. Amidoessigsäure. Fl. (*J. pr.* [2] 37, 160). — I, 1185.
 20) Amid d. α -Oxyhexan- α -Carbonsäure (Amid d. α -Oxyönanthsäure). Sm. 147° (*B.* 8, 1170). — I, 1344.
- C₇H₁₅O₂N₃** C 48,5 — H 8,7 — O 18,5 — N 24,3 — M. G. 173.
 1) α -Amido-norm. Caprocyenin (*J.* 1887, 664). — I, 1203.
 2) Di[Methylamid] d. Methylamidoäthan- $\alpha\beta$ -Dicarbonsäure (D. d. Methylamidobernsteinsäure) (*G.* 19, 422). — I, 1382.
- C₇H₁₅O₂Cl** 1) Diäthyläther d. γ -Chlor- $\alpha\alpha$ -Dioxypropan. Fl. (*J.* 1864, 495; *B.* 31, 1797). — I, 306.
 2) Diäthyläther d. β -Chlor- $\alpha\gamma$ -Dioxypropan. Sd. 184° (*A.* 119, 237). — I, 306.
- C₇H₁₅O₂Br** 1) Diäthyläther d. β -Brom- $\alpha\gamma$ -Dioxypropan. Sd. 195—205° (*B.* 4, 704). — I, 306.
- C₇H₁₅O₃N** C 52,2 — H 9,3 — O 29,8 — N 8,7 — M. G. 161.
 1) β -Amido- δ -Oxy- β -Methylpentan- δ -Carbonsäure (γ -Amido- $\alpha\gamma\gamma$ -Trimethyl- α -Oxy-norm. Buttersäure). Sm. 210°. HCl, H₂SO₄, HNO₃ + 2H₂O, Cu + 2H₂O (*A.* 192, 329; 232, 209). — I, 1209.
 2) Aethylester d. β -Methylamido- β -Oxybuttersäure. Sm. 42—43° (*B.* 18, 618). — I, 1207.
 3) Aethylester d. Aethoxyläthylamidoameisensäure. Sd. 160—180° (*Am.* 20, 47).
- C₇H₁₅O₃N₃** C 44,5 — H 7,9 — O 25,4 — N 22,2 — M. G. 189.
 1) Verbindung (aus Uramidocrotonsäureäthylester). Sm. 131° (*A.* 244, 242). — I, 1349.
- C₇H₁₅O₃Cl** 1) $\alpha\alpha$ -Diäthyläther d. γ -Chlor- $\alpha\alpha\beta$ -Trioxypropan? Sd. 126°₃₂ (*B.* 31, 1799).
- C₇H₁₅O₄N₃** C 41,0 — H 7,3 — O 31,2 — N 20,5 — M. G. 205.
 1) Saures Guanidinsalz d. Bernsteinsäuremonoäthylester. Sm. 136 bis 138° (*J. pr.* [2] 49, 40).
- C₇H₁₅O₅N** C 43,5 — H 7,8 — O 41,4 — N 7,2 — M. G. 193.
 1) α -Trimethylamidoisobernsteinsäure. (2HCl, AuCl₃) (*G.* 17, 438). — I, 1213.
- C₇H₁₅O₆N₃** C 35,4 — H 6,3 — O 40,5 — N 17,7 — M. G. 237.
 1) Semicarbazon d. d-Glykose. Sm. 175° u. Zers. (*B.* 31, 2199 Anm.).
- C₇H₁₅O₇N** C 37,3 — H 6,7 — O 49,8 — N 6,2 — M. G. 225.
 1) Amid d. Galaktosecarbonsäure. Sm. 194° u. Zers. (*B.* 21 [2] 139). — I, 1407.
- C₇H₁₃NBr₂** 1) $\delta\epsilon$ -Dibrom- α -Dimethylamidopentan. Fl. (*B.* 17, 2139; 19, 2629). — IV, 6.
 2) α -[$\beta\gamma$ -Dibrompropyl]amido- β -Methylpropan (Isobutyldibrompropylamin). HBr (*B.* 21, 3194; 24, 3045). — I, 1132.
 3) isom. Isobutyldibrompropylamin (*B.* 21, 3195). — I, 1132.
 4) Brommethylat d. 3-Brom-1-Methylhexahydropyridin (*B.* 17, 2139; 19, 2628). — IV, 6.
- C₇H₁₃NJ₂** 1) Piperäthylalkinjodid (*B.* 15, 1146). — IV, 18.
- C₇H₁₃NS** 1) Triäthylsulfencyanid. + AgCl, + 2Hg(CN)₂ (*Z.* 1868, 622; *Bl.* 49, 680; [3] 3, 165; *B.* 31, 2288). — I, 358.
- C₇H₁₃NS₂** 1) Methylthialdin. Sm. 79°. HCl, CHNS (*B.* 19, 2378). — I, 919.
 2) norm. Hexylamidodithioameisensäure. Cu (*B.* 16, 746). — I, 1262.
 3) Methylisoamylamidodithioameisensäure. Methylisoamylaminsalz (*B.* 29, 2119).
- C₇H₁₃NSn** 1) Zinntriäthylecyanid (*A.* 114, 364). — I, 1528.

- $C_7H_{15}N_2J$ 1) 1-Jodmethylat d. 3,5,5-Trimethyl-4,5-Dihydropyrazol. Sm. 154° (*J. pr.* [2] 50, 549). — IV, 491.
- $C_7H_{15}N_2S$ 1) 2-Thiocarbonyl-1-Aethyl-4,6-Dimethylhexahydro-1,3,5-Triazin. Sm. 135—136° (*Soc.* 53, 414; *B.* 9, 573). — I, 1330.
- $C_7H_{15}N_4Cl$ 1) Chlormethylat d. Hexamethylentetramin. $2 + PtCl_4$ (*B.* 19, 1843). — I, 1168.
- $C_7H_{15}N_4J$ 1) Jodmethylat d. Hexamethylentetramin. Sm. 190° u. Zers. (*B.* 19, 1843). — I, 1168.
- $C_7H_{15}N_4J_4$ 1) Jodmethylat d. Hexamethylentetramintrijodid. Sm. 144° (*Bl.* [3] 13, 357).
- $C_7H_{15}S_2P$ 1) Triäthylphosphin + Schwefelkohlenstoff. Sm. 95°. (2HCl, $PtCl_4$) (*A. Spl.* 1, 26). — I, 1501.
- $C_7H_{16}ON_2$ C 58,3 — H 11,1 — O 11,1 — N 19,4 — M. G. 144.
- 1) δ -Aethylnitrosamido- β -Methylbutan (Aethylisoamylnitrosamin). Sd. 144°₈₅ (*Bl.* [3] 17, 406).
- 2) α -Amido- α -Oximidoheptan (norm. Heptenylamidoxim). Sm. 48—49° (*B.* 25 [2] 637). — I, 1485.
- 3) α -Diäthylamido- β -Oximidopropan. Sm. 49° (*B.* 28, 2226).
- 4) norm. Hexylharnstoff. Sm. 109,5° (*B.* 25 [2] 637). — I, 1300.
- 5) α -Methylamylharnstoff (Pseudohexylharnstoff). Sm. 127°; Sd. 220° u. Zers. (*Z.* 1867, 382). — I, 1300.
- 6) uns-Methylisoamylharnstoff. Sm. 122° (*B.* 29, 2119).
- 7) β -Aethylbutylharnstoff. Sm. 116,5° (*B.* 23, 193). — I, 1300.
- 8) $\alpha\gamma$ -Dimethylbutylharnstoff. Sm. 139,5—140° (*A.* 290, 151).
- 9) isom. Hexylharnstoff (*J.* 1863, 527).
- 10) s-norm. Dipropylharnstoff. Sm. 105° (106—107°); Sd. 255° (*B.* 23, 285; 26 [2] 87; *Soc.* 67, 563). — I, 1299.
- 11) uns-norm. Dipropylharnstoff. Sm. 76° (57°). $2HNO_3$, $C_2H_2O_4$ (*Bl.* [3] 9, 103; *R.* 8, 229). — I, 1299.
- 12) s-Diisopropylharnstoff. Sm. 192° (*B.* 15, 756). — I, 1299.
- 13) uns. Diisopropylharnstoff. Sm. 103°. HNO_3 , $C_2H_2O_4$ (*R.* 8, 231). — I, 1299.
- 14) Triäthylharnstoff. Sm. 63°; Sd. 223° (235°) (*WERTZ, Répert. chimie pure* [1862] 4, 199; *J.* 1862, 334). — I, 1299.
- $C_7H_{16}OS$ 1) Aethylisoamylsulfoxyd (*J. pr.* [2] 17, 449). — I, 363.
- $C_7H_{16}O_2N_4$ C 44,7 — H 8,5 — O 17,0 — N 29,8 — M. G. 188.
- 1) Hydrazid d. β -Methylbutan- $\alpha\delta$ -Dicarbonsäure. Sm. 136° (*Bl.* [3] 17, 806).
- $C_7H_{16}O_3S$ 1) Aethylisoamylsulfon. Sd. 270° (*J. pr.* [2] 17, 450). — I, 363.
- $C_7H_{16}O_3N_2$ C 47,7 — H 9,1 — O 27,3 — N 15,9 — M. G. 176.
- 1) Diäthyläther d. $\beta\beta$ -Dioxyäthylharnstoff. Sm. 105° (*B.* 25, 2356). — I, 1314.
- $C_7H_{16}O_3S$ 1) Heptan- α -Sulfonsäure. Sm. 15° (*Bl.* 49, 72; *J.* 1887, 1280). — I, 373.
- 2) isom. Heptansulfonsäure. Fl. Ba, Pb (*Am.* 20, 669).
- 3) Schwefligsäureäthylisoamylester. Sd. 200—225° u. Zers. (*A.* 111, 101). — I, 330.
- $C_7H_{16}O_3Si$ 1) Silicoheptylkohlensäure. Na (*A.* 164, 321). — I, 1519.
- $C_7H_{16}O_4S_2$ 1) $\gamma\gamma$ -Di[Aethylsulfon]pentan. Sm. 132—133° (*H.* 14, 61). — I, 997.
- 2) $\alpha\alpha$ -Di[Aethylsulfon]propan. Sm. 77° (*A.* 253, 151). — I, 943.
- 3) $\alpha\gamma$ -Di[Aethylsulfon]propan (Trimethylenäthylsulfon). Sm. 183° (*B.* 23, 3234). — I, 353.
- 4) $\beta\beta$ -Di[Aethylsulfon]propan (Sulfonal). Sm. 125—126°; Sd. 300° u. geringer Zers. (*B.* 19, 2808; *A.* 253, 147; *Fr.* 27, 664; *H.* 17, 1). — I, 994.
- $C_7H_{16}O_5N_4$ C 35,6 — H 6,8 — O 33,9 — N 23,7 — M. G. 236.
- 1) Galaktoseamidoguanidin. $HCl + \frac{1}{2}H_2O$, $H_2SO_4 + 3H_2O$ (*B.* 28, 2613).
- 2) Glykoseamidoguanidin. $HCl + H_2O$ (Sm. 165°) (*B.* 27, 971).
- 3) Semicarbazon d. Glykosamin. Sm. 165° u. Zers. HCl (*B.* 31, 2200).
- $C_7H_{16}O_6S_2$ 1) Heptandisulfonsäure. Ba, Pb (*Am.* 20, 670).
- $C_7H_{16}NCl$ 1) ϵ -Chlor- β -Amido- γ -Methylhexan. Fl. (2HCl, $PtCl_4$), (HCl , $AuCl_3$) (*A.* 278, 13).
- 2) ζ -Chlor- γ -Amidomethylhexan. (2HCl, $PtCl_4$), Pikrat (*B.* 31, 2139).
- 3) δ -Chlor- α -Dimethylamidopentan. Fl. (HCl , $AuCl_3$) (*A.* 264, 316). — IV, 6.

- C₇H₁₆NCl** 4) **δ-Aethylchloramido-β-Methylbutan** (Aethylisoamylchloramin). Sd. 72°₃₇ (Bl. [3] 17, 298).
- 5) **Chlormethylat d. 1,2-Dimethyltetrahydropyrrol**. 2 + PtCl₄ + AuCl₃ (A. 264, 317; B. 31, 912). — IV, 24.
- C₇H₁₆NJ** 1) **Jodmethylat d. δ-Dimethylamido-α-Buten** (G. 15, 500). — IV, 3.
- 2) **Jodmethylat d. 1,2-Dimethyltetrahydropyrrol** (B. 22, 1867). — IV, 24.
- 3) **Jodmethylat d. 1,3-Dimethyltetrahydropyrrol** (J. pr. [2] 57, 149).
- C₇H₁₆N₂S** 1) **norm. Hexylthioharnstoff**. Sm. 83° (B. 16, 746). — I, 1321.
- 2) **s-Methylisoamylthioharnstoff**. Sm. 75–76° (Soc. 63, 323). — I, 1321.
- 3) **s-Aethylisobutylthioharnstoff**. Sm. 77,5° (B. 25, 814; Soc. 63, 320). — I, 1321.
- 4) **s-Aethyl-sec. Butylthioharnstoff**. Sm. 57–58° (Soc. 63, 322). — I, 1321.
- 5) **s-Dipropylthioharnstoff**. Sm. 71° (68°) (B. 23, 284; 26 [2] 87). — I, 1320.
- 6) **s-Diisopropylthioharnstoff**. Sm. 161° (M. 3, 169; B. 15, 1291). — I, 1321.
- 7) **Triäthylthioharnstoff**. Sm. 26°; Sd. 205° u. ger. Zers. (2HCl, PtCl₄), HJ, 2 + PtCl₂, 4 + PtCl₂, Pikrat (B. 14, 2755; 23, 2197; J. pr. [2] 50, 499, 500; J. r. 25, 582). — I, 1320.
- C₇H₁₆N₂S₂** 1) **Verbindung** (aus α-Amido-β-Diäthylamidoäthan u. Schwefelkohlenstoff). Sm. 159° (B. 29, 2527).
- C₇H₁₆J₂S₂** 1) **Verbindung** (aus Methylendiäthylendisulfid u. Methyljodid). Zers. bei 155° (B. 19, 700). — I, 364.
- C₇H₁₆J₂S** 1) **Triäthylsulfinjodid + Jodoform**. Sm. 142° (C. 1898 [2] 524).
- C₇H₁₇ON** C 64,1 — H 13,0 — O 12,2 — N 10,7 — M. G. 131.
- 1) **γ-Diäthylamido-α-Oxypropan** (Diäthyltrimethylenalkin). Sd. 189,5° (B. 17, 512). — I, 1174.
- 2) **α-Diäthylamido-β-Oxypropan** (Diäthylpropylalkin). Sd. 158–159° (2HCl, PtCl₄) (B. 14, 2407; 16, 533). — I, 1175.
- 3) **Dipropylamidooxymethan**. Fl. (Bl. [3] 13, 158).
- 4) **Diäthylpropylaminooxyd**. Sm. 167–170°. HCl (J. r. 21, 44). — I, 1140.
- 5) **Diäthylisopropylaminooxyd**. Sd. 156–161° (J. r. 21, 46). — I, 1131.
- 6) **1,1,2-Trimethyltetrahydropyrrolammoniumhydroxyd** (A. 279, 354).
- 7) **Oenantholammoniak** (A. 176, 341; A. Spl. 6, 367). — I, 955.
- C₇H₁₇O₂N** C 57,1 — H 11,5 — O 21,8 — N 9,5 — M. G. 147.
- 1) **γ-Diäthylamido-α,β-Dioxypropan** (Diäthylpropylglykolin). Sd. 233 bis 235°₄₅. 2HCl, (2HCl, PtCl₄), Pikronolat (B. 15, 1151; 32, 757). — I, 1177.
- 2) **Methoxydhydrat d. 4-Aethylmorpholin**. Jodid (A. 301, 17).
- 3) **Typhotoxin**. (HCl, AuCl₃). — III, 889.
- 4) **Base** (aus Pferdefleisch). (HCl, AuCl₃). — III, 889.
- C₇H₁₇O₂N** C 51,5 — H 10,4 — O 29,4 — N 8,6 — M. G. 163.
- C₇H₁₇O₃P** 1) **α-Trimethylamidobuttersäure** (J. 1887, 1651). — I, 1197.
- 1) **Oenanthylphosphinsäure**. Sm. 106° (M. 7, 29). — I, 1505.
- 2) **Oxyönanthylphosphorige Säure**. Sm. 55–57°. Ba (A. ch. [6] 23, 320). — I, 1505.
- C₇H₁₇O₄P** 1) **Oxyönanthylphosphinsäure**. Sm. 185°. Ca (M. 7, 27). — I, 1505.
- C₇H₁₇O₆P** 1) **Diäthylglycerinphosphorsäure** (J. pr. [2] 28, 253). — I, 342.
- C₇H₁₇NJ₂** 1) **Jodmethyltriäthylammoniumjodid** (B. 7, 1253). — I, 1127.
- C₇H₁₇ClS** 1) **Methyldipropylsulfinchlorid**. + 6HgCl₂ (B. 31, 2287).
- 2) **Methyldiisopropylsulfinchlorid**. + 2 u. 6HgCl₂ (B. 31, 2287).
- 3) **Methyläthylisobutylsulfinchlorid**. + 1, 2, 3 u. 6HgCl₂ (B. 31, 2286).
- C₇H₁₇Cl₂P** 1) **Chlormethyltriäthylphosphoniumchlorid**. 2 + PtCl₄ (J. 1861, 487). — I, 1503.
- C₇H₁₇J₂P** 1) **Jodmethyltriäthylphosphoniumjodid** (J. 1860, 341). — I, 1503.
- C₇H₁₈ON₂** C 57,5 — H 12,3 — O 11,0 — N 19,2 — M. G. 146.
- 1) **αγ-Di[Dimethylamido]-β-Oxypropan**. Sd. 170–185° u. Zers. (2HCl, PtCl₄) (B. 17, 510). — I, 1175.
- 2) **Gadinin** (B. 18, 1927). — III, 889.
- C₇H₁₈O₂Si** 1) **Triäthyläther d. Orthosilicoessigsäure**. Sd. 146–151° (A. 173, 143, 149). — I, 1520.
- C₇H₁₈O₄Si** 1) **Methyltriäthylester d. Kieselsäure**. Sd. 155–157° (A. ch. [4] 9, 45). — I, 346.

- $C_7H_{15}NCl$ 1) Trimethylisobutylammoniumchlorid. $2 + PtCl_4$ (Soc. 57, 774; *Bl.* [3] 6, 710). — I, 1132.
 2) Methyltriäthylammoniumchlorid. $2 + HgCl_2 + 2HgCl_2, 2 + CuCl_2, + AuCl_3, 3 + 2PtCl_4$ (A. 78, 277; 108, 5; *J.* 1883, 620; *B.* 25 [2] 745).
- $C_7H_{15}NJ$ 1) Trimethylisobutylammoniumjodid (*Bl.* [3] 6, 709).
 2) Methyltriäthylammoniumjodid (A. 78, 277; 108, 5; 240, 71). — I, 1127.
- $C_7H_{15}NJ_3$ 1) Methyltriäthylammoniumtrijodid (A. 108, 5). — I, 1127.
- $C_7H_{15}NJ_5$ 1) Methyltriäthylammoniumpentajodid. Sm. 16° (A. 240, 71). — I, 1127.
- $C_7H_{15}NJ_7$ 1) Methyltriäthylammoniumheptajodid. Sm. 42° (A. 240, 71). — I, 1127.
- $C_7H_{15}ClP$ 1) Methyltriäthylphosphoniumchlorid. $2 + PtCl_4$ (A. 104, 26). — I, 1503.
- $C_7H_{15}ClSb$ 1) Antimonmethyltriäthylchlorid (*J.* 1857, 424).
- $C_7H_{15}JP$ 1) Methyltriäthylphosphoniumjodid (A. 104, 26). — I, 1503.
- $C_7H_{15}JSb$ 1) Antimonmethyltriäthyljodid. $+ HgJ_2, 2 + 3HgJ_2$ (*J.* 1851, 503; 1857, 423). — I, 1515.
- $C_7H_{19}ON$ C 63,2 — H 14,3 — O 12,0 — N 10,5 — M. G. 133.
 1) Methyltriäthylammoniumhydrat. Salze siehe (A. 78, 277; 108, 5; 181, 374; 240, 71; *J.* 1883, 620). — I, 1127.
- $C_7H_{19}OSb$ 1) Antimonmethyltriäthoxyhydrat. Salze siehe (*J.* 1857, 423). — I, 1515.
- $C_7H_{19}O_2P$ 1) Methoxyltriäthylphosphoniumhydrat (*J.* 1850, 342). — I, 1501.

C_7 -Gruppe mit vier Elementen.

- $C_7HOClBr_4$ 1) Chlorid d. 2,3,4,6-Tetrabrombenzol-1-Carbonsäure. Sm. 58° (Soc. 67, 597).
- $C_7HO_2NCl_4$ 1) 1-Keto-3,4,5,6-Tetrachlor-1,2-Dihydrobenzoxazol. Sm. 220 bis 237° (*J. pr.* [2] 37, 48). — II, 708.
 2) 1-Keto-2-Chlor-?-Trichlor-1,2-Dihydrobenzoxazol. Zers. bei 130° (*J. pr.* [2] 37, 48). — II, 708.
- $C_7HO_2Cl_2Br$ 1) 2,3,5,6-Tetrachlor-4-Brombenzol-1-Carbonsäure. Sm. 198° (*J. pr.* [2] 39, 484). — II, 1226.
- $C_7HO_2NCl_4$ 1) 3,4,5,6-Tetrachlor-2-Nitrobenzol-1-Carbonsäure. Ca, Ba $+ 2\frac{1}{2}H_2O$ (*B.* 20, 244). — II, 1241.
- $C_7HO_2NBr_4$ 1) 2,4,5,6-Tetrabrom-3-Nitrobenzol-1-Carbonsäure. Sm. 225° (*B.* 27, 1584). — II, 1244.
- $C_7H_2ONCl_3$ 1) Nitril d. 2,4,6-Trichlor-3-Oxybenzol-1-Carbonsäure. Sm. 157° (*B.* 32, 123).
- $C_7H_2ONBr_3$ 1) Nitril d. 2,4,6-Tribrom-3-Oxybenzol-1-Carbonsäure. Sm. 168° (*B.* 32, 122).
- $C_7H_2OClBr_3$ 1) Chlorid d. 2,4,6-Tribrombenzol-1-Carbonsäure. Sm. 47° (Soc. 67, 596).
 2) Chlorid d. 3,4,5-Tribrombenzol-1-Carbonsäure. Sm. 83° (Soc. 67, 595).
- $C_7H_2O_2NCl_3$ 1) 1-Keto-2-Chlor-?-Dichlor-1,2-Dihydrobenzoxazol. Sm. $145-150^\circ$ u. Zers. (*J. pr.* [2] 37, 46). — II, 707.
 2) isom. 1-Keto-2-Chlor-?-Dichlor-1,2-Dihydrobenzoxazol. Sm. 89° (*J. pr.* [2] 37, 47). — II, 708.
 3) 1-Keto-?-Trichlor-1,2-Dihydrobenzoxazol. Sm. $261-262^\circ$ u. Zers. (*J. pr.* [2] 37, 36). — II, 708.
- $C_7H_2O_2Cl_2J_2$ 1) 3-Chlor-2,4,6-Trijodbenzol-1-Carbonsäure. Sm. 226° u. Zers. (*B.* 30, 1945).
- $C_7H_2O_2Cl_2Br$ 1) 2-Trichlor-4-Brombenzol-1-Carbonsäure. Sm. 152° . Ba, Ag (*J. pr.* [2] 39, 483). — II, 1226.
- $C_7H_2O_2Cl_2J_2$ 1) 3-[oder 5]-Chlor-2,4-Dijod-4-Dichlorjodosobenzol-1-Carbonsäure. Sm. 204° u. Zers. (*B.* 30, 1947).
- $C_7H_2O_2Cl_2J_2$ 1) 3-[oder 5]-Chlor-2,4-Dijod-6-Tetrachlorjodobenzol-1-Carbonsäure. Sm. 206° u. Zers. (*B.* 30, 1948).
- $C_7H_2O_2Cl_2J_2$ 1) 3-[oder 5]-Chlor-2,4-Dijod-6-Jodosobenzol-1-Carbonsäure. Sm. 206° u. Zers. (*B.* 30, 1946).
- $C_7H_2O_2NCl_3$ 1) 2,4,6-Trichlor-3-Nitrobenzol-1-Carbonsäure. Sm. 220° . Ca $+ 1\frac{1}{2}H_2O$, Ba $+ 2H_2O$ (A. 152, 239). — II, 1241.

- $C_7H_5O_2N_2Br_2$ 1) 3, 5-Dibrom-4, 6-Dinitro-2-Oxybenzol-1-Carbonsäure. Sm. 162° (B. 26, 1469). — II, 1512.
- $C_7H_5O_2N_2Cl$ 1) Chlorid d. 2, 4, 6-Trinitrobenzol-1-Carbonsäure. Sm. 158° (B. 27, 3154; Soc. 67, 600). — II, 1239.
- $C_7H_5N_2Br_2S$ 1) 2, 4, 6-Tribrombenzoldiazoniumrhodanid (B. 31, 1263).
- $C_7H_5ONCl_2$ 1) Inn. Anhydrid d. 3, 6-Dichlor-2-Amidobenzol-1-Carbonsäure (3, 6-Dichloranthranil). Sm. 96—97° (B. 28, 1384).
- 2) Nitril d. 3, 5-Dichlor-4-Oxybenzol-1-Carbonsäure. Sm. 146° (B. 29, 2359).
- $C_7H_5ONBr_2$ 1) Nitril d. 3, 5-Dibrom-2-Oxybenzol-1-Carbonsäure. Sm. 167—168° (B. 31, 3042).
- 2) Nitril d. 3, 5-Dibrom-4-Oxybenzol-1-Carbonsäure. Sm. 187° (B. 29, 2359).
- $C_7H_5ONJ_2$ 1) Nitril d. 3, 5-Dijod-4-Oxybenzol-1-Carbonsäure. Sm. 205—206° (B. 29, 2359).
- $C_7H_5OCIBr_2$ 1) Chlorid d. 2, 4-Dibrombenzol-1-Carbonsäure. Sm. 48—49° (Soc. 67, 592).
- 2) Chlorid d. 2, 6-Dibrombenzol-1-Carbonsäure. Sm. 46° (Soc. 67, 594).
- 3) Chlorid d. 3, 5-Dibrombenzol-1-Carbonsäure. Sm. 41°; Sd. 189°₄₅ (Soc. 67, 593).
- $C_7H_5O_2NCl_2$ 1) 1-Keto-2, p-Dichlor-1, 2-Dihydrobenzoxazol. Sm. 119—120° (B. 19, 2272; J. pr. [2] 37, 41). — II, 707.
- 2) 1-Keto-p-Dichlor-1, 2-Dihydrobenzoxazol. Sm. oberh. 270°; subl. (J. pr. [2] 37, 44). — II, 707.
- 3) isom. 1-Keto-p-Dichlor-1, 2-Dihydrobenzoxazol. Sm. 213—214° (J. pr. [2] 37, 45). — II, 707.
- 4) Chlorid d. Pyridin-2, 5-Dicarbonsäure. Sm. 61°; Sd. 284° (J. 1877, 437). — IV, 163.
- 5) Chlorid d. Pyridin-p-Dicarbonsäure. Sm. 88—89°; Sd. 265° (J. 1878, 439). — IV, 166.
- 6) Chlorid d. Pyridin-p-Dicarbonsäure. Sm. 49° (J. 1878, 439). — IV, 166.
- $C_7H_5O_2NCl_4$ 1) 3, 4, 5, 6-Tetrachlor-2-Amidobenzol-1-Carbonsäure. Ca (B. 20, 2441). — II, 1279.
- $C_7H_5O_2NBr_2$ 1) 4, 6-Dibrom-1-Keto-1, 2-Dihydrobenzoxazol. Sm. 250°. Na, K (Am. 21, 117).
- 2) p-Dibrom-1-Keto-1, 2-Dihydrobenzoxazol. Sm. 243—245° (J. pr. [2] 37, 51). — II, 708.
- $C_7H_5O_2NBr_4$ 1) 3, 4, 5, 6-Tetrabrom-2-Amidobenzol-1-Carbonsäure. Sm. 115° (J. pr. [2] 33, 38). — II, 1280.
- $C_7H_5O_2N_2Cl$ 1) Nitril d. 4-Chlor-2-Nitrobenzol-1-Carbonsäure. Sm. 98° (J. pr. [2] 37, 197). — II, 1241.
- 2) Nitril d. 4-Chlor-3-Nitrobenzol-1-Carbonsäure. Sm. 100—101° (J. pr. [2] 37, 197). — II, 1241.
- 3) Nitril d. 6-Chlor-3-Nitrobenzol-1-Carbonsäure. Sm. 105—106° (B. 2, 493). — II, 1240.
- 4) Nitril d. 3-Chlor-4-Nitrobenzol-1-Carbonsäure. Sm. 87° (J. pr. [2] 37, 200). — II, 1240.
- $C_7H_5O_2N_2Br$ 1) Nitril d. 4-Brom-2-Nitrobenzol-1-Carbonsäure. Sm. 120° (99°) (B. 23, 3439; J. pr. [2] 43, 203). — II, 1243.
- 2) Nitril d. 6-Brom-3-Nitrobenzol-1-Carbonsäure. Sm. 117° (B. 23, 3439). — II, 1242.
- 3) Nitril d. 3-Brom-4-Nitrobenzol-1-Carbonsäure. Sm. 104° (J. pr. [2] 43, 202). — II, 1242.
- $C_7H_5O_2N_2Br_3$ 1) 2, 4, 6-Tribromdiazobenzolcarbonsäure. K (B. 28, 1930). — IV, 738.
- $C_7H_5O_2ClBr_2$ 1) 2-Chlor-4, 6-Dibrombenzol-1-Carbonsäure. Sm. 182° (J. pr. [2] 39, 482). — II, 1226.
- 2) Chlorid d. 3, 5-Dibrom-2-Oxybenzol-1-Carbonsäure. Sm. 87° (B. 30, 222).
- $C_7H_5O_2ClJ_2$ 1) Chlorid d. 3, 5-Dijod-2-Oxybenzol-1-Carbonsäure. Sm. 67—68° (B. 30, 222).
- $C_7H_5O_2Cl_2Br$ 1) 2, 5-Dichlor-4-Brombenzol-1-Carbonsäure. Sm. 168°. Ba + 3 H₂O, Ag (J. pr. [2] 39, 480). — II, 1226.

- $C_7H_3O_2Cl_2Br_2$ 1) *p*-Trichlor-*p*-Dibrom-2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydrobenzol (B. 13, 1306). — II, 963.
- $C_7H_3O_2NCl_2$ 1) Aldehyd d. 3,6-Dichlor-2-Nitrobenzol-1-Carbonsäure. Sm. 136 bis 138° (B. 17, 753; 29, 876; A. 296, 74). — III, 16.
2) Aldehyd d. 2,5-Dichlor-3 [oder 4]-Nitrobenzol-1-Carbonsäure. Sm. 66,5—67° (B. 29, 876; A. 296, 75).
3) Chlorid d. 2-Chlor-4-Nitrobenzol-1-Carbonsäure. Sm. 115° (B. 24, 3812). — II, 1239.
- $C_7H_3O_2N_2Br$ 1) Nitril d. 5-Brom-3-Nitro-2-Oxybenzol-1-Carbonsäure. Sm. 119 bis 120° (B. 31, 3043).
- $C_7H_3O_2N_2Br_3$ 1) 2,4,6-Tribrom-1-Diazobenzol-3-Carbonsäure. Nitrat (A. 139, 8). — IV, 1554.
- $C_7H_3O_2Cl_2S$ 1) Chlorid d. 4-Chlorbenzol-1-Carbonsäure-3-Sulfonsäure. Sm. 42 bis 43° (Am. 16, 541). — II, 1303.
- $C_7H_3O_2Br_2S$ 1) Pentabromphenylester d. Methansulfonsäure. Sm. 171° (J. pr. [2] 48, 247). — II, 675.
- $C_7H_3O_2NCl_2$ 1) 3,6-Dichlor-2-Nitrobenzol-1-Carbonsäure. Sm. 143—144° (A. 296, 78).
2) 2,3-Dichlor-*p*-Nitrobenzol-1-Carbonsäure. Sm. 214—215°. Ba + 4 H₂O (B. 20, 1624). — II, 1241.
3) 3,4-Dichlor-*p*-Nitrobenzol-1-Carbonsäure. Sm. 160° (B. 20, 1624). — II, 1241.
4) 2,6-Dichlorpyridin-3,5-Dicarbonsäure. Sm. bei 230° u. Zers. (A. 262, 126). — IV, 166.
5) Chlorid d. 5-Chlor-3-Nitro-2-Oxybenzol-1-Carbonsäure. Fl. (B. 30, 222).
- $C_7H_3O_2NBr_2$ 1) 3,4-Dibrom-2 [oder 6]-Nitrobenzol-1-Carbonsäure. Sm. 162°. Na + 3 H₂O, K, Mg, Ca + 3½ H₂O, Ba + H₂O, Pb (A. 222, 188). — II, 1243.
2) 3,5-Dibrom-2-Nitrobenzol-1-Carbonsäure. Sm. 233—234°. K, Ca, Ba + 4 H₂O, Ag (A. 222, 173). — II, 1243.
3) 3,5-Dibrom-*p*-Nitrobenzol-1-Carbonsäure. Sm. 162°. Na + 3 H₂O, Ba + 2 H₂O (B. 10, 1706; A. 158, 13). — II, 1243.
- $C_7H_3O_2N_2Cl_2$ 1) 3,4,6-Trichlor-2,5-Dinitro-1-Methylbenzol. Sm. 227° (225°) (A. 187, 280; 237, 140). — II, 95.
2) 4,5,6-Trichlor-2,3-Dinitro-1-Methylbenzol. Sm. 141° (A. 237, 140). — II, 95.
- $C_7H_3O_2N_2Br_3$ 1) 2,4,6-Tribrom-3,5-Dinitro-1-Methylbenzol. Sm. 217—220° (B. 13, 975). — II, 97.
2) *p*-Tribrom-*p*-Nitro-2-Amidobenzol-1-Carbonsäure. Sm. 196° (J. pr. [2] 33, 42). — II, 1287.
- $C_7H_3O_2N_2S$ 1) 2,4-Dinitrophenylrhodanid. Sm. 139° (Am. 8, 90). — II, 795.
- $C_7H_3O_2NCl_2$ 1) 3,5-Dichlor-4-Oxypyridin-2,6-Dicarbonsäure + H₂O. Ag₃ (M. 5, 399). — IV, 172.
- $C_7H_3O_2NBr_2$ 1) 3,5-Dibrom-4-Oxypyridin-2,6-Dicarbonsäure + 2 H₂O. Ag₃ (M. 5, 397; 6, 291). — IV, 172.
- $C_7H_3O_2NJ_2$ 1) 3,5-Dijod-4-Oxypyridin-2,6-Dicarbonsäure (M. 5, 401). — IV, 173.
- $C_7H_3O_2N_2Cl$ 1) Chlorid d. 2,6-Dinitrobenzol-1-Carbonsäure. Sm. 98° (Soc. 67, 599).
- $C_7H_3O_2N_2Cl_3$ 1) Methyläther d. 2,4,6-Trichlor-3,5-Dinitro-1-Oxybenzol. Sm. 95—96° (A. ch. [6] 20, 527). — II, 696.
- $C_7H_3O_2Cl_2S_2$ 1) Trichlorid d. Benzol-1-Carbonsäure-3,5-Disulfonsäure. Sm. 86,5—87° (M. 14, 686). — II, 1301.
- $C_7H_3O_2N_2Cl$ 1) 2-Chlor-3,5-Dinitrobenzol-1-Carbonsäure. Sm. 238° (A. 222, 201). — II, 1241.
2) 4-Chlor-3,5-Dinitrobenzol-1-Carbonsäure. Sm. 159° (Am. 19, 34).
3) Chlorid d. 3,5-Dinitro-2-Oxybenzol-1-Carbonsäure. Sm. 69—70° (B. 30, 222).
- $C_7H_3O_2N_2Br$ 1) 4-Brom-3,5-Dinitrobenzol-1-Carbonsäure. Sm. 181°. Na + 4 H₂O, Ag, Pyridinsalz (B. 28, 3064; Am. 19, 12, 206).
- $C_7H_3O_2N_3Br_2$ 1) 3,5-Dibrom-2,4,6-Trinitro-1-Methylbenzol. Sm. 229—230° (B. 21, 3501; 29, 1346). — II, 97.
- $C_7H_3O_2N_2Cl$ 1) 5-Chlor-*p*-Dinitro-2-Oxybenzol-1-Carbonsäure. Sm. 78° (B. 10, 2191). — II, 1511.
- $C_7H_3N_3Cl_3Br$ 1) 4,6,7-Trichlor-5-Brom-1-Methyl-1,2,3-Benzotriazol. Sm. 196° (A. 249, 372). — IV, 1143.

- C_7H_5ONCl 1) 1-Chlorbenzoxazol. Sm. 7°; Sd. 201–202° (2HCl, $PtCl_4$, HNO_3 (J. pr. [2] 42, 454; Am. 21, 123, 129). — II, 708.
- $C_7H_5ONCl_3$ 1) Amid d. 2,4,5-Trichlorbenzol-1-Carbonsäure. Sm. 167,5° (A. 152, 238). — II, 1220.
2) Amid d. 2,4,6-Trichlorbenzol-1-Carbonsäure. Sm. 177° (Soc. 71, 231).
3) Amid d. 3,4,5-Trichlorbenzol-1-Carbonsäure. Sm. 176° (A. 163, 32). — II, 1221.
- $C_7H_5ONCl_5$ 1) Nitril d. Pentachlor-3-Oxy-?-Dihydro-R-Penten-1-Carbonsäure. Sm. 110° u. Zers. (A. 296, 171).
- C_7H_5ONBr 1) 3-Bromphenylisocyanat. Sd. 220°. — II, 376.
2) 4-Bromphenylisocyanat. Sm. 39°; Sd. 226° (B. 13, 228). — II, 376.
3) 1-Brombenzoxazol. Sm. 27° (Am. 21, 124).
4) Nitril d. 5-Brom-2-Oxybenzol-1-Carbonsäure. Sm. 158–159° (B. 31, 3042).
5) Nitril d. 3-Brom-4-Oxybenzol-1-Carbonsäure. Sm. 155° (B. 29, 2358).
- $C_7H_5ONBr_3$ 1) Amid d. 2,4,6-Tribrombenzol-1-Carbonsäure. Sm. 193° (Soc. 67, 597; 71, 230).
2) Amid d. 3,4,5-Tribrombenzol-1-Carbonsäure. Sm. 199–200° (Soc. 67, 596; 71, 231).
- C_7H_5ONS 1) Verbindung = $(C_7H_5ONS)_x$ (aus 1-Merkaptobenzoxazol) (B. 20, 179).
- $C_7H_5ON_2Br$ 1) Azid d. 3-Brombenzol-1-Carbonsäure. Fl. (J. pr. [2] 58, 195).
2) Azid d. 4-Brombenzol-1-Carbonsäure. Sm. 46° (J. pr. [2] 58, 201).
- $C_7H_5ON_2Br_3$ 1) Amid d. 2,4,6-Tribrom-1-Diazobenzolcarbonsäure. Sm. 176° u. Zers. (B. 28, 1929). — IV, 738.
- C_7H_5OClBr 1) Chlorid d. 2-Brombenzol-1-Carbonsäure. Sm. 11°; Sd. 241–243° (245°) (B. 21, 2251; 23, 3436; Soc. 67, 589). — II, 1221.
2) Chlorid d. 3-Brombenzol-1-Carbonsäure. Sd. 239° (243°) (Z. 1871, 301; Soc. 67, 590). — II, 1222.
3) Chlorid d. 4-Brombenzol-1-Carbonsäure. Sm. 42°; Sd. 245–247° (A. 222, 178; B. 21, 2249; Am. 9, 85; Soc. 67, 591). — II, 1223.
- C_7H_5OClJ 1) Chlorid d. 2-Jodbenzol-1-Carbonsäure. Sm. 35–40°; Sd. 135° (B. 26, 1745). — II, 1226.
2) Chlorid d. 4-Jodbenzol-1-Carbonsäure. Sm. 77–78° (A. 264, 167). — II, 1227.
- $C_7H_5OBr_2S$ 1) Aldehyd d. ?-Dibrom-2-Oxybenzol-1-Thiocarbonsäure. + H_2S (Berz. J. 24, 487). — III, 71.
- $C_7H_5O_2NCl$ 1) 1-Keto-?-Chlor-1,2-Dihydrobenzoxazol. Sm. 192–193° (B. 20, 178; J. pr. [2] 37, 31). — II, 707.
- $C_7H_5O_2NCl_3$ 1) 3-Nitro-1-Trichlormethylbenzol (A. 146, 333). — II, 95.
2) 2,3,4-Trichlor-?-Nitro-1-Methylbenzol. Sm. 60° (A. 237, 140). — II, 95.
3) 2,4,5-Trichlor-?-Nitro-1-Methylbenzol. Sm. 92° (88,5°) (A. 152, 240; 187, 277; 237, 140). — II, 95.
4) 2,4,6-Trichlor-3-Oxybenzaloxim. Sm. 170° (B. 32, 123).
5) ?-Trichlor-2-Amidobenzol-1-Carbonsäure. Sm. 210°. Ba + $3H_2O$ (A. 152, 240). — II, 1287.
- $C_7H_5O_2NCl_5$ 1) 2,2,3,3,5-Pentachlor-6-Methylamido-1,4-Diketo-1,2,3,4-Tetrahydrobenzol. Sm. 134° (A. 267, 41). — I, 1024.
2) Methylamid d. $\alpha\beta\delta\epsilon\epsilon$ -Pentachlor-?-Keto- $\alpha\delta$ -Pentadien- α -Carbonsäure? Sm. 126° (A. 267, 44). — I, 1024.
- $C_7H_5O_2NBr$ 1) 1-Keto-?-Brom-1,2-Dihydrobenzoxazol. Sm. 186–187° (J. pr. [2] 37, 50). — II, 708.
- $C_7H_5O_2NBr_3$ 1) 4-Nitro-1-Tribrommethylbenzol (A. 185, 269). — II, 97.
2) 2,4,6-Tribrom-3-Nitro-1-Methylbenzol. Sm. 215° (A. 168, 195). — II, 97.
3) 2,5,6-Tribrom-4-Nitro-1-Methylbenzol. Sm. 105,8–106,8° (B. 14, 418). — II, 97.
4) 2,4,6-Tribrom-3-Oxybenzaloxim. Sm. 186° (B. 32, 122).
5) ?-Tribrom-2-Amidobenzol-1-Carbonsäure. Sm. 119° (J. pr. [2] 33, 37). — II, 1280.
6) 2,4,6-Tribrom-3-Amidobenzol-1-Carbonsäure. Sm. 170,5° (169°) u. Zers. Na + $4H_2O$, Ba + $6H_2O$ (A. 139, 6; B. 10, 1708; 27, 1584). — II, 1280.

- $C_7H_4O_2NBr_3$ 1) Amid d. ?-Tribrom-2-Oxybenzol-1-Carbonsäure Sm. 97° (*J. pr.* 2' 51, 212). — II, 1506.
- $C_7H_4O_2NJ_3$ 1) 2,4,6-Trijod-3-Amidobenzol-1-Carbonsäure. Sm. 196° u. Zers. (*B.* 30, 1944).
- $C_7H_4O_2NF_3$ 1) 3-Nitro-1-Trifluormethylbenzol. Sd. 201,5° (*C.* 1898 [2] 26).
- $C_7H_4O_2N_2S$ 1) 3-Nitrophenylsenfö. Sm. 60,5°; Sd. 275—280° u. Zers. (*B.* 16, 549, 2331). — II, 390.
- 2) 4-Nitrophenylsenfö. Sm. 112—113° (*B.* 26, 2369). — II, 390.
- 3) 5-Nitrobenzthiazol. Sm. 176—177° (*A.* 277, 242). — II, 802.
- 4) Benzthiodiazol-5-Carbonsäure. Sm. 138—139° (*A.* 277, 254). — IV, 1557.
- $C_7H_4O_2N_2Br$ 1) 3-Brom-6-Nitroindazol? Sm. 229° (*B.* 23, 3639). — IV, 866.
- $C_7H_4O_2ClBr$ 1) ?-Chlor-?-Brom-2-Methyl-1,4-Benzochinon. Sm. 109—111° (*B.* 20, 2287). — III, 358.
- 2) ?-Chlor-?-Brom-2-Methyl-1,4-Benzochinon. Sm. 150° (*B.* 20, 2287). — III, 358.
- 3) 2-Chlor-4-Brombenzol-1-Carbonsäure. Sm. 156°. K + H_2O , Ca + $2H_2O$, Ba + $3H_2O$, Ag (*B.* 5, 656; *J. pr.* 2' 39, 470). — II, 1225.
- 4) 2-Chlor-6-Brombenzol-1-Carbonsäure. Sm. 132°. Ba + H_2O , Ag (*J. pr.* 2' 39, 473). — II, 1225.
- 5) 3-Chlor-4-Brombenzol-1-Carbonsäure. Sm. 170°. Ba + $2H_2O$, Ag (*J. pr.* 2' 39, 471; *B.* 5, 657). — II, 1226.
- 6) 4-Chlor-2-Brombenzol-1-Carbonsäure. Sm. 217°. Ba + $4H_2O$, Ag (*J. pr.* 2' 39, 474). — II, 1226.
- $C_7H_4O_2Cl_3P$ 1) Trichlorid d. Phenylphosphinsäure-2-Carbonsäure. Sm. 54° (*A.* 293, 301). — IV, 1672.
- 2) Trichlorid d. Phenylphosphinsäure-3-Carbonsäure. Sm. 61°; Sd. oberh. 360° (*A.* 293, 312). — IV, 1672.
- 3) Trichlorid d. Phenylphosphinsäure-4-Carbonsäure. Sm. 83°; Sd. 315° (*B.* 14, 408). — IV, 1672.
- $C_7H_4O_2Cl_3S$ 1) Chlorid d. 3,4,5-Trichlor-1-Methylbenzol-?-Sulfonsäure. Sm. 88° (*Soc.* 61, 1069). — II, 136.
- $C_7H_4O_2Cl_3P$ 1) Verbindung (aus 2-Oxybenzol-1-Carbonsäurephosphorsäurechlorid). Sd. 178—179° (*A.* 239, 319). — II, 1498.
- 2) Verbindung (aus 3-Oxybenzol-1-Carbonsäurephosphorsäurechlorid). Sd. 178° (*A.* 239, 339). — II, 1517.
- $C_7H_4O_2BrJ$ 1) 5-Brom-2-Jodbenzol-1-Carbonsäure. Sm. 157,5—158° (*B.* 29, 1407).
- $C_7H_4O_2NCl$ 1) Aldehyd d. 5-Chlor-2-Nitrobenzol-1-Carbonsäure. Sm. 77,5° (*A.* 262, 137). — III, 16.
- 2) Aldehyd d. 4-Chlor-3-Nitrobenzol-1-Carbonsäure. Sm. 62° (*A.* 294, 390).
- 3) Aldehyd d. 6-Chlor-3-Nitrobenzol-1-Carbonsäure. Sm. 80° (*A.* 272, 153). — III, 16.
- 4) Aldehyd d. 2-Chlor-4-Nitrobenzol-1-Carbonsäure. Sm. 79° (*B.* 22, 2361; 24, 707). — III, 16.
- 5) Chlorid d. 2-Nitrobenzol-1-Carbonsäure. Fl. (*B.* 12, 351, 1943). — II, 1230.
- 6) Chlorid d. 3-Nitrobenzol-1-Carbonsäure. Sm. 35° (33—34°); Sd. 275—278° (*B.* 7, 1267; 12, 1943; *A. ch.* [3] 23, 339). — II, 1232.
- 7) Chlorid d. 4-Nitrobenzol-1-Carbonsäure. Sm. 75°; Sd. 202—205°₁₀₃ (*A.* 221, 335). — II, 1236.
- $C_7H_4O_2NCl_3$ 1) Methyläther d. 2,4,6-Trichlor-3-Nitro-1-Oxybenzol. Sm. 48,5° (*A. ch.* [6] 20, 526). — II, 696.
- 2) 3,5,6-Trichlor-4-Keto-1-Methyl-1,4-Dihydropyridin-2-Carbonsäure. Zers. bei 220° (*A.* 267, 42). — IV, 153.
- $C_7H_4O_2NCl_2$ 1) Verbindung (aus Blausäure + Chloral). Sm. 123° (*B.* 9, 1020; *A.* 173, 297). — I, 1470.
- $C_7H_4O_2NBr$ 1) Aldehyd d. 5-Brom-2-Nitrobenzol-1-Carbonsäure. Sm. 74° (*A.* 284, 144). — III, 16.
- 2) Aldehyd d. 4-Brom-3-Nitrobenzol-1-Carbonsäure. Sm. 103° (*B.* 24, 3775). — III, 16.
- $C_7H_4O_2N_2Cl_2$ 1) 3,6-Dichlor-2-Nitrobenzaldoxim. Sm. 154—155° (*B.* 29, 876; *A.* 296, 76).

- $C_7H_4O_3N_2Cl_2$ 2) 2,5-Dichlor-3 [oder 4]-Nitrobenzaldoxim. Sm. 93° (B. 29, 876; A. 296, 79).
- $C_7H_4O_3N_2S$ 1) 2-Nitro-1-Oxybenzthiazol. Sm. 252°. Na (A. 277, 40). — II, 802.
- $C_7H_4O_3ClJ$ 1) 5-Chlor-2-Jod-2-Oxybenzol-1-Carbonsäure. Sm. 224° u. Zers. Na + 2H₂O, Mg + 5½ H₂O, Ca + 5H₂O, Ba + 4½ H₂O, Zn + 3H₂O (Am. 8, 95). — II, 1507.
- $C_7H_4O_3Cl_2S$ 1) stabil. Chlorid d. Benzol-1-Carbonsäure-2-Sulfonsäure. Sm. 79°; Sd. 183°₁₈ (Am. 11, 340; 17, 309, 319, 330, 347; 18, 791, 795; B. 29, 2299; 31, 1652). — II, 1295.
2) labil. Chlorid d. Benzol-1-Carbonsäure-2-Sulfonsäure. Sm. 40° (Am. 17, 309, 319, 330, 347; 18, 791, 795; B. 31, 1653).
3) Chlorid d. Benzol-1-Carbonsäure-3-Sulfonsäure. Fl. (A. 102, 250; 131, 159). — II, 1299.
- $C_7H_4O_3Cl_2P$ 1) 2-Oxybenzol-1-Carbonsäurephosphorsäuretrichlorid. Sd. 285 bis 295° u. Zers. (A. 109, 369; 228, 314; 239, 304, 316; 253, 106; B. 13, 465; 20, 1167). — II, 1497.
2) 3-Oxybenzol-1-Carbonsäurephosphorsäuretrichlorid. Sd. 168 bis 170°₁₁₋₁₂ (A. 239, 334). — II, 1517.
3) 4-Oxybenzol-1-Carbonsäurephosphorsäuretrichlorid. Sd. 325 bis 330° (A. 239, 343). — II, 1527.
- $C_7H_4O_3Br_2S$ 1) Tetrabromphenylester d. Methansulfonsäure. Sm. 164—165° (J. pr. [2] 48, 246). — II, 675.
- $C_7H_4O_3NCl$ 1) 3-Chlor-2-Nitrobenzol-1-Carbonsäure. Sm. 235°. Ca + 3H₂O, Ba + 4H₂O (A. 152, 230; 222, 96). — II, 1240.
2) 4-Chlor-2-Nitrobenzol-1-Carbonsäure. Sm. 138—139°. Salze meist bekannt (J. pr. [2] 36, 30; [2] 37, 198; B. 24, 3814; Ph. Ch. 5, 393). — II, 1241.
3) 5-Chlor-2-Nitrobenzol-1-Carbonsäure. Sm. 137—138°. K + 2½ H₂O, Ca + H₂O, Ba, Pb (Z. 1866, 614; B. 6, 175; A. 222, 95; Ph. Ch. 5, 393). — II, 1240.
4) 6-Chlor-2-Nitrobenzol-1-Carbonsäure. Sm. 161° (Soc. 59, 1019). — II, 1240.
5) 4-Chlor-3-Nitrobenzol-1-Carbonsäure. Sm. 178—180°. Na + H₂O, Mg + 5H₂O, Ca + 5½ H₂O, Ba + 4H₂O (Z. 1866, 615; A. 222, 182; Ph. Ch. 5, 392). — II, 1241.
6) 5-Chlor-3-Nitrobenzol-1-Carbonsäure. Sm. 147°. Ba + 4H₂O, Pb (A. 222, 89; B. 10, 1703). — II, 1240.
7) 6-Chlor-3-Nitrobenzol-1-Carbonsäure. Sm. 165°. NH₄, Na + H₂O, Ca + 2H₂O, Sr + 4½ H₂O, Ba + 3H₂O, Zn + 5½ H₂O, Cd + 5H₂O, Pb (Z. 1866, 615; J. 1881, 770; A. 222, 195; Ph. Ch. 5, 392; J. pr. [2] 53, 220; B. 30, 1099). — II, 1240.
8) 2-Chlor-4-Nitrobenzol-1-Carbonsäure. Sm. 136—137°. Ag (A. 185, 275; B. 24, 707, 3812; Ph. Ch. 5, 392). — II, 1239.
9) 3-Chlor-4-Nitrobenzol-1-Carbonsäure. Sm. 185—186°. Ca + 2H₂O, Ba + 2H₂O, Ag (J. pr. [2] 37, 200). — II, 1240.
10) 4-Chlorpyridin-2,6-Dicarbonsäure. Zers. bei 220°. Na₂, Ba + 3H₂O (Soc. 67, 402). — IV, 163.
- $C_7H_4O_3NBr$ 11) Chlorid d. 3-Nitro-2-Oxybenzol-1-Carbonsäure. Sm. 60° (B. 30, 222).
1) 3-Brom-2-Nitrobenzol-1-Carbonsäure. Sm. 250°. Na + H₂O, Mg + 6H₂O, Ba + 4H₂O (A. 143, 238; 149, 132; 222, 102). — II, 1242.
2) 4-Brom-2-Nitrobenzol-1-Carbonsäure. Sm. 163°. Na, K, Ca + 2H₂O, Ba, Pb + 2H₂O, Cu + 7H₂O, Ag (J. pr. [2] 43, 204). — II, 1243.
3) 5-Brom-2-Nitrobenzol-1-Carbonsäure. Sm. 139—140°. Na + 2½ H₂O, K + 2H₂O, Mg + 4H₂O, Ca + 2H₂O, Ba + 4H₂O, Pb, Cu, Ag (A. 143, 234; 149, 132; 222, 102; J. 1882, 902; Ph. Ch. 3, 261). — II, 1242.
4) 4-Brom-3-Nitrobenzol-1-Carbonsäure. Sm. 199°. Salze meist bek. (A. 143, 248; 222, 180; B. 10, 1707; 25 [2] 284). — II, 1243.
5) 5-Brom-3-Nitrobenzol-1-Carbonsäure. K + ½ H₂O, Mg + H₂O, Ca + H₂O, Sr, Ba + 5½ H₂O, Zn + 4½ H₂O, Cd + 4½ H₂O, Pb, Ag (A. 222, 166). — II, 1242.
6) 6-Brom-3-Nitrobenzol-1-Carbonsäure. Sm. 179—180°. Ba + 5½ H₂O (A. 198, 109; 231, 181; B. 8, 560). — II, 1242.

- C₇H₄O₄NBr** 7) 2-Brom-4-Nitrobenzol-1-Carbonsäure. Sm. 163—164°. Ag (A. 231, 172). — II, 1241.
8) 3-Brom-4-Nitrobenzol-1-Carbonsäure. Sm. 197°. Na, K + 2H₂O, Ba + 1½H₂O, Pb + H₂O, Cu, Ag (J. pr. [2] 43, 202). — II, 1242.
9) 5-Brompyridin-2,3-Dicarbonsäure + H₂O. Sm. 165° u. Zers. Ca, Pb (B. 19, 2767, 2884; M. 10, 712; J. pr. [2] 54, 381). — IV, 161.
10) 2-Brompyridin-2,3-Dicarbonsäure. Sm. 237°. Ba (J. pr. [2] 43, 194). — IV, 161.
- C₇H₄O₄NJ** 1) 3-Jod-2-Nitrobenzol-1-Carbonsäure? Sm. 235°. NH₄ + H₂O, Na + 3H₂O, Ca + 2H₂O, Sr + 4H₂O, Ba + 3H₂O (J. pr. [2] 18, 325; A. 135, 111). — II, 1244.
2) 5-Jod-2-Nitrobenzol-1-Carbonsäure. Sm. 174°. NH₄ + H₂O, Li + H₂O, Na + 4H₂O, K + 3H₂O, Ca, Sr, Ba + 6H₂O (J. pr. [2] 18, 326). — II, 1244.
3) 4-Jod-3-Nitrobenzol-1-Carbonsäure. Sm. 210°. Na + H₂O, K + H₂O, Ca + 1½H₂O (B. 8, 562). — II, 1244.
4) 5-Jod-3-Nitrobenzol-1-Carbonsäure? Sm. 192°. Na + H₂O, Ca + 3½H₂O, Sr + 4H₂O, Ba + 3H₂O (J. pr. [2] 18, 326). — II, 1244.
5) 2-Jod-2-Nitrobenzol-1-Carbonsäure. Sm. 192° (B. 26, 2474). — II, 1244.
- C₇H₄O₄NF** 1) 6-Fluor-2-Nitrobenzol-1-Carbonsäure. Sm. 127°. Ag (B. 29, 841).
- C₇H₄O₄N₂Cl₂** 1) 2,3-Dichlor-4,6-Dinitro-1-Methylbenzol. Sm. 121—122° (A. 237, 163). — II, 95.
2) 2,4-Dichlor-5,6-Dinitro-1-Methylbenzol. Sm. 101—102° (A. 237, 163). — II, 95.
- C₇H₄O₄N₂Br₂** 1) 2,5-Dibrom-4,6-Dinitro-1-Methylbenzol. Sm. 142° (J. pr. [2] 37, 16). — II, 97.
2) 2,6-Dibrom-2-Dinitro-1-Methylbenzol. Sm. 161,6—162° (B. 13, 973). — II, 97.
3) 3,5-Dibrom-2-Dinitro-1-Methylbenzol. Sm. 157,5—158° (B. 13, 967). — II, 97.
4) 3,5-Dibrom-2-Dinitro-1-Methylbenzol. Sm. 105° (B. 13, 967). — II, 97.
5) 2-Dibrom-2-Nitro-2-Amidobenzol-1-Carbonsäure. Sm. 203° (J. pr. [2] 33, 41). — II, 1287.
- C₇H₄O₄ClP** 1) 2-Chlorid d. 2-Carboxylphenyl-m-Phosphorsäure. Sm. 80°; Sd. 181°₁₁ (A. 109, 369; 228, 317). — II, 1498.
- C₇H₄O₄Cl₂S** 1) 1-Chlorid d. 4-Chlorbenzol-1-Carbonsäure-3-Sulfonsäure. Sm. 163 bis 167° (Am. 16, 541). — II, 1303.
- C₇H₄O₄NCl** 1) 5-Chlor-2-Nitro-2-Oxybenzol-1-Carbonsäure. Sm. 162—163°. K, Ba (B. 13, 35). — II, 1511.
- C₇H₄O₄NBr** 1) 5-Brom-3-Nitro-2-Oxybenzol-1-Carbonsäure + H₂O. Sm. 175° (wasserfrei). Ca + xH₂O, Ba, BaH + 2H₂O, Pb (B. 17, 2729). — II, 1512.
2) 3-Brom-5-Nitro-2-Oxybenzol-1-Carbonsäure. Sm. 222°. Ca + 6H₂O, Ba + 4H₂O (B. 17, 2724; J. pr. [2] 52, 418). — II, 1511.
- C₇H₄O₄NJ** 1) 2-Jod-5-Nitro-2-Oxybenzol-1-Carbonsäure. K + 2H₂O, K₂ + 3H₂O, Ba + 6H₂O (A. 174, 108). — II, 1512.
2) 5-Jod-2-Nitro-2-Oxybenzol-1-Carbonsäure. Sm. 204° (B. 12, 1347). — II, 1512.
3) 2-Jod-5-Nitro-3-Oxybenzol-1-Carbonsäure. Ba + 6H₂O (A. 174, 109). — II, 1521.
4) 5-Jod-3-Nitro-4-Oxybenzol-1-Carbonsäure. Ba + 4(2)H₂O (A. 174, 110). — II, 1539.
5) 2-Jodoso-2-Nitrobenzol-1-Carbonsäure. Zers. bei 195° (B. 26, 2474). — II, 1244.
6) 4-Jodoso-3-Nitrobenzol-1-Carbonsäure. Sm. 190—205° u. Zers. Ba, CuOH, Ag (B. 26, 1739). — II, 1244.
- C₇H₄O₄N₂Cl₂** 1) Methyläther d. 2,4-Dichlor-3,6-Dinitro-1-Oxybenzol. Sm. 68° (A. ch. [6] 20, 519). — II, 696.
- C₇H₄O₄N₂S** 1) 4-Nitro-1-Cyanbenzol-2-Sulfonsäure + H₂O. Sm. 145—150°. NH₄ + H₂O, K + 1½H₂O, Mg + 8H₂O, Ca + 7H₂O, Ba + 2½H₂O, Zn + 7H₂O, Ag + H₂O (Am. 19, 501).

- C₇H₄O₂N₂S** 2) Imid d. 4-Nitrobenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 209°. NH₄, K, Mg + 6½ H₂O, Ca + 6 H₂O, Ba + 3 H₂O, Zn + 4½ H₂O, Ag (Am. 8, 169; 11, 184; 19, 500). — II, 1306.
- C₇H₄O₂N₂Br** 1) 3-Brom-2,4,6-Trinitro-1-Methylbenzol. Sm. 143° (Am. 12, 4). — II, 96.
- C₇H₄O₂Cl₂S₂** 1) Dichlorid d. Benzol-1-Carbonsäure-3,5-Disulfonsäure. Sm. 183° (M. 14, 690). — II, 1301.
- C₇H₄O₂N₂S** 1) 2-Dinitro-4-Methyl-1-Diazobenzol-3-Sulfonsäure (A. 176, 306). — IV, 1539.
- C₇H₄NCIS** 1) 2-Chlorphenylsenfö. Sm. 44—45°; Sd. 249—250° (B. 13, 14). — II, 390.
2) 3-Chlorphenylsenfö. Sd. 249—250° (B. 13, 14). — II, 390.
3) 4-Chlorphenylsenfö. Sm. 44,5° (45—47°); Sd. 249—250° (A. 176, 51; B. 5, 156; 12, 1127; 13, 13). — II, 390.
4) 4-Chlor-1-Rhodanbenzol. Sm. 35—36° (B. 29, 951).
5) 1-Chlorbenzthiazol. Sd. 248°. HCl, (2HCl, PtCl₄) (B. 12, 1127; 13, 9). — II, 796.
- C₇H₄NCl₂Br** 1) 4-Bromphenylisocyanchlorid. Sd. 255—256° (B. 13, 232). — II, 360.
- C₇H₄NBrS** 1) 4-Bromphenylsenfö. Sm. 60—61° (B. 8, 716). — II, 390.
- C₇H₄NJS** 1) 4-Jodphenylsenfö. Sm. 65° (B. 5, 158). — II, 390.
- C₇H₄N₂ClS** 1) 2-Chlorbenzoldiazoniumrhodanid. Zers. bei 46° (B. 31, 1260). — IV, 1519.
2) 3-Chlorbenzoldiazoniumrhodanid (B. 31, 1261). — IV, 1519.
3) 4-Chlorbenzoldiazoniumrhodanid (B. 29, 950; 31, 1257). — IV, 1520.
4) 4-Rhodanbenzoldiazoniumchlorid. Explod. bei 110—114° (B. 29, 951; 31, 1258). — IV, 1527.
- C₇H₄N₂BrS** 1) 4-Brombenzoldiazoniumrhodanid (B. 31, 1259).
2) 4-Rhodanbenzoldiazoniumbromid (B. 31, 1259). — IV, 1527.
- C₇H₄ONCl₂** 1) Phenylisocyanatchlorid (J. pr. [2] 32, 294). — II, 375.
2) 2,4-Dichlorbenzaldoxim. Sm. 136—137° (A. 260, 68). — III, 46.
3) 2,5-Dichlorbenzaldoxim. Sm. 124—125° (127,5—128°) (A. 260, 71; 296, 68; B. 29, 876). — III, 46.
4) anti-3,4-Dichlorbenzaldoxim. Sm. 114—115° (A. 260, 73). — III, 46.
5) syn-3,4-Dichlorbenzaldoxim. Sm. oberh. 120° (A. 260, 73). — III, 46.
6) 1,1-Dichlor-1,2-Dihydrobenzoxazol. Sm. 57—58° u. Zers. (Am. 21, 125).
7) Aldehyd d. 3,6-Dichlor-2-Amidobenzol-1-Carbonsäure. Sm. 84 bis 85° (B. 17, 754; 29, 877; A. 296, 79). — III, 18.
8) Aldehyd d. 2,5-Dichlor-3 [oder 4]-Amidobenzol-1-Carbonsäure. Sm. 158—159° (B. 29, 876; A. 296, 76).
9) Amid d. 2,5-Dichlorbenzol-1-Carbonsäure. Sm. 155° (A. 179, 290). — II, 1219.
10) Amid d. 2,6-Dichlorbenzol-1-Carbonsäure. Sm. 166° (A. 187, 273). — II, 1220.
11) Amid d. 3,4-Dichlorbenzol-1-Carbonsäure. Sm. 133° (A. 152, 228). — II, 1220.
12) 2,4-Dichlorphenylamid d. Ameisensäure. Sm. 153°. Ag (Am. 18, 385).
- C₇H₄ONBr₂** 1) Phenylisocyanatbromid (J. pr. [2] 32, 294; [2] 52, 215). — II, 375.
2) 1,1-Dibrom-1,2-Dihydrobenzoxazol. Sm. 163° (Am. 21, 128).
3) Amid d. 2,4-Dibrombenzol-1-Carbonsäure. Sm. 195° (Soc. 67, 603).
4) Amid d. 2,6-Dibrombenzol-1-Carbonsäure. Sm. 192° (Soc. 67, 595, 603).
5) Amid d. 3,4-Dibrombenzol-1-Carbonsäure. Sm. 151—152° (B. 8, 560). — II, 1224.
6) Amid d. 3,5-Dibrombenzol-1-Carbonsäure. Sm. 187° (Soc. 67, 594; 71, 230).
7) Bromamid d. 3-Brombenzol-1-Carbonsäure. Sm. 105° (Am. 19, 328).
- C₇H₄ONS** 1) 1-Merkaptobenzoxazol (Oxyphenylsenfö). Sm. 196° (193°). Ag (B. 9, 466; 16, 1825). — II, 710.
2) 1-Oxybenzthiazol. Sm. 136° (B. 12, 1129). — II, 796.
3) 2-Cyanacetylthiophen^p Sm. 137° (G. 21 [2] 284). — III, 763.

- $C_7H_5ONS_2$ 1) 2-Rhodanacetylthiophen. Sm. 88° (B. 19, 2893). — III, 763.
 $C_7H_5ON_2Br_2$ 1) Tribromphenylharnstoff. Sm. oberh. 270° (B. 25, 63). — II, 376.
 $C_7H_5ON_2Br_2$ 1) Amid d. 2,4-Dibrom-1-Diazobenzol-1-Carbonsäure. Sm. 194° (B. 30, 2541).
 $C_7H_5ON_2Br$ 1) 1-Diazo-2,4-Phenylendiaminharnstoffbromid (J. pr. [2] 38, 137). — IV, 1527.
 2) Azid d. 4-Bromphenylamidoameisensäure. Sm. 126° u. Zers. (J. pr. [2] 58, 231).
 $C_7H_5OCl_2J$ 1) Aldehyd d. Benzol-2-Jodidechlorid-1-Carbonsäure (Soc. 69, 1006).
 2) Aldehyd d. Benzol-3-Jodidechlorid-1-Carbonsäure (Soc. 69, 1003).
 3) Aldehyd d. Benzol-4-Jodidechlorid-1-Carbonsäure (Soc. 69, 1005).
 C_7H_5OBrS 1) Aldehyd d. p-Brom-2-Oxybenzol-1-Thiocarbonsäure (Berz. J. 25, 487). — III, 71.
 $C_7H_5OBr_2J$ 1) 3,5-Dibrom-2-Jodoso-1-Methylbenzol. Sm. 87° u. Zers. (Soc. 73, 692).
 $C_7H_5O_2NCl_2$ 1) 5,6-Dichlor-3-Nitro-1-Methylbenzol. Sm. 83° (C. 1895 [2] 529).
 2) 2,3-Dichlor-p-Nitro-1-Methylbenzol. Sm. 51° (A. 237, 163). — II, 95.
 3) 2,4-Dichlor-p-Nitro-1-Methylbenzol. Sm. 53° (A. 237, 163). — II, 95.
 4) p-Dichlor-p-Nitro-1-Methylbenzol (A. 168, 212).
 5) 3-Nitro-1-Dichlormethylbenzol. Sm. 65° (B. 13, 676; 15, 2010; J. 1881, 359). — II, 95.
 6) 4-Nitro-1-Dichlormethylbenzol. Sm. 46° (B. 18, 997). — II, 95.
 7) 3,5-Dichlor-4-Oxybenzaldoxim. Sm. 185° (B. 29, 2357).
 8) 3,6-Dichlor-2-Amidobenzol-1-Carbonsäure (Dichloranthranilsäure). Sm. 152° (B. 28, 1385).
 9) p-Dichlor-2-Amidobenzol-1-Carbonsäure. Sm. 222—224° (J. pr. [2] 33, 52). — II, 1278.
 10) Amid d. 3,5-Dichlor-2-Oxybenzol-1-Carbonsäure. Sm. 209° (B. 11, 1226). — II, 1504.
 $C_7H_5O_2NBr_2$ 1) 2,3-Dibrom-p-Nitro-1-Methylbenzol. Sm. 56,5—57,5° (A. 168, 184; B. 14, 419). — II, 96.
 2) 2,3-Dibrom-5-Nitro-1-Methylbenzol. Sm. 105,4° (B. 13, 965). — II, 96.
 3) 2,4-Dibrom-6-Nitro-1-Methylbenzol. Sm. 80—81° (B. 14, 419). — II, 97.
 4) 2,5-Dibrom-3-Nitro-1-Methylbenzol. Sm. 69,2—70,2° (B. 13, 974; 14, 419). — II, 97.
 5) 2,5-Dibrom-4-Nitro-1-Methylbenzol. Sm. 86—87° (B. 14, 417; J. pr. [2] 37, 18). — II, 97.
 6) 2,6-Dibrom-4-Nitro-1-Methylbenzol. Sm. 57—58° (B. 14, 417; A. 231, 178). — II, 97.
 7) 3,4-Dibrom-5-Nitro-1-Methylbenzol. Sm. 62—63,5° (B. 13, 974). — II, 96.
 8) 3,5-Dibrom-p-Nitro-1-Methylbenzol. Sm. 124° (A. 168, 189). — II, 97.
 9) 4,5-Dibrom-2-Nitro-1-Methylbenzol. Sm. 86—87° (B. 14, 417). — II, 97.
 10) 2-Nitro-1-Dibrommethylbenzol. Sm. 46° (B. 30, 1043).
 11) 3-Nitro-1-Dibrommethylbenzol. Sm. 101—102° (A. 185, 279). — II, 97.
 12) 4-Nitro-1-Dibrommethylbenzol. Sm. 82—82,5° (A. 185, 268). — II, 97.
 13) Dibromnitromethylbenzol (Phenyldibromnitromethan). Fl. (B. 19, 1145). — II, 97.
 14) 3,5-Dibrom-4-Oxy-1-Oximidomethylbenzol. Sm. 194° (B. 28, 3236). — III, 86.
 15) 3,5-Dibrompyridinbetaïn. HCl, (2HCl, PtCl₄) (B. 15, 1253). — IV, 114.
 16) 3,4-Dibrom-2-[oder 6]-Amidobenzol-1-Carbonsäure. Sm. 225 bis 226°. Ca + 4½ H₂O, Sr + 2H₂O, Ba + 4H₂O, Cu (A. 185, 281; 222, 189; B. 10, 1706; 13, 288; J. pr. [2] 33, 36). — II, 1280.
 17) 3,5-Dibrom-2-Amidobenzol-1-Carbonsäure. Sm. 225°. Ca + 4H₂O, Ba + 4H₂O, Cu (A. 222, 175). — II, 1280.
 18) p-Dibrom-2-Amidobenzol-1-Carbonsäure. Sm. 196° (A. 158, 16). — II, 1279.

- $C_7H_5O_2NBr_2$ 19) 3,5-Dibrom-4-Amidobenzol-1-Carbonsäure. Zers. bei 260—270°. $NH_4 + 2H_2O$, $Na + 5H_2O$, $Ca + 5H_2O$, $Ba + 4H_2O$ (A. 139, 1; B. 27, 513). — II, 1280.
- 20) Amid d. 3,5-Dibrom-2-Oxybenzol-1-Carbonsäure. Sm. 170° (183°) u. Zers. (B. 22, 2769; J. pr. [2] 51, 211). — II, 1506.
- $C_7H_5O_2NJ$ 1) 4,?-Dijod-?-Nitro-1-Methylbenzol. Sm. 112° (B. 30, 3001).
- 2) 3,5-Dijod-2-Oxy-1-Oximidomethylbenzol. Zers. bei 200° (J. pr. [2] 57, 205; [2] 58, 120).
- 3) 3,5-Dijod-4-Oxy-1-Oximidomethylbenzol. Sm. 203° (192°; 210°) (B. 29, 2303, 2357; J. pr. [2] 57, 205; [2] 58, 128).
- 4) ?-Dijod-3-Amidobenzol-1-Carbonsäure. K (B. 8, 385). — II, 1281.
- 5) ?-Dijod-4-Amidobenzol-1-Carbonsäure. Sm. oberh. 300°. $Na + 5H_2O$, $Ba + 4H_2O$, Ag (Am. 1, 264). — II, 1281.
- $C_7H_5O_2NS$ 1) Aldehyd d. 3-Nitrobenzol-1-Thiocarbonsäure (A. 79, 269). — III, 19.
- $C_7H_5O_2N_2Cl$ 1) 4-Chlordiazobenzol-N-Carbonsäure. K (B. 28, 2076). — IV, 1452.
- 2) Diazobenzolchlorid-4-Carbonsäure (B. 28, 338).
- $C_7H_5O_2N_2Cl_3$ 1) 4,5,6-Trichlor-2-Nitro-3-Amido-1-Methylbenzol. Sm. 192° (A. 237, 140). — II, 476.
- $C_7H_5O_2N_2Br_3$ 1) 2,4,6-Tribrom-3,5-Diamidobenzol-1-Carbonsäure. Ag (A. 154, 332). — II, 1280.
- $C_7H_5O_2N_2J$ 1) Verbindung (aus d. Verb. $C_7H_5O_2N_2$) (Bl. [3] 15, 343).
- $C_7H_5O_2N_2J_3$ 1) 2,4,6-Trijod-3,5-Diamidobenzol-1-Carbonsäure. Ag (B. 29, 2835).
- $C_7H_5O_2N_2S$ 1) ?-Nitro-5-Methylbenzisothiodiazol (Nitromethylpiazthiol). Sm. 154 bis 156° (B. 22, 2901). — IV, 624.
- $C_7H_5O_2Cl_4As$ 1) Phenyldichlorarsin-4-Carbonsäure. Sm. 157—158° (A. 208, 16). — IV, 1692.
- $C_7H_5O_2Cl_4S$ 1) Chlorid d. 2,3-Dichlor-1-Methylbenzol-5-Sulfonsäure. Sm. 85° (C. 1895 [2] 529).
- 2) Chlorid d. 2,3-Dichlor-1-Methylbenzol-?-Sulfonsäure. Sm. 45° (C. 1895 [2] 529).
- 3) Chlorid d. 2,4-Dichlor-1-Methylbenzol-5-Sulfonsäure. Sm. 71° (C. 1895 [2] 529).
- 4) Chlorid d. 2,5-Dichlor-1-Methylbenzol-4-Sulfonsäure. Sm. 43° (Soc. 61, 1050). — II, 136.
- 5) Chlorid d. 2,6-Dichlor-1-Methylbenzol-?-Sulfonsäure. Sm. 60° (C. 1895 [2] 529).
- 6) Chlorid d. 3,4-Dichlor-1-Methylbenzol-?-Sulfonsäure. Sm. 82° (Soc. 61, 1060). — II, 136.
- 7) Chlorid d. 3,5-Dichlor-1-Methylbenzol-?-Sulfonsäure. Sm. 45° (C. 1895 [2] 529).
- $C_7H_5O_2BrS$ 1) 4-Brom-3-Merkaptobenzol-1-Carbonsäure. Sm. 229—230°. Ba (B. 9, 1787). — II, 1522.
- 2) 5-Brom-3-Merkaptobenzol-1-Carbonsäure? Sm. 192—194°. Pb + $3H_2O$ (B. 7, 795). — II, 1522.
- $C_7H_5O_2Br_2J$ 1) 3,5-Dibrom-2-Jodo-1-Methylbenzol (Soc. 73, 692).
- $C_7H_5O_2Br_2S$ 1) Bromid d. 5,6-Dibrom-1-Methylbenzol-3-Sulfonsäure. Sm. 97° (Soc. 61, 1038). — II, 138.
- $C_7H_5O_2J_2As$ 1) Phenyldijodarsin-4-Carbonsäure. Sm. 153° (A. 208, 13). — IV, 1692.
- $C_7H_5O_2NCl_2$ 1) Methyläther d. 4,6-Dichlor-2-Nitro-1-Oxybenzol. Sm. 44° (A. ch. [6] 20, 517). — II, 695.
- $C_7H_5O_2NBr_2$ 1) ?-Dibrom-4-Nitro-2-Oxy-1-Methylbenzol. Sm. 115° (B. 17, 270; 26, 2352). — II, 741.
- 2) 2,6-Dibrom-4-Nitro-3-Oxy-1-Methylbenzol. Sm. 93° J. pr. [2] 39, 63). — II, 746.
- 3) 2,4-Dibrom-6-Nitro-3-Oxy-1-Methylbenzol. Sm. 143° u. Zers. (J. pr. [2] 39, 61). — II, 746.
- 4) ?-Dibrom-2-Nitro-4-Oxy-1-Methylbenzol. Sm. 83°. $Na + 2\frac{1}{2}H_2O$, $K + H_2O$ (A. 215, 89; B. 15, 1071). — II, 752.
- 5) Methyläther d. 2,4-Dibrom-?-Nitro-1-Oxybenzol. Sm. 116—117° (B. 29, 1410).
- 6) Methyläther d. 4,6-Dibrom-2-Nitro-1-Oxybenzol. Sm. 76,7° (J. 1875, 337). — II, 698.

- $C_7H_5O_3NBr_2$ 7) Methyläther d. 2,6-Dibrom-4-Nitro-1-Oxybenzol. Sm. 126—127° (122,6°) (*J.* 1875, 337; *A.* 217, 70). — II, 699.
8) 3,4-Dibrom-1-Methylpyrrol-2-Ketocarbonsäure (*B.* 21, 2873; *G.* 22 [2] 7). — IV, 88.
- $C_7H_5O_3NS$ 1) 2-Cyanbenzol-1-Sulfonsäure. NH_4 , Na + H_2O , K, Ba + $2H_2O$ (*B.* 26, 2288; 31, 1650; *A.* 286, 386; *Am.* 17, 351; 18, 819). — II, 1297.
2) 4-Cyanbenzol-1-Sulfonsäure. K, Ba (*Am.* 18, 159).
3) Imid d. Benzol-1-Carbonsäure-2-Sulfonsäure (Saccharin). Sm. 220° u. Zers. Na + $2H_2O$, K + H_2O , Ba + $3(4)H_2O$, Ag (*B.* 12, 470; 20, 1597; 21, 3396; *Am.* 8, 180, 224; 9, 405; 11, 404; *A.* 286, 388; *Soc.* 67, 985; *C.* 1898 [1] 540). — II, 1296.
4) Isoimid d. Benzol-1-Carbonsäure-2-Sulfonsäure? Sm. 225° (*C.* 1898 [2] 858).
- $C_7H_5O_3NS_2$ 1) Anhydrid d. 4-Sulfophenylamidothioameisensäure. Sm. 180 bis 183° u. Zers. (*B.* 11, 2267). — II, 569.
2) Verbindung (aus Phenylsenfö) + H_2O (*B.* 22, 2202). — II, 389.
- $C_7H_5O_3N_2Cl$ 1) 5-Chlor-2-Nitrobenzaldoxim. Sm. 112° (*A.* 262, 139). — III, 50.
2) 6-Chlor-3-Nitrobenzaldoxim. Sm. 147—148° (*A.* 272, 154; *B.* 26, 1253). — III, 50.
3) α -Chlor- α -Oximido- α -[2-Nitrophenyl]methan (2-Nitrobenzhydroximsäurechlorid). Sm. 92—94° (*B.* 27, 2847). — III, 47.
4) α -Chlor- α -Oximido- α -[3-Nitrophenyl]methan. Sm. 94—95° (*B.* 27, 2847). — III, 47.
5) α -Chlor- α -Oximido- α -[4-Nitrophenyl]methan. Sm. 115—117° (*B.* 27, 2847). — III, 51.
6) Amid d. 2-Chlor-4-Nitrobenzol-1-Carbonsäure. Sm. 172° (*B.* 24, 3813). — II, 1239.
7) Chlorid d. 2-Nitrophenylamidoameisensäure. Sm. 47° (*Am.* 19, 310).
8) Chlorid d. 3-Nitrophenylamidoameisensäure. Sm. 102° u. Zers. (*Am.* 19, 338).
9) Chlorid d. 4-Nitrophenylamidoameisensäure. Sm. 44° u. Zers. (*Am.* 19, 318).
- $C_7H_5O_3N_2Br$ 1) 4-Brom-2-Nitrobenzaldoxim. Sm. 151—153° (*B.* 14, 827). — III, 50.
2) 5-Brom-2-Nitrobenzaldoxim. Sm. 113° (*A.* 284, 145). — III, 50.
3) 4-Brom-3-Nitrobenzaldoxim. Sm. 145—146° (*B.* 24, 3775). — III, 50.
4) Amid d. 4-Brom-3-Nitrobenzol-1-Carbonsäure. Sm. 156° (*B.* 23, 3448). — II, 1243.
5) Amid d. 6-Brom-3-Nitrobenzol-1-Carbonsäure. Sm. 197—198° (*B.* 24, 3809). — II, 1242.
6) Bromamid d. 2-Nitrobenzol-1-Carbonsäure. Sm. 163—165° u. Zers. (*R.* 8, 191). — II, 1231.
7) Bromamid d. 3-Nitrobenzol-1-Carbonsäure. Sm. 175—177° u. Zers. K, Ag (*R.* 8, 194). — II, 1233.
8) Bromamid d. 4-Nitrobenzol-1-Carbonsäure. Sm. 194—195° u. Zers. K (*R.* 8, 197; *Am.* 16, 370). — II, 1236.
- $C_7H_5O_3N_4Cl$ 1) 2-Nitro-4-Nitrosomethyldiazobenzolchlorid (*B.* 15, 837). — IV, 1531.
2) 3-Nitro-4-Nitrosomethyldiazobenzolchlorid (*B.* 14, 826, 2334). — III, 51.
- $C_7H_5O_3Cl_2S$ 1) Lakton d. 1-Chloroxymethylbenzol-2-Sulfonsäure. Sm. 114° (*B.* 31, 1668).
- $C_7H_5O_3Cl_3S$ 1) 2,3,4-Trichlor-1-Methylbenzol- α -Sulfonsäure. Na + $4\frac{1}{2}H_2O$ (*A.* 237, 136). — II, 136.
2) 2,3,4-Trichlor-1-Methylbenzol- β -Sulfonsäure. Na + H_2O (*A.* 237, 136). — II, 136.
3) 3,4,5-Trichlor-1-Methylbenzol- ρ -Sulfonsäure. Na + $\frac{1}{2}H_2O$, K, Ba + H_2O (*Soc.* 61, 1069). — II, 136.
- $C_7H_5O_3Br_2S$ 1) 1-Aldehyd d. 4-Brombenzol-1-Carbonsäure- ρ -Sulfonsäure. Sm. 131°. Ba + $5H_2O$, + $NaHSO_3$ (*A.* 191, 26). — II, 1304.
2) Lakton d. 5-Brom-2-Oxyphenylmethan- α -Sulfonsäure (Brombenzylsulton). Sm. 147° (*B.* 31, 1859).
- $C_7H_5O_3Br_3S$ 1) 2,3,5-Tribrom-1-Methylbenzol-4-Sulfonsäure. K, Ba + $1\frac{1}{2}H_2O$ (*A.* 174, 354; 265, 77). — II, 138.

- $C_7H_5O_3Br_2S$ 2) Aethylester d. Thiocarbonyltribromacetessigsäure. Sm. 180° (B. 28, 2887).
- $C_7H_5O_4NBr$ 1) *p*-Dibrom-*p*-Nitro-3,5-Dioxy-1-Methylbenzol. Sm. 112° u. Zers. Ba + 2H₂O (B. 7, 444). — II, 964.
- $C_7H_5O_4N_2Cl$ 1) 2-Chlor-3,5-Dinitro-1-Methylbenzol. Sm. 45° (B. 25, 3005). — II, 94.
2) 4-Chlor-2,3-Dinitro-1-Methylbenzol. Sm. 76° (B. 19, 2439; 20, 2420). — II, 95.
3) 4-Chlor-2,6-Dinitro-1-Methylbenzol. Sm. 101° (B. 20, 2420). — II, 94.
4) 4-Chlor-3,5-Dinitro-1-Methylbenzol. Sm. 48° (B. 20, 2420). — II, 95.
5) 2,4-Dinitro-1-Chlormethylbenzol. Sm. 32° (J. r. 27, 335, 340).
6) Amid d. 5-Chlor-*p*-Nitro-2-Oxybenzol-1-Carbonsäure. Sm. 199°. K, Ba (B. 11, 1227; 13, 35). — II, 1511.
- $C_7H_5O_4N_2Br$ 1) 3-Brom-2,4-Dinitro-1-Methylbenzol. Sm. 103—104° (A. 177, 258). — II, 96.
2) 4-Brom-3,5-Dinitro-1-Methylbenzol. Sm. 118° (B. 28, 3063; Am. 19, 7, 205).
3) *p*-Brom-*p*-Nitro-2-Amidobenzol-1-Carbonsäure. Sm. 276° u. Zers. (J. pr. [2] 33, 40). — II, 1287.
4) Amid d. 5-Brom-3-Nitro-2-Oxybenzol-1-Carbonsäure (B. 10, 1707). — II, 1512.
- $C_7H_5O_4N_2J$ 1) 4-Jod-3,5-Dinitro-1-Methylbenzol. Sm. 137—138° (B. 8, 561). — II, 98.
- $C_7H_5O_4N_2S$ 1) Amid d. 4-Nitro-1-Cyanbenzol-2-Sulfonsäure. Sm. noch nicht bei 270° (Am. 19, 510).
- $C_7H_5O_4ClS$ 1) Aldehyd d. 2-Chlorbenzol-1-Carbonsäure-3-Sulfonsäure. Na, K, Ca + 8H₂O, Ba (C. 1898 [2] 744).
2) 3-Chlorid d. Benzol-1-Carbonsäure-3-Sulfonsäure (A. 106, 31). — II, 1299.
- $C_7H_5O_4Cl_2S_2$ 1) Chlorid d. 2-Chlor-1-Methylbenzol-3,5-Disulfonsäure. Sm. 85° (Soc. 73, 750).
2) Chlorid d. 2-Chlor-1-Methylbenzol-4,5-Disulfonsäure. Sm. 158° (Soc. 73, 746).
3) Chlorid d. 2-Chlor-1-Methylbenzol-4,6-Disulfonsäure. Sm. 88° (Soc. 73, 776).
4) Chlorid d. 4-Chlor-1-Methylbenzol-2,5-Disulfonsäure. Sm. 144° (Soc. 73, 744).
5) Chlorid d. 4-Chlor-1-Methylbenzol-2,6-Disulfonsäure. Sm. 108° (Soc. 73, 769).
6) Chlorid d. 4-Chlor-1-Methylbenzol-3,5-Disulfonsäure. Sm. 118°. + $\frac{1}{2}C_6H_6$ (Soc. 73, 740).
- $C_7H_5O_4BrS$ 1) 3-Brombenzol-1-Carbonsäure-*p*-Sulfinsäure. Sm. 202°. Ba + 3 $\frac{1}{2}$ H₂O (C. 1896 [1] 431).
2) 4-Brombenzol-1-Carbonsäure-*p*-Sulfinsäure. Sm. 245° u. Zers. Ca + 8H₂O, Ba + 2H₂O (A. 191, 24). — II, 1304.
3) Aldehyd d. 4-Brombenzol-1-Carbonsäure-3-Sulfonsäure. Ba + 5H₂O (B. 24, 3783). — III, 20.
- $C_7H_5O_5NS$ 1) Lakton d. 5-Nitro-2-Oxyphenylmethan- α -Sulfonsäure (Nitrobenzylsulton). Sm. 148° (B. 31, 1859).
- $C_7H_5O_5N_2Cl$ 1) 4-Chlor-2,6-Dinitro-3-Oxy-1-Methylbenzol. Sm. 108° (A. 303, 21).
2) Methyläther d. 4-Chlor-2,6-Dinitro-1-Oxybenzol. Sm. 65,4° (J. 1875, 339). — II, 694.
- $C_7H_5O_5N_2Br$ 1) 4-Brom-2,6-Dinitro-3-Oxy-1-Methylbenzol. Sm. 115—116° (A. 303, 29).
2) Methyläther d. 2-Brom-4,6-Dinitro-1-Oxybenzol. Sm. 47—48° (G. 14, 235). — II, 697.
3) Methyläther d. 3-Brom-*p*-Dinitro-1-Oxybenzol. Sm. 109,5° (J. 1875, 341). — II, 698.
4) Methyläther d. 4-Brom-2,6-Dinitro-1-Oxybenzol. Sm. 81—82° (Soc. 73, 688).
- $C_7H_5O_5N_2S$ 1) 3-Nitro-2-Methyl-1-Diazobenzol-5-Sulfonsäure (A. 172, 217). — IV, 1538.
2) 3-Nitro-4-Methyl-1-Diazobenzol-2-Sulfonsäure (A. 173, 214). — IV, 1539.

- $C_7H_5O_5N_3S$ 3) 3-Nitro-4-Methyl-1-Diazobenzol-5-Sulfonsäure (A. 172, 202; 176, 304). — IV, 1539.
4) 3-Nitro-4-Methyl-1-Diazobenzol-6-Sulfonsäure (A. 230, 303). — IV, 1539.
- $C_7H_5O_5N_4Cl$ 1) 4-Chlor-2,6-Dinitro-1-Methylnitrosamidobenzol. Sm. 99—99,5° (B. 31, 2533).
- $C_7H_5O_5ClS$ 1) 2-Chlorbenzol-1-Carbonsäure-2-Sulfonsäure. K + H₂O, Ba + 2H₂O, Pb + 2H₂O (B. 6, 792). — II, 1302.
2) 3-Chlorbenzol-1-Carbonsäure-5-Sulfonsäure. K + 1½ H₂O, K₂ + 3H₂O, Ca + 3H₂O, BaH + 2H₂O, Ba + 4H₂O, PbH + 3H₂O (A. 123, 216). — II, 1302.
3) 4-Chlorbenzol-1-Carbonsäure-2-Sulfonsäure. NH₄ (Am. 13, 231). — II, 1302.
4) 4-Chlorbenzol-1-Carbonsäure-3-Sulfonsäure + 3H₂O. Na + 2H₂O, Mg + 6H₂O, Ba + 3H₂O, Zn + 4H₂O, Pb + 4H₂O, Cu + 6H₂O, Ag₂ + H₂O (A. 191, 29; Am. 16, 534; B. 9, 1248). — II, 1302.
- $C_7H_5O_5BrS$ 1) 2-Brombenzol-1-Carbonsäure-5-Sulfonsäure. K + ½ H₂O, Ba + 2H₂O, Pb + 2H₂O (A. 169, 45). — II, 1303.
2) 3-Brombenzol-1-Carbonsäure-5-Sulfonsäure. Na, Ca + 1½ H₂O, BaH + H₂O, Ba + 2½ H₂O, Pb + 1½ H₂O, Cu, Ag₂ (Z. 1870, 295; 1871, 67; B. 7, 1779; 9, 178). — II, 1303.
3) 4-Brombenzol-1-Carbonsäure-2-Sulfonsäure. K, Ca, Ba (A. 169, 26). — II, 1303.
4) 4-Brombenzol-1-Carbonsäure-3-Sulfonsäure. K + H₂O, Ba + ½ H₂O, Pb + 2H₂O, Anilinsalz (A. 169, 12; B. 24, 3802). — II, 1304.
5) isom. 2) 4-Brombenzol-1-Carbonsäure-2-Sulfonsäure (identisch mit den vorigen Säuren?). Na + 2H₂O, BaH + 4H₂O, Ba + 3H₂O, Pb + 7H₂O, Cu + 3H₂O, Ag₂ (A. 191, 13). — II, 1304.
- $C_7H_5O_5NS$ 1) Aldehyd d. 3-Nitrobenzol-1-Carbonsäure-4-Sulfonsäure. Na + 4H₂O (A. 294, 380).
2) Aldehyd d. 4-Nitrobenzol-1-Carbonsäure-2-Sulfonsäure. Na (B. 30, 3101; C. 1898 [2] 95).
- $C_7H_5O_5Cl_3S$ 1) Chlorid d. 1-Methylbenzol-2,4,6-Trisulfonsäure. Sm. 153° (B. 14, 309). — II, 134.
- $C_7H_5O_5NS$ 1) 2-Nitrobenzol-1-Carbonsäure-4-Sulfonsäure. K, Ba + 2H₂O (Am. 1, 352). — II, 1306.
2) 3-Nitrobenzol-1-Carbonsäure-4-Sulfonsäure + 2H₂O. Sm. 130 bis 131° (wasserfrei). K + 1½ H₂O, Ca + 5H₂O, BaH + 6H₂O, Ba + 4H₂O, Cu + 5H₂O (Am. 1, 343; A. 178, 288). — II, 1306.
3) 4-Nitrobenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 146° (110°). K + H₂O, K₂, Ba, Pb + 2½ H₂O (Am. 1, 350; 9, 411; 11, 179; B. [3] 6, 395). — II, 1305.
4) 2-Nitrobenzol-1-Carbonsäure-3-Sulfonsäure. BaH + 4H₂O, Ba + 1½ (3) H₂O (A. 106, 27). — II, 1306.
- $C_7H_5O_5NS$ 1) 5-Nitro-2-Oxybenzol-1-Carbonsäure-2-Sulfonsäure. Ba₃ + 12H₂O (B. 10, 1701). — II, 1515.
- $C_7H_5O_5BrS_2$ 1) 4-Brombenzol-1-Carbonsäure-2-Disulfonsäure. K₂ + H₂O, Ba₃ + 12H₂O (A. 221, 195). — II, 1304.
- $C_7H_5NCl_3S$ 1) Verbindung (aus Phenylamidotrichlormethylmerkaptan). Sm. 140° u. Zers. (B. 18, 395). — II, 426.
- $C_7H_5NBr_2S$ 1) Phenylsenföldibromid (B. 20, 789). — II, 389.
- C_7H_5NSHg 1) Quecksilberphenylrhodanid. Sm. 226—227° (J. pr. [2] 1, 182). — IV, 1704.
- $C_7H_5N_2ClBr_2$ 1) 4,6-Dibrom-2-Methyl-1-Diazobenzolchlorid. ½ HCl (B. 30, 2344). — IV, 1530.
2) 2,6-Dibrom-4-Methyl-1-Diazobenzolchlorid. ½ HCl, HCl + 2H₂O (B. 30, 1157, 2345). — IV, 1531.
3) 4,6-Chlorbrom-2-Methyl-1-Diazobenzolbromid (B. 30, 2344).
- $C_7H_5N_2ClSe$ 1) 2-Chlor-5-Methylbenzisoselenendiazol (2-Chlormethylpiaselenol). Sm. 149—150° (B. 23, 1395). — IV, 625.
- $C_7H_5N_2Cl_2Br$ 1) 4,6-Dichlor-2-Methyl-1-Diazobenzolbromid (B. 30, 2344).
- $C_7H_5N_2BrS$ 1) 2-Brom-5-Methylbenzisoithiodiazol (Brommethylpiasithiol). Sm. 98° (B. 22, 2901). — IV, 624.

- C₇H₅N₂BrS** 2) ?-Brom-1,3,4-Benzthiodiazin (Bromphenylthiocarbizin). Sm. 210° (A. 212, 331). — IV, 682.
- C₇H₅Cl₂Br₂J** 1) 3,5-Dibrom-1-Methylbenzol-2-Jodidchlorid. Sm. 95° u. Zers. (Soc. 73, 691).
- C₇H₅ONCl** 1) 2-Chlor-4-Nitroso-1-Methylbenzol. Sm. 74,5° (B. 32, 221).
 2) α-Chlor-α-Oximidophenylmethan (Benzhydroximsäurechlorid). Sm. 48° (B. 27, 2196). — III, 46.
 3) anti-2-Chlorbenzaldoxim. Sm. 75—76° (A. 260, 56; 269, 400). — III, 45.
 4) syn-2-Chlorbenzaldoxim. Sm. 98—102° (A. 269, 400). — III, 45.
 5) 2-Methyl-1,4-Benzochinonchlorimid. Sm. 87—88° (75°) (B. 18, 1514; A. 259, 218). — III, 357.
 6) Amid d. 2-Chlorbenzol-1-Carbonsäure. Sm. 139° (A. 117, 154). — II, 1217.
 7) Amid d. 3-Chlorbenzol-1-Carbonsäure. Sm. 132—133° (A. 102, 263; 222, 94). — II, 1218.
 8) Amid d. 4-Chlorbenzol-1-Carbonsäure. Sm. 170° (175°) (B. 8, 882; R. 16, 115). — II, 1218.
 9) Chloramid d. Benzolcarbonsäure. Sm. 113° (116°) (B. 19, 2274; Am. 16, 218). — II, 1159.
 10) Phenylamid d. Chlorameisensäure. Sm. 58—59° (53—55°; 45°) (B. 18, 1178; Am. 16, 71; 17, 100; 19, 336).
 11) Phenylchloramid d. Ameisensäure. Sm. 43—44° (B. 28, 3268).
 12) 4-Chlorphenylamid d. Ameisensäure. Sm. 101° (B. 28, 3269).
- C₇H₅ONCl₂** 1) Verbindung (aus Tropin). Sm. 111° (B. 25, 1393). — III, 786.
- C₇H₅ONBr** 1) 2-Brombenzaldoxim. Sm. 102° (B. 25, 2188). — III, 46.
 2) 3-Brombenzaldoxim. Sm. 71,5° (A. 284, 143). — III, 46.
 3) anti-4-Brombenzaldoxim. Sm. 110—111° (108°) (Ph. Ch. 13, 520; B. 30, 1899). — III, 46.
 4) syn-4-Brombenzaldoxim. Sm. 128° (157°) (Ph. Ch. 13, 520; B. 30, 1899). — III, 46.
 5) Amid d. 2-Brombenzol-1-Carbonsäure. Sm. 155—156°; subl. (B. 21, 2251; 23, 3437; Soc. 67, 590). — II, 1221.
 6) Amid d. 3-Brombenzol-1-Carbonsäure. Sm. 150° (153—154°) (B. 4, 708; Soc. 67, 591; Am. 19, 328). — II, 1222.
 7) Amid d. 4-Brombenzol-1-Carbonsäure. Sm. 190° (186°) (B. 21, 2249; Am. 9, 87; Soc. 67, 592). — II, 1223.
 8) Bromamid d. Benzolcarbonsäure. Sm. 171° (125—133°) u. Zers. (R. 8, 188; Am. 16, 217; A. 296, 86). — II, 1159.
 9) Phenylamid d. Bromameisensäure. Sm. 67° (Am. 17, 99).
 10) Phenylbromamid d. Ameisensäure. Sm. 55—57° (B. 28, 3268).
 11) 4-Bromphenylamid d. Ameisensäure. Sm. 119° (B. 13, 234; 28, 3268). — II, 358.
- C₇H₅ONJ** 1) 2-Jodbenzaldoxim. Sm. 107—108° (Soc. 69, 1008).
 2) 3-Jodbenzaldoxim. Sm. 62—63° (Soc. 69, 1008).
 3) 4-Jodbenzaldoxim. Sm. 111° (Soc. 69, 1008).
 4) anti-4-Jodbenzaldoxim. Sm. 122° (Ph. Ch. 13, 520). — III, 46.
 5) Amid d. 2-Jodbenzol-1-Carbonsäure. Sm. 183° (B. 26, 1745). — II, 1226.
 6) 4-Jodphenylamid d. Ameisensäure. Sm. 108—109° (Am. 12, 500; 18, 545). — II, 358.
 7) Phenyljodamid d. Ameisensäure (Am. 12, 500). — II, 358.
- C₇H₅ON₂Cl₂** 1) 3,6-Dichlor-2-Amidobenzaldoxim. Sm. 175—176° (A. 296, 80).
 2) Amid d. ?-Dichlor-2-Amidobenzol-1-Carbonsäure. Sm. 175—176° (284°) (J. pr. [2] 33, 52; [2] 44, 432). — II, 1278.
- C₇H₅ON₂Br₂** 1) Dibromphenylharnstoff. Sm. 201° (B. 25, 62). — II, 376.
 2) Amid d. 2,4-Dibrom-2[oder 6]-Amidobenzol-1-Carbonsäure. Sm. 196—197° (J. pr. [2] 33, 48). — II, 1280.
- C₇H₅ON₂S** 1) 5-Amido-1-Oxybenzthiazol. Sm. 222—223°. Pikrat (A. 277, 249). — II, 802.
- C₇H₅ON₂Cl** 1) Amid d. 4-Chlordiazobenzol-N-Carbonsäure. Sm. 182° (B. 28, 2075). — IV, 1452.
- C₇H₅ON₂Br** 1) Amid d. 4-Bromdiazobenzol-N-Carbonsäure. Zers. bei 165° (B. 30, 2556). — IV, 1452.

- $C_7H_5ON_3Br$ 1) **2,4,6-Tribromphenylamidoharnstoff** (α -Tribromphenylsemicarbazid). Sm. 235—236° u. Zers. (B. 28, 1928). — IV, 673.
- $C_7H_5ON_3Cl$ 1) **2,8-Dichlor-6-Keto-1,7-Dimethylpurin**. Sm. 245—255° (252 bis 263° cor.) (B. 30, 2230). — IV, 1250.
- 2) **2,6-Dichlor-8-Keto-7,9-Dimethylpurin**. Sm. 183° (B. 17, 333; 28, 2490, 2494; 30, 1855, 2211; 32, 491). — I, 1337.
- 3) **Äthyläther d. 2,8-Dichlor-6-Oxypurin**. Sm. 199—200° u. Zers. (B. 30, 2233). — IV, 1248.
- C_7H_5OClBr 1) **3-Chlor-5-Brom-2-Oxy-1-Methylbenzol**. Sm. 48° (J. pr. [2] 38, 328). — II, 739.
- 2) **Methyläther d. p-Chlor-4-Brom-1-Oxybenzol** (Bromanisol). Sm. 65° (B. 27, 2541).
- C_7H_5OClJ 1) **Methyläther d. 5-Chlor-2-Jod-1-Oxybenzol**. Sm. 48° (B. 31, 1711).
- $C_7H_5OCl_2P$ 1) **Dichlorid d. 3-Chlor-4-Methylphenylphosphinsäure**. Sm. 36°; Sd. 290—291° (B. 31, 2916). — IV, 1667.
- C_7H_5OBrJ 1) **Methyläther d. 4-Brom-2-Jod-1-Oxybenzol**. Sm. 68° (B. 29, 1410).
- 2) **Methyläther d. p-Brom-3-Jod-1-Oxybenzol**. Sd. 285—295° u. Zers. (B. 29, 1411).
- 3) **Methyläther d. 2-Brom-4-Jod-1-Oxybenzol**. Sm. 89° (B. 29, 1410).
- $C_7H_5OF_3B$ 1) **Verbindung** (aus Fluorbor u. Benzaldehyd) (J. 1878, 621). — III, 6.
- $C_7H_5O_2NCl$ 1) **4-Chlor-2-Nitro-1-Methylbenzol**. Sm. 38°; Sd. 239,5—240°₇₁₈ (A. 158, 336; 168, 203, 204; B. 7, 797; 19, 2440). — II, 94.
- 2) **6-Chlor-2-Nitro-1-Methylbenzol**. Sm. 37° (Soc. 59, 1017). — II, 94.
- 3) **2-Chlor-3-Nitro-1-Methylbenzol**. Sd. 263°₇₈₀ (C. 1895 [2] 529).
- 4) **4-Chlor-3-Nitro-1-Methylbenzol**. Sd. 260°₇₄₅ (B. 18, 2600). — II, 94.
- 5) **5-Chlor-3-Nitro-1-Methylbenzol**. Sm. 55° (61°) (B. 20, 2419; C. 1895 [2] 529). — II, 94.
- 6) **6-Chlor-3-Nitro-1-Methylbenzol**. Sm. 44°; Sd. 248°₇₁₁ (B. 20, 200). — II, 94.
- 7) **2-Chlor-4-Nitro-1-Methylbenzol**. Sm. 65,5° (68°) (A. 185, 273; B. 17, 534; Soc. 59, 1017; C. 1895 [2] 529). — II, 94.
- 8) **2-Nitro-1-Chlormethylbenzol**. Sm. 48—49° (B. 8, 1102; 16, 1232, 2066; 17, 385; 18, 2401; 25, 2445; A. 224, 100). — II, 94.
- 9) **3-Nitro-1-Chlormethylbenzol**. Sm. 45—47°; Sd. 173—183°_{30—35} (B. 16, 1232, 2064; A. 224, 103; G. 13, 98). — II, 94.
- 10) **4-Nitro-1-Chlormethylbenzol**. Sm. 71° (A. 139, 337; 185, 271; 302, 259; B. 6, 1059; 16, 1232; G. 14, 481). — II, 94.
- 11) **6-Chlor-4-Oximido-1-Keto-2-Methyl-1,4-Dihydrobenzol**. Sm. 158 bis 159° (G. 27 [2] 577).
- 12) **labil. 5-Chlor-1-Oximido-4-Keto-2-Methyl-1,4-Dihydrobenzol**. Zers. bei 165° (A. 303, 16).
- 13) **stabil. 5-Chlor-1-Oximido-4-Keto-2-Methyl-1,4-Dihydrobenzol**. Zers. bei 170° (A. 303, 16).
- 14) **6-Chlor-1-Oximido-4-Keto-2-Methyl-1,4-Dihydrobenzol**. Sm. 147 bis 148° (G. 27 [2] 580).
- 15) **Methyläther d. 2-Chlor-4-Oximido-1-Keto-1,4-Dihydrobenzol**. α -Modif. Sm. 123°; β -Modif. Sm. 114—115° (A. 277, 90; 279, 35). — III, 332.
- 16) **β -Chlor- γ -Oximido- α -[2-Furanyl]propen** (Furfurchlorakroleinoxim). Sm. 164—165° (B. 21, 425). — III, 727.
- 17) **5-Chlor-2-Oxybenzaldoxim**. Sm. 122° (C. 1897 [2] 1075).
- 18) **5-Chlor-2-Amidobenzol-1-Carbonsäure**. Sm. 148°. $K + H_2O$, $Ca + 1\frac{1}{2}H_2O$, $Ba + 1\frac{1}{4}H_2O$, Pb , Ag (A. 135, 111; B. 6, 175). — II, 1277.
- 19) **p-Chlor-2-Amidobenzol-1-Carbonsäure**. Sm. 204° (J. pr. [2] 33, 50). — II, 1278.
- 20) **2-Chlor-3-Amidobenzol-1-Carbonsäure**. Sm. 185° (B. 19, 316). — II, 1278.
- 21) **4-Chlor-3-Amidobenzol-1-Carbonsäure**. Sm. 212°. Pb , Cu , H_2SO_4 (A. 147, 258). — II, 1278.
- 22) **5-Chlor-3-Amidobenzol-1-Carbonsäure**. Sm. 216°. $Ba + 4H_2O$, Cu , Ag (A. 222, 90; B. 10, 1703). — II, 1278.
- 23) **6-Chlor-3-Amidobenzol-1-Carbonsäure**. Sm. 212°. $Pb + \frac{1}{2}H_2O$, (Cu, CuO) , HCl , HNO_3 , H_2SO_4 (A. 147, 264; 222, 198). — II, 1278.

C₇C₇H₅C₇H₅N₂

- $C_7H_5O_2NCl$** 24) 2-Chlor-4-Amidobenzol-1-Carbonsäure. Sm. 214,5° (B. 24, 708). — II, 1278.
 25) 6-Chlor-2-Methylpyridin-4-Carbonsäure. Sm. 214° (Soc. 71, 656). — IV, 147.
 26) 4-Chlor-2-Methylpyridin-6-Carbonsäure + $\frac{1}{2}H_2O$. Sm. 93–94°. Ba (Soc. 87, 404). — IV, 148.
 27) 6-Chlor-4-Methylpyridin-2-Carbonsäure. Sm. 98° (Soc. 71, 655). — IV, 147.
 28) Methylester d. 6-Chlorpyridin-3-Carbonsäure. Sm. 86–89° (B. 28, 121). — IV, 146.
 29) Amid d. 5-Chlor-2-Oxybenzol-1-Carbonsäure. Sm. 222–223° (B. 11, 1227). — II, 1504.
- $C_7H_5O_2NCl_5$** 1) Amid d. $\alpha\alpha\gamma\gamma\gamma$ -Pentachlor- δ -Keto- β -Methyl- β -Penten- α -Carbonsäure (Amid d. γ -Dichloracetyl- $\alpha\alpha\gamma$ -Trichlor- β -Methylcrotonsäure). Sm. 175° (B. 26, 320). — I, 1356.
- $C_7H_5O_2NBr$** 1) 3-Brom-2-Nitro-1-Methylbenzol. Fl. (B. 13, 1945). — II, 96.
 2) 4-Brom-2-Nitro-1-Methylbenzol. Sm. 45,5°; Sd. 256–257° (A. 158, 340; 168, 177; B. 6, 799; 27, 1931). — II, 96.
 3) 4-Brom-3-Nitro-1-Methylbenzol. Sm. 28° (31–32°); Sd. 255–256° (B. 6, 799; 13, 972; 27, 1931; A. 158, 344; 168, 177). — II, 96.
 4) 5-Brom-3-Nitro-1-Methylbenzol. Sm. 81,4–81,8°; Sd. 269–270° (A. 192, 203; B. 13, 964). — II, 96.
 5) 6-Brom-3-Nitro-1-Methylbenzol. Sm. 78° (76,3°) (B. 14, 419; A. 231, 180). — II, 95.
 6) 2-Brom-4-Nitro-1-Methylbenzol. Sm. 77,5° (B. 14, 418; A. 231, 171). — II, 95.
 7) 3-Brom-?-Nitro-1-Methylbenzol. Sm. 55°; Sd. 267° (A. 168, 170; 177, 246). — II, 96.
 8) 3-Brom-?-Nitro-1-Methylbenzol. Sd. 269° (A. 168, 170). — II, 96.
 9) 3-Nitro-1-Brommethylbenzol. Sm. 57–58° (A. 185, 278). — II, 96.
 10) 4-Nitro-1-Brommethylbenzol. Sm. 99–100° (A. 185, 266). — II, 96.
 11) stabil. 4-Brom-1-Nitromethylbenzol (4-Bromphenylnitromethan). Sm. 60° (B. 29, 2253).
 12) labil. 4-Brom-1-Nitromethylbenzol. Sm. 89–90° (B. 29, 2253).
 13) labil. 5-Brom-1-Oximido-4-Keto-2-Methyl-1,4-Dihydrobenzol. Zers. bei 178–180° (A. 303, 25).
 14) stabil. 5-Brom-1-Oximido-4-Keto-2-Methyl-1,4-Dihydrobenzol. Zers. bei 186° (A. 303, 25).
 15) 5-Brom-2-Oxybenzaldoxim. Sm. 129° (125–126°) (C. 1897 [2] 1075; B. 31, 3042).
 16) 3-Brom-4-Oxybenzaldoxim. Sm. 135° (B. 28, 2410). — III, 86.
 17) 3-Brom-2-Amidobenzol-1-Carbonsäure. Sm. 171–172°. Ba + H_2O , Cu (A. 143, 244; 149, 134). — II, 1279.
 18) 4-Brom-2-Amidobenzol-1-Carbonsäure. Sm. 222°. Ca + $\frac{1}{2}H_2O$, Ba + H_2O , Ag (J. pr. [2] 43, 206). — II, 1279.
 19) 5-Brom-2-Amidobenzol-1-Carbonsäure. Sm. 211,5–212°. Ba + $4H_2O$, Cu (A. 143, 241; 149, 133; J. pr. [2] 33, 35; B. 22, 1645). — II, 1279.
 20) 4-Brom-3-Amidobenzol-1-Carbonsäure. Sm. 225°. Pb, Cu, HCl (A. 222, 179). — II, 1279.
 21) 5-Brom-3-Amidobenzol-1-Carbonsäure. Sm. 215°. Ca + $5\frac{1}{2}H_2O$, HCl, H_2SO_4 (A. 222, 169). — II, 1279.
 22) 6-Brom-3-Amidobenzol-1-Carbonsäure. Sm. 180° (B. 10, 560, 1706). — II, 1279.
 23) Amid d. 5-Brom-2-Oxybenzol-1-Carbonsäure. Sm. 232° (J. pr. [2] 51, 211). — II, 1505.
- $C_7H_5O_2NJ$** 1) 2-Jod-5-Nitro-1-Methylbenzol. Sm. 103–104° (A. 158, 347; B. 30, 3001). — II, 98.
 2) 3-Jod-?-Nitro-1-Methylbenzol. Sm. 106–109° (A. 158, 350). — II, 98.
 3) 4-Jod-2-Nitro-1-Methylbenzol. Sm. 60,5–61°; Sd. 286° u. Zers. (A. 158, 337; B. 30, 3001). — II, 98.
 4) 4-Jod-3-Nitro-1-Methylbenzol. Sm. 55–56° (A. 158, 344). — II, 98.
 5) 2-Jod-4-Nitro-1-Methylbenzol. Sm. 51° (B. 30, 3000).

- C₇H₅O₂NJ** 6) 2-Nitro-1-Jodmethylbenzol. Sm. 75° (A. 224, 103; R. 15, 367). — II, 98.
 7) 4-Nitro-1-Jodmethylbenzol. Sm. 127° (A. 224, 99). — II, 98.
 8) 6-Jod-4-Oximido-1-Keto-2-Methyl-1,4-Dihydrobenzol. Sm. 156° u. Zers. (J. pr. [2] 39, 399). — III, 358.
 9) 5-Jod-2-Oxybenzaloxim. Sm. 135° (C. 1897 [2] 1075).
 10) 3-[oder 5]-Jod-2-Amidobenzol-1-Carbonsäure. Sm. 137°. HCl, Ba + 5 H₂O (J. pr. [2] 18, 326). — II, 1280.
 11) isom. 3-[oder 5]-Jod-2-Amidobenzol-1-Carbonsäure. Sm. 209° u. Zers. Ca + 2 H₂O, Sr, Ba (J. pr. [2] 18, 327). — II, 1281.
- C₇H₅O₂NF** 1) 6-Fluor-2-Nitro-1-Methylbenzol. Sd. 218° (B. 29, 841).
- C₇H₅O₂N₂Br** 1) 2,6-Dibrom-4-Nitro-3-Amido-1-Methylbenzol. Sm. 124—130° (B. 13, 973). — II, 476.
 2) 3,5-Dibrom-2-Oxybenzenylamidoxim. Sm. 180°. Cu (B. 22, 2777). — II, 1506.
- C₇H₅O₂N₂J** 1) 2-Nitrophenyldijodamidomethan (B. 25, 2541). — II, 1231.
 2) 3-Nitrophenyldijodamidomethan (B. 25, 2541). — II, 1234.
 3) 4-Nitrophenyldijodamidomethan (B. 25, 2540). — II, 1237.
- C₇H₅O₂N₂S** 1) Benzolsulfocyanaminsäure + H₂O. Sm. 158° u. Zers. Na + H₂O, Ba + H₂O, Pb + 2 H₂O, Ag (J. pr. [2] 41, 99). — II, 116.
 2) Pseudosaccharinamid (B. 26, 2296). — II, 1297.
 3) Amid d. 2-Cyanbenzol-1-Sulfonsäure. Sm. über 250° (B. 26, 2291; A. 286, 387). — II, 1297.
 4) Amid d. 3-Cyanbenzol-1-Sulfonsäure. Sm. 151—152° (A. 106, 34; B. 9, 428). — II, 1300.
 5) Amid d. 4-Cyanbenzol-1-Sulfonsäure. Sm. 168—169° (Am. 18, 160).
- C₇H₅O₂N₂S₂** 1) 2,4-Di[Thionylamido]-1-Methylbenzol. Sm. 72—73° (A. 274, 263). — IV, 602.
- C₇H₅O₂N₂J** 1) α-Jod-α-Nitro-α-Phenylhydrazonmethan. Sm. 110—112° u. Zers. (B. 25, 2636). — IV, 1374.
- C₇H₅O₂ClBr** 1) 2-Chlor-2-Brom-2,5-Dioxy-1-Methylbenzol + H₂O. Sm. 120—121° (B. 20, 2287). — II, 957.
 2) 2-Chlor-2-Brom-2,5-Dioxy-1-Methylbenzol. Sm. 123° (B. 20, 2286). — II, 957.
- C₇H₅O₂Cl₂S** 1) Dichlormethylphenylsulfon. Sm. 59° (J. pr. [2] 40, 540). — II, 780.
 2) Chlorid d. 2-Chlor-1-Methylbenzol-4-Sulfonsäure. Sm. 37° (A. 221, 213; Soc. 73, 764). — II, 135.
 3) Chlorid d. 2-Chlor-1-Methylbenzol-5-Sulfonsäure. Sm. 60—65° (Soc. 61, 1073). — II, 134.
 4) Chlorid d. 3-Chlor-1-Methylbenzol-2-Sulfonsäure. Sm. 53° (49 bis 50°) (Soc. 61, 1075; B. 27, 3023). — II, 135.
 5) Chlorid d. 4-Chlor-1-Methylbenzol-2-Sulfonsäure. Sm. 23—24° (C. 1895 [2] 530; Soc. 73, 762).
 6) Chlorid d. 4-Chlor-1-Methylbenzol-3-Sulfonsäure. Sm. 54° (56°) (C. 1895 [2] 530; Soc. 73, 760).
 7) Chlorid d. 4-Chlorphenylmethansulfonsäure. Sm. 85,5° (Am. 2, 159). — II, 135.
- C₇H₅O₂Cl₂Cr** 1) Chlorbenzylidenchromchlorid (A. ch. [5] 22, 236). — II, 46.
- C₇H₅O₂Br₂S** 1) Dibrommethylphenylsulfon (J. pr. [2] 40, 542). — II, 780.
 2) Bromid d. 6-Brom-1-Methylbenzol-3-Sulfonsäure. Sm. 63,5° (Soc. 61, 1041). — II, 136.
- C₇H₅O₂NCl** 1) Methyläther d. 4-Chlor-2-Nitro-1-Oxybenzol. Sm. 98,5° (B. 29, 2599).
 2) Methyläther d. 5-Chlor-2-Nitro-1-Oxybenzol. Sm. 70,5° (B. 11, 1162). — II, 693.
 3) Methyläther d. 2-Chlor-3-Nitro-1-Oxybenzol. Sm. 90° (B. 26, 2466). — II, 693.
 4) Methyläther d. 2-Chlor-4-Nitro-1-Oxybenzol. Sm. 93—94° (95°) (J. 1866, 459; B. 11, 1463; 29, 2598). — II, 694.
- C₇H₅O₂NBr** 1) 5-Brom-3-Nitro-2-Oxy-1-Methylbenzol. Sm. 88°. K + H₂O (A. 168, 165; J. pr. [2] 38, 32). — II, 740.
 2) Methyläther d. 4-Brom-2-Nitro-1-Oxybenzol. Sm. 88° (85—86°) (J. 1866, 459; B. 11, 1750; 29, 2598; 32, 162 Ann.; A. 217, 55). — II, 696.

- C₇H₅O₂NBr** 3) Methyläther d. 6-Brom-2-Nitro-1-Oxybenzol. Sm. 67° (Soc. 73, 686).
 4) Methyläther d. p-Brom-3-Nitro-1-Oxybenzol. Sm. 103—104° (B. 16, 614, 1139). — II, 697.
 5) Methyläther d. 2-Brom-4-Nitro-1-Oxybenzol. Sm. 106° (A. 217, 66; B. 13, 838; 29, 2598). — II, 697.
 6) 3-Brom-5-Amido-2-Oxybenzol-1-Carbonsäure. HCl (B. 17, 2725). — II, 1514.
 7) Methylester d. p-Brom-6-Oxypyridin-3-Carbonsäure. Sm. 221 bis 222° (B. 17, 2398). — IV, 153.
- C₇H₅O₂NJ** 1) Methyläther d. 4-Jod-2-Nitro-1-Oxybenzol. Sm. 73° (B. 29, 1003, 2595).
 2) Methyläther d. 4-Jod-3-Nitro-1-Oxybenzol. Sm. 62° (B. 29, 2595).
 3) Methyläther d. 2-Jod-3-Nitro-1-Oxybenzol. Sm. 121—122° (B. 26, 2467). — II, 700.
 4) Methyläther d. 2-Jod-4-Nitro-1-Oxybenzol. Sm. 95—96° (B. 29, 997, 1000).
 5) 6-Jodoso-3-Nitro-1-Methylbenzol. Sm. bei 175° (Soc. 73, 694).
- C₇H₅O₂N₂S** 1) 2-Nitro-4-Thionylamido-1-Methylbenzol. Sm. 44° (A. 274, 232). — II, 490.
 2) 3-Nitro-4-Thionylamido-1-Methylbenzol. Sm. 38—39° (A. 274, 232). — II, 490.
 3) 2-Methyl-1-Diazobenzol-5-Sulfonsäure (A. 172, 213; 174, 344). — IV, 1537.
 4) 4-Methyl-1-Diazobenzol-2-Sulfonsäure (A. 173, 201; Am. 15, 305; 19, 182). — IV, 1538.
 5) 4-Methyl-1-Diazobenzol-3-Sulfonsäure (A. 161, 8; 172, 235; Am. 20, 299). — IV, 1537.
 6) 4-Diazophenylmethan-α-Sulfonsäure (A. 221, 220). — IV, 1538.
 7) Phenylthionylhydrazin-2-Carbonsäure. Sm. 152° (B. 27, 2555). — II, 1288.
 8) Phenylthionylhydrazin-3-Carbonsäure. Sm. 231° (B. 27, 2554). — II, 1288.
 9) Phenylthionylhydrazin-4-Carbonsäure. Sm. 258° (B. 27, 2554). — II, 1289.
 10) Imid d. 4-Amidobenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 283 bis 285° u. Zers. K + H₂O, Ba + 6H₂O, Ag + H₂O (Am. 8, 172). — II, 1307.
- C₇H₅O₂N₂Cl** 1) 2-Chlor-4-Nitro-1-Methylnitrosamidobenzol. Sm. 94,5—95,5° (B. 31, 2532).
 2) 3-Chlor-2-Nitro-1-Methylnitrosamidobenzol. Sm. 67,5—68,5° (B. 31, 2532).
 3) Methyläther d. 5-Nitro-2-Oxy-1-Diazobenzolchlorid. 2 + PtCl₄ (J. 1866, 459). — IV, 1547.
- C₇H₅O₂N₂Br** 1) 4-Brom-2-Nitrophenylhydrazid d. Ameisensäure. Sm. 191° (B. 22, 2816). — IV, 663.
- C₇H₅O₂N₂Br₃** 1) Methyläther d. 5-Nitro-2-Oxy-1-Diazobenzoltribromid (J. 1866, 459). — IV, 1547.
- C₇H₅O₂N₄S** 1) 1-Phenyl-1,2,3,4-Tetrazol-5-Sulfonsäure. K (B. 28, 80). — IV, 1233.
- C₇H₅O₂Cl₂S** 1) 2,3-Dichlor-1-Methylbenzol-5-Sulfonsäure. Ba (C. 1895 [2] 529).
 2) 2,3-Dichlor-1-Methylbenzol-p-Sulfonsäure. Ba (C. 1895 [2] 529).
 3) 2,3-Dichlor-1-Methylbenzol-p-Sulfonsäure. Na + H₂O, Ca + H₂O, Ba + H₂O (A. 237, 159). — II, 135.
 4) 2,4-Dichlor-1-Methylbenzol-5-Sulfonsäure (C. 1895 [2] 529).
 5) 2,4-Dichlor-1-Methylbenzol-p-Sulfonsäure. Na + 1½ H₂O, Ca + 3H₂O, Ba + 4H₂O (A. 237, 159). — II, 136.
 6) 2,5-Dichlor-1-Methylbenzol-4-Sulfonsäure. Na + 1½ H₂O, K, Ba + H₂O (Soc. 61, 1050; C. 1895 [2] 529). — II, 136.
 7) 2,6-Dichlor-1-Methylbenzol-p-Sulfonsäure (C. 1895 [2] 529).
 8) 3,4-Dichlor-1-Methylbenzol-p-Sulfonsäure. Na + H₂O, K, Ba + 2H₂O (Soc. 61, 1060). — II, 136.
 9) 3,5-Dichlor-1-Methylbenzol-p-Sulfonsäure (C. 1895 [2] 529).
- C₇H₅O₂Cl₃P** 1) 2,5,6-Trichlor-3-Methylphenylphosphinsäure. Sm. 220°. Ag₂ (A. 293, 308). — IV, 1670.

- $C_7H_5O_2Cl_2P$ 2) *p*-Trichlor-4-Methylphenylphosphinsäure. Sm. 190,5°. Ag_2 (B. 8, 1315).
- $C_7H_5O_2Br_2S$ 1) 5,6-Dibrom-1-Methylbenzol-3-Sulfonsäure. $Na + H_2O$, K, Ba + $3\frac{1}{2}H_2O$ (Soc. 61, 1038). — II, 138.
2) *p*-Dibrom-1-Methylbenzol-3-Sulfonsäure. $Na + 2H_2O$, Ba + $2\frac{1}{2}H_2O$ (A. 174, 365). — II, 138.
3) Aethylester d. Thiocarbonyldibromacetessigsäure. Sm. 171° (B. 28, 2887).
- $C_7H_5O_2NBr$ 1) 1-Methyläther d. 5-Brom-3-Nitro-1,2-Dioxybenzol. Sm. 120° (Soc. 73, 689).
2) 2-Methyläther d. 6-Brom-4-Nitro-1,2-Dioxybenzol. Sm. 142° (Soc. 73, 690).
- $C_7H_5O_2NJ$ 1) 6-Jodo-5-Nitro-1-Methylbenzol. Sm. 198° (Soc. 73, 694).
- $C_7H_5O_2N_2Br$ 1) Verbindung (aus Urocaninsäure) (H. 24, 408).
- $C_7H_5O_2N_2S$ 1) Methyläther d. 2,4-Dinitro-1-Merkaptobenzol. Sm. 126° (B. 18, 330). — II, 794.
2) 5,α-Anhydro-5-Diazo-2-Oxyphenylmethan-α-Sulfonsäure (B. 31, 1862). — IV, 1550.
- $C_7H_5O_2N_2Cl$ 1) 4-Chlor-2,6-Dinitro-1-Methylamidobenzol. Sm. 100—100,5° (B. 31, 2534).
- $C_7H_5O_2N_2Br$ 1) *p*-Brom-2,4-Dinitro-1-Methylamidobenzol. Sm. 147° (B. 18, 1996). — II, 326.
- $C_7H_5O_2Cl_2S_2$ 1) Chlorid d. 1-Methylbenzol-2,4-Disulfonsäure. Sm. 52° (56°) (B. 5, 1086; 10, 543, 1276; 12, 1052; Am. 2, 181; Soc. 73, 754). — II, 133.
2) Chlorid d. 1-Methylbenzol-2,5-Disulfonsäure. Sm. 96° (98°) (B. 5, 1086; 19, 2888; Soc. 73, 758). — II, 133.
3) Chlorid d. 1-Methylbenzol-2,6-Disulfonsäure. Sm. 88° (99°) (A. 221, 200; C. 1895 [2] 530; Soc. 73, 771). — II, 134.
4) Chlorid d. 1-Methylbenzol-3,4-Disulfonsäure. Sm. 111°. + $\frac{1}{2}C_6H_6$ (Sm. 60°) (B. 20, 356; C. 1895 [2] 530; Soc. 73, 752). — II, 133.
5) Chlorid d. 1-Methylbenzol-3,5-Disulfonsäure. Sm. 95° (A. 230, 296, 327; C. 1895 [2] 530; B. 19, 2889; Soc. 73, 748). — II, 133.
- $C_7H_5O_2Cl_2Cr_2$ 1) Verbindung (aus Benzylidendichlorochromsäure) (A. ch. [5] 22, 225). — II, 25.
- $C_7H_5O_2Br_2S$ 1) 3,5-Dibrom-2-Oxy-1-Methylbenzol-4-Sulfonsäure. K + H_2O , Ba + $8\frac{1}{2}H_2O$ (A. 174, 353). — II, 843.
2) 2,4-Dibrom-3-Oxy-1-Methylbenzol-6-Sulfonsäure. Sm. 140°. K + H_2O , Ba + H_2O , Co + $4H_2O$, Cu + $4H_2O$, Ag + H_2O (J. pr. [2] 39, 368). — II, 843.
- $C_7H_5O_2J_2S$ 1) 2,4-Dijod-3-Oxy-1-Methylbenzol-6-Sulfonsäure. Sm. 70° u. Zers. K + H_2O (J. pr. [2] 39, 400). — II, 843.
- $C_7H_5O_2N_2S_2$ 1) Inn. Anhydrid d. Benzol-1-Carbonsäure-2,4-Disulfonsäurediamid. Sm. 285° u. Zers. K_2 , Ba + $3\frac{1}{2}H_2O$, Cu + $4H_2O$, Ag (Am. 2, 185; B. 20, 1602; 21, 248). — II, 1302.
- $C_7H_5O_2Cl_2P$ 1) 3-Chlorphenylphosphinsäure-4-Carbonsäure. Sm. 254°. Ba (B. 31, 2918). — IV, 1673.
- $C_7H_5O_2Cl_2S_2$ 1) Chlorid d. 3-Oxy-1-Methylbenzol-2,6-Disulfonsäure. Fl. (B. 20, 3094). — II, 843.
2) Chlorid d. 1-Oxybenzolmethyläther-*p*-Disulfonsäure. Sm. 86° (Am. 15, 389; 18, 859). — II, 833.
- $C_7H_5O_2N_2S$ 1) 2,6-Dinitro-1-Methylbenzol-4-Sulfonsäure. K, Ba + xH_2O , Pb + $3H_2O$ (B. 18, 71). — II, 111.
2) 2-Amid d. 4-Nitrobenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 172 bis 177°. Ba + H_2O , Ag + $\frac{1}{2}H_2O$, Ag_2 + $7H_2O$ (Am. 11, 162). — II, 1305.
- $C_7H_5O_2N_2S_2$ 1) 2-Methyl-1-Diazobenzol-4,6-Disulfonsäure. K, Ba + $4H_2O$, Pb (A. 230, 291). — IV, 1538.
2) 4-Methyl-1-Diazobenzol-3,5-Disulfonsäure. K, Ba, Pb (A. 230, 320). — IV, 1538.
- $C_7H_5O_2N_2S$ 1) *p*-Dinitro-1-Methylbenzol-2-Sulfonsäure. Ba + $4H_2O$ (A. 186, 346). — II, 140.
2) 2,6-Dinitro-1-Methylbenzol-4-Sulfonsäure + $2H_2O$. Sm. 165°. NH_4 , K, Ca + $2H_2O$, Ba + $4H_2O$, Pb + $2(3)H_2O$ (A. 155, 21; 186, 353; 274, 349). — II, 140.

- $C_7H_5O_2N_2S$ 3) *p*-Dinitrophenylmethansulfonsäure. K, Ba + 4H₂O, Pb + 4H₂O (A. 221, 225). — II, 140.
4) 2,4-Dinitrophenylester d. Methansulfonsäure. Sm. 82–84° (J. pr. [2] 48, 248). — II, 685.
- $C_7H_5NCl_2S$ 1) Phenylamidotrichlormethylmerkaptomethan. Fl. (A. 167, 211; B. 19, 395). — II, 426.
- C_7H_5NBrS 1) 4-Bromphenylamid d. Thioameisensäure. Sm. 189–190° u. Zers. (B. 13, 236). — II, 360.
- $C_7H_5NBr_2J$ 1) 3,5-Dibrom-4-Jod-2-Amido-1-Methylbenzol. Sm. 64° (A. 192, 210). — II, 456.
- $C_7H_5ONCl_2$ 1) Methyläther d. *p*-Dichlor-4-Amido-1-Oxybenzol. Sm. 71,5° (B. 8, 897). — II, 727.
2) Aethyläther d. *p*-Dichlor-4-Oxypyridin. Sm. 31° (B. 17, 1834). — IV, 117.
- $C_7H_5ONCl_4$ 1) Verbindung (aus Tropin). Sm. 108° (B. 25, 1393). — III, 786.
- $C_7H_5ONBr_2$ 1) 3,4-Dibrom-5-Acetyl-2-Methylpyrrol. Sm. 161–162° (B. 20, 2604). — IV, 99.
2) 3,5-Dibrom-2-Keto-4,6-Dimethyl-1,2-Dihdropyridin. Sm. 235° u. Zers. (A. 274, 280). — IV, 129.
3) 3,5-Dibrom-4-Keto-2,6-Dimethyl-1,4-Dihdropyridin (B. 20, 158; 27, 1333). — IV, 131.
4) Methyläther d. 4,6-Dibrom-2-Amido-1-Oxybenzol. Fl. H₂SO₄, Oxalat (A. 217, 63; B. 11, 1750). — II, 729.
5) Methyläther d. 2,6-Dibrom-4-Amido-1-Oxybenzol. HCl, H₂SO₄, Oxalat (A. 217, 70; B. 11, 1750; 13, 839). — II, 729.
6) Bromid d. Benzolcarbonsäureamid (Gm. 6, 115). — II, 1159.
- C_7H_5ONS 1) Phenylamidothionameisensäure, nur Ester bekannt (B. 15, 339). — II, 385.
2) 2-Thionylamido-1-Methylbenzol. Sd. 184°₁₀₀ (A. 274, 226). — II, 460.
3) 3-Thionylamido-1-Methylbenzol. Sd. 220° (A. 274, 226). — II, 477.
4) 4-Thionylamido-1-Methylbenzol. Sm. 9°; Sd. 224° (A. 274, 226). — II, 489.
5) Amid d. 2-Oxybenzol-1-Thiocarbonsäure. Sm. 117–118° (B. 22, 2770). — II, 1514.
- $C_7H_5ON_2Cl$ 1) 2-Chlor-1-Methylnitrosamidobenzol. Fl. (B. 31, 2531).
2) 3-Chlor-1-Methylnitrosamidobenzol. Sm. 34–35° (B. 31, 2531).
3) 4-Chlor-1-Methylnitrosamidobenzol. Sm. 51° (B. 20, 2460; 31, 2532). — II, 326.
4) Methyläther d. 4-Oxydiazobenzol (B. 28, 2056). — IV, 1545.
5) Amid d. *p*-Chlor-2-Amidobenzol-1-Carbonsäure. Sm. 172° (J. pr. [2] 33, 50). — II, 1278.
6) 4-Chlorphenylhydrazid d. Ameisensäure. Sm. 152° (Soc. 59, 213). — IV, 663.
7) Verbindung (aus Isocyanphenylchlorid) (B. 7, 1233).
- $C_7H_5ON_2Cl_2$ 1) Aethyläther d. 3,5,6-Trichlor-4-Amido-2-Oxypyridin. Sm. 83° (B. 19, 2714; Soc. 73, 781). — IV, 819.
- $C_7H_5ON_2Br$ 1) 4-Brom-1-Methylnitrosamidobenzol. Sm. 74° (B. 12, 1816). — II, 326.
2) 3-Bromphenylharnstoff. Sm. 164–165° (Am. 19, 340).
3) 4-Bromphenylharnstoff. Zers. bei 260° (B. 24, 4172). — II, 376.
4) Methyläther d. 4-Bromdiazobenzol. Fl. (B. 28, 232; 31, 588). — IV, 1521.
5) Amid d. 5-Brom-2-Amidobenzol-1-Carbonsäure. Sm. 177° (J. pr. [2] 33, 35). — II, 1279.
6) Hydrazid d. 2-Brombenzol-1-Carbonsäure. Sm. 153° (J. pr. [2] 52, 234).
7) Hydrazid d. 3-Brombenzol-1-Carbonsäure. Sm. 151°. HCl, Na (J. pr. [2] 58, 191).
8) Hydrazid d. 4-Brombenzol-1-Carbonsäure. Sm. 164°. HCl (J. pr. [2] 58, 199).
9) 4-Bromphenylhydrazid d. Ameisensäure. Sm. 198° (Soc. 57, 56). — IV, 663.

- $C_7H_7ON_3S$ 1) Nitril d. 5-Acetylamido-2-Methylthiazol-4-Carbonsäure. Sm. 280 bis 285° (*M.* 16, 737). — IV, 542.
- $C_7H_7ON_2Cl$ 1) 2-Chlor-6-Keto-1,7-Dimethylpurin. Sm. 270° u. Zers. (*B.* 30, 2407). — IV, 1250.
- C_7H_7OClHg 1) Methyläther d. 2-Oxyphenylquecksilberchlorid. Sm. 173—174° (*B.* 27, 257). — IV, 1708.
2) Methyläther d. 4-Oxyphenylquecksilberchlorid. Sm. 239° (*B.* 23, 2344; 30, 2836). — IV, 1709.
- $C_7H_7OCl_2P$ 1) Methyläther d. 4-Oxyphenyldichlorphosphin. Sd. 130°₁₃₋₁₅ (*A.* 293, 248). — IV, 1649.
2) Dichlorid d. 2-Methylphenylphosphinsäure. Sd. 273° (*A.* 293, 293). — IV, 1667.
3) Dichlorid d. 3-Methylphenylphosphinsäure. Sd. 275° (*A.* 293, 304). — IV, 1667.
4) Dichlorid d. 4-Methylphenylphosphinsäure. Sd. 284—285° (*A.* 212, 217). — IV, 1667.
- $C_7H_7OCl_2As$ 1) Methyläther d. 4-Oxyphenyldichlorarsin. Sd. 230°₁₁₇ (*B.* 20, 51). — IV, 1686.
2) Dichlorid d. 2-Methylphenylarsinsäure (*A.* 201, 253). — IV, 1691.
3) Dichlorid d. 4-Methylphenylarsinsäure. Sm. 69° (*A.* 201, 253). — IV, 1692.
- $C_7H_7OCl_2B$ 1) Methyläther d. 2-Oxyphenylborchlorid (*B.* 27, 258).
2) Methyläther d. 4-Oxyphenylborchlorid. Sm. 30°; Sd. 182°₁₇₀ (*B.* 27, 255). — IV, 1700.
- $C_7H_7OCl_2P$ 1) Methyläther d. 4-Oxyphenylphosphortetrachlorid. Sm. 35—40° (*A.* 293, 250). — IV, 1649.
- C_7H_7OBrS 1) 3-Brom-5-Acetyl-2-Methylthiophen? Sm. 77° (*B.* 28, 1805). — III, 764.
2) 2-Brom-2-Acetyl-3-Methylthiophen. Fl. (*A.* 267, 161). — III, 764.
- C_7H_7OBrHg 1) Methyläther d. 2-Oxyphenylquecksilberbromid. Sm. 183° (*B.* 27, 257). — IV, 1709.
2) Methyläther d. 4-Oxyphenylquecksilberbromid. Sm. 187° (*B.* 23, 2345). — IV, 1709.
- C_7H_7OJHg 1) Methyläther d. 2-Oxyphenylquecksilberjodid. Sm. 165° (*B.* 27, 257; 31, 2155). — IV, 1709.
2) Methyläther d. 4-Oxyphenylquecksilberjodid. Sm. 227° (*B.* 23, 2345). — IV, 1709.
- $C_7H_7O_2NCl_2$ 1) 2,3-Dichlor-4-Oximido-1-Keto-5-Methyl-1,2,3,4-Tetrahydrobenzol. Sm. 150—152° (*G.* 27 [2] 579).
2) 2,3-Dichlor-1-Oximido-4-Keto-5-Methyl-1,2,3,4-Tetrahydrobenzol. Sm. 153—154° (*G.* 27 [2] 576).
3) Chlorid d. Methyläthers d. 4-Nitroso-1-Oxybenzol. Sm. 93° (*A.* 277, 88). — II, 678.
- $C_7H_7O_2NBr_2$ 1) Bromid d. Methyläthers d. 4-Nitroso-1-Oxybenzol. Sm. 125° (*A.* 277, 88). — II, 678.
- $C_7H_7O_2NS$ 1) 2-Nitro-1-Merkaptomethylbenzol. Sm. 42—44° (*M.* 10, 883; *B.* 29, 161).
2) 3-Nitro-1-Merkaptomethylbenzol. Sm. 11—12° (*B.* 30, 1068).
3) 4-Nitro-1-Merkaptomethylbenzol. Sm. 140° (*B.* 5, 698). — II, 1060.
4) Methyläther d. 2-Thionylamido-1-Oxybenzol. Sd. 203°_{as} (*A.* 274, 246). — II, 705.
5) Benzyläther d. Thionylhydroxylamin. Sd. 153—154°_{so} (*B.* 26, 2155). — II, 532.
6) 4-Amido-3-Merkaptobenzol-1-Carbonsäure (*A.* 277, 253). — II, 1522.
7) 6-Amido-3-Merkaptobenzol-1-Carbonsäure. Ba + 3H₂O (*A.* 143, 241). — II, 1522.
- $C_7H_7O_2N_2Cl$ 1) 5-Chlor-3-Nitro-2-Amido-1-Methylbenzol. Sm. 118—119° (*A.* 274, 295). — II, 457.
2) 5-Chlor-4-Nitro-2-Amido-1-Methylbenzol. Sm. 128° (*A.* 274, 295). — II, 457.
3) 3-Chlor-5-Nitro-2-Amido-1-Methylbenzol. Sm. 168° (*C.* 1895 [2] 529).
4) 2-Chlor-5-Nitro-4-Amido-1-Methylbenzol. Sm. 129,5° (*A.* 265, 344). — II, 483.

- C₇H₇O₂N₂Cl** 5) 2-Chlor-6-Nitro-4-Amido-1-Methylbenzol. Sm. 70,5° (A. 265, 344). — II, 483.
 6) 3-Chlor-6-Nitro-4-Amido-1-Methylbenzol. Sm. 165° (A. 265, 354). — II, 483.
 7) 4-Chlor-2-Nitro-1-Methylamidobenzol. Sm. 108—109° (B. 30, 1261; 31, 2534).
 8) 2-Chlor-4-Nitro-1-Methylamidobenzol. Sm. 116—117° (B. 31, 2532).
 9) 3-Chlor-2-Nitro-1-Methylamidobenzol. Sm. 106—107° (B. 31, 2532).
 10) 4-Chlor-1-Methylnitramidobenzol. Sm. 48—49° (B. 30, 1261). — IV, 1529.
 11) 2-Chlorbenzylnitrosohydroxylamin. Sm. 48—49° (A. 269, 397). — II, 533.
 12) Methyläther d. 4-Chlordiazobenzolsäure. Fl. (B. 30, 1262). — IV, 1529.
- C₇H₇O₂N₂Br** 1) 5-Brom-3-Nitro-2-Amido-1-Methylbenzol. Sm. 143° (139°) (A. 192, 206; B. 13, 969). — II, 457.
 2) 3-Brom-5-Nitro-2-Amido-1-Methylbenzol. Sm. 180,3—181,3° (B. 13, 964). — II, 457.
 3) 6-Brom-2-Nitro-3-Amido-1-Methylbenzol. Sm. 102—103° (B. 13, 972 Anm.). — II, 476.
 4) 6-Brom-4-Nitro-3-Amido-1-Methylbenzol. Sm. 179—181° (B. 13, 972). — II, 476.
 5) 5-Brom-6-Nitro-3-Amido-1-Methylbenzol. Sm. 87—88° (B. 13, 1945). — II, 476.
 6) 3-Brom-5-Nitro-4-Amido-1-Methylbenzol. Sm. 64,5° (A. 192, 203; B. 13, 968). — II, 483.
 7) 3-Brom-6-Nitro-4-Amido-1-Methylbenzol. Sm. 121° (A. 265, 367). — II, 483.
 8) 4-Brom-2-Nitro-1-Methylamidobenzol. Sm. 100—101° (B. 30, 1261).
 9) 4-Brom-1-Methylnitramidobenzol. Sm. 83,5—84,5° (B. 30, 1260). — IV, 1529.
 10) Methyläther d. iso-4-Bromphenylhydroxylnitrosamin. Sm. 84,5 bis 85,5° (B. 31, 587).
- C₇H₇O₂N₂S** 1) 3-Nitrophenylthioharnstoff. Sm. 157—158° (B. 16, 550). — II, 391.
- C₇H₇O₂N₂Cl** 1) 8-Chlor-2,6-Diketo-1,7-Dimethylpurin (Chlorparaxanthin). Sm. 284° (295° cor.) (B. 31, 2622).
 2) 2-Chlor-6,8-Diketo-1,9-Dimethylpurin. Sm. 291° (B. 32, 257).
 3) 8-Chlor-2,6-Diketo-3,7-Dimethylpurin (Chlortheobromin). Sm. 291° (304° cor.) (B. 31, 1984, 1988). — IV, 1253.
 4) 6-Chlor-2,8-Diketo-3,7-Dimethylpurin. Zers. bei 280° (B. 28, 2486; 30, 1839). — IV, 1253.
 5) 2-Chlor-6,8-Diketo-7,9-Dimethylpurin. Sm. 312° (B. 32, 255).
 6) Chlortheophyllin. Sm. bei 300° u. Zers. (B. 28, 3138). — III, 956.
- C₇H₇O₂N₂Br** 1) Bromtheobromin. Sm. 310° u. ger. Zers. (B. 14, 644; A. 215, 305; 217, 302). — III, 955.
 2) Bromtheophyllin. Sm. 315—320° u. Zers. (B. 28, 3141). — III, 957.
- C₇H₇O₂ClS** 1) Chlormethylphenylsulfon. Sm. 52—53° (J. pr. [2] 40, 527). — II, 780.
 2) Chlorid d. 1-Methylbenzol-2-Sulfonsäure. Fl. (A. 169, 29; 172, 236; J. pr. [2] 51, 435; C. 1898 [1] 542). — II, 131.
 3) Chlorid d. 1-Methylbenzol-3-Sulfonsäure. Fl. (A. 169, 50; 173, 202; 176, 298). — II, 131.
 4) Chlorid d. 1-Methylbenzol-4-Sulfonsäure. Sm. 69°; Sd. 145—146°₁₅ (B. 12, 1348; 15, 1118; 19, 1835; 25, 2259; J. pr. [2] 49, 382; [2] 51, 436 Anm.; C. 1898 [1] 542). — II, 132.
 5) Chlorid d. Phenylmethansulfonsäure. Sm. 92° (B. 6, 534; 13, 1286). — II, 133.
- C₇H₇O₂Cl₂P** 1) Dichlorid d. 4-Methylphenylphosphorsäure. Sd. 255°₇₅₃ (A. 224, 168). — II, 749.
 2) Dichlorid d. 4-Methoxyphenylphosphinsäure. Sd. 173°₁₂₋₁₅ (A. 293, 250). — IV, 1653.
- C₇H₇O₂Cl₂Cr** 1) Chlorbenzylidenchlorochromsäure (A. ch. [5] 22, 236). — II, 46.
- C₇H₇O₂BrS** 1) Brommethylphenylsulfon. Sm. 46—48° (J. pr. [2] 40, 541). — II, 780.

- C₇H₇O₃BrS** 2) 4-Brom-2,5-Dimethylthiophen-3-Carbonsäure. Sm. 188—189° (B. 28, 1813). — III, 757.
3) Bromid d. 1-Methylbenzol-2-Sulfonsäure. Sm. 90° (J. pr. [2] 54, 523).
4) Bromid d. 1-Methylbenzol-4-Sulfonsäure. Sm. 95—96° (A. 142, 98). — II, 132.
- C₇H₇O₃JS** 1) Jodmethylphenylsulfon. Sm. 64,5° (Am. 6, 253; B. 21, 654; J. pr. [2] 40, 511). — II, 780.
2) Jodid d. 1-Methylbenzol-4-Sulfonsäure. Sm. 84—85° (B. 24, 479). — II, 132.
- C₇H₇O₃NCl₂** 1) Aethylester d. $\alpha\gamma$ -Dichlor- α -Cyan- β -Ketopropan- α -Carbonsäure (Ae. d. Chloracetylchlorocyanessigsäure). Sd. 90—105°₂₀₋₂₅ (A. ch. [6] 18, 473). — I, 1223.
- C₇H₇O₃NBr₂** 1) Aethylester d. $\alpha\gamma$ -Dibrom- α -Cyan- β -Ketopropan- α -Carbonsäure (Ae. d. Bromacetylbromocyanessigsäure). Fl. (A. ch. [6] 18, 470). — I, 1223.
- C₇H₇O₃NS** 1) 3-[oder 4]-Nitro-5-Acetyl-2-Methylthiophen. Sm. 120—121° (B. 18, 3025; 19, 1861). — III, 764.
2) Benzylidenamidosulfonsäure (B. 25, 475). — III, 28.
3) 2-Thiënoylamidoessigsäure (α -Thiophenursäure). Sm. 171—172°. Ca + 5H₂O, Ba + 2H₂O, Ag (B. 21, 3458; H. 17, 281). — III, 754.
4) α -Oximido-3-Methylthiënylessigsäure. Sm. 104° (B. 20, 1749). — III, 759.
5) 2, α -Lakton d. 5-Amido-2-Oxyphenylmethan- α -Sulfonsäure (Amido-benzylsulton). Sm. 138°. HCl, Pikrat (B. 31, 1861).
6) Methylester d. α -Oximido-2-Thiënylessigsäure. Sm. 104—105° (B. 19, 2121). — III, 758.
- C₇H₇O₃N₂Br** 1) Methyläther d. 6-Brom-4-Nitro-2-Amido-1-Oxybenzol. Sm. 120 bis 121° (Soc. 69, 1327).
- C₇H₇O₃N₂S** 1) 2-Methyl-1-Diazobenzolimid-5-Sulfonsäure (B. 21, 3417). — IV, 1147.
2) 4-Methyl-1-Diazobenzolimid-3-Sulfonsäure. Ba + 3H₂O (B. 21, 3416). — IV, 1147.
- C₇H₇O₃ClS** 1) 2-Chlor-1-Methylbenzol-4-Sulfonsäure. Fl. Na + $\frac{1}{2}$ H₂O, K + $\frac{1}{2}$ H₂O, Ba + H₂O (A. 221, 212; Soc. 73, 764). — II, 135.
2) 2-Chlor-1-Methylbenzol-5-Sulfonsäure + $1\frac{1}{2}$ H₂O. NH₄ + H₂O, Na + $\frac{1}{2}$ H₂O, K + $\frac{1}{2}$ H₂O, Ca + 2H₂O, Ba + 2H₂O, Pb + 2H₂O, Cu + $\frac{1}{2}$ H₂O (B. 6, 790; Soc. 61, 1040, 1073; 73, 765). — II, 134.
3) 3-Chlor-1-Methylbenzol- ρ -Sulfonsäure. Na + H₂O, K, Ba + H₂O (Soc. 61, 1075; B. 27, 3023). — II, 135.
4) 4-Chlor-1-Methylbenzol-2-Sulfonsäure. Na + $\frac{1}{2}$ H₂O, K + H₂O, Ca + 6H₂O, Ba + $1\frac{1}{2}$ (1)H₂O, Pb + 8H₂O, Cu + 7H₂O (A. 165, 363; 172, 239; B. 6, 793; 7, 796; Am. 13, 221; Soc. 61, 1078; 73, 761, 774; C. 1895 [2] 530). — II, 135.
5) 4-Chlor-1-Methylbenzol-3-Sulfonsäure. Salze meist bek. (A. 165, 363; B. 6, 793; 7, 796; Soc. 61, 1078; 73, 759, 774; C. 1895 [2] 530). — II, 135.
6) 4-Chlorphenylmethansulfonsäure. Salze meist bek. (A. 154, 56; 165, 372; Am. 2, 159). — II, 135.
7) Methylester d. 1-Chlorbenzol-4-Sulfonsäure. Sm. 50,5°; Sd. 165 bis 166°₁₅ (B. 25, 2260). — II, 118.
8) Chlorid d. 3-Oxy-1-Methylbenzol-6-Sulfonsäure. Fl. (B. 20, 3091). — II, 813.
9) Chlorid d. 2-Oxybenzoldimethyläther-1-Sulfonsäure. Sm. 55° (M. 4, 175). — II, 831.
10) Chlorid d. 4-[ρ]-Oxybenzoldimethyläther-1-Sulfonsäure. Sm. 40,5° (B. 26 [2] 606). — II, 831.
- C₇H₇O₃Cl₂P** 1) ρ -Dichlor-2-Methylphenylphosphinsäure. Sm. 240°. Ag, (A. 293, 296). — IV, 1669.
- C₇H₇O₃BrS** 1) 2-Brom-1-Methylbenzol-4-Sulfonsäure. K, Ba + 2H₂O, Pb + $2\frac{1}{2}$ H₂O (A. 172, 204). — II, 136.
2) 2-Brom-1-Methylbenzol-5-Sulfonsäure. Na + $\frac{1}{2}$ H₂O, K + $\frac{1}{2}$ H₂O, Ca, Ba + H₂O, Pb + 2(3)H₂O (A. 169, 34; 173, 212; 176, 294; B. 13, 1943). — II, 136.

- C₇H₅O₃BrS**
- 3) 2-Brom-1-Methylbenzol-6-Sulfonsäure. Ba + H₂O (Soc. 61, 1030). — II, 136.
 - 4) 3-Brom-1-Methylbenzol-5-Sulfonsäure (B. 13, 1944). — II, 137.
 - 5) 3-Brom-1-Methylbenzol- α -Sulfonsäure. Ca + 2H₂O, Mg + 6H₂O, Sr + H₂O, Ba + H₂O, Pb + 3H₂O, Cu + 4H₂O (A. 168, 166; 177, 233). — II, 136.
 - 6) 3-Brom-1-Methylbenzol- β -Sulfonsäure. K, Ca + 5H₂O, Pb + 3H₂O (A. 168, 166; 177, 233). — II, 136.
 - 7) 3-Brom-1-Methylbenzol- γ -Sulfonsäure. Ba + 2 $\frac{1}{2}$ H₂O (A. 168, 166; 177, 233). — II, 136.
 - 8) 4-Brom-1-Methylbenzol-2-Sulfonsäure. Na + H₂O, K + H₂O, Mg + 8 $\frac{1}{2}$ H₂O, Ca + 4H₂O, Sr + H₂O, Ba + H₂O, Pb + 3H₂O, Cu + 7H₂O (A. 169, 7; 172, 237; Am. 13, 222). — II, 137.
 - 9) 4-Brom-1-Methylbenzol-3-Sulfonsäure + H₂O. Sm. 105–110°. Sr + 7H₂O, Ba + 7H₂O, Pb + 3H₂O (A. 169, 7; 173, 207; B. 13, 1947). — II, 137.
 - 10) 4-Bromphenylmethansulfonsäure. K, Ca, Ba + $\frac{1}{2}$ H₂O, Pb (A. 221, 222; Am. 3, 264). — II, 137.
 - 11) Methylester d. 1-Brombenzol-4-Sulfonsäure. Sm. 60°; Sd. 176°₁₃ (B. 25, 2261). — II, 120.
 - 12) 4-Bromphenylester d. Methansulfonsäure. Sm. 83° (J. pr. [2] 48, 245). — II, 673.
- C₇H₅O₃JS**
- 1) 2-Jodbenzol- β -Sulfonsäure. Ca + 2 $\frac{1}{2}$ HO₂, Ba + 1 $\frac{1}{2}$ H₂O, Pb + 2H₂O (Am. 6, 170). — II, 138.
 - 2) 4-Jod-1-Methylbenzol- β -Sulfonsäure. Na + $\frac{1}{2}$ H₂O, K + H₂O, Ca + 3H₂O, Ba + H₂O, Cu + 6H₂O (B. 8, 561; Am. 13, 223). — II, 138.
 - 3) 4-Jod-1-Methylbenzol- β -Sulfonsäure. Ba + 4H₂O (B. 8, 561). — II, 138.
- C₇H₅O₃FS**
- 1) 4-Fluor-1-Methylbenzol-2-Sulfonsäure. K + 2H₂O, Ba + H₂O (Am. 13, 219). — II, 134.
- C₇H₅O₃NS**
- 1) 2-Nitro-1-Methylbenzol-4[P]-Sulfonsäure. Na + $\frac{1}{2}$ H₂O (A. 145, 24). — II, 110.
 - 2) trans-1-Oximidomethylbenzol-2-Sulfonsäure (trans-Benzaldoxim-2-Sulfonsäure). Na (A. 299, 366).
 - 3) 1-Oximidomethylbenzol-3-Sulfonsäure (m-Benzaldoximsulfonsäure). Na (B. 24, 791). — III, 51.
 - 4) Aldehyd d. 3-Amidobenzol-1-Carbonsäure-2-Sulfonsäure. Na (C. 1898 [2] 1227).
 - 5) Aldehyd d. 3-Amidobenzol-1-Carbonsäure-4-Sulfonsäure + H₂O. Na + 2H₂O (A. 294, 380).
 - 6) Aethylester d. β -Nitrothiophen-2-Carbonsäure. Sm. 70–71° (B. 20, 117). — III, 755.
 - 7) 1-Amid d. Benzol-1-Carbonsäure-2-Sulfonsäure + H₂O. Sm. 185 bis 186° (181–182°) (wasserfrei). NH₃, K + H₂O, Na + 2H₂O, Ba + 5H₂O, Ag + H₂O (B. 22, 760; 26, 2289; Am. 18, 824; 20, 270). — II, 1297.
 - 8) 2-Amid d. Benzol-1-Carbonsäure-2-Sulfonsäure. Sm. 153–155° (u. 165–187°). Mg + 6 $\frac{1}{2}$ H₂O, Ba + 4 $\frac{1}{2}$ (9)H₂O, Ag, Ag₂ (B. 12, 470; 21, 243; Am. 8, 178). — II, 1295.
 - 9) 3-Amid d. Benzol-1-Carbonsäure-3-Sulfonsäure. Sm. 246–247° u. Zers. (233°). Ca, Ba + 4(4 $\frac{1}{2}$)H₂O, Ag + H₂O, Ag₂ (A. 106, 36; 108, 343; J. pr. [1] 75, 363; Am. 4, 143; 8, 188; 19, 180). — II, 1299.
 - 10) isom. β 3-Amid d. Benzol-1-Carbonsäure-3-Sulfonsäure. Ba + 4H₂O, Ag (A. 106, 44, 45). — II, 1300.
 - 11) 4-Amid d. Benzol-1-Carbonsäure-4-Sulfonsäure. Zers. bei 280°. Ba + 2(5)H₂O, Ag, Ag₂ (A. 178, 299; Am. 4, 164; 7, 145; 8, 182; 18, 160, 349; J. pr. [2] 51, 439). — II, 1300.
 - 12) isom. 4-Amid d. Benzol-1-Carbonsäure-4-Sulfonsäure (Iso-p-Sulfaminbenzoesäure). Ba + 3H₂O (Am. 18, 361).
- C₇H₅O₃BrS**
- 1) 5-Brom-2-Oxy-1-Methylbenzol-3-Sulfonsäure. K (J. pr. [2] 38, 336). — II, 842.
 - 2) 3-Brom-2-Oxy-1-Methylbenzol-5-Sulfonsäure. Sm. 95°. K + H₂O, Ca + 3H₂O, Ba + 2 $\frac{1}{2}$ H₂O, Pb + 3H₂O, Ag (J. pr. [2] 38, 334). — II, 842.

- $C_7H_7O_4BrS$ 3) 4-Brom-*p*-Oxy-1-Methylbenzol-3 [oder 5]-Sulfonsäure. Ba + H_2O (A. 174, 363). — II, 845.
4) 4-Brom-*p*-Oxy-1-Methylbenzol-2 [oder 6]-Sulfonsäure. Ba + $3H_2O$ (A. 174, 365). — II, 845.
5) 6-Brom-*p*-Oxy-1-Methylbenzol-3-Sulfonsäure. Ba + $4\frac{1}{2}H_2O$, Pb + $2H_2O$ (A. 174, 361). — II, 845.
- $C_7H_7O_4JS$ 1) 3-Jod-2-Oxy-1-Methylbenzol-5-Sulfonsäure + $3H_2O$. Sm. 80° . Ba + $4H_2O$ (J. pr. [2] 37, 338). — II, 843.
- $C_7H_7O_5NS$ 1) 2-Nitro-1-Methylbenzol-3-Sulfonsäure. Ba + $2H_2O$ (A. 173, 214; 230, 308). — II, 139.
2) 2-Nitro-1-Methylbenzol-4-Sulfonsäure. Ba + $2H_2O$, Pb + $2H_2O$ (A. 155, 18; Z. 1869, 210). — II, 139.
3) 2-Nitro-1-Methylbenzol-5-Sulfonsäure. Ba, Pb (A. 230, 305). — II, 139.
4) 2-Nitro-1-Methylbenzol-6-Sulfonsäure (B. 14, 489).
5) 3-Nitro-1-Methylbenzol-*p*-Sulfonsäure (Gemisch). Ba + $2H_2O$, Pb + $2\frac{1}{2}H_2O$ (A. 155, 27). — II, 139.
6) 4-Nitro-1-Methylbenzol-2-Sulfonsäure + $2\frac{1}{2}H_2O$. Sm. $133,5^\circ$ (130° wasserfrei). Na + $2H_2O$, K, Ca + $4(1)H_2O$, Ba + $3H_2O$, Pb + $2(3)H_2O$, (A. 155, 9; 161, 8; 172, 230; 186, 351; Z. 1865, 222; Am. 1, 349; 8, 169; B. 10, 1046; Bl. [3] 3, 798). — II, 139.
7) *p*-Nitro-1-Methylbenzol-2-Sulfonsäure. Ba + $2\frac{1}{2}H_2O$ (A. 176, 304). — II, 139.
8) 2-Nitrophenylmethansulfonsäure. Na + H_2O , Ba + $3H_2O$, Ag + H_2O (B. 31, 1855).
9) 4-Nitrophenylmethansulfonsäure. Ba + $2H_2O$, Pb + $3H_2O$ (A. 154, 55; 221, 216). — II, 140.
10) 2-Amidobenzol-1-Carbonsäure-4-Sulfonsäure (Am. 1, 353). — II, 1306.
11) 2-Amidobenzol-1-Carbonsäure-5-Sulfonsäure. Ba + $2\frac{1}{2}H_2O$, Anilinsalz (B. 24, 3804). — II, 1306.
12) 3-Amidobenzol-1-Carbonsäure-4-Sulfonsäure. Ba + $3H_2O$ (Am. 1, 347; J. pr. [2] 5, 244). — II, 1306.
13) 3-Amidobenzol-1-Carbonsäure-*p*-Sulfonsäure. Ba + $2H_2O$ (J. pr. [2] 5, 244). — II, 1307.
14) 4-Amidobenzol-1-Carbonsäure-2-Sulfonsäure. BaH + $5H_2O$, Ba + H_2O , Pb, Ag₂ (Am. 1, 351; 9, 412). — II, 1307.
15) 4-Amidobenzol-1-Carbonsäure-3-Sulfonsäure. Ba + $2H_2O$ (B. 24, 3801). — II, 1307.
16) *p*-Amidobenzol-1-Carbonsäure-3-Sulfonsäure (A. 106, 29; B. 21, 180). — II, 1307.
17) Benzol-1-Sulfonsäure-4-Amidoameisensäure (Bl. [3] 19, 22).
18) 4-Nitrophenylester d. Methansulfonsäure. Sm. $94-95^\circ$ (J. pr. [2] 48, 247). — II, 683.
19) *p*-Amid d. 2-Oxybenzol-1-Carbonsäure-*p*-Sulfonsäure. Sm. 231° u. Zers. Na + $1\frac{1}{2}H_2O$, Ca + $6H_2O$, Ba + $4H_2O$, Ag (Am. 19, 578).
- $C_7H_7O_5N_3S$ 1) α -Nitro- α -Phenylhydrazonmethan-4-Sulfonsäure. K + $3H_2O$ (B. 12, 2287). — IV, 1374.
- $C_7H_7O_6NS$ 1) *p*-Nitro-2-Oxy-1-Methylbenzol-4-Sulfonsäure. Ba + $3\frac{1}{2}(5)H_2O$ (A. 172, 218). — II, 843.
2) 4-Nitro-1-Oxymethylbenzol-*p*-Sulfonsäure. Ba + $5H_2O$ (B. 31, 184).
3) 5-Nitro-2-Oxyphenylmethan- α -Sulfonsäure. K, K₂ + H_2O (B. 31, 1860).
4) *p*-Nitro-4-Oxybenzoldimethyläther-1-Sulfonsäure. K (Am. 20, 464).
5) 5-Amido-2-Oxybenzol-1-Carbonsäure-*p*-Sulfonsäure + H_2O (B. 10, 1702). — II, 1515.
6) isom. 5-Amido-2-Oxybenzol-1-Carbonsäure-*p*-Sulfonsäure + $3H_2O$. Ca + $5H_2O$ (B. 10, 1702). — II, 1516.
- $C_7H_7O_6N_3S$ 1) Amid d. 2,6-Dinitro-1-Methylbenzol-4-Sulfonsäure. Sm. 203° (A. 186, 359). — II, 140.
- $C_7H_7O_6ClS_2$ 1) 2-Chlor-1-Methylbenzol-3,5-Disulfonsäure. K₂ + $2\frac{1}{2}H_2O$, Ba + $4\frac{1}{2}H_2O$ (Soc. 73, 750, 776).
2) 2-Chlor-1-Methylbenzol-4,5-Disulfonsäure. K + H_2O , K₂ + H_2O , Ba + $2H_2O$ (Soc. 73, 746, 775).

- $C_7H_7O_6ClS_2$ 3) 2-Chlor-1-Methylbenzol-4,6-Disulfonsäure. $K_2 + 2H_2O$, $K_2Ba + 3H_2O$, $Ba + 6H_2O$ (Soc. 73, 775).
 4) 4-Chlor-1-Methylbenzol-2,5-Disulfonsäure. $K_2 + 2H_2O$, $Ba + H_2O$ (C. 1895 [2] 530; Soc. 73, 744, 767).
 5) 4-Chlor-1-Methylbenzol-2,6-Disulfonsäure. K_2 , $Ba + 3\frac{1}{2}H_2O$ (Soc. 73, 769).
 6) 4-Chlor-1-Methylbenzol-3,5-Disulfonsäure. $K_2 + 6H_2O$, $Ba + 3H_2O$ (C. 1895 [2] 530; Soc. 73, 739, 767).
- $C_7H_7O_6BrS_2$ 1) 2-Brom-1-Methylbenzol-3,5-Disulfonsäure. $K_2 + H_2O$, $Ba + 1\frac{1}{2}(4)H_2O$ (A. 230, 295; Soc. 73, 749). — II, 137.
 2) 4-Brom-1-Methylbenzol-PP-Disulfonsäure. $K_2 + H_2O$, $Ba + 5H_2O$, $Pb + 2H_2O$ (A. 221, 192). — II, 138.
 3) 4-Brom-1-Methylbenzol-PP-Disulfonsäure. $K_2 + H_2O$, $Ba + 6H_2O$ (A. 230, 324). — II, 138.
- $C_7H_7O_6JS_2$ 1) 4-Jod-1-Methylbenzol-PP-Disulfonsäure. $K_2 + H_2O$, $Ba + 6H_2O$ (A. 230, 325). — II, 138.
- $C_7H_7O_7NBr_2$ 1) Verbindung (aus Chelidonsäure) (B. 16, 1262).
- $C_7H_7O_7NS_2$ 1) 4-Amid d. Benzol-1-Carbonsäure-2,4-Disulfonsäure. Sm. 165°. K (Am. 2, 193). — II, 1302.
- $C_7H_7O_7N_2P$ 1) 3,5-Dinitro-4-Methylphenylphosphinsäure. Sm. 251°. $Ba + 2H_2O$ Pb (A. 293, 273). — IV, 1670.
- $C_7H_7O_6NS_2$ 1) 2-Nitro-1-Methylbenzol-PP-Disulfonsäure. K_2 (A. 221, 198). — II, 140.
 2) 2-Nitro-1-Methylbenzol-PP-Disulfonsäure. K_2 , $Ba + 3H_2O$ (A. 221, 201). — II, 140.
- $C_7H_7O_6ClS_2$ 1) 2-Chlor-3,4-Dioxy-1-Methylbenzol-2-Sulfonsäure. K_2 (A. 152, 255). — II, 959.
- $C_7H_7N_3ClS$ 1) Chlormethylat d. Bensthiodiazol + xH_2O (A. 277, 229). — IV, 1548.
- $C_7H_7N_3BrS$ 1) 4-Bromphenylthioharnstoff. Sm. 183° (B. 13, 231). — II, 391.
- $C_7H_7N_3JS$ 1) Jodmethylat d. Bensthiodiazol (A. 277, 228). — IV, 1548.
- C_7H_7ONCl 1) 2-Chlor-4-Amido-1-Oxymethylbenzol. Fl. HCl (B. 25, 85). — II, 1063.
 2) 4-Chlor-6-Amido-3-Oxy-1-Methylbenzol. Sm. 204—205° (A. 303, 20).
 3) Methyläther d. 4-Chlor-2-Amido-1-Oxybenzol. Sm. 52°; Sd. 260°. HCl, (2HCl, $PtCl_4$), Pikrat (B. 15, 1685). — II, 726.
 4) Methyläther d. 2-Chlor-3-Amido-1-Oxybenzol. HCl (B. 26, 2466). — II, 727.
 5) 2-Chlorbenzylhydroxylamin. Sm. 72—74,5°. HCl (A. 269, 397). — II, 533.
 6) 4-Chlorbenzylhydroxylamin. Sm. 87—88°. HCl (A. 298, 196).
 7) 3-Chlor-4-Methylphenylhydroxylamin. Sm. 90,5—91° (B. 32, 221).
- C_7H_7ONBr 1) 5-Brom-3-Amido-2-Oxy-1-Methylbenzol. Sm. 110°. HCl (J. pr. [2] 38, 324). — II, 743.
 2) 4-Brom-5-Amido-2-Oxy-1-Methylbenzol. Sm. 180° (B. 27, 1931). — II, 743.
 3) 4-Brom-6-Amido-3-Oxy-1-Methylbenzol. Sm. 215° (205—208°) (B. 27, 1931; A. 303, 28). — II, 747.
 4) Methyläther d. 4-Brom-2-Amido-1-Oxybenzol. Sm. 97—98°. HCl, H_2SO_4 , Oxalat (B. 11, 1751; 32, 162 Anm.; A. 217, 59; Soc. 69, 1329). — II, 728.
 5) Methyläther d. 2-Brom-4-Amido-1-Oxybenzol. Sm. 60—61° (64°). HCl, H_2SO_4 , Oxalat, Succinat (G. 28 [2] 205; B. 13, 838; 32, 162 Anm.; A. 217, 68). — II, 728.
 6) 4-Brombenzylhydroxylamin. Sm. 85°. HCl (Sm. 188° u. Zers.) (B. 30, 1898).
 7) 3-Brom-2-Keto-4,6-Dimethyl-1,2-Dihydropyridin. Sm. 186—187° (A. 274, 279). — IV, 129.
- C_7H_7ONJ 1) Methyläther d. 2-Jod-3-Amido-1-Oxybenzol. Sd. 250—260° (B. 26, 2468). — II, 730.
 2) Methyläther d. 2-Jod-4-Amido-1-Oxybenzol. Sm. 74—75°. (2HCl, $PtCl_4$), Pikrat (B. 29, 998).
- $C_7H_7ON_2S$ 1) 2-Oxyphenylthioharnstoff. Sm. 161° u. Zers. (2HCl, $PtCl_4$) (B. 11, 2263). — II, 711.

- C₇H₅ON₂S**
- 2) 4-Oxyphenylthioharnstoff. Sm. 214° u. Zers. (220—221°) (B. 16, 375; Soc. 67, 558). — II, 720.
 - 3) α-Oxy-β-Phenylthioharnstoff. Sm. 108° u. Zers. (B. 22, 1935; 24, 378; A. 263, 261). — II, 402, 453.
 - 4) β-Thionyl-α-Methyl-α-Phenylhydrazin. Sm. 77° (A. 270, 121). — IV, 661.
 - 5) Thionyl-2-Methylphenylhydrazin. Fl. (A. 270, 118). — IV, 801.
 - 6) Thionyl-4-Methylphenylhydrazin. Sm. 112° (B. 23, 476; A. 270, 118). — IV, 805.
 - 7) Methoxyhydrat d. Benzthiodiazol. Chlorid + xH₂O, Jodid, Pikrat (A. 277, 228). — IV, 1548.
 - 8) β-Phenylhydrazidothiolameisensäure (Phenylsemithiocarbazinsäure). Phenylhydrazinsalz (Sm. 82—84° u. Zers.) (A. 263, 269). — IV, 677.
- C₇H₅ON₂Cl**
- 1) 2-Chlorphenylamidoharnstoff. Sm. 164° (Soc. 59, 210). — IV, 673.
 - 2) 3-Chlorphenylamidoharnstoff. Sm. 155° (Soc. 63, 870). — IV, 673.
 - 3) 4-Chlorphenylamidoharnstoff. Sm. 233—234° (Soc. 59, 210; B. 28, 2081). — IV, 673, 737.
- C₇H₅ON₂Cl**
- 1) 8-Chlor-6-Amido-2-Keto-3,7-Dimethylpurin + 3H₂O (B. 30, 1841). — IV, 1323.
 - 2) Äthyläther d. 8-Chlor-6-Amido-2-Oxypurin. Sm. 265—270° (B. 30, 2245). — IV, 1323.
- C₇H₅O₂NCl₃**
- 1) Nitril d. βγ-Trichlor-α-Acetoxyvaleriansäure (Butyrchloralacetylcyanid). Sd. 250—252° u. Zers. (B. 11, 1490). — I, 1472.
- C₇H₅O₂N₂Cl₂**
- 1) Monoäthyläther d. 2,6-Dichlor-4-Amido-3,5-Dioxypyridin? Sm. 161,5° (B. 19, 2715). — IV, 819.
- C₇H₅O₂N₂S**
- 1) 2-Thiocarbonyl-4,5-Diketo-1-Methyl-3-Allyltetrahydroimidazol (Methylallylthioparabansäure). Sm. 56° (B. 31, 138).
- C₇H₅O₂N₂S₂**
- 1) Acetat d. βγ-Dirhodan-α-Oxypropan (Acetodithiocyanhydrin). Fl. (C. 1898 [2] 857).
- C₇H₅O₂ClP**
- 1) 3-Chlor-4-Methylphenylphosphinige Säure. Sm. 70°. NH₄, Ba, Phenylhydrazinsalz (B. 31, 2916). — IV, 1668.
- C₇H₅O₂N₂Br₂**
- 1) Verbindung (aus d. Methylanid d. 1-Methylpyrrol-2-Carbonsäure). Sm. 204—205° (B. 11, 1814). — IV, 80.
- C₇H₅O₂N₂S**
- 1) α-Amidobenzylidensulfaminsäure (Sulfobenzamidinsulfonsäure). Sm. 247°. Ca (B. 25, 468). — IV, 845.
 - 2) Thiomethyluracilelessigsäure. Sm. 203—204° u. Zers. (A. 236, 16). — I, 1355.
 - 3) 1-Methylbenzol-anti-4-Diazosulfonsäure. Sm. 112—114°. K, Ag (B. 30, 80, 87). — IV, 1531.
 - 4) 1-Methylbenzol-syn-4-Diazosulfonsäure. K (B. 30, 79). — IV, 1531.
 - 5) Diamid d. Benzol-1-Carbonsäure-3-Sulfonsäure + H₂O. Sm. 170° (wasserfrei) (A. 102, 253; 106, 32). — II, 1299.
 - 6) Diamid d. Benzol-1-Carbonsäure-4-Sulfonsäure. Sm. 230° (Am. 18, 357).
 - 7) isom. Diamid d. Benzol-1-Carbonsäure-4-Sulfonsäure (Am. 18, 354).
- C₇H₅O₂N₂S₂**
- 1) 4-Sulfophenylthioharnstoff. K (A. 248, 156). — II, 570.
- C₇H₅O₂N₂Se**
- 1) 2-Acetylamido-4-Methylselenazol-5-Carbonsäure. Sm. 220° u. Zers. (A. 250, 311). — IV, 542.
- C₇H₅O₂ClP**
- 1) 5-Chlor-2-Methylphenylphosphinsäure. Sm. 205°. Ag₂ (A. 293, 295). — IV, 1669.
 - 2) 6-Chlor-3-Methylphenylphosphinsäure. Sm. 176°. Ag₂ (A. 293, 307). — IV, 1669.
 - 3) 3-Chlor-4-Methylphenylphosphinsäure. Sm. 190°. Ba, Ag, Ag₂, Anilinsalz (B. 31, 2917). — IV, 1669.
- C₇H₅O₂BrP**
- 1) 6-Brom-3-Methylphenylphosphinsäure. Sm. 198°. Ag₂ (A. 293, 310). — IV, 1670.
- C₇H₅O₄NJ**
- 1) Hydrat d. 6-Jodoso-3-Nitro-1-Methylbenzol. Dinitrat (Soc. 73, 694).
- C₇H₅O₄NP**
- 1) 4-Amid d. Phenylphosphinsäure-4-Carbonsäure. Sm. oberh. 300°. Ag₂ (A. 239, 280). — IV, 1673.
- C₇H₅O₄N₂S**
- 1) p-Dinitro-2-Propylthiophen. Fl. (B. 20, 1742). — III, 747.
 - 2) 4-Sulfophenylharnstoff. NH₄, K, Ba + 3H₂O (A. 248, 156; Bl. [3] 6, 6). — II, 570.
 - 3) 4-Methylphenylsulfnitrosaminsäure. Na, K, Anilinsalz (B. 30, 882).

- C₇H₅O₄N₂S**
- 4) Benzylsulfnitrosaminsäure. Na, K, Isoamylaminsalz, Anilinsalz, p-Toluidinsalz, α-Naphthylaminsalz, Phenylhydrazinsalz (B. 30, 874).
 - 5) 2-Methoxyl-1-Diazobenzolschwefligsäure. Na + H₂O (A. 221, 318). — IV, 1549.
 - 6) 4-Methoxyl-1-Diazobenzolschwefligsäure. Na (B. 25, 1844). — IV, 1549.
 - 7) Amid d. 2-Nitro-1-Methylbenzol-3-Sulfonsäure. Sm. 163,5° (A. 230, 308). — II, 139.
 - 8) Amid d. 2-Nitro-1-Methylbenzol-4-Sulfonsäure. Sm. 128° (A. 145, 23). — II, 139.
 - 9) Amid d. 2-Nitro-1-Methylbenzol-5-Sulfonsäure. Sm. 133,5° (A. 230, 305). — II, 139.
 - 10) Amid d. 4-Nitro-1-Methylbenzol-2-Sulfonsäure. Sm. 186° (A. 172, 233; Am. 8, 168). — II, 139.
 - 11) Amid d. 4-Nitrophenylmethansulfonsäure. Sm. 204° (A. 221, 218). — II, 140.
 - 12) Methylnitroamid d. Benzolsulfonsäure. Sm. 40° (43—44°) (B. 3, 16; B. 25, 1095). — II, 114.
- C₇H₅O₄Cl₂Cr₂**
- 1) Benzylidenchlorochromsäure (A. ch. [5] 22, 225). — II, 25.
- C₇H₅O₅NP**
- 1) 5-Nitro-2-Methylphenylphosphinsäure. Sm. 174°. Ca, Ba (A. 293, 297). — IV, 1670.
 - 2) 3-Nitro-4-Methylphenylphosphinsäure. Sm. 191°. Ca + H₂O, Ba + 2H₂O, Pb, Cu, Ag₂ (A. 293, 270). — IV, 1670.
 - 3) p-Nitrobenzylphosphinsäure. Zers. bei 217° (B. 22, 2145). — IV, 1664.
- C₇H₅O₅N₂S**
- 1) 3-Nitro-2-Amido-1-Methylbenzol-5-Sulfonsäure. K (B. 23, 138; A. 304, 105). — II, 578.
 - 2) 6-Nitro-2-Amido-1-Methylbenzol-4-Sulfonsäure. K (A. 274, 350). — II, 578.
 - 3) 2-Nitro-4-Amido-1-Methylbenzol-5-Sulfonsäure. K + H₂O, Ba + 4H₂O, Pb + 3½H₂O (A. 230, 300; Ph. Ch. 11, 620). — II, 581.
 - 4) p-Nitro-p-Amidophenylmethansulfonsäure. K, Ba + 2H₂O (A. 221, 226). — II, 582.
 - 5) 4-Methylphenylsulfnitraminsäure. K (B. 30, 885).
 - 6) 2-Oxybenzenylamidoxim-p-Sulfonsäure. Zers. oberh. 250°. Ba (B. 22, 2778). — II, 1515.
 - 7) Amid d. 5-Nitro-2-Oxyphenylmethan-α-Sulfonsäure. Sm. 199° u. Zers. K, Ag (B. 31, 1860).
 - 8) Amid d. p-Nitro-4-Oxybenzolmethyläther-1-Sulfonsäure. Sm. 138 bis 140° (Am. 20, 464).
- C₇H₅O₅NP**
- 1) p-Nitro-4-Methoxylphenylphosphinsäure. Sm. 187°. Ba + 3H₂O, Co, Cu (A. 293, 254). — IV, 1653.
- C₇H₅O₅N₂S₂**
- 1) Phenylhydrazonmethandisulfonsäure. K₂ (B. 29, 2164). — IV, 745.
 - 2) 2,4-Diamid d. Benzol-1-Carbonsäure-2,4-Disulfonsäure. Sm. 182 bis 183°. Ca, Ba + 5H₂O, Cu + 2H₂O, Ag (Am. 2, 185; B. 21, 246). — II, 1301.
- C₇H₅NBrHg**
- 1) Quecksilber-4-Methylamidophenylbromid. Sm. 164° u. Zers. (G. 24 [2] 461). — IV, 1705.
- C₇H₅N₂ClS**
- 1) 4-Chlorphenylamidothioharnstoff. Sm. 198° (B. 28, 2081). — IV, 737.
- C₇H₅ONCl₂**
- 1) αα-Dichlor-α-Aethylamido-2-Furylmethan (A. 214, 230; B. 14, 752). — III, 698.
- C₇H₅ONBr₂**
- 1) Verbindung (aus d. fl. 3-Oximidomethyl-1,2-Dihydrobenzol). Sm. 122° (B. 26, 623). — III, 1.
- C₇H₅ONS**
- 1) 2-[α-Oximidopropyl]thiophen. Sm. 55—56° (B. 19, 677). — III, 764.
 - 2) 2-Methyl-5-[α-Oximidoäthyl]thiophen. Sm. 125° (B. 18, 3025; 19, 1860). — III, 764.
 - 3) 3-Methyl-p-[α-Oximidoäthyl]thiophen. Sm. 85—86° (A. 267, 154). — III, 764.
 - 4) Aethyläther d. 2-Imidooxymethylthiophen (Thiophenimidoäthyläther). Fl. HCl (B. 25, 1312). — III, 754.
 - 5) Amid d. 2,4-Dimethylthiophen-5-Carbonsäure. Sm. 115—116° (119—120°) (A. 244, 59; B. 28, 1810). — III, 757.

- C_7H_5ONS 6) Amid d. 2,5-Dimethylthiophen-3-Carbonsäure. Sm. 133—134° (B. 28, 1810). — III, 757.
- C_7H_5ON,Br 1) 5-Brom-6-Oxy-4-Methyl-2-Aethyl-1,3-Diazin. Sm. 194—195°. K + H_2O (PINNER, Imidoäther 223). — IV, 825.
- C_7H_5ON,S 1) 2-Allylimido-3-Acetyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 57° (B. 27, 627). — IV, 1103.
- C_7H_5ON,S_2 1) 1-Acetyl-3,5-Dithiocarbonyl-4-Allyltetrahydro-1,2,4-Triazol. Sm. 176—177° (B. 29, 861).
- $C_7H_5O_2NCl$ 1) Tetrachlordiacetonecyanhydrin (J. 1871, 531). — I, 987.
- $C_7H_5O_2NS$ 1) O-Aethyläther d. 2-Oximidooxymethylthiophen (Thiophenoximido-äthyläther). Sm. 67° (B. 25, 1312). — III, 754.
- 2) 2-Amido-1-Methylbenzol-4-Sulfonsäure. Zers. bei 160°. Ba + $2H_2O$, Ag (A. 221, 361). — II, 567.
- 3) 4-Amido-1-Methylbenzol-2-Sulfonsäure. K, Ba + xH_2O (A. 221, 347). — II, 567.
- 4) 2-Methylphenylsulfamin. Sm. 175°. HCl (A. 221, 364). — II, 567.
- 5) 4-Methylphenylsulfamin. Sm. 132°. HCl, HBr, HNO_3 (A. 221, 355). — II, 567.
- 6) Aethylester d. 4-Methylthiazol-5-Carbonsäure. Sm. 27—28°; Sd. 232—233°₇₂₆ (A. 259, 299). — IV, 84.
- 7) Amid d. 1-Methylbenzol-2-Sulfonsäure. Sm. 153—154° (B. 12, 1853; 21, 244; Z. 1870, 327; A. 169, 29; 172, 236; J. 1879, 756; Am. 8, 176; 20, 299). — II, 131.
- 8) Amid d. 1-Methylbenzol-3-Sulfonsäure. Sm. 107—108° (A. 169, 51; 173, 202; 176, 298; B. 12, 1853; 19, 2887; Am. 4, 142; 8, 188; 19, 179). — II, 131.
- 9) Amid d. 1-Methylbenzol-4-Sulfonsäure. Sm. 137° (B. 7, 1167; 12, 1348, 1853; Z. 1870, 323; J. pr. [2] 56, 228). — II, 132.
- 10) Amid d. Phenylmethansulfonsäure. Sm. 102° (105°) (B. 6, 535; 13, 1287). — II, 133.
- 11) Methylamid d. Benzolsulfonsäure. Fl. (R. 3, 16). — II, 114.
- 12) Phenylamid d. Methansulfonsäure (J. pr. [2] 30, 282). — II, 424.
- $C_7H_5O_2NS_2$ 1) 2-Amido-1-Methylbenzol-4-Thiolsulfonsäure. Zers. bei 115°. Ag (A. 221, 360). — II, 579.
- 2) 4-Amido-1-Methylbenzol-2-Thiolsulfonsäure. Zers. bei 120°. Ba + $2H_2O$, Ag (A. 221, 345). — II, 581.
- 3) Aethylester d. 2-Merkapto-4-Methylthiazol-5-Carbonsäure. Sm. 141° (G. 23 [1] 577). — IV, 87.
- $C_7H_5O_2NSn$ 1) Verbindung (aus 4-Nitro-1-Chlormethylbenzol) (A. 305, 118).
- $C_7H_5O_2N,Cl$ 1) 5-Chlor-2,4-Diketo-1,3,6-Trimethyl-1,2,3,4-Tetrahydro-1,3-Diazin (Chlortrimethyluracil) (A. 244, 15). — I, 1351.
- $C_7H_5O_2N,Br$ 1) 5-Brom-2,4-Diketo-1,3,6-Trimethyl-1,2,3,4-Tetrahydro-1,3-Diazin (Bromtrimethyluracil). Sm. 126° (A. 244, 13). — I, 1351.
- $C_7H_5O_2N,S$ 1) Verbindung + H_2O (aus Harnstoff) (Bl. 34, 207). — II, 115.
- $C_7H_5O_3NS$ 1) 1-Methylamidobenzol-2-Sulfonsäure. Zers. bei 182°. Ba + H_2O (B. 7, 1241). — II, 575.
- 2) 1-Methylamidobenzol-4-Sulfonsäure + $2H_2O$. Ca + $4H_2O$, Ba + $3\frac{1}{2}H_2O$, Pb + $8H_2O$ (B. 7, 1350; Ph. Ch. 11, 609). — II, 575.
- 3) 2-Amido-1-Methylbenzol-3-Sulfonsäure. Pb (A. 173, 215; J. pr. [2] 55, 294). — II, 577.
- 4) 2-Amido-1-Methylbenzol-4-Sulfonsäure + H_2O . Na + $4(3)H_2O$, K + H_2O , Ca + $6H_2O$, Ba + $2\frac{1}{2}H_2O$, Pb (Z. 1869, 211; A. 155, 21; 172, 195, 204; 174, 343; 265, 71; B. 17, 904; Ph. Ch. 11, 614; Soc. 73, 744). — II, 577.
- 5) 2-Amido-1-Methylbenzol-5-Sulfonsäure + H_2O . Na + $4H_2O$, K + $\frac{1}{2}(1)H_2O$, Ba + $7(3)H_2O$, Pb + $1\frac{1}{2}H_2O$, Ag (A. 169, 373; 176, 291; 230, 287, 306; B. 13, 1941; 21, 1803; Ph. Ch. 11, 615; Bl. [3] 19, 23). — II, 577.
- 6) 3-Amido-1-Methylbenzol-2-Sulfonsäure. Ba + $9H_2O$, Pb + $3\frac{1}{2}H_2O$ (A. 172, 185; Ph. Ch. 3, 412). — II, 579.
- 7) 3-Amido-1-Methylbenzol-4-Sulfonsäure + H_2O . Ba, Pb (A. 174, 350). — II, 579.
- 8) 4-Amido-1-Methylbenzol-2-Sulfonsäure + H_2O . K, Ba + H_2O , Pb (Z. 1869, 212; A. 126, 155; 161, 8; 172, 230, 233; B. 21, 1217, 1804, 2188; Am. 9, 400; Ph. Ch. 11, 616; Bl. [3] 19, 22). — II, 579.

- C₇H₅O₃NS**
- 9) 4-Amido-1-Methylbenzol-3-Sulfonsäure + $\frac{1}{2}$ H₂O. NH₄, K + $\frac{1}{2}$ H₂O, Ba + 3H₂O, Pb + 2H₂O, Ag (A. 173, 195; B. 3, 796; 13, 1947; 21, 1804; Ph. Ch. 11, 615; Am. 15, 302; J. pr. [2] 55, 292; Bl. [3] 19, 22). — II, 580.
 - 10) ?-Amido-1-Methylbenzol-?-Sulfonsäure. Ba + $2\frac{1}{2}$ H₂O, Pb + H₂O (A. 176, 305). — II, 581.
 - 11) ?-Amido-1-Methylbenzol-?-Sulfonsäure + H₂O. Ba, Pb (A. 177, 57). — II, 581.
 - 12) 2-Amidophenylmethansulfonsäure. Na + H₂O (B. 31, 1856).
 - 13) 4-Amidophenylmethansulfonsäure. K + $2\frac{1}{2}$ H₂O, Ba + 8H₂O (A. 221, 219; Ph. Ch. 11, 618). — II, 582.
 - 14) Methylphenylsulfaminsäure. NH₄, K (B. 24, 362). — II, 569.
 - 15) 2-Methylphenylsulfaminsäure. NH₄, Ba + 2H₂O, o-m-p-Toluidinsalz (B. 23, 1656; 28, 3162; 31, 992). — II, 578.
 - 16) 3-Methylphenylsulfaminsäure. o-m-p-Toluidinsalz (B. 31, 993).
 - 17) 4-Methylphenylsulfaminsäure. Sm. 115° (aus Alkohol); Sm. 175 bis 190° (aus Wasser). NH₄, K, Ba + 2H₂O, Ag, o-m-p-Toluidinsalze (A. 95, 96; B. 28, 3163; 30, 881; 31, 991). — II, 504.
 - 18) Benzylsulfaminsäure. Sm. 194° u. Zers. Ba, Ag, Benzylaminsalz (J. pr. [2] 44, 514; B. 30, 872). — II, 582.
 - 19) Aethylester d. α -Rhodanacetessigsäure. Sm. 128°. Na (B. 20, 3131; A. 250, 282). — I, 1229.
 - 20) 4-Amidophenylester d. Methansulfonsäure. Sm. 89—90° (J. pr. [2] 48, 248). — II, 716.
 - 21) Amid d. 2-Oxybenzolmethyläther-1-Sulfonsäure. Sm. 169° (171°) (Am. 18, 860; 20, 460).
 - 22) Amid d. 3-Oxybenzolmethyläther-1-Sulfonsäure. Sm. 128° (Am. 17, 457).
 - 23) Amid d. 4-Oxybenzolmethyläther-1-Sulfonsäure. Sm. 108° (113°) (B. 26 [2] 606; Am. 15, 380; 18, 860). — II, 831.
- C₇H₅O₃NSe**
- 1) Aethylester d. β -Keto- α -Selencyanpropan- α -Carbonsäure (Ae. d. Selencyanessigsäure). Fl. (A. 250, 297). — I, 1230.
- C₇H₅O₃N₂S**
- 1) Guanidinbenzol-4-Sulfonsäure (Bl. 49, 41). — II, 569.
 - 2) Aethylester d. 3-Nitroso-2-Imido-4-Methyl-2,3-Dihydrothiazol-5-Carbonsäure? Sm. 99—100° u. Zers. (A. 259, 279). — IV, 541.
- C₇H₅O₄NS**
- 1) 6-Amido-3-Oxy-1-Methylbenzol-4-Sulfonsäure (B. 27, 1929, 1938). — II, 843.
 - 2) Benzylaminsulfonsäure? Ca (A. 144, 320). — II, 582.
- C₇H₅O₃N₂S**
- 1) 3-Nitro-4-Methylphenylhydrazin-6-Sulfonsäure. Ba + 4H₂O (A. 230, 312; Ph. Ch. 11, 622). — IV, 809.
- C₇H₅O₃N₂S₂**
- 1) Triamid d. Benzol-1-Carbonsäure-3,5-Disulfonsäure. Sm. 290° u. Zers. (M. 14, 691). — II, 1301.
- C₇H₅O₄NS₂**
- 1) 2-Amido-1-Methylbenzol-3,5-Disulfonsäure + $1\frac{1}{2}$ H₂O. Na₂ + 6H₂O, K₂ + 2H₂O, Ca + 5H₂O, Ba + 3H₂O, Pb + $6\frac{1}{2}$ H₂O, Pb + 2H₂O (B. 15, 2992; A. 230, 288; Ph. Ch. 11, 617; Soc. 73, 747). — II, 578.
 - 2) 2-Amido-1-Methylbenzol-4,5-Disulfonsäure. K₂ + 2H₂O, Ba + $1\frac{1}{2}$ H₂O (Soc. 73, 744).
 - 3) 3-Amido-1-Methylbenzol-2,4-Disulfonsäure. Ba + $12\frac{1}{2}$ H₂O, Pb + 2H₂O (A. 172, 188; Ph. Ch. 11, 618). — II, 579.
 - 4) 4-Amido-1-Methylbenzol-3,5-Disulfonsäure + $2\frac{1}{2}$ H₂O. K₂ + 2H₂O, Ba + $1\frac{1}{2}$ ($\frac{1}{2}$)H₂O, Ba + H₂O, Pb + $1\frac{1}{2}$ H₂O (A. 230, 331; C. 1895 [2] 530; Soc. 73, 738). — II, 580.
 - 5) 4-Amido-1-Methylbenzol-2,5-Disulfonsäure + 2H₂O. K₂ + 2H₂O, Ba + 3H₂O, Pb, Pb + 2H₂O (A. 173, 217; 230, 315; C. 1895 [2] 530; Soc. 73, 743). — II, 580.
 - 6) ?-Amido-1-Methylbenzol-?-Disulfonsäure + 2H₂O (A. 221, 198; B. 15, 2993). — II, 580.
 - 7) Benzylsulfaminsäure- α -Sulfonsäure. Na₂ + 3H₂O (B. 20, 2541). — III, 20.
- C₇H₅O₃N₂S₂**
- 1) α -[4-Nitro-2-Methylphenyl]hydrazin- α β -Disulfonsäure. K₂ (B. 30, 516). — IV, 804.
- C₇H₅ONCl**
- 1) Chlormethylat d. 4-Keto-1-Methyl-1,4-Dihydropyridin. 2 + PtCl₄ (M. 6, 313). — IV, 117.

- $C_7H_{10}ONCl$ 2) Verbindung (aus Pyridinbetaïnhydrochlorid). $2 + PtCl_4$ (*J. pr.* [2] 43, 299). — IV, 112.
- $C_7H_{10}ONCl_3$ 1) 1-Trichloracetylhexahydropyridin. Sm. 45° (*R.* 15, 70). — IV, 12.
- $C_7H_{10}ONJ$ 1) Jodmethylat d. 4-Keto-1-Methyl-1,4-Dihydropyridin (*M.* 6, 312). — IV, 117.
- $C_7H_{10}ON_2S$ 1) 2-Thiocarbonyl-5-Keto-1-Allyl-4-Methyltetrahydroimidazol. Sm. $81,5^\circ$ (*B.* 24, 3287). — I, 1329.
- 2) 2-Acetylmethylamido-4-Methylthiazol. Sm. 110° (*A.* 249, 44). — IV, 520.
- 3) 2-Acetylimido-3,4-Dimethyl-2,3-Dihydrothiazol + $6H_2O$. Sm. 50° (113° wasserfrei) (*B.* 20, 3124; *A.* 249, 44). — IV, 520.
- 4) Aethyläther d. 2-Merkapto-4-Keto-6-Methyl-3,4-Dihydro-1,3-Diazin (Ae. d. Thiomethyluracil). Sm. $144-145^\circ$ (*A.* 236, 12). — I, 1355.
- $C_7H_{10}O_2NCl$ 1) $\alpha\beta$ -Dioxychloräthylat d. Pyridin. $2 + PtCl_4 + 2H_2O$ (*G.* 15, 333). — IV, 111.
- $C_7H_{10}O_2N_2S$ 1) 2-Thiocarbonyl-4,5-Diketo-1,3-Diäthyltetrahydroimidazol (Diäthylthioparabansäure). Sm. 102° (*B.* 31, 138).
- 2) 2,6-Diamido-1-Methylbenzol-4- $[P]$ -Sulfonsäure + H_2O . Pb + $2H_2O$ (*B.* 18, 69). — IV, 610.
- 3) Methylester d. 2-Amidothiazol-4-[Aethyl- α -Carbonsäure]. Sm. 130° (*B.* 29, 1047). — IV, 546.
- 4) Aethylester d. 2-Amidothiazol-4-Methylcarbonsäure. Sm. 94° (*A.* 261, 30). — IV, 543.
- 5) Aethylester d. 2-Amido-4-Methylthiazol-5-Carbonsäure. Sm. 175° . HCl (*B.* 29, 1046). — IV, 541.
- 6) Aethylester d. 2-Merkapto-4-[oder 5]-Methylimidazol-5-[oder 4]-Carbonsäure. Sm. 229° u. Zers. (*B.* 27, 1144).
- 7) Amid d. 2-Amido-1-Methylbenzol-4-Sulfonsäure. Sm. 175° . HCl (*A.* 221, 210). — II, 577.
- 8) Amid d. 4-Amido-1-Methylbenzol-2-Sulfonsäure. Sm. 164° (*A.* 221, 208; *Am.* 20, 301). — II, 580.
- $C_7H_{10}O_2N_2S_2$ 1) 2,6-Diamido-1-Methylbenzol-4- $[P]$ -Thiolsulfonsäure. Zers. bei 152° . Na, Pb, Ag (*B.* 18, 67). — IV, 610.
- $C_7H_{10}O_2N_4S_2$ 1) Verbindung (aus Thiobarnstoff u. Dibromlävulinsäure). Sm. 175 bis 176° u. Zers. (*A.* 285, 210).
- $C_7H_{10}O_3NCl$ 1) Aethylester d. α -Chlor- β -Cyan- β -Oxybuttersäure. Fl. (*A.* 278, 72).
- $C_7H_{10}O_3NCl_3$ 1) Verbindung (aus Butylchloral). Sm. $123-125^\circ$ (*B.* 7, 633).
- $C_7H_{10}O_3NP$ 1) 5-Amido-2-Methylphenylphosphinsäure. Sm. $280-300^\circ$. Ba (*A.* 293, 298). — IV, 1670.
- 2) 3-Amido-4-Methylphenylphosphinsäure. Zers. bei 290° . Pb, Ag (*A.* 293, 274). — IV, 1670.
- $C_7H_{10}O_3N_2Cl_2$ 1) 5,5-Dichlor-6-Oxy-2,4-Diketo-1,3,6-Trimethylhexahydro-1,3-Diazin (Dichloroxytrimethyluracil). Sm. $143-144^\circ$ u. Zers. (*A.* 244, 14). — I, 1352.
- $C_7H_{10}O_3N_2Br_2$ 1) 5,5-Dibrom-6-Oxy-2,4-Diketo-1,3,6-Trimethylhexahydro-1,3-Diazin (Dibromoxytrimethyluracil). Sm. 163° u. Zers. (*A.* 244, 12). — I, 1352.
- $C_7H_{10}O_4N_2S$ 1) 2,3-Diamido-1-Methylbenzol-5-Sulfonsäure (*B.* 23, 139). — IV, 600.
- 2) 2,4-Diamido-1-Methylbenzol-5-Sulfonsäure. K + H_2O , Ba + $5\frac{1}{2}H_2O$, HCl + H_2O , HBr + H_2O (*A.* 230, 309; *Ph. Ch.* 11, 621). — IV, 607.
- 3) 2,4-Diamido-1-Methylbenzol- $[P]$ -Sulfonsäure. Na + H_2O , K + H_2O , Mg + $5H_2O$, Ca + $6\frac{1}{2}H_2O$, Sr + $7H_2O$, Ba + $6\frac{1}{2}H_2O$, Mn + $3H_2O$ (*B.* 7, 464). — IV, 607.
- 4) 2,6-Diamido-1-Methylbenzol-4-Sulfonsäure. Sm. noch nicht bei 280° . K, Ba + $4H_2O$, Pb, HCl + $2H_2O$, HBr + $2H_2O$, $HNO_3 + H_2O$, $H_2SO_4 + H_2O$ (*A.* 186, 360; 274, 351; *Ph. Ch.* 3, 413). — IV, 610.
- 5) 2,4-Diamidophenylmethan- α -Sulfonsäure (*A.* 221, 228). — IV, 607.
- 6) α -Methyl- α -Phenylhydrazin- β -Sulfonsäure. NH_4 (*B.* 28, 3166). — IV, 736.
- 7) α -Methyl- α -Phenylhydrazin-4- $[P]$ -Sulfonsäure. Na + H_2O (*A.* 239, 219). — IV, 736.
- 8) α -[2-Methylphenyl]hydrazin- β -Sulfonsäure. Na (*B.* 18, 3175). — IV, 803.

- $C_7H_{10}O_3N_2S$ 9) 2-Methylphenylhydrazin-?-Sulfonsäure + $\frac{1}{2}H_2O$. $Na + 3\frac{1}{2}H_2O$, $Ba + 4H_2O$, $Zn + 3H_2O$, $Pb + 6H_2O$, $3Pb + Pb(OH)_2$ (B. 18, 3175). — IV, 803.
- 10) 4-Methylphenylhydrazin-3-Sulfonsäure. Sm. 273—274° u. Zers. (Am. 9, 401; B. 21, 3416). — IV, 809.
- 11) 2,4-Diamidophenylester d. Methansulfonsäure. Sm. 103—104° u. Zers. (*J. pr.* [2] 48, 249). — II, 722.
- $C_7H_{10}O_4N_2S$ 1) α -[2-Methoxyphenyl]hydrazin- β -Sulfonsäure. $Na + H_2O$ (A. 221, 319). — IV, 816.
- 2) α -[4-Methoxyphenyl]hydrazin- β -Sulfonsäure. Na (B. 25, 1844). — IV, 816.
- $C_7H_{10}O_4N_2S_2$ 1) Amid d. 1-Methylbenzol-2,4-Disulfonsäure. Sm. 185—186° (B. 5, 1086; 10, 543, 1276; 12, 1052; Am. 2, 192). — II, 133.
- 2) Amid d. 1-Methylbenzol-2,5-Disulfonsäure. Sm. 224° (B. 19, 2888). — II, 133.
- 3) Amid d. 1-Methylbenzol-2,6-Disulfonsäure. Sm. über 260° (A. 221, 200). — II, 134.
- 4) Amid d. 1-Methylbenzol-3,4-Disulfonsäure. Sm. 235—239° u. ger. Zers. (B. 20, 356). — II, 134.
- 5) Amid d. 1-Methylbenzol-3,5-Disulfonsäure. Sm. 214° (210°) (B. 5, 1086; 19, 2889; A. 230, 296, 327). — II, 134.
- $C_7H_{10}O_4ClBr$ 1) Diäthylester d. Chlorbrommalonsäure. Sd. 239—241° u. Zers. (B. 24, 2995). — I, 652.
- $C_7H_{10}O_5N_2S_2$ 1) Amid d. 1-Oxybenzolmethyläther-?-Disulfonsäure. Sm. 239° (Am. 18, 863).
- $C_7H_{10}O_8N_2S_2$ 1) 4-Methylphenylhydrazin-3,5-Disulfonsäure. $Ba + 2\frac{1}{2}H_2O$ (A. 230, 329). — IV, 809.
- $C_7H_{10}NCl_2Br$ 1) Chlorid d. Pyridinbromäthylat (*C. 1897* [2] 592).
- $C_7H_{10}NCl_4J$ 1) Tetrachlorid d. Pyridinjodäthylat. Sm. 123° (*C. 1897* [2] 592).
- $C_7H_{10}NBr_2J$ 1) Bromid d. Pyridinjodäthylat. Sm. 25—26° (*C. 1897* [2] 591).
- $C_7H_{11}ONS$ 1) Diacetonsenföl. Fl. (B. 27, 1044).
- $C_7H_{11}ON_2Br_3$ 1) Verbindung (aus s-Diallylharnstoff). Pikrat (*C. 1898* [2] 768).
- $C_7H_{11}ON_2P$ 1) Diamid d. 4-Methylphenylphosphinsäure. Sm. 176° (A. 293, 265). — IV, 1669.
- $C_7H_{11}O_2NCl_2$ 1) 3,5-Dichlor-2-Oxy-1-Acetylhexahydropyridin. Sm. 122° (B. 21, 1775). — IV, 12.
- $C_7H_{11}O_5N_2Br$ 1) Verbindung (aus d. ?-Nitro-?-Tetrahydropyridin-1-Carbonsäuremethylester). Sm. 130° (B. 16, 647). — IV, 12.
- $C_7H_{11}O_6N_2S_3$ 1) Amid d. 1-Methylbenzol-2,4,6-Trisulfonsäure. Sm. über 300° (B. 14, 309). — II, 134.
- $C_7H_{12}ONCl$ 1) Verbindung (aus 5-Keto-2,2,4-Trimethyltetrahydropyrrol). Sm. 158° (A. 232, 210). — I, 1209.
- $C_7H_{12}ON_2S$ 1) 2-Methyläther d. 2-Merkapto-5-Keto-1,4,4-Dimethyl-4,5-Dihydroimidazol. Fl. (2HCl, PtCl₄), H₂SO₄ (B. 24, 3298). — I, 1329.
- 2) 2,5-Dimethyläther d. 2-Merkapto-5-Oxy-1,4-Dimethylimidazol. Fl. (2HCl, PtCl₄), H₂SO₄ (B. 24, 3293). — I, 1329.
- 3) 2-Aethylimido-4-Keto-3-Aethyltetrahydrothiazol (Diäthylthiohydantoïn). Sm. 41° (B. 31, 137).
- $C_7H_{12}O_2NCl$ 1) Chlorid d. Pyridin-1-Methylcarbonsäureäthylester (Pyridinbetaïn-äthylesterchlorid). Sm. 100 (*J. pr.* [2] 43, 274). — IV, 111.
- $C_7H_{12}O_2NCl_3$ 1) α -Aethyläther d. $\gamma\gamma\delta$ -Trichlor- α -Imido- $\alpha\beta$ -Dioxypentan (Trichlorvalerolaktimidoäthyläther). HCl, H₂SO₄ (PINNER, Imidoäther 39). — I, 1490.
- $C_7H_{12}O_3NCl_3$ 1) Verbindung (aus Urethan u. Butyrylchloral). Sm. 123—125° (B. 7, 632). — I, 1258.
- $C_7H_{12}O_3N_2S$ 1) Amidosulfonsaures Benzylamin. Sm. 121° (B. 30, 872).
- $C_7H_{12}O_4N_2S$ 1) Furol-Aethylenthionaminsäure (B. 30, 1013).
- $C_7H_{12}N_2ClJ$ 1) Jodmethylat d. ?-Chlor-2-Methyl-1-Aethylimidazol. Sm. 203° (A. 184, 45; 214, 262; B. 13, 515; 14, 737). — IV, 517.
- $C_7H_{13}ONBr_2$ 1) $\beta\gamma$ -Dibrom- δ -Oximido- $\beta\gamma$ -Dimethylpentan. Sm. 92—93° (*J. r.* 26, 9).
- $C_7H_{13}ONS_2$ 1) Diacetamidodithioameisensäure. Sm. 119—120° u. Zers. (B. 27, 1044).
- $C_7H_{13}O_2N_2Cl_3$ 1) Chloral-uns. Diäthylharnstoff. Sm. 142° (B. 8, 239). — I, 1314.

- $C_7H_{13}O_3NS$ 1) Propylester d. Carboxyäthylamidothioameisensäure. Sm. 31—32° (Soc. 69, 334).
 $C_7H_{13}O_3Cl_3S$ 1) *p*-Trichlorheptan- α -Sulfonsäure (Bl. 49, 70). — I, 373.
 $C_7H_{13}O_4N_2Br$ 1) α -Brom- $\alpha\alpha$ -Dinitroheptan. Fl. (Am. 21, 227).
 $C_7H_{13}O_5ClS$ 1) Diäthylester d. α -Choräthan- α -Carbonsäure- β -Sulfonsäure? (D. d. α -Chlor- β -Sulfopropionsäure). Fl. (A. 233, 28). — I, 903.
 $C_7H_{13}N_2JS$ 1) 2-Jodmethylat d. 2-Dimethylamido-4-Methylthiazol. Sm. 85° (B. 20, 3123, 3336). — IV, 519.
 $C_7H_{14}ON_2S$ 1) α -Oxy- α -Propyl- β -Allylthioharnstoff. Sm. 53—54° (B. 30, 1893).
 $C_7H_{14}O_2NCl$ 1) Piperidylumchloridessigsäure. Sm. 215—216° (B. 32, 728).
 $C_7H_{14}O_2NBr$ 1) α -Brom- α -Nitroheptan. Fl. (Am. 21, 224).
 $C_7H_{14}O_2N_2S$ 2) *p*-Brom- β -Nitroheptan. (J. r. 25, 484).
 $C_7H_{14}O_2N_2S$ 1) Isoamylester d. Harnstoffthiolcarbonsäure (I. d. Thiolallophan-säure). Sm. 176° (J. pr. [2] 30, 416; [2] 32, 251). — I, 1309.
 $C_7H_{14}O_3Cl_2S$ 1) *p*-Dichlorheptan- α -Sulfonsäure. Ba (Bl. 49, 70). — I, 373.
 $C_7H_{14}O_4NCl$ 1) α -Trimethylamidoisobornsteinsäurechlorid. 2 + $AuCl_3$ (G. 17, 438). — I, 1213.
 $C_7H_{14}O_4NJ$ 1) α -Trimethylamidoisobornsteinsäurejodid. $K_2 + 7H_2O$ (G. 17, 438). — I, 1213.
 $C_7H_{14}NClS$ 1) Chlorid d. Dipropylamidothioameisensäure. Sd. 124,2—124,3°, (B. 26, 1686).
 $C_7H_{14}N_2Br_2S$ 1) $\alpha\alpha\beta$ -Trimethyl- β -[$\beta\gamma$ -Dibrompropyl]thioharnstoff (C. 1896 [1] 305).
 $C_7H_{15}ON_2S$ 1) α -Amido- β -Diacetonthioharnstoff. Sm. 148—151° (B. 27, 1045).
 $C_7H_{15}O_3N_2S$ 1) Verbindung (aus Acetylrhodanid). Sm. 187° u. Zers. (Soc. 61, 530). — I, 1280.
 $C_7H_{15}O_3ClS$ 1) *p*-Chlorheptan- α -Sulfonsäure. Ba (Bl. 49, 72). — I, 373.
 $C_7H_{15}O_4ClS_2$ 1) α -Chlor- $\beta\beta$ -Di[Aethylsulfon]propan (Chlorsulfonal). Sm. 78—79° (B. 24, 171). — I, 994.
 $C_7H_{15}NClBr$ 1) Chlormethylat d. 3-Brom-1-Methylhexahydropyridin. 2 + $PtCl_4$ (B. 19, 2630). — IV, 6.
 $C_7H_{15}NClJ$ 1) Piperäthylalkinchlorojodid. 2 + $PtCl_4$ (B. 15, 1146). — IV, 18.
 $C_7H_{16}ONJ$ 1) Aethenyläther d. Trimethyl- β -Oxyäthylammoniumjodid (B. 32, 740).
 $C_7H_{16}O_2NCl$ 2) Jodmethylat d. 4-Aethylmorpholin. Sm. 165—166° (A. 301, 13, 17).
 $C_7H_{16}O_2NCl$ 1) Acetylcholinchlorid (Acetat d. β -Oxyäthyltrimethylammoniumchlorid). 2 + $PtCl_4$, + $AuCl_3$ (A. 142, 325; B. 27 [2] 738). — I, 1171.
 $C_7H_{16}O_2N_2S$ 1) Diäthyläther d. $\beta\beta$ -Dioxyäthylthioharnstoff (B. 25, 2355).
 $C_7H_{16}O_4NS$ 1) Verbindung (aus Pyridin) (C. 1896 [1] 1126).
 $C_7H_{16}NJS_2$ 1) Jodmethylat d. Thialdin (A. 103, 94; B. 19, 2381). — I, 919.
 $C_7H_{16}ClJ_3S$ 1) Triäthylsulfinchlorid + Jodoform. Sm. 96° (C. 1898 [2] 524).
 $C_7H_{16}BrJ_3S$ 1) Triäthylsulfimbromid + Jodoform. Sm. 124° (C. 1898 [2] 524).
 $C_7H_{17}OJ_3S$ 1) Triäthylsulfinoxydhydrat + Jodoform. Sm. 126° (C. 1898 [2] 524).
 $C_7H_{17}NClJ$ 1) Jodmethyltriäthylammoniumchlorid. 2 + $PtCl_4$ (B. 7, 1253). — I, 1127.
 $C_7H_{17}N_2ClS$ 1) Triäthylthioharnstoffhydrochlorid. 2 + $PtCl_4$ (B. 23, 2197). — I, 1320.
 $C_7H_{17}N_2JS$ 1) Triäthylthioharnstoffhydrojodid (B. 23, 2197). — I, 1320.
 $C_7H_{17}ClJP$ 1) Jodmethyltriäthylphosphoniumchlorid. 2 + $PtCl_4$ (J. 1860, 341). — I, 1503.
 $C_7H_{18}JSP$ 1) Verbindung (Jodid d. Base $C_7H_{19}OSP$) (J. 1861, 490). — I, 1501.
 $C_7H_{19}OSP$ 1) Verbindung (Base aus $C_8H_{17}S_3P$) (J. 1861, 490). — I, 1501.

C₇-Gruppe mit fünf Elementen.

- $C_7H_5O_5Cl_3BrS_2$ 1) Chlorid d. 4-Brombenzol-1-Carbonsäure-*p*-Disulfonsäure. Sm. 151° (A. 221, 197). — II, 1305.
 $C_7H_5O_2NClBr$ 1) 1-Keto-2-Chlor-*p*-Brom-1,2-Dihydrobenzoxazol. Sm. 118—120° (J. pr. [2] 37, 52). — II, 708.
 $C_7H_5O_2NCl_3Br$ 1) *p*-Trichlorbromnitro-1-Methylbenzol. Sm. 162° (J. pr. [2] 39, 483). — II, 98.
 $C_7H_5O_2NBr_2J_2$ 1) 3,5-Dibrom-2,4-Dijod-6-Nitro-1-Methylbenzol. Sm. 129° (A. 192, 212). — II, 98.

- $C_7H_5O_2N_2ClS$ 1) 1-Chlor-2-Nitrobenzthiazol. Sm. 192° (B. 13, 10). — II, 797.
- $C_7H_5O_3NClBr$ 1) Chlorid d. 4-Brom-3-Nitrobenzol-1-Carbonsäure. Sm. 51—53° (B. 23, 3445). — II, 1243.
2) Chlorid d. 6-Brom-3-Nitrobenzol-1-Carbonsäure. Sm. 63° (B. 24, 3809). — II, 1242.
- $C_7H_5O_3Cl_2BrS$ 1) Dichlorid d. 3-Brombenzol-1-Carbonsäure-5-Sulfonsäure. Fl. (Z. 1871, 67). — II, 1303.
2) Dichlorid d. 3-Brombenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 64° (C. 1896 [1] 430).
3) Dichlorid d. 4-Brombenzol-1-Carbonsäure-3[2]-Sulfonsäure. Sm. 59° (B. 28 [2] 990).
- $C_7H_5O_3NClBr$ 1) Chlorid d. 5-Brom-3-Nitro-2-Oxybenzol-1-Carbonsäure. Sm. 56,5° (B. 30, 222).
2) Chlorid d. 3-Brom-5-Nitro-2-Oxybenzol-1-Carbonsäure. Sm. 51° (B. 30, 222).
- $C_7H_5O_3N_2ClS$ 1) Chlorid d. 4-Nitro-1-Cyanbenzol-2-Sulfonsäure. Sm. 107—108° (Am. 19, 510).
- $C_7H_5O_3NCl_2S$ 1) s-Chlorid d. 4-Nitrobenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 94—95° (Am. 19, 499).
2) uns-Chlorid d. 4-Nitrobenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 60° (56—57°) (Am. 11, 180; 19, 498). — II, 1305.
- $C_7H_5O_3N_3Br_2S$ 1) 4,6-Dibrom-3-Nitro-2-Methyl-1-Diazobenzol-5-Sulfonsäure (A. 174, 355). — IV, 1539.
- $C_7H_5O_3NClS$ 1) 3-Chlor-1,2-Benzsulfonazol (Pseudosaccharinchlorid). Sm. 143—145° (149°) (B. 26, 2293; 29, 2295). — II, 1297.
2) Chlorid d. 2-Cyanbenzol-1-Sulfonsäure. Sm. 69—70° (67,5°) (B. 26, 2288; 31, 1650; A. 286, 387). — II, 1297.
3) Chlorid d. 4-Cyanbenzol-1-Sulfonsäure. Sm. 111—112° (Am. 18, 158).
- $C_7H_5O_3NCl_2Br$ 1) 2-Dichlorbromnitro-1-Methylbenzol. Sm. 106° (J. pr. [2] 39, 480). — II, 98.
- $C_7H_5O_3NBr_2J$ 1) 3,5-Dibrom-4-Jod-2-Nitro-1-Methylbenzol. Sm. 69° (A. 192, 210). — II, 98.
- $C_7H_5O_3ClBr_2S$ 1) Chlorid d. 2,3,5-Tribrom-1-Methylbenzol-4-Sulfonsäure. Fl. (A. 174, 355). — II, 138.
- $C_7H_5O_3NClS$ 1) Imid d. 4-Chlorbenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 218° (Am. 13, 229). — II, 1302.
- $C_7H_5O_3NBrS$ 1) 4-Brom-1-Cyanbenzol-2-Sulfonsäure. Na + 1½ H₂O, K + 1½ H₂O (A. 286, 382).
2) Imid d. 4-Brombenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 227,5° (217°). Ca + 7½ H₂O, Ba + 7½ H₂O, Ag (Am. 8, 229; A. 286, 384). — II, 1303.
- $C_7H_5O_3NJS$ 1) Imid d. 4-Jodbenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 230 bis 232° (Am. 13, 231). — II, 1305.
- $C_7H_5O_3NFS$ 1) Imid d. 4-Fluorbenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 200 bis 202°. Ca + 7½ H₂O (Am. 13, 227). — II, 1302.
- $C_7H_5O_3N_2Br_2S$ 1) 4,6-Dibrom-2-Methyl-1-Diazobenzol-5-Sulfonsäure (A. 174, 352). — IV, 1538.
- $C_7H_5O_3ClBr_2P$ 1) Verbindung (aus 2-Oxybenzol-1-Carbonsäurephosphorigsäurechlorid). Sd. 185—188°₁₂ (A. 239, 307; 253, 106). — II, 1498.
- $C_7H_5O_3N_2BrJ$ 1) 2-Brom-3-Jod-2-Dinitro-1-Methylbenzol. Sm. 139—141° (B. 29, 1406).
- $C_7H_5O_3ClBrS$ 1) 2-Monochlorid d. 3-Brombenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 168° (C. 1896 [1] 431).
2) 2-Monochlorid d. 4-Brombenzol-1-Carbonsäure-2-Sulfonsäure (2 Modific.). Sm. 197° u. Zers. (A. 191, 18, 21). — II, 1304.
- $C_7H_5O_3N_2BrS$ 1) 2-Brom-2-Nitro-4-Methyl-1-Diazobenzol-3-Sulfonsäure (A. 172, 203). — IV, 1539.
- $C_7H_5ONClBr$ 1) 1-Chlor-1-Brom-1,2-Dihydrobenzoxazol. Sm. 155° (Am. 21, 127).
- $C_7H_5ONBr_2S$ 1) Amid d. 2-Dibrom-2-Oxybenzol-1-Carbonsäure. Sm. bei 230° (B. 22, 2774). — II, 1514.
- $C_7H_5OCIBrJ$ 1) Methyläther d. 2-Chlor-2-Brom-3-Jod-1-Oxybenzol. Sm. 111 bis 112° (B. 29, 1411).

- $C_7H_5O_2NClBr$ 1) 3-Chlor-4-Brom-*p*-Nitro-1-Methylbenzol. Sm. 61° (*J. pr.* [2] 39, 478). — II, 97.
2) 2-Chlor-*p*-Brom-*p*-Nitro-1-Methylbenzol. Sm. 68° (*J. pr.* [2] 39, 479). — II, 97.
3) 2-Chlor-4-Nitro-1-Brommethylbenzol. Sm. 49—50° (*B.* 24, 706). — II, 97.
- $C_7H_5O_2NBrJ$ 1) 2-Brom-4-Jod-*p*-Nitro-1-Methylbenzol. Sm. 92° (*B.* 29, 1405).
2) 3-Brom-4-Jod-5[*p*]-Nitro-1-Methylbenzol. Sm. 118° (*A.* 168, 160). — II, 98.
3) 3-Brom-2-Jod-*p*-Nitro-1-Methylbenzol (*A.* 168, 165). — II, 98.
- $C_7H_5O_2N_2BrS$ 1) Amid d. 4-Brom-1-Cyanbenzol-2-Sulfonsäure. Sm. über 250° (*A.* 286, 384).
- $C_7H_5O_2ClBr_2S$ 1) Chlorid d. 5,6-Dibrom-1-Methylbenzol-3-Sulfonsäure. Sm. 93° (*Soc.* 61, 1038). — II, 138.
- $C_7H_5O_2N_2BrS$ 1) 5-Brom-4-Methyl-1-Diazobenzol-2-Sulfonsäure (*A.* 173, 212). — IV, 1538.
2) 6-Brom-4-Methyl-1-Diazobenzol-3-Sulfonsäure (*A.* 172, 196). — IV, 1538.
3) 4-Brom-1-Methyl-*p*-Diazobenzol-2-Sulfonsäure (*A.* 174, 365). — IV, 1538.
4) 4-Brom-1-Methyl-*p*-Diazobenzol-3-Sulfonsäure (*A.* 174, 363). — IV, 1538.
5) 6-Brom-1-Methyl-*p*-Diazobenzol-3-Sulfonsäure (*A.* 174, 360). — IV, 1538.
- $C_7H_5O_2NCl_2Cr$ 1) Verbindung (aus 3-Nitro-1-Methylbenzol) (*A. ch.* [5] 22, 275).
- $C_7H_5O_2Cl_2BrS$ 1) Chlorid d. 2-Brom-1-Methylbenzol-3,5-Disulfonsäure. Sm. 90° (102°) (*A.* 230, 295; *Soc.* 73, 750). — II, 138.
2) Chlorid d. 4-Brom-1-Methylbenzol-*p*-Disulfonsäure. Sm. 99° (*A.* 221, 194). — II, 138.
3) Chlorid d. 4-Brom-1-Methylbenzol-*p*-Sulfonsäure. Sm. 133° (*A.* 230, 324). — II, 138.
- $C_7H_5O_2Cl_2BrCr_2$ 1) Verbindung (aus 4-Brom-1-Methylbenzol) (*A. ch.* [5] 22, 241). — II, 60.
- $C_7H_5O_2Cl_2JS_2$ 1) Chlorid d. 4-Jod-1-Methylbenzol-*p*-Disulfonsäure. Sm. 143° (*A.* 230, 325). — II, 138.
- $C_7H_5O_2NBr_2S$ 1) *p*-Dibromnitro-1-Methylbenzol-*p*-Sulfonsäure. K + H₂O, Ba + 3 1/2 H₂O (*A.* 221, 197). — II, 141.
- $C_7H_5O_2N_2ClS$ 1) Chlorid d. 2,6-[*p*]Dinitro-1-Methylbenzol-4-Sulfonsäure. Sm. 123 bis 125° (*A.* 186, 359). — II, 140.
- $C_7H_5ONCl_2J$ 1) 1-Oximidomethylbenzol-3-Jodidchlorid (*Soc.* 69, 1008).
- C_7H_5ONBrS 1) 5-Brom-2-Thionylamido-1-Methylbenzol. Sm. 50° (*A.* 274, 231). — II, 460.
2) 3-Brom-4-Thionylamido-1-Methylbenzol. Sm. 47° (*A.* 274, 230). — II, 459.
- $C_7H_5O_2NCl_2J$ 1) 3-Nitro-1-Methylbenzol-6-Jodidchlorid. Sm. 102° u. Zers. (*Soc.* 73, 693).
- $C_7H_5O_2NCl_2S$ 1) Phenylamid d. Trichlormethansulfonsäure (*J. pr.* [2] 30, 291; *A.* 296, 87). — II, 424.
- $C_7H_5O_2NBr_3S$ 1) Amid d. 2,3,5-Tribrom-1-Methylbenzol-4-Sulfonsäure (*A.* 174, 355). — II, 138.
- $C_7H_5O_2ClBrS$ 1) Chlorid d. 2-Brom-1-Methylbenzol-4-Sulfonsäure. Sm. 54° (*A.* 172, 207). — II, 136.
2) Chlorid d. 2-Brom-1-Methylbenzol-5-Sulfonsäure. Sm. 51° (*A.* 169, 40; 176, 296; *B.* 13, 1943). — II, 136.
3) Chlorid d. 3-Brom-1-Methylbenzol-5-Sulfonsäure. Sm. 52° (*B.* 13, 1944). — II, 137.
4) Chlorid d. 4-Brom-1-Methylbenzol-2-Sulfonsäure. Sm. 35° (*A.* 169, 21; 172, 238). — II, 137.
5) Chlorid d. 4-Brom-1-Methylbenzol-3-Sulfonsäure. Sm. 62° (*A.* 169, 9; 173, 208; *B.* 13, 1947). — II, 137.
6) Chlorid d. 4-Bromphenylmethansulfonsäure. Sm. 107° (115°) (*A.* 221, 222; *Am.* 5, 264). — II, 137.
7) Bromid d. 2-Chlor-1-Methylbenzol-5-Sulfonsäure. Sm. 67,5° (*Soc.* 61, 1073). — II, 134.

- $C_7H_5O_3NClS$ 1) 1-Chlorid d. Benzol-1-Carbonsäure-3-Sulfonsäureamid. Fl. (A. 106, 41). — II, 1299.
- $C_7H_5O_3NClS$ 1) 1-Amid d. 4-Chlorbenzol-1-Carbonsäure-3-Sulfonsäure. NH_4 (Am. 16, 543).
 2) Chlorid d. 2-Nitro-1-Methylbenzol-3-Sulfonsäure. Sm. 58,5° (A. 230, 308). — II, 139.
 3) Chlorid d. 2-Nitro-1-Methylbenzol-4-Sulfonsäure. Fl. (A. 145, 23). — II, 139.
 4) Chlorid d. 2-Nitro-1-Methylbenzol-5-Sulfonsäure. Sm. 50° (A. 230, 305). — II, 139.
 5) Chlorid d. 2-Nitro-1-Methylbenzol-6-Sulfonsäure. Sm. 36° (B. 14, 489).
 6) Chlorid d. 4-Nitro-1-Methylbenzol-2-Sulfonsäure. Sm. 43—44,5° (A. 172, 232). — II, 139.
- $C_7H_5O_3NBrS$ 1) 1-Amid d. 3-Brombenzol-1-Carbonsäure-*p*-Sulfonsäure. Sm. 237 bis 238° (C. 1896 [1] 430).
 2) *p*-Monamid d. 3-Brombenzol-1-Carbonsäure-*p*-Sulfonsäure. Sm. 251°. Na (C. 1896 [1] 430).
 3) 1-Amid d. 4-Brombenzol-1-Carbonsäure-3(*p*)-Sulfonsäure. Sm. 262° (B. 28 [2] 990).
 4) *p*-Monamid d. 4-Brombenzol-1-Carbonsäure-*p*-Sulfonsäure. Sm. 262° u. Zers. (A. 191, 23). — II, 1304.
 5) *p*-Monamid d. 4-Brombenzol-1-Carbonsäure-*p*-Sulfonsäure. Sm. 229—230°. Ba + 12H₂O (A. 191, 20). — II, 1304.
- $C_7H_5O_3NClS$ 1) 5-Chlor-4-Nitro-1-Methylbenzol-2-Sulfonsäure. Ba + 2H₂O (B. 26, 579). — II, 140.
 2) 6-Chlor-4-Nitro-1-Methylbenzol-3-Sulfonsäure (C. 1895 [2] 529).
 3) 6-Chlor-5-Nitro-1-Methylbenzol-3-Sulfonsäure (C. 1895 [2] 529).
 4) 6-Chlor-3-Nitro-1-Methylbenzol-4-Sulfonsäure (C. 1895 [2] 529).
 5) *p*-Chlor-*p*-Nitro-1-Methylbenzol-*p*-Sulfonsäure. Ba + 4H₂O (A. 168, 204). — II, 140.
 6) 5-Chlor-2-Amidobenzol-1-Carbonsäure-*p*-Sulfonsäure. Ba (A. 135, 113). — II, 1307.
- $C_7H_5O_3NBrS$ 1) 4-Brom-*p*-Nitro-1-Methylbenzol-2-Sulfonsäure. Ba + 2H₂O, Sr + 7H₂O, Pb + 3H₂O, Cu + 6H₂O, Ag (A. 169, 22). — II, 141.
 2) *p*-Brom-*p*-Nitro-1-Methylbenzol-2-Sulfonsäure. Na, Ca + 3H₂O, Ba + 3½H₂O (A. 172, 200). — II, 141.
 3) 4-Brom-*p*-Nitro-1-Methylbenzol-3-Sulfonsäure. Sr + 5H₂O, Ba + 5H₂O, Pb + 2½H₂O (A. 169, 10). — II, 141.
 4) 6-Brom-*p*-Nitro-1-Methylbenzol-3-Sulfonsäure. Na + H₂O, K, Ba + 2H₂O, Pb + 2H₂O (A. 169, 42; 176, 299). — II, 141.
 5) 2-Brom-*p*-Nitro-1-Methylbenzol-4-Sulfonsäure. Ba + 3H₂O (A. 172, 219; 174, 347). — II, 141.
 6) 3-Brom-*p*-Nitro-1-Methylbenzol-*p*-Sulfonsäure. Ca + 4½H₂O, Ba + 3½H₂O, Pb + 3H₂O (A. 168, 169). — II, 141.
- $C_7H_5O_3NCl_2S$ 1) Amid d. 2,3-Dichlor-1-Methylbenzol-5-Sulfonsäure. Sm. 183° (C. 1895 [2] 529).
 2) Amid d. 2,3-Dichlor-1-Methylbenzol-*p*-Sulfonsäure. Sm. 221° (C. 1895 [2] 529).
 3) Amid d. 2,4-Dichlor-1-Methylbenzol-5-Sulfonsäure. Sm. 177° (C. 1895 [2] 529).
 4) Amid d. 2,5-Dichlor-1-Methylbenzol-4-Sulfonsäure. Sm. 191° (Soc. 61, 1050). — II, 136.
 5) Amid d. 2,6-Dichlor-1-Methylbenzol-*p*-Sulfonsäure. Sm. 204° (C. 1895 [2] 529).
 6) Amid d. 3,4-Dichlor-1-Methylbenzol-*p*-Sulfonsäure. Sm. 189° (Soc. 61, 1060). — II, 136.
 7) Amid d. 3,5-Dichlor-1-Methylbenzol-*p*-Sulfonsäure. Sm. 168° (C. 1895 [2] 529).
 8) Dichloramid d. 1-Methylbenzol-4-Sulfonsäure. Sm. 80° (Am. 18, 493).
- $C_7H_5O_3NBr_2S$ 1) Amid d. 5,6-Dibrom-1-Methylbenzol-3-Sulfonsäure. Sm. 214° (Soc. 61, 1038). — II, 138.

- $C_7H_7O_2N_2ClS$ 1) Amid d. 1-Imidochlormethylbenzol-3-Sulfonsäure (A. 106, 33). — II, 1300.
- $C_7H_7O_2NCl_2S$ 1) Phenylamid d. Dichloroxymethansulfonsäure (J. pr. [2] 30, 289). — II, 424.
- $C_7H_7O_2NBr_2S$ 1) 3,5-Dibrom-2-Amido-1-Methylbenzol-4-Sulfonsäure + H_2O . Ba + $9H_2O$ (A. 172, 211; 221, 191; Ph. Ch. 11, 619). — II, 578.
2) 2-Dibrom-2-Amido-1-Methylbenzol-2-Sulfonsäure + H_2O . Ba + $4H_2O$, Pb + $3H_2O$ (A. 169, 380). — II, 578.
- $C_7H_7O_2N_2ClS$ 1) Amid d. 3-Chlorbenzol-1-Carbonsäure-5-Sulfonsäure (A. 123, 223). — II, 1302.
2) Amid d. 4-Chlorbenzol-1-Carbonsäure-3-Sulfonsäure. Sm. 233° (Am. 16, 542). — II, 1303.
- $C_7H_7O_2N_2BrS$ 1) Diamid d. 3-Brombenzol-1-Carbonsäure-2-Sulfonsäure + H_2O . Sm. 198,5—199,5° (wasserfrei) (C. 1896 [1] 430).
- $C_7H_7O_2N_2BrS$ 1) Amid d. 2-Brom-2-Nitro-1-Methylbenzol-4-Sulfonsäure (A. 174, 348). — II, 141.
- $C_7H_7O_2NClP$ 1) 3-Chlor-2-Nitro-4-Methylphenylphosphinsäure. Sm. 200° (B. 31, 2918). — IV, 1670.
- $C_7H_7NCl_2P$ 1) 2-Methylphenylimid d. Thiophosphorsäuremonochlorid (Sulphosphazo-o-Toluolchlorid). Sm. 260°; Sd. 290°₈₈ (B. 28, 1242).
2) 4-Methylphenylimid d. Thiophosphormonochlorid (Sulphosphazo-p-Toluolchlorid). Sm. 170° (B. 28, 1245).
- $C_7H_7ONCl_2P$ 1) 2-Methylphenylamid d. Phosphorsäuredichlorid. Sm. 91° (B. 27, 2578).
2) 4-Methylphenylamid d. Phosphorsäuredichlorid. Sm. 104° (B. 26, 2939; 27, 2576). — II, 490.
- C_7H_7ONBrS 1) 2-Brom-2-[α -Oximidoäthyl]-3-Methylthiophen. Sm. 105° (A. 267, 162). — III, 764.
- $C_7H_7O_2NClS$ 1) Aethylester d. 2-Chlor-4-Methylthiazol-5-Carbonsäure. Sm. 50 bis 51° (A. 259, 286). — IV, 84.
2) Amid d. 2-Chlor-1-Methylbenzol-4-Sulfonsäure. Sm. 135° (134°) (A. 221, 212; Soc. 73, 765). — II, 135.
3) Amid d. 2-Chlor-1-Methylbenzol-5-Sulfonsäure. Sm. 128° (Soc. 61, 1073). — II, 134.
4) Amid d. 3-Chlor-1-Methylbenzol-2-Sulfonsäure. Sm. 182° (Soc. 61, 1077). — II, 135.
5) Amid d. 4-Chlor-1-Methylbenzol-2-Sulfonsäure. Sm. 142° (138°) (C. 1895 [2] 530; A. 221, 209; Soc. 73, 762).
6) Amid d. 4-Chlor-1-Methylbenzol-3-Sulfonsäure. Sm. 138° (156°) (A. 221, 209; C. 1895 [2] 530; Soc. 73, 760). — II, 135.
- $C_7H_7O_2NBrS$ 1) Aethylester d. 2-Brom-4-Methylthiazol-5-Carbonsäure. Sm. 70 bis 71° (A. 259, 287). — IV, 84.
2) Amid d. 2-Brom-1-Methylbenzol-4-Sulfonsäure. Sm. 151° (A. 172, 207). — II, 136.
3) Amid d. 2-Brom-1-Methylbenzol-5-Sulfonsäure. Sm. 146,3 bis 147,2° (A. 169, 41; 176, 296; B. 13, 1943). — II, 136.
4) Amid d. 3-Brom-1-Methylbenzol-5-Sulfonsäure. Sm. 138—139° (B. 13, 1944). — II, 137.
5) Amid d. 4-Brom-1-Methylbenzol-2-Sulfonsäure. Sm. 166—167° (A. 169, 7, 22; 172, 238). — II, 137.
6) Amid d. 4-Brom-1-Methylbenzol-3-Sulfonsäure. Sm. 151—152° (A. 169, 9; 173, 209; B. 13, 1947). — II, 137.
- $C_7H_7O_2NJS$ 1) Aethylester d. 2-Jod-4-Methylthiazol-5-Carbonsäure. Sm. 86 bis 87° (A. 259, 288). — IV, 84.
2) Amid d. 4-Jod-1-Methylbenzol-2-Sulfonsäure. Sm. 178—179° (B. 8, 561). — II, 138.
- $C_7H_7O_2NFS$ 1) Amid d. 4-Fluor-1-Methylbenzol-2-Sulfonsäure. Sm. 155° (Am. 13, 224). — II, 134.
- $C_7H_7O_2NBrS$ 1) 4-Brom-2-Amido-1-Methylbenzol-2-Sulfonsäure. Na + $2H_2O$, Ba + $2H_2O$ (A. 174, 364). — II, 582.
2) 2-Brom-4-Amido-1-Methylbenzol-2-Sulfonsäure. K + H_2O , Ba + $7H_2O$, Pb (A. 172, 234; 221, 188; Ph. Ch. 11, 620). — II, 581.
3) 6-Brom-4-Amido-1-Methylbenzol-3-Sulfonsäure + $\frac{1}{2}H_2O$. K, Ba + $2H_2O$, Pb, Ag (A. 173, 210). — II, 581.

- $C_7H_5O_3NBrS$ 4) 4-Brom-*p*-Amido-1-Methylbenzol-3-Sulfonsäure. Ba + 4H₂O (A. 174, 362). — II, 582.
 5) 6-Brom-*p*-Amido-1-Methylbenzol-3-Sulfonsäure. Ba + H₂O, Pb + H₂O (A. 174, 360). — II, 582.
 6) 3-Brom-2-Amido-1-Methylbenzol-5-Sulfonsäure + H₂O. Na + 18H₂O, K, Ba + 3H₂O (B. 13, 1942; A. 285, 68; Soc. 61, 1037; Ph. Ch. II, 619). — II, 578.
 7) *p*-Brom-2-Amido-1-Methylbenzol-*p*-Sulfonsäure. Ba + H₂O (A. 176, 300). — II, 578.
- $C_7H_5O_3NJS$ 1) 4-Jod-2-Amido-1-Methylbenzol-5-Sulfonsäure (A. 230, 308; Ph. Ch. II, 621). — II, 578.
- $C_7H_5O_3N_2BrS$ 1) Amid d. 4-Brombenzol-1-Carbonsäure-*p*-Disulfonsäure. Sm. oberh. 250° (A. 221, 197). — II, 1305.
- $C_7H_5O_3N_2BrS$ 1) *p*-Brom-2,6-Diamido-1-Methylbenzol-4-Sulfonsäure. K + 2 $\frac{1}{2}$ H₂O (A. 186, 364; Ph. Ch. 3, 413). — IV, 610.
- $C_7H_5O_3N_2BrS_2$ 1) Amid d. 2-Brom-1-Methylbenzol-3,5-Disulfonsäure. Sm. 236 bis 238° (A. 230, 295). — II, 138.
 2) Amid d. 4-Brom-1-Methylbenzol-*pp*-Disulfonsäure. Sm. über 260° (A. 221, 194). — II, 138.
 3) Amid d. 4-Brom-1-Methylbenzol-*pp*-Disulfonsäure. Sm. über 240° (A. 230, 325). — II, 138.
- $C_7H_5O_3N_2JS_2$ 1) Amid d. 4-Jod-1-Methylbenzol-*pp*-Disulfonsäure. Sm. 130—132° (A. 230, 326). — II, 139.
- C_7H_5ONBrS 1) Propyläther d. 5-Brom-2-Oxy-4,5-Dihydro-1,3-Thiasin. Sm. 96—97° (Soc. 69, 33).

C₇-Gruppe mit sechs Elementen.

- $C_7H_5O_3NClBrS$ 1) Chlorid d. 4-Brom-1-Cyanbenzol-2-Sulfonsäure. Sm. 90° (A. 286, 383).
- $C_7H_5O_3NClSP$ 1) 1-Chlorid d. 4-Chlorphosphorsulfaminbenzol-1-Carbonsäure. Sm. 82° (Am. 18, 153).
- $C_7H_5O_3NClBrS$ 1) Chlorid d. 2-Brom-*p*-Nitro-1-Methylbenzol-4-Sulfonsäure (A. 174, 348). — II, 141.

C₈-Gruppe mit einem Element.

- C_8H_8 C 94,1 — H 5,9 — M. G. 102.
 1) Phenyläthin (Phenylacetylen). Sd. 141,6° (139—140°). Na, Cu₂, Ag, Ag + AgNO₃ (J. 1876, 398; Z. 1869, 124; A. 154, 156; 221, 70; 235, 13; B. 20, 3081; 25, 1098; Bl. 35, 55; G. 22 [2] 67; R. 15, 157). — II, 173.
- C_8H_8 C 92,3 — H 7,7 — M. G. 104.
 1) Phenyläthen (Styrol). Sd. 144—145° (140°₇₆₀). + NaHSO₃. Lit. bedeutend. — II, 164.
 2) Diätyrol, siehe C₁₀H₁₆. — II, 165.
 3) Metastyrol = (C₈H₈)₂ (A. 53, 311; 97, 186; 189, 341; B. 9, 1339; 11, 1260; M. 1, 611; Bl. 6, 296; [3] 17, 956). — II, 165.
 4) Carden. Sd. 122—127° (C. 1896 [1] 112).
- C_8H_{10} C 90,6 — H 9,4 — M. G. 106.
 1) Äthylbenzol. Sd. 134°. Lit. bedeutend. — II, 25.
 2) 1,2-Dimethylbenzol (o-Xylol). Sd. 141,9°. Lit. bedeutend. — II, 26.
 3) 1,3-Dimethylbenzol. Sd. 138,9°. Lit. bedeutend. — II, 27.
 4) 1,4-Dimethylbenzol. Sd. 138°. Lit. bedeutend. — II, 27.
- C_8H_{11} 1) Kohlenwasserstoff = (C₈H₁₁)_x (aus Diäthylbutyrolakton). Sd. 260—270° (B. 15, 1852).
- C_8H_{11} C 88,9 — H 11,1 — M. G. 108.
 1) 1,2-Dimethyldihydrobenzol (Cantharen). Sd. 134—135° (B. 11, 2123; 12, 578; 19, 1406). — II, 19.
 2) 3,5-Dimethyl-1,2-Dihydrobenzol. Sd. 132—134° (131°) (A. 258, 326; Bl. [3] 17, 180). — II, 19.

C_8H_{12}

3) 2,5-Dimethyl-1,4-Dihydrobenzol. Sm. 133—134°₇₀ (B. 25, 2122). — II, 19.

4) Kohlenwasserstoff (aus d. Säure $C_8H_{12}O_3$). Sd. 133—135° (B. 20, 2966). — I, 138.

5) Kohlenwasserstoff = $(C_8H_{12})_x$ (aus Diäthyloxybuttersäure). Sd. 260 bis 270° (B. 15, 1852).

 C_8H_{14}

C 87,3 — H 12,7 — M. G. 110.

1) α -Oktin (Capryliden). Sd. 131—132° (A. ch. [6] 15, 429). — I, 135.

2) β -Oktin (Methylamylacetylen). Sd. 133—134° (A. 142, 299; Bl. 49, 583; 50, 630; A. ch. [6] 15, 420). — I, 135.

3) ξ -Methyl- $\alpha\gamma$ -Heptadien. Sd. 116—118° (Bl. [3] 13, 883; [3] 15, 401).

4) δ -Aethyl- $\alpha\delta$ -Hexadien. Sd. 122—123° (J. pr. [2] 30, 217). — I, 136.

5) $\beta\epsilon$ -Dimethyl- $\alpha\epsilon$ -Hexadien (Diisobutenyl). Sd. 113—114° (B. 20, 3240). — I, 136.

6) $\beta\epsilon$ -Dimethyl- $\beta\delta$ -Hexadien (Diisocrotyl). Sm. 4—5°; Sd. 125—130° (J. pr. [2] 44, 228; J. r. 20, 507; C. 1899 [1] 773). — I, 136.

7) Oktonaphtylen. Sd. 118—121° (J. r. 16 [2] 294; 24 [1] 202). — II, 17.

8) Isooktonaphtylen. Sd. 123—129° (J. r. 16 [2] 295). — II, 17.

9) 1,3-Dimethyl-1,2,3,4-Tetrahydrobenzol. Sd. 124—125°₇₀ (A. 289, 156; 297, 165).

10) 1,3-Dimethyltetrahydrobenzol. Sd. 119° (A. 163, 336; 187, 171; 197, 323; siehe auch A. 155, 273). — II, 17.

11) p-Dimethyltetrahydrobenzol. Sd. 129—132° (A. ch. [6] 1, 236). — II, 17.

12) 1,1,5-Trimethyl-2,3-Dihydro-R-Penten. Sd. 108,5°₇₃ (J. 1866, 410; A. 187, 168; B. 20, 2959; 27, 3470; Bl. [3] 19, 700). — I, 136; II, 17.

13) Conylen. Sd. 125° (A. 123, 173; 130, 297; B. 14, 496, 710; 15, 1948). — I, 136.

14) Laurolen. Sd. 122° (120—125°) (A. 163, 330; 290, 185; B. 26, 1202; 27, 3507; 28, 553; Am. 17, 432; 18, 693; Soc. 69, 750; Bl. [3] 19, 706).

15) Kohlenwasserstoff (aus Dimethylpinakon). Sd. 117—121° (M. 14, 240). C 85,7 — H 14,3 — M. G. 112.

 C_8H_{16}

1) α -Okten (norm. Oktylen). Sd. 122—123° (124,6°₇₀) (A. 185, 53; 223, 65; B. 16, 2634; Soc. 67, 257). — I, 121.

2) δ -Methyl- γ -Hepten (Methylpropylbutylen). Sd. 120,4° (J. pr. [2] 39, 444; [2] 49, 55). — I, 121.

3) ξ -Methyl- γ -Hepten (Isobutylbutylen). Sd. 111,5—112,5° (A. 255, 116). — I, 121.

4) $\beta\epsilon$ -Dimethyl- γ -Hexen (s-Diisopropyläthylen). Sd. 116—120° (M. 4, 673). — I, 121.

5) β -Methyl- γ -Aethyl- β -Penten (s-Dimethyldiäthyläthylen). Sd. 114,5 bis 116,5°₇₄ (J. r. 23, 172). — I, 121.

6) $\beta\delta\delta$ -Trimethyl- α -Penten (J. r. 27, 58).

7) $\beta\delta\delta$ -Trimethyl- β -Penten (Diisobutylen). Sd. 102,5°₇₅ (A. 189, 49; 196, 118; B. 15, 1575; J. r. 9, 38; 11, 218; 27, 58; Bl. [3] 7, 585; J. pr. [2] 54, 447). — I, 121.

8) Aethylhexahydrobenzol. Sd. 134° (C. 1896 [2] 1114).

9) 1,3-Dimethylhexahydrobenzol. Sd. 117,5—118,5° (120°₇₄) (A. 187, 155; 225, 110; 297, 167; J. r. 6, 55; 9, 247; 16 [2] 294; B. 13, 1820; 20, 1850; 24, 2718; 25, 923; 25 [2] 420; 28, 781; 30, 1219; A. ch. [6] 1, 229; Soc. 69, 84; C. 1897 [2] 345). — II, 15.

10) 1,4-Dimethylhexahydrobenzol. Sd. 118,2—118,6°₇₃ (B. 31, 3207).

11) isom. 1,4-Dimethylhexahydrobenzol? Sd. 137,6° (B. 13, 1407; 31, 3207). — II, 15.

12) 1-Methyl-2-Aethyl-R-Pentamethylen. Sd. 124° (Soc. 57, 250). — I, 121.

13) Isooktonaphten. Sd. 122,3° (J. r. 16 [2] 295). — II, 15.

14) isom. Okten (Diisobutylen?). Sd. 110—113° (Bl. [3] 2, 482; A. ch. [6] 19, 394; B. 22 [2] 402). — I, 121.

15) Okten (aus Aethylpropylketon). Sd. 119,4° (J. pr. [2] 39, 442). — I, 121.

16) Okten (aus Anethol). Sd. 150° (B. 9, 725). — I, 122.

17) Okten (aus Chlordiisobutyl). Sd. 122° (B. 10, 908). — I, 122.

18) Okten (aus Fischthran). Sd. 125° (Z. 1868, 230). — I, 122.

19) Okten (aus Fuselöl). Sd. 120° (A. 128, 230). — I, 122.

20) Okten (aus Gusseisen). Sd. 118—124° (B. 7, 823). — I, 122.

21) Okten (aus Harzessenz). Sd. 120—123° (Bl. 39, 541). — I, 122.

- C_8H_{18} 22) Okten (aus Methylhexylcarbinol). *Sd.* 125° (122,5—123,5°₄₄) (*A.* 92, 396; 220, 185; 235, 11). — I, 121.
 23) Okten = $(C_8H_{18})_n$ (aus Methylhexylcarbinol). *Sd.* über 250° (*A.* 92, 396). — I, 122.
 24) Okten (aus Oenanthol). *Sd.* 122—125° (*A.* 117, 78). — I, 122.
 25) Okten (aus Paraffin). *Sd.* 122—125° (*A.* 165, 14). — I, 122.
 26) Okten (aus Pelargonsäure). *Sd.* 105—110° (*J.* 1850, 402). — II, 122.
 27) Okten (aus Petroleumoktan). *Sd.* 115—117° (*A.* 125, 113; *J.* 1863, 529). — I, 122.
 C_8H_{18} C 84,2 — H 15,8 — M. G. 114.
 1) norm. Oktan. *Sd.* 124° (125,5°) (*Z.* 1868, 229; *A.* 117, 265; 147, 227; 152, 15, 152; 161, 280; *B.* 16, 590; 22, 468; 27, 489; *Soc.* 37, 217; *Am.* 21, 214). — I, 104.
 2) γ -Methylheptan. *Sd.* 110—120° (*Bl.* [3] 11, 1180).
 3) β -Dimethylhexan (sec. Oktan: Diisobutyl). *Sd.* 108,5° (*A.* 69, 261; 95, 336; 96, 365; 144, 188; 220, 88; 223, 104; *B.* 10, 908; 16, 2634; *Soc.* 35, 125; 37, 219). — I, 104.
 4) Oktan (aus Petroleum). *Sd.* 119,5°₆₀ (*Am.* 19, 257).
 5) isom. Oktan (aus Petroleum). *Sd.* 124—125° (*Am.* 19, 260).

C_8 -Gruppe mit zwei Elementen.

- $C_8H_6O_2$ C 64,8 — H 2,7 — O 32,4 — M. G. 148.
 1) Anhydrid d. Benzol-1,2-Dicarbonsäure. *Sm.* 128°; *Sd.* 276° (254,5°₆₀). *Lit.* bedeutend. — II, 1794.
 $C_8H_6O_2$ C 58,6 — H 2,4 — O 39,0 — M. G. 164.
 1) Anhydrid d. 3-Oxybenzol-1,2-Dicarbonsäure. *Sm.* 145—148° (*B.* 16, 1965). — II, 1934.
 2) Anhydrid d. 4-Oxybenzol-1,2-Dicarbonsäure. *Sm.* 165—166° (*B.* 10, 1082). — II, 1935.
 3) Dilakton d. R-Tetramethylen-1,3-Di[Oxymethylencarbonsäure] (D. d. Tetramethylen-1,3-Dioxalylsäure). *Sm.* oberh. 300° (*B.* 29, 2277).
 4) Superoxyd d. Benzol-1,2-Dicarbonsäure. *Sm.* 133,5° (*Zers.* bei 136°) (*B.* 27, 1511; 30, 2005). — II, 1795.
 $C_8H_6O_2$ C 53,3 — H 2,2 — O 44,4 — M. G. 180.
 1) 1,2-Anhydrid d. 3,4-Dioxybenzol-1,2-Dicarbonsäure + 2H₂O. *Sm.* 238°. *Ba* + 4H₂O (*B.* 27, 338). — II, 1994.
 2) 1,2-Anhydrid d. 4,5-Dioxybenzol-1,2-Dicarbonsäure. *Sm.* 247,5° (*M.* 12, 497). — II, 1999.
 $C_8H_6O_2$ C 42,1 — H 1,7 — O 56,2 — M. G. 228.
 1) 2,5-Dioxy-1,4-Benzochinon-3,6-Dicarbonsäure. *Na*, (*B.* 19, 2386). — II, 2069.
 $C_8H_4N_2$ C 75,0 — H 3,1 — N 21,9 — M. G. 128.
 1) Nitril d. Benzol-1,2-Dicarbonsäure. *Sm.* 141° (*B.* 29, 630; 30, 1698).
 2) Nitril d. Benzol-1,3-Dicarbonsäure. *Sm.* 160—161° (158—159°) (*A.* 174, 236; 180, 92; *B.* 8, 1481; 17, 1430; *J.* 1876, 374; *J. pr.* [2] 22, 352). — II, 1827.
 3) Nitril d. Benzol-1,4-Dicarbonsäure. *Sm.* 222° (215°) (*A.* 121, 91; 180, 89; *J.* 1876, 374). — II, 1833.
 $C_8H_4Cl_4$ 1) 1,4-Di[Trichlormethyl]benzol. *Sm.* 110° (*A. ch.* [6] 11, 27). — II, 53.
 $C_8H_3N_5$ C 56,1 — H 2,9 — N 40,9 — M. G. 171.
 1) Nitril d. 1-Phenyl-1,2,3,5-Tetrazol-4-Carbonsäure. *Sm.* 55,5—56° (*B.* 18, 1549). — IV, 1239.
 $C_8H_3Cl_3$ 1) $\alpha\beta\beta$ -Trichlorphenyläthen. *Sd.* 235°₃₁ (*A.* 296, 271).
 $C_8H_2Cl_4$ 1) $\alpha\alpha\beta\beta\beta$ -Pentachloräthylbenzol. *Sm.* 37—38°; *Sd.* 178—179°₃₄ (*A.* 296, 271).
 2) 2,3,4,5,6-Pentachlor-1-Aethylbenzol. *Sm.* 85°; *Sd.* 300° (*A. ch.* [6] 6, 502). — II, 51.
 3) 1-Dichlormethyl-2-Trichlormethylbenzol. *Sm.* 53,5° (*A. ch.* [6] 11, 26). — II, 52.
 C_8H_5J 1) β -Jod- α -Phenyläthin (Phenyljodacetylen). *Fl.* (*B.* 24, 4115; *G.* 22 [2] 94). — II, 174.



- 1) $\alpha\beta$ -Trijod- α -Phenyläthen (Trijodatyrol). Sm. 108° (B. 24, 4115; G. 22 [2] 79). — II, 166.



C 81,4 — H 5,1 — O 13,5 — M. G. 118.

- 1) Benzfuran (Cumaron). Sd. $171-172^\circ_{752,9}$. Pikrat (A. 216, 169; 226, 354; B. 17, 3000; 23, 78, 3276; 26, 2971; 28, 1333, 1643; 30, 1703; G. 20, 608; 24 [1] 470; Am. 13, 31). — II, 1675.



- 2) Paracumaron = $(C_8H_6O)_x$ (B. 23, 81). — II, 1675.
C 71,6 — H 4,5 — O 23,9 — M. G. 134.

- 1) 1,2-Phenylenäther d. $\alpha\beta$ -Dioxyäthen. Sd. 193°_{760} (Bl. [3] 21, 294).
2) 2-Keto-1,2-Dihydrobenzofuran (Ketocumaran). Sm. 97° (B. 30, 1081, 1712).
3) Lakton d. 2-Oxyphenylelessigsäure. Sm. 49° ; Sd. $236-238^\circ$ (B. 17, 975). — II, 1543.
4) Lakton d. 1-Oxymethylbenzol-2-Carbonsäure (Phtalid). Sm. 73° ; Sd. 290° (Z. 1866, 315; B. 10, 1180, 1445; II, 238; 17, 2181; 18, 382; 19, 412; 25, 3021; 30, 950; 31, 374; A. 247, 292; J. pr. [2] 50, 390; M. 19, 456). — II, 1555.
5) polym. Lakton d. 3-Oxy-1-Methylbenzol-4-Carbonsäure = $(C_8H_6O)_x$. Sm. $292-294^\circ$ (A. 273, 90). — II, 1550.
6) Aldehyd d. Benzolketocarbonsäure + H_2O (A. d. Benzoylameisensäure). Sm. 73° ; Sd. 142°_{125} (B. 20, 2904; 22, 2557). — III, 91.
7) Aldehyd d. Benzol-1,2-Dicarbonsäure. Sm. 52° (A. ch. [6] 11, 26). — III, 92.
8) Aldehyd d. Benzol-1,3-Dicarbonsäure. Sm. $89-90^\circ$ (B. 20, 2005). — III, 92.
9) Aldehyd d. Benzol-1,4-Dicarbonsäure. Sm. 116° ; Sd. $245-248^\circ$ (J. 1876, 490; B. 18, 2073; A. 231, 363; M. 9, 1153; Bl. 42, 154; 45, 508). — III, 92.



C 64,0 — H 4,0 — O 32,0 — M. G. 150.

- 1) 5-Oxy-2-Keto-1,2-Dihydrobenzofuran (m-Oxyketocumaran). Sm. 243° u. Zers. (B. 29, 1754; 30, 299).
2) Santal + $\frac{1}{3}H_2O$ (Z. 1870, 83). — III, 672.
3) Benzolketocarbonsäure (Benzoylameisensäure). Sm. $65-66^\circ$. NH_4 , Na, K + H_2O , Ca + H_2O , Sr + H_2O , Ba, Zn + $2H_2O$, Pb, Cu, Ag, Anilinsalz. Lit. bedeutend. — II, 1597.
4) Anhydrid d. 1,2-Dihydrobenzol-2,3-Dicarbonsäure. Sm. $102-104^\circ$ (A. 269, 199). — II, 1758.
5) Anhydrid d. 1,2-Dihydrobenzol-4,5-Dicarbonsäure. Sm. $83-84^\circ$ (A. 269, 196). — II, 1759.
6) Anhydrid d. cis. 1,4-Dihydrobenzol-1,2-Dicarbonsäure. Sm. $99-100^\circ$ (A. 269, 194). — II, 1759.
7) Anhydrid d. 1,4-Dihydrobenzol-2,3-Dicarbonsäure. Sm. $134-135^\circ$ (A. 269, 205). — II, 1758.
8) Lakton d. Oxyessig-2-Oxyphenyläthersäure. Sm. $54-56^\circ$; Sd. 243° (Bl. [3] 21, 104, 108).
9) 1,2-Lakton d. 4-Oxy-1-Oxymethylbenzol-2-Carbonsäure. Sm. 222° (A. 233, 235). — II, 1557.
10) Lakton d. 2,5-Dioxyphenylelessigsäure. Sm. 191° (H. 15, 253). — II, 1748.
11) Monaldehyd d. Benzol-1,2-Dicarbonsäure (Phtalaldehydsäure). Sm. $97,2^\circ$. Ca + $2H_2O$, Ag (A. 239, 81; B. 20, 3197; 24, 2571; 31, 374; M. 10, 576; Bl. 45, 509; J. 1886, 1453; C. 1898 [2] 524). — II, 1625.
12) Monaldehyd d. Benzol-1,3-Dicarbonsäure. Sm. $164-166^\circ$. Cu (B. 24, 2423). — II, 1627.
13) Monaldehyd d. Benzol-1,4-Dicarbonsäure. Sm. 246° (285°). Cu (A. 231, 366; B. 18, 2074; 24, 2423). — II, 1627.
14) Aldehyd d. 2-Oxybenzol-1,3-Dicarbonsäure. Sm. 88° (B. 15, 2023). — III, 106.
15) Aldehyd d. 4-Oxybenzol-1,3-Dicarbonsäure. Sm. 108° (B. 15, 2022). — III, 106.
16) Aldehyd d. 3,4-Dioxybenzoldimethylenäther-1-Carbonsäure (Piperonal). Sm. 37° ; Sd. 263° . + $NaHSO_3$ (A. 152, 36; 286, 6; B. 10, 1274; G. 26 [1] 11; M. 14, 388; Ph. Ch. 10, 415). — III, 102.

- C₈H₆O₆** 17) **Verbindung** (aus 1,3-Dioxybenzol u. Chloralhydrat) oder C₂₀H₁₂O₆ (*Am.* 5, 350; 9, 136). — II, 919.
- C₈H₆O₆** 18) **Verbindung** (aus 1,2,6-Trioxybenzfuran). Sm. 189° (*B.* 31, 601).
C 57,8 — H 3,6 — O 38,6 — M. G. 166.
- 1) **3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure** (Piperonylsäure). Sm. 227,5—228°. Na + H₂O, K + H₂O, Ca + 3H₂O, Ba + H₂O, Pb + H₂O, Cu + H₂O, Ag (*A.* 152, 40; 159, 139; 168, 93; 199, 63; *B.* 19, 1096; 23, 1160; 25, 1125; *R.* 4, 39; *M.* 8, 468; 10, 788). — II, 1742.
- 2) **Benzol-1,2-Dicarbonsäure** (o-Phtalsäure). Sm. 184° (178°). Salze meist bek. Lit. bedeutend. — II, 1792.
- 3) **Benzol-1,3-Dicarbonsäure** (Isophtalsäure). Sm. oberh. 300°; subl. K₂, Ca + 2½(3)H₂O, Ba + 6H₂O, Ag₂. Lit. bedeutend. — II, 1826.
- 4) **Benzol-1,4-Dicarbonsäure** (Terephtalsäure). subl. (NH₄)₂, Ca + 3H₂O, Sr + 4H₂O, Ba + 4H₂O, Ag₂. Salze siehe (*A.* 132, 42). Lit. bedeutend. — II, 1831.
- 5) **2-Oxybenzol-1-Ketocarbonsäure**. Sm. 43—44° (*B.* 17, 973; 26, 229). — II, 1771.
- 6) **4-Oxybenzol-1-Ketocarbonsäure**. Sm. 172—173° (*Bl.* [3] 17, 948; [3] 19, 75).
- 7) **α-Furanyläthen-β-Ketocarbonsäure** (Furalbrenztraubensäure). Sm. 110° (*B.* 31, 281).
- 8) **Glykuvinsäure** + 2H₂O siehe C₈H₁₀O₆.
- 9) **1-Aldehyd d. 4-Oxybenzol-1,2-Dicarbonsäure**. Fl. Ag (*B.* 12, 1336). — II, 1771.
- 10) **1-Aldehyd d. 2-Oxybenzol-1,3-Dicarbonsäure**. Sm. 179°. Cu (*B.* 9, 1273; 10, 1565). — II, 1772.
- 11) **1-Aldehyd d. 4-Oxybenzol-1,3-Dicarbonsäure**. Sm. 248—249°. Cu, + NaHSO₃ (*B.* 9, 1271; 10, 1564). — II, 1772.
- 12) **1-Aldehyd d. 6-Oxybenzol-1,3-Dicarbonsäure**. Sm. 243—244°. Ca (*B.* 9, 1274). — II, 1772.
- 13) **1-Aldehyd d. 2-Oxybenzol-1,4-Dicarbonsäure**. Sm. 234°. Ca, Ba, Ag (*B.* 12, 1335). — II, 1772.
- 14) **Aldehyd d. 3,5-Dioxybenzol-1,2-Dicarbonsäure** (Resorecyldialdehyd). Sm. 127° (*B.* 10, 2212). — III, 108.
- C₈H₆O₆** 15) **Anhydroglykopyrogallol**. Sm. 224° u. Zers. (*J. r.* 25, 122; *B.* 29, 1752). — III, 139.
C 52,7 — H 3,3 — O 44,0 — M. G. 182.
- 1) **3-Oxybenzol-1,2-Dicarbonsäure**. K, Ba, Ag₂ (*B.* 16, 1965; 18, 167; 20, 937; *Am.* 6, 282). — II, 1934.
- 2) **4-Oxybenzol-1,2-Dicarbonsäure**. Sm. 181°. Ag₂ (*A.* 208, 237; 233, 232; *B.* 10, 1079; 11, 381, 1191; 12, 833; 14, 42; 18, 1130; *M.* 3, 135). — II, 1935.
- 3) **2-Oxybenzol-1,3-Dicarbonsäure** + H₂O. Sm. 239° (243—244° wasserfrei). Ba, Ag₂ (*A.* 208, 247; *B.* 10, 1570, 2194; 11, 902; *J. pr.* [2] 44, 7). — II, 1936.
- 4) **4-Oxybenzol-1,3-Dicarbonsäure**. Sm. 305—306°. Na₂ + 2H₂O, Ca, Ca₃ + 5H₂O, Ba, Cd + 5½H₂O, Ag, Ag₂. Lit. bedeutend. — II, 1936.
- 5) **5-Oxybenzol-1,3-Dicarbonsäure**. Sm. 288° (284—285°). Ba + 3H₂O, Zn, Cu₃ + 4H₂O, Ag₂ (*B.* 13, 494, 705; 28, 2045; *J. pr.* [2] 25, 515; *M.* 1, 438; 3, 131). — II, 1937.
- 6) **2-Oxybenzol-1,4-Dicarbonsäure**. Ba + 3½H₂O, Ag₂ (*B.* 10, 145; 11, 571; 12, 621, 1260, 1433; *M.* 1, 439; *J. pr.* [2] 44, 14; *Ph. Ch.* 3, 377). — II, 1937.
- 7) **α-[2-Furanyl]äthen-ββ-Dicarbonsäure** (2-Furalmalonsäure). Sm. 205° u. Zers. (187°). Ag₂ (*B.* 21, 1081; 27, 285; 31, 2614). — III, 718.
- 8) **Anhydrotetronsäure** + H₂O. Sm. 263° u. Zers. Ca + 5H₂O, Ba + 5H₂O (*A.* 291, 251).
- 9) **Quercimerinsäure** + H₂O (*J.* 1864, 560). — II, 1947.
- 10) **1-Aldehyd d. 3,4-Dioxybenzol-1,2-Dicarbonsäure** + 1½H₂O (Noropiansäure). Sm. 171° (wasserfrei). Pb (*J.* 1877, 770). — II, 1938.
- 11) **1-Aldehyd d. 5,6-Dioxybenzol-1,3-Dicarbonsäure** (Isonoropiansäure). Sm. bei 240° u. Zers. (*B.* 10, 400). — II, 1945.



C 48,5 — H 3,0 — O 48,5 — M. G. 198.

- 1) 3,4-Dioxybenzol-1,2-Dicarbonsäure + H_2O (Norhemipinsäure). Sm. 210—212°. $NH_4 + H_2O$, $(NH_4)_2$, $CaH + 3H_2O$, $Ca + 3H_2O$, $BaH + 3H_2O$, $Ba + 2H_2O$ (B. 27, 335; 30, 1101). — II, 1993.
- 2) 4,5-Dioxybenzol-1,2-Dicarbonsäure (M. 12, 493; 13, 695; A. 271, 385). — II, 1999.
- 3) 4,6-Dioxybenzol-1,2-Dicarbonsäure + H_2O ? Sm. 250° (wasserfrei) u. Zers. K_2 , $Ba + 7H_2O$, $BaH + 4H_2O$, $Ba_2 + 2H_2O$, $Pb + 1\frac{1}{2}H_2O$, $Cu + 3\frac{1}{2}H_2O$. — II, 2000.
- 4) 4,6-Dioxybenzol-1,3-Dicarbonsäure? (Resorcindicarbonsäure). Sm. 192° (B. 10, 2212). — II, 2000.
- 5) 2,3-Dioxybenzol-1,4-Dicarbonsäure. Sm. 290°. $Na_2 + 2H_2O$, Pb , Ag_2 (J. pr. [2] 44, 2). — II, 2000.
- 6) α -Resodicarbonsäure. Sm. 276°. K , $K_2 + 3H_2O$, $Ba + 5\frac{1}{2}H_2O$, $Cu + 5\frac{1}{2}H_2O$, Ag_2 . — II, 2004.
- 7) Dianhydrid d. Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure. Sm. 248° u. Zers. (B. 27, 1124).
- 8) Dianhydrid d. isom. Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure. Sm. 168° (B. 26, 372; 27, 1128).



C 44,8 — H 2,8 — O 42,4 — M. G. 214.

- 1) 3,4,5-Trioxybenzol-1,2-Dicarbonsäure + $3H_2O$ (Gallocarbonsäure). Sm. 270° (wasserfrei) u. Zers. $K_2 + 2H_2O$, $Ca + 6H_2O$, $Ba + H_2O$, Ba_2 , Ag_2 (M. 1, 468; 4, 181). — II, 2043.
- 2) Anhydrid d. Diacetoxylmaleinsäure. Sm. 98° (Soc. 69, 550).



C 41,7 — H 2,6 — O 55,7 — M. G. 230.

- 1) Tetraoxybenzol-1,4-Dicarbonsäure (B. 19, 2388). — II, 2068.



C 73,9 — H 4,6 — N 21,5 — M. G. 130.

- 1) 1,2-Benzdiazin (Cinnolin). Sm. 39°. + $(C_2H_5)_2O$ (Sm. 24—25°). HCl , $(2HCl, PtCl_4)$, $(2HCl, AuCl_3)$, Pikrat (B. 16, 682; 30, 524). — IV, 894.
- 2) 1,3-Benzdiazin (Chinazolin; Phenmiazin). Fl. (B. 28, 292). — IV, 895.
- 3) 1,4-Benzdiazin (Chinoxalin). Sm. 27°; Sd. 225—226°. HCl , $(2HCl, PtCl_4)$, H_2SO_4 (B. 20, 1194; A. 237, 334; Ph. Ch. 22, 391). — IV, 898.
- 4) 2,3-Benzdiazin (Phthalazin; β -Phenolazin). Sm. 90—91°; Sd. bei 315 bis 317° u. Zers. HCl , $(2HCl, PtCl_4)$, Pikrat (B. 26, 2210; 28, 1831; 30, 3024). — IV, 899.
- 5) Verbindung (aus d. Verb. $C_8H_6ON_2$). Sm. 174—175° (J. pr. [2] 39, 241). — I, 1455.



C 60,8 — H 3,8 — N 35,4 — M. G. 158.

- 1) Diazobenzolcyanidhydrocyanid. Sm. 70° (B. 12, 1638, 2120; 28, 670). — IV, 1452.



C 51,6 — H 3,2 — N 45,2 — M. G. 186.

- 1) Phenylsotriazolazimid. Sm. 147° u. Zers. (A. 295, 152). — IV, 1315.



- 1) $\alpha\beta$ -Dichlor- α -Phenyläthen (Dichlorstyrol). Sd. 221° (B. 10, 121, 533; G. 22 [2] 74). — II, 166.



- 2) $\beta\beta$ -Dichlor- α -Phenyläthen. Sd. 225°₇₇₄ (A. 296, 268; C. 1899 [1] 778).

- 1) p -Tetrachlor-1-Aethylbenzol. Sd. 270—275° (A. ch. [6] 6, 497). — II, 51.

- 2) $\alpha\alpha\beta\beta$ -Tetrachloräthylbenzol. Fl. (B. 10, 533). — II, 51.

- 3) $\alpha\beta\beta\beta$ -Tetrachloräthylbenzol. Sd. 267—268°₇₇₃ (A. 296, 269).

- 4) 3,4,5,6-Tetrachlor-1,2-Dimethylbenzol. Sm. 215° (B. 18, 1369; J. 1887, 752). — II, 51.

- 5) 2,4,5,6-Tetrachlor-1,3-Dimethylbenzol. Sm. 212° (210°) (J. pr. [2] 41, 562; B. 23, 2321). — II, 51.

- 6) 2,3,5,6-Tetrachlor-1,4-Dimethylbenzol. Sm. 218° (B. 29, 1628).

- 7) 1,2-Di[Dichlormethyl]benzol. Sm. 89° (86°); Sd. 273—274° (B. 18, 2879; Bl. 46, 2; A. ch. [6] 11, 25). — II, 52.

- 8) 1,3-Di[Dichlormethyl]benzol. Sd. 273° (Bl. 45, 509). — II, 52.

- 9) 1,4-Di[Dichlormethyl]benzol. Sm. 93° (A. ch. [6] 11, 24; Bl. 46, 2). — II, 53.



- 1) $\alpha\beta$ -Dibrom- α -Phenyläthan (Dibromstyrol). Sd. 253—254° (Am. 5, 385). — II, 166.

- 2) p -Dibrom- α -Phenyläthen? (Dibromstyrol) (B. 15, 1762).



- 1) p -Tetrabrom-1-Aethylbenzol (Dibromstyroidibromid). Fl. (Am. 5, 387). — II, 63.

- 2) p -Tetrabrom-1-Aethylbenzol. Sm. 138—139° (B. 31, 1005).

- C₆H₄Br₂**
- 3) 1,2-Di[Dibrommethyl]benzol. Sm. 115—117° (B. 28, 1830).
 - 4) 1,4-Di[Dibrommethyl]benzol. Sm. 169° (M. 9, 1150). — II, 65.
 - 5) 3,4,5,6-Tetrabrom-1,2-Dimethylbenzol. Sm. 262° (254—255°); Sd. 374—375° (B. 17, 2378, 2493). — II, 64.
 - 6) 2,4,5,6-Tetrabrom-1,3-Dimethylbenzol. Sm. 241° (A. 156, 235; Bl. [3] 19, 889). — II, 65.
 - 7) 2,3,5,6-Tetrabrom-1,4-Dimethylbenzol. Sm. 253°; Sd. 355° (B. 18, 359; 31, 3208; Bl. [3] 19, 889). — II, 65.
- C₆H₄J₂**
- 1) $\alpha\beta$ -Dijod- α -Phenyläthen (Dijodstyrol). Sm. 76° (G. 22 [2] 69). — II, 166.
- C₆H₄J₄**
- 1) 2,4,5,6-Tetraiod-1,3-Dimethylbenzol. Sm. 128° (B. 26, 1106). — II, 76.
- C₆H₄S**
- 1) Bensthiofuran (Thionaphten). Sm. 30—31°; Sd. 220—221°. Pikrat (B. 26, 2808; C. 1897 [2] 270). — III, 768.
- C₆H₄S₂**
- 1) 2,2'-Bithiophen ($\alpha\alpha$ -Dithienyl). Sm. 33°; Sd. 260° (B. 27, 666, 1746, 2919). — III, 751.
 - 2) 3,3'-Bithiophen ($\beta\beta$ -Dithienyl). Sm. 132° (B. 27, 1742). — III, 752.
 - 3) Lakton d. 1-Merkaptomethylbenzol-2-Thiocarbonsäure (Dithiophthalid). Sm. 68° (B. 31, 2647).
- C₆H₄S₄**
- 1) 2,2'-Dithienyldisulfid. Sm. 55—56° (B. 20, 1757). — III, 753.
- C₆H₄O₂**
- 1) Verbindung (aus Styrol). = (C₆H₄O₂)_n. Sm. 123° (B. 28, 1330).
C 82,0 — H 6,0 — N 12,0 — M. G. 117.
- C₆H₄N**
- 1) 2-Amidophenylacetylen. Fl. HCl (B. 15, 60; 17, 964; A. 212, 143). — II, 590.
 - 2) Indol. Sm. 52°; Sd. 253—254°. Pikrat. Lit. bedeutend. — IV, 216.
 - 3) Nitril d. Phenylessigsäure (Benzylecyanid). Sd. 231,7°. + BF₃, 4 + Cu₂Cl₂ (A. 96, 247; B. 3, 198; 7, 519, 1294; 14, 1800; 20, 1390; 24 [2] 734; R. 12, 185; A. ch. [6] 17, 124; J. pr. [2] 47, 390; G. 25 [1] 120; Bl. [3] 19, 787). — II, 1313.
 - 4) Nitril d. 1-Methylbenzol-2-Carbonsäure. Sd. 203—204° (B. 6, 419; A. ch. [6] 17, 123; Bl. [3] 19, 787). — II, 1330.
 - 5) Nitril d. 1-Methylbenzol-3-Carbonsäure. Sd. 208—210° (212—214°) (B. 22, 841; 25, 2539). — II, 1336.
 - 6) Nitril d. 1-Methylbenzol-4-Carbonsäure. Sm. 38° (29,5°); Sd. 217,8° (215°). 3 + 2AgCN, 2 + Cu₂Cl₂ (Z. 1866, 489; Am. 16, 387; B. 8, 441; 20, 1710; 23, 1030; 27, 3275 Anm.; Bl. [3] 19, 787). — II, 1342.
 - 7) polym. Nitril d. 1-Methylbenzol-4-Carbonsäure = (C₆H₄N)_n. Sm. oberh. 260° (B. 21, 2652). — II, 1342.
 - 8) Benzylisocyanid. Sd. 220—221° (B. 21, 1329). — II, 1314.
 - 9) 2-Methylphenylisocyanid. Sd. 183—184°_{7,53} (A. 270, 309). — II, 1330.
 - 10) 4-Methylphenylisocyanid. Sm. 21°; Sd. 99°₃₂. + AgCN (Am. 16, 374; A. 270, 320). — II, 1342.
- C₆H₄N₂**
- 1) 4-Methyldiazobenzolcyanid. HCN (Sm. 77,5°) (B. 12, 1639). — IV, 1530.
 - 2) 1-Phenyl-1,2,3-Triazol. Sm. 55—56°. (2HCl, PtCl₄ + H₂O) (Am. 20, 383). — IV, 1098.
 - 3) 1-Phenyl-1,2,4-Triazol. Sm. 47°; Sd. 266°. (2HCl, PtCl₄ + 3H₂O), 2 + PtCl₄ (G. 24 [2] 228; 28 [2] 555; C. 1897 [1] 89, 593; B. 26, 2615). — IV, 1099.
 - 4) 1-Phenyl-1,2,5-Triazol. Sd. 223—224°₇₁₆ (A. 262, 290). — IV, 1098.
 - 5) 6-Amido-1,4-Benzdiazin. Sm. 158—159°. HCl, (2HCl, PtCl₄), H₂SO₄ (A. 237, 345). — IV, 1156.
 - 6) 3-Methyl-1,2,4-Benztriazin. Sm. 88—89°; Sd. 250—255° u. ger. Zers. (B. 22, 2808). — IV, 1155.
 - 7) Nitril d. Phenylimidomethylamidoameisensäure (Cyanphenylformamidin). Sm. 131° (Am. 13, 520). — II, 346.
- C₆H₃Cl**
- 1) α -Chlor- α -Phenyläthen (Chlorstyrol). Sd. 199° (A. 53, 310; J. 1868, 411; B. 12, 1609; Bl. 50, 637). — II, 166.
 - 2) β -Chlor- α -Phenyläthen (Chlorstyrol). Sd. 195,5—196,5°₇₁₈ (A. 55, 1; 57, 79; 147, 80; 154, 164; 296, 266; B. 17, 983). — II, 166.
- C₆H₃Cl₂**
- 1) $\alpha\beta\beta$ -Trichloräthylbenzol. Sd. 254,5—255,5°₇₇₉ u. ger. Zers. (A. 296, 267).
 - 2) β -Trichlor-1-Aethylbenzol (Gemisch). Sd. 244° (A. ch. [6] 6, 490). — II, 51.
 - 3) β -Trichlor-1,2-Dimethylbenzol. Sm. 93°; Sd. 265° (B. 18, 1369). — II, 52.

- C₈H₇Cl₃**
- 4) 2,4,6-Trichlor-1,3-Dimethylbenzol. Sm. 117° (*J. pr.* [2] 41, 560). — II, 52.
 - 5) *p*-Trichlor-1,3-Dimethylbenzol. Sm. 150°; Sd. 255° (*A.* 144, 270). — II, 52.
 - 6) *p*-Trichlor-1,3-Dimethylbenzol. Sd. 254—256° (*Z.* 1865, 555).
- C₈H₇Br**
- 1) α -Brom- α -Phenyläthen (α -Bromstyrol). Sd. 150—160°₇₈ (*A.* 154, 168; 216, 291; *B.* 6, 493; *Bl.* 32, 614). — II, 166.
 - 2) β -Brom- α -Phenyläthen (β -Bromstyrol). Sm. 7°; Sd. 219—221° (i. D.) (*A.* 154, 168; 195, 142; *B.* 27, 2041; *C.* 1899 [1] 778). — II, 166.
- C₈H₇Br₃**
- 1) $\alpha\alpha\beta$ -Tribromäthylbenzol (Bromstyrolbromid). Sm. 37—38° (*A.* 195, 142; *B.* 27, 2041). — II, 63.
 - 2) 4-Brom-1- $[\alpha\beta$ -Dibromäthyl]benzol. Sm. 60° (*B.* 24, 1333). — II, 63.
 - 3) 1-Brommethyl-4-Dibrommethylbenzol. Sm. 116° (*A.* 231, 363; *Bl.* [3] 11, 382). — II, 65.
- C₈H₈O**
- C 80,0 — H 6,7 — O 13,3 — M. G. 120.
- 1) 2-Oxy-1-Aethenylbenzol. Fl. (*C.* 1899 [1] 278).
 - 2) 3-Oxy-1-Aethenylbenzol. Sd. 114—116°₁₀ (*B.* 26 [2] 677). — II, 849.
 - 3) Methylphenylketon (Acetophenon). Sm. 20,5°; Sd. 202°. Pikrat, + HgCl₂, + 2CrO₃Cl₂. Lit. bedeutend. — III, 118.
 - 4) Hydrocumaron (1,2-Dihydrobenzofuran). Sd. 188—189° (*B.* 25, 2409). — II, 1111.
 - 5) Menyanthol. Fl. (*J.* 1861, 750). — III, 598.
 - 6) Aldehyd d. Phenylelessigsäure. Sd. 193—194°. + NaHSO₃ (*A.* 119, 254; 216, 301; 219, 182; *A. ch.* [5] 22, 248; *B.* 9, 372; 13, 304; 17, 982; 30, 950). — III, 52.
 - 7) Aldehyd d. 1-Methylbenzol-2-Carbonsäure. Sd. 200° (*Bl.* 27, 498; *B.* 17, 1467). — III, 52.
 - 8) Aldehyd d. 1-Methylbenzol-3-Carbonsäure. Sd. 199° (*Bl.* 7, 233; 26, 44; *B.* 14, 848; 17, 1464). — III, 53.
 - 9) Aldehyd d. 1-Methylbenzol-4-Carbonsäure. Sd. 204° (*A.* 124, 254; *B.* 17, 1467; 30, 1663; *C.* 1898 [2] 952). — III, 53.
 - 10) Verbindung (aus 1,2- und 1,4-Di-[Oxymethyl]benzol) = (C₈H₈O)_x. Sm. bei 300° (*A.* 155, 343 Anm.; *B.* 19, 1539). — II, 1097.
 - 11) Verbindung (aus $\alpha\beta$ -Dioxyäthylbenzol oder C₁₀H₁₀O₂). Sd. 260°₅₀ (*A.* 216, 298, 300; *B.* 11, 1402). — II, 1097.
- C₈H₈O₂**
- C 70,6 — H 5,9 — O 23,5 — M. G. 136.
- 1) 3,4-Dioxy-1-Aethenylbenzol (*B.* 30, 1618).
 - 2) Aethylenäther des 1,2-Dioxybenzol. Sd. 216° (*A.* 280, 205; *Bl.* [3] 19, 507). — II, 909.
 - 3) Piceol. Sm. 109° u. Zers. K, Ba (*Bl.* [3] 11, 948). — III, 601.
 - 4) Hydroptalid (1-Oxy-1,2-Dihydrobenzisofuran). Fl. (*B.* 10, 1449). — II, 1557.
 - 5) Oxymethylphenylketon (Benzoylcarbinol). Sm. 86°. Hydrat, Sm. 73 bis 74° (*B.* 4, 35; 10, 1487, 2010; 13, 636; 16, 1292; 24, 2680; *A.* 216, 303, 306). — III, 132.
 - 6) Methyl-2-Oxyphenylketon. Sd. 213°₁₇ (218°) (*B.* 25, 1309; 30, 1079; 31, 715; *Soc.* 75, 68). — III, 133.
 - 7) Methyl-3-Oxyphenylketon. Sm. 96° (92—93°) (*G.* 24 [1] 440; *B.* 27, 3042 Anm.). — III, 134.
 - 8) Methyl-4-Oxyphenylketon. Sm. 108° (107°) (*Am.* 7, 277; *B.* 18, 2691; 30, 1769; *Soc.* 71, 810). — III, 134.
 - 9) γ -Keto- α -[2-Furanyl]- α -Buten (Monofurfurylidenacetone). Sm. 37—38° (39—40°); Sd. 229° u. Zers. (*B.* 14, 1459, 2469; *A.* 223, 144). — III, 727.
 - 10) 2-Aethyl-1,4-Benzochinon. Sm. 38,2° (*Bl.* [3] 11, 1130). — III, 362.
 - 11) 2,3-Dimethyl-1,4-Benzochinon. Sm. 55° (*B.* 18, 2673). — III, 362.
 - 12) 2,5-Dimethyl-1,4-Benzochinon (Phloron; *p*-Xylochinon). Sm. 125° (123,5°) (*J.* 1862, 322; 1889, 1634; *A.* 151, 158; 215, 168; *B.* 13, 472; 18, 1151, 2667; 21, 1420; *J. pr.* [2] 23, 421). — III, 363.
 - 13) 2,6-Dimethyl-1,4-Benzochinon. Sm. 72—73° (*B.* 18, 1151, 2679). — III, 362.
 - 14) 1-Methylbenzol-2-Carbonsäure (*o*-Toluylsäure). Sm. 102°. Na + 2H₂O, Ca + 2H₂O, Ba + 2H₂O, Ag. Lit. bedeutend. — II, 1329.
 - 15) 1-Methylbenzol-3-Carbonsäure. Sm. 110,5°; Sd. 263°. Ca + 3H₂O, Ba + 2H₂O, Ag. Lit. bedeutend. — II, 1335.

$C_8H_7O_2$

- 16) 1-Methylbenzol-4-Carbonsäure. Sm. 180° (176—177°); Sd. 275° (264°). NH_4 , K, Mg + 3H₂O, Ca + 3H₂O, Ba + 2H₂O, Cu, Ag. Lit. bedeutend. — II, 1340.
- 17) Phenylelessigsäure. Sm. 76,5°; Sd. 265,5° (262°). Ca + 2(3)H₂O, Ba + 3H₂O, Pb + H₂O, Ag. Lit. bedeutend. — II, 1309.
- 18) Pseudophenylelessigsäure. Fl. Na (B. 29, 106; 30, 632; 31, 2241).
- 19) α -Isophenylelessigsäure. Sm. 71° Ag (B. 30, 635; 31, 402, 2243).
- 20) β -Isophenylelessigsäure (α -isom. 1-Methylen-1,2-Dihydrobenzol-4-Carbonsäure). Sm. 55—56°. Na, Ag (B. 26, 1490; 27, 2827; 31, 402, 2243, 2247). — II, 1356.
- 21) γ -Isophenylelessigsäure (R-Heptencarbonsäure). Sd. 160°₁₀ (B. 27, 2827; 31, 2249). — II, 1356.
- 22) R-Hepten-1-Carbonsäure (1-Methylen-1,2-Dihydrobenzol-4-Carbonsäure?). Sm. 33—34°. Ag (B. 26, 330; 27, 2453; 31, 2243; A. 280, 122). — II, 1355.
- 23) Säure (aus Usninsäure). Sm. 176° (B. 8, 1462).
- 24) Aldehyd d. α -Oxyphenylelessigsäure (J. pr. [2] 49, 407).
- 25) Aldehyd d. 1-Oxymethylbenzol-4-Carbonsäure. Fl. (Bl. [3] 11, 382).
- 26) Aldehyd d. 5-Oxy-1-Methylbenzol-2-Carbonsäure. Sm. 110° (B. 11, 773; 31, 1767). — III, 88.
- 27) Aldehyd d. 2-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 17°; Sd. 208 bis 209° (B. 11, 772). — III, 89.
- 28) Aldehyd d. 4-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 56°; Sd. 217—218° (B. 11, 773, 785). — III, 88.
- 29) Aldehyd d. 6-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 115° (118°) (B. 11, 772; 31, 1766). — III, 89.
- 30) Aldehyd d. 3-Oxy-1-Methylbenzol-4-Carbonsäure. Sm. 54°; Sd. 222—223° (B. 11, 773). — III, 89.
- 31) Aldehyd d. 2-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 35°; Sd. 243—244° (A. 145, 302; B. 15, 2024; Soc. 55, 550). — III, 66.
- 32) Aldehyd d. 3-Oxybenzoldimethyläther-1-Carbonsäure. Sd. 230° (B. 15, 2048; A. 286, 6). — III, 79.
- 33) Aldehyd d. 4-Oxybenzoldimethyläther-1-Carbonsäure (Anisaldehyd). Sd. 248°. + NaHSO₃ (A. 56, 307; 85, 268; 98, 189; 100, 105; 151, 25; B. 9, 527; 10, 63; Soc. 55, 551; Bl. [3] 19, 173). — III, 81.
- 34) Aldehyd d. Oxyessigphenyläthersäure + H₂O. Sm. 38°; Sd. 118 bis 119°₁₀ (M. 15, 741, 744).
- 35) Aldehyd d. γ -[2-Furanyl]crotonsäure (Furfurcrotonaldehyd). Sd. 121°₁₁₁ (B. 14, 574). — III, 727.
- 36) Methylester d. Benzolcarbonsäure. Sd. 199,2°_{143,4} (A. 94, 307; 110, 210; 234, 316; J. 1860, 7; G. 24 [2] 161; J. pr. [2] 36, 4). — II, 1139.
- 37) Phenylester d. Essigsäure. Sd. 193° (A. 92, 318; 171, 142; A. Spl. 4, 121; Soc. 37, 481; Z. 1867, 169; G. 11, 65; J. pr. [2] 39, 174; B. 18, 1716). — II, 661.

 $C_8H_6O_2$

- C 63,2 — H 5,2 — O 31,6 — M. G. 152.
- 1) 3,4-Methylenäther d. 3,4-Dioxy-1-Oxymethylbenzol (Piperonylalkohol). Sm. 51° (A. 159, 138). — II, 1113.
 - 2) Aethylenäther d. 1,2,3-Trioxybenzol. Sd. 267° (B. 12, 1860). — II, 1012.
 - 3) 1,2-Aethylidenäther d. 1,2,3-Trioxybenzol + 2H₂O (A. ch. [7] 1, 112). — II, 1016.
 - 4) Methyl-2,4-Dioxyphenylketon (Resacetophenon). Sm. 142°. Na (J. pr. [2] 23, 147, 537; B. 16, 2123; 27, 2732). — III, 135.
 - 5) Isoresacetophenon. Sm. 178° (J. pr. [2] 53, 39). — III, 137.
 - 6) Methyl-2,5-Dioxyphenylketon (Chinacetophenon). Sm. 202° (J. pr. [2] 23, 546; B. 31, 1215). — III, 137.
 - 7) Methyl-3,4-Dioxyphenylketon. Sm. 116° (J. r. 25, 157). — III, 137.
 - 8) 3-Oxy-2,6-Dimethyl-1,4-Benzochinon. Sm. 103°. K, Ba (A. 180, 27; B. 15, 1377). — III, 362.
 - 9) Aethyläther d. 2-Oxy-1,4-Benzochinon. Sm. 117° (107°) (B. 20, 1132; M. 19, 552). — III, 347.
 - 10) i - α -Oxyphenylelessigsäure (Mandelsäure; Phenylglykolsäure). Sm. 118°. Ba, Cu, Ag. Lit. bedeutend. — II, 1550.

$C_8H_5O_3$

- 11) **d- α -Oxyphenylelessigsäure** (d-Mandelsäure). Sm. 133° (B. 16, 1569). — II, 1555.
- 12) **l- α -Oxyphenylelessigsäure** (l-Mandelsäure). Sm. 132,8° (cor.). Ag (A. 66, 240; B. 16, 1566, 1571; 29, 1700). — II, 1555.
- 13) **2-Oxyphenylelessigsäure**. Sm. 137° (B. 17, 974). — II, 1543.
- 14) **3-Oxyphenylelessigsäure**. Sm. 129° (B. 17, 507). — II, 1543.
- 15) **4-Oxyphenylelessigsäure**. Sm. 148°. Ca + 4H₂O, Ba + H₂O, Pb, Ag (B. 12, 650, 1438; 13, 281; 14, 922; 22, 2138; H. 5, 367; 6, 191, 258; 7, 26, 171; A. 199, 155). — II, 1543.
- 16) **Oxyessigphenyläthersäure**. Sm. 96°; Sd. 285°. NH₄, Na + $\frac{1}{2}$ H₂O, K, Ca + $3\frac{1}{2}$ H₂O, Ba + 3H₂O, Cu + 2H₂O, Ag (J. 1859, 361; A. 216, 284; J. pr. [2] 19, 396; [2] 20, 267; [2] 32, 357; [2] 35, 96; B. 19, 1296; M. 15, 743; Bl. [3] 17, 359). — II, 664.
- 17) **1-Oxymethylbenzol-2-Carbonsäure**. Sm. 120°. K, Ba, Pb, Ag (B. 10, 1446; 25, 524; J. pr. [2] 50, 390). — II, 1555.
- 18) **1-Oxymethylbenzol-4-Carbonsäure**. Sm. 181°. Ag (A. 162, 342; 231, 373). — II, 1561.
- 19) **3-Oxy-1-Methylbenzol-2-Carbonsäure** (β -m-Homosalicylsäure). Sm. 168°. Ca (B. 16, 1963; J. pr. [2] 50, 389). — II, 1544.
- 20) **4-Oxy-1-Methylbenzol-2-Carbonsäure** (p-Homo-m-Oxybenzoësäure). Sm. 172°. Cu (B. 14, 41; 17, 163). — II, 1544.
- 21) **5-Oxy-1-Methylbenzol-2-Carbonsäure** + $\frac{1}{2}$ H₂O (m-Homo-p-Oxybenzoësäure). Sm. 177—178° (wasserfrei). Ca + 2H₂O, Bi (B. 11, 778; 12, 820; 14, 40; 17, 164; 27 [2] 884; A. 297, 46). — II, 1544.
- 22) **6-Oxy-1-Methylbenzol-2-Carbonsäure**. Sm. 183°. Ca (B. 16, 1693; 17, 163). — II, 1545.
- 23) **2-Oxy-1-Methylbenzol-3-Carbonsäure** (β -Kresotinsäure; o Homosalicylsäure). Sm. 163—164°. Ca + 2H₂O, Ba + 3H₂O (Z. 1869, 623; B. 7, 1006; 11, 902; 12, 818; 14, 2354; J. pr. [2] 14, 456; [2] 50, 389; M. 15, 725). — II, 1545.
- 24) **4-Oxy-1-Methylbenzol-3-Carbonsäure** (α -Kresotinsäure; p-Homosalicylsäure). Sm. 151°. Ba + 2H₂O, BiO (Z. 1869, 622, 712; A. 115, 203; 195, 283; B. 2, 284; 11, 375; 12, 821; 14, 2352, 2356; 27 [2] 884; J. pr. [2] 14, 454; [2] 33, 64; [2] 50, 389). — II, 1546.
- 25) **5-Oxy-1-Methylbenzol-3-Carbonsäure**. Sm. 208° (210°). Ca + 2H₂O, Sr, Pb (B. 14, 2357; 30, 1742). — II, 1548.
- 26) **6-Oxy-1-Methylbenzol-3-Carbonsäure** + $\frac{1}{2}$ H₂O. Sm. 172—173° (wasserfrei). Ca + 3H₂O, Ba + 3H₂O, Mn + 2H₂O, Cu + $1\frac{1}{2}$ H₂O (B. 11, 777, 891, 897; 12, 819; 14, 2351; 29, 1967; M. 1, 202; Am. 1, 48, 114; 3, 428). — II, 1548.
- 27) **2-Oxy-1-Methylbenzol-4-Carbonsäure**. Sm. 206—207° (cor.). Ca + 4H₂O, Pb + 2H₂O (B. 6, 481; 7, 927; 11, 368, 706, 1587; 12, 1433; 20, 981; 28, 2144; Soc. 73, 851). — II, 1549.
- 28) **3-Oxy-1-Methylbenzol-4-Carbonsäure** (γ -Kresotinsäure). Sm. 177°. Ca + 3H₂O, Ba + 3H₂O (Z. 1869, 623; J. pr. [2] 14, 461; [2] 50, 390; B. 6, 324; 8, 889; 11, 462, 570; 12, 820; 21, 1998; 25, 1743). — II, 1549.
- 29) **2-Oxybenzoldimethyläther-1-Carbonsäure**. Sm. 98,5°. Na, Ca + 2H₂O, Ba, Pb + H₂O, Ag (A. 92, 315; 139, 137; 142, 327; M. 15, 723; Ph. Ch. 3, 266; J. pr. [2] 51, 319). — II, 1493.
- 30) **3-Oxybenzoldimethyläther-1-Carbonsäure**. Sm. 106—107°. Ca + 4H₂O (A. 142, 352; B. 8, 887; J. 1867, 414; M. 15, 721). — II, 1516.
- 31) **4-Oxybenzoldimethyläther-1-Carbonsäure** (Anissäure). Sm. 184,2°; Sd. 275—280°. Salze meist bek. Lit. bedeutend. — II, 1525.
- 32) **α -[2-Furanyl]propen- γ -Carbonsäure**. Sm. 107° (B. 14, 575). — III, 712.
- 33) **β -[5-Methyl-2-Furanyl]akrylsäure**. Sm. 157° (A. ch. [6] 22, 87). — III, 712.
- 34) **Anhydrid d. 1,2,3,4-Tetrahydrobenzol-1,6-Dicarbonsäure**. Sm. 78 bis 79° (A. 258, 202; B. 30, 504). — II, 1732.
- 35) **Anhydrid d. 1,2,3,4-Tetrahydrobenzol-2,3-Dicarbonsäure**. Sm. 140° (A. 258, 211). — II, 1733.
- 36) **Anhydrid d. cis-1,2,3,4-Tetrahydrobenzol-2,3-Dicarbonsäure**. Sm. 58—59° (A. 258, 212; 269, 203). — II, 1733.
- 37) **Anhydrid d. 1,2,3,4-Tetrahydrobenzol-5,6-Dicarbonsäure**. Sm. 74° (A. 166, 346; 258, 204). — II, 1732.

$C_8H_6O_3$

- 38) Aldehyd d. 3,5-Dioxy-1-Methylbenzol-2-Carbonsäure (Orcylaldehyd). Sm. 177—178° (179—180°) (B. 12, 1001; 17, 1650; 31, 1768; 32, 279). — III, 105.
- 39) Aldehyd d. 2,3-Dioxybenzol-3-Methyläther-1-Carbonsäure. Sd. 264 bis 268° (i. CO_2) (B. 14, 2021). — III, 97.
- 40) Aldehyd d. 2,4-Dioxybenzol-2-Methyläther-1-Carbonsäure. Sm. 153° (B. 13, 2366; 31, 1767). — III, 97.
- 41) Aldehyd d. 2,4-Dioxybenzol-4-Methyläther-1-Carbonsäure. Sm. 62 bis 63° (B. 13, 2367). — III, 97.
- 42) Aldehyd d. 2,5-Dioxybenzol-5-Methyläther-1-Carbonsäure. Sm. 4°; Sd. 247—248° (B. 14, 1990). — III, 98.
- 43) Aldehyd d. 3,4-Dioxybenzol-3-Methyläther-1-Carbonsäure (Vanillin). Sm. 80—81°; Sd. 285° (i. CO_2). Na, Mg, Zn, Pb. Lit. bedeutend. — III, 100.
- 44) Aldehyd d. 3,4-Dioxybenzol-4-Methyläther-1-Carbonsäure (Isovanillin). Sm. 116—117° (B. 14, 968; M. 3, 792; 14, 383). — III, 101.
- 45) Aldehyd d. Oxyessig-2-Oxyphenyläthersäure. Sd. 139°, (Bl. [3] 19, 763; [3] 21, 297).
- 46) Methylester d. 2-Oxybenzol-1-Carbonsäure. Sd. 224°. $K + \frac{1}{2}H_2O$, $Ba + H_2O$ (A. 94, 301; 109, 369; 197, 17; J. 1876, 588; A. ch. [3] 10, 327; J. pr. [2] 36, 364; R. 13, 421, 425; B. 30, 958; 31, 3274; C. 1895 [1] 35; 1898 [1] 1295). — II, 1492.
- 47) Methylester d. 4-Oxybenzol-1-Carbonsäure. Sm. 131°; Sd. 270 bis 280° (283°) u. Zers. (A. 141, 250; J. pr. [2] 40, 344; [2] 49, 501; B. 31, 3275). — II, 1524.
- 48) Methylester d. β -2-Furanyl]akrylsäure. Sm. 27°; Sd. 227—228°, (A. 12, 315). — III, 710.
- 49) Methylphenylester d. Kohlensäure. Sd. 190—200°, (Bl. [3] 19, 768).
- 50) Verbindung (aus Usneol) (G. 12, 243). — II, 2058.

 $C_8H_6O_4$

- C 57,1 — H 4,8 — O 38,1 — M. G. 168.
- 1) Methyl- β -Trioxyphenylketon (Gallacetophenon). Sm. 168°. KHO, Pikrat (J. pr. [2] 23, 151, 538; B. 26, 3046; 27, 2736, 2737). — III, 138.
- 2) Dimethyläther d. 2,5-Dioxy-1,4-Benzochinon. Sm. 249° (B. 11, 332; 21, 608; 23, 1216; 26, 786; 30, 2333). — III, 349.
- 3) 1,2,6-Trioxybenzfuran? (oder 2-Oxyphenoxylessigsäure). Sm. 131° (B. 31, 599; Bl. [3] 21, 106).
- 4) 2,5-Dioxyphenylelessigsäure + H_2O (Homogentisinsäure). Sm. 146,5 bis 147°. $Pb + 3H_2O$ (H. 15, 241; 20, 224, 282; 23, 412; C. 1897 [1] 338). — II, 1748.
- 5) 3,4-Dioxyphenylelessigsäure (α -Homoprotekatechusäure). Sm. 127°. Ca, Ba, Pb (B. 10, 207). — II, 1748.
- 6) 3,5-Dioxyphenylelessigsäure + H_2O (δ -Oreincarbonsäure). Sm. 54°. $Pb + 2H_2O$ (B. 19, 1449; 31, 2016). — II, 1750.
- 7) α -Oxy- α -[2-Oxyphenyl]essigsäure (o-Oxymandelsäure; Salicylglykolsäure). Fl. (B. 14, 1317; 17, 974). — II, 1750.
- 8) α -Oxy- α -[β -Oxyphenyl]essigsäure + xH_2O (?-Oxymandelsäure). Sm. 167 bis 168° (162°). $Ca + 2H_2O$ (Z. 1870, 85; H. 6, 192). — II, 1757.
- 9) Oxyessig-2-Oxyphenyläthersäure. Sm. 130—131° (Bl. [3] 21, 102, 106, 107).
- 10) 3,5-Dioxy-1-Methylbenzol-2-Carbonsäure + H_2O (Paraorsellinsäure). Sm. 172° (151° u. Zers.). K , $Ba + 6H_2O$, $Ba_3 + 8H_2O$, $Cu + 4H_2O$, Ag (B. 13, 1643; 18, 1986; M. 1, 238; G. 14, 463). — II, 1750.
- 11) 4,6-Dioxy-1-Methylbenzol-2-Carbonsäure (Kresorsellinsäure). Sm. 245° u. Zers. $NH_4 + 2H_2O$, Ba (B. 16, 1690). — II, 1751.
- 12) 4,6-Dioxy-1-Methylbenzol-3-Carbonsäure? (Kresorcincarbonsäure). + H_2O . Sm. 208°. $K + 2H_2O$ (B. 18, 3203; Soc. 67, 941). — II, 1751.
- 13) 2,6-Dioxy-1-Methylbenzol-4-Carbonsäure. Sm. 175—176° (B. 20, 982). — II, 1751.
- 14) 3,5-Dioxy-1-Methylbenzol-4-Carbonsäure + 1(2) H_2O (Oraellinsäure). Sm. 176° u. Zers. $Ba + xH_2O$ (A. 68, 61; 117, 311; 139, 35; Ph. Ch. 3, 254; J. pr. [2] 57, 268). — II, 1751.
- 15) 2,5-Dioxy-1-Methylbenzol- β -Carbonsäure + $\frac{1}{2}H_2O$ (Homooxysalicylsäure). Sm. 206—210° u. Zers. K , $Ca + 2H_2O$, $Ba + 2H_2O$, $Pb + 2H_2O$ (M. 2, 458). — II, 1754.

$C_8H_6O_4$

- 16) 2-Oxy-1-Oxymethylbenzol-3-Carbonsäure (m-Oxymethylsalicylsäure). Sm. 142°. Ca, Ba, Ag (B. 11, 792). — II, 1755.
- 17) 4-Oxy-1-Oxymethylbenzol-3-Carbonsäure + H₂O. Zers. bei 160°. Ag (B. 11, 791). — II, 1755.
- 18) 6-Oxy-1-Oxymethylbenzol-3-Carbonsäure. Ca, Ba (B. 11, 792). — II, 1755.
- 19) 2,3-Dioxybenzol-3-Methyläther-1-Carbonsäure + H₂O. Sm. 152° (A. 301, 354).
- 20) 2,4-Dioxybenzol-2-Methyläther-1-Carbonsäure. Pb, Ag (B. 13, 2375). — II, 1736.
- 21) 2,4-Dioxybenzol-4-Methyläther-1-Carbonsäure. Sm. 154° (151,5°). Na + H₂O, K, Ba + 4H₂O, Pb + H₂O (B. 13, 2376; 14, 847; Soc. 67, 994). — II, 1736.
- 22) 2,5-Dioxybenzol-5-Methyläther-1-Carbonsäure. Sm. 141–142° (150°). Na, K, Ba + 6H₂O, Pb, Ag (B. 14, 848, 1997; M. 16, 920). — II, 1738.
- 23) 3,4-Dioxybenzol-3-Methyläther-1-Carbonsäure (Vanillinsäure). Sm. 207°. Pb, Ag (B. 8, 509, 516, 1123; 9, 52, 415; 10, 202, 211; 11, 124; A. ch. [6] 7, 187; Ph. Ch. 3, 266). — II, 1740.
- 24) 3,4-Dioxybenzol-4-Methyläther-1-Carbonsäure (Isovanillinsäure). Sm. 250°; subl. (A. Spl. 2, 378; J. 1876, 810; B. 8, 514; 11, 125; 14, 963; M. 3, 375; 4, 271; 16, 125; Ph. Ch. 3, 267; J. pr. [2] 39, 352). — II, 1741.
- 25) 1,2-Dihydrobenzol-1,4-Dicarbonsäure. Sm. unter Zers. Ba + 4H₂O (A. 251, 298; 258, 21; J. pr. [2] 43, 4). — II, 1760.
- 26) 1,2-Dihydrobenzol-2,3-Dicarbonsäure. Sm. 179–180° (A. 269, 199). — II, 1758.
- 27) 1,2-Dihydrobenzol-3,6-Dicarbonsäure (Dihydroterephthalsäure). Ba + 4H₂O (A. 251, 302; 258, 23, 28). — II, 1759.
- 28) 1,2-Dihydrobenzol-4,5-Dicarbonsäure. Sm. 215°. Ba, Cu (A. 258, 188; 269, 194; J. pr. [2] 43, 539; B. 27, 3185). — II, 1758.
- 29) cis-1,4-Dihydrobenzol-1,2-Dicarbonsäure. Sm. 173–175° (A. 269, 192). — II, 1759.
- 30) trans-1,4-Dihydrobenzol-1,2-Dicarbonsäure. Sm. 210°. Pb (A. 269, 189). — II, 1759.
- 31) cis-1,4-Dihydrobenzol-1,4-Dicarbonsäure (A. 251, 264, 296). — II, 1761.
- 32) cis-trans-1,4-Dihydrobenzol-1,4-Dicarbonsäure. Sm. noch nicht bei 270° (A. 251, 264, 292, 294; J. pr. [2] 43, 538). — II, 1761.
- 33) 1,4-Dihydrobenzol-2,3-Dicarbonsäure (1,4-Dihydrophthalsäure). Sm. 153°. Pb, Cu, Ag (A. 269, 204). — II, 1758.
- 34) 1,4-Dihydrobenzol-2,5-Dicarbonsäure. subl. ohne Sm. Ba + 4H₂O (A. 245, 143; 251, 272; 258, 31; B. 22, 2112; J. pr. [2] 43, 3). — II, 1759.
- 35) 2,6-Dimethyl-1,4-Pyron-3-Carbonsäure? Sm. 98,5–99°. Na + H₂O, Ag + AgNO₃ (A. 257, 286). — II, 1757.
- 36) Berberinsäure + H₂O. Sm. bei 165° (J. 1864, 407; Soc. 55, 88). — II, 1757.
- 37) Dehydracetsäure. Sm. 108,5–109°; Sd. 269,9°. Salze meist bekannt. Lit. bedeutend. — II, 1755.
- 38) αδ-Lakton d. δ-Oxy-β-Methyl-αγ-Pentadien-αγ-Dicarbonsäure (Mesitynlaktoncarbonsäure; Isodehydracetsäure). Sm. 155°; Sd. 126°. NH₄, Na, K + 1/2 H₂O, Mg + 2 1/2 H₂O, Ba, Cu + 2H₂O, Ag (A. 213, 177; 259, 153; 261, 202; B. 19, 2402; 26, 754; 30, 2392, 2398; Ph. Ch. 3, 401). — I, 776.
- 39) Methylester d. 3,4-Dioxybenzol-1-Carbonsäure. Sm. 134,5° (B. 11, 129). — II, 1740.
- 40) Aethylester d. 1,2-Pyron-5-Carbonsäure (Ae. d. Cumalinsäure). Sm. 36°; Sd. 262–265° (A. 264, 281). — I, 774.
- 41) Aethylester d. Komansäure. Sm. 103° (J. pr. [2] 29, 63). — II, 1735.
- 42) Monoacetat d. 1,2,3-Trioxymethylbenzol. Sm. 171° (A. 301, 107).
C 52,2 — H 4,3 — O 43,5 — M. G. 184.
- 1) Oxydehydracetsäure. Sm. 253–255°. NH₄, Na + H₂O, Ba + 5H₂O, Ag (Soc. 51, 491; B. 25, 322). — II, 1929.
- 2) Aethylätherkomensäure. Sm. 239–240°. Ag + 2 1/2 H₂O (J. pr. [2] 26, 459). — I, 780.

 $C_8H_6O_5$

$C_5H_4O_2$

- 3) α -[2-Furanyl]äthan- $\alpha\beta$ -Dicarbonsäure (Furbernsteinsäure). Sm. 154° (B. 31, 1120).
- 4) α -[2-Furanyl]äthan- $\beta\beta$ -Dicarbonsäure (Furylmalonsäure). Sm. 125°. Ag_2 (B. 21, 1083). — III, 717.
- 5) 2,5-Dimethylfuran-3,4-Dicarbonsäure (Carbopyrotritisäure; Carbuvin-säure). Sm. 230—231°. $Na + 3H_2O$, K, Ca, Ba + $\frac{1}{2}H_2O$, Ag, Ag_2 (A. 201, 152; 250, 194; B. 17, 2864; 22, 158). — III, 715.
- 6) 2-Methylfuran-3-Carbonsäure-5-Methylcarbonsäure (Methronsäure; Sylvancarbonsäure). Sm. 204—205°. $(NH_4)_2 + \frac{1}{2}H_2O$, Ca + $2H_2O$, CaH, Ba, BaH, Ag_2 (A. 246, 5; 250, 178). — III, 717.
- 7) Isocarbopyrotritisäure (Lakton d. β -Diacetylbernsteinsäure). Zers. bei 200°. Ba + $2H_2O$ (B. 22, 163; 27, 1158; A. 303, 134). — III, 716.
- 8) Anhydrid d. dreibas. Hämatinsäure. Sm. 97—98°. $Ag_2 + \frac{1}{2}H_2O$ (B. 29, 823; 32, 677; H. 26, 336).
- 9) Methylester d. 2,3,4-Trioxybenzol-1-Carbonsäure + $2\frac{1}{2}H_2O$. Sm. 151—152° (B. 21, 2023). — II, 1918.
- 10) Methylester d. 3,4,5-Trioxybenzol-1-Carbonsäure + $3H_2O$. Sm. 192° u. Zers. (112°). $Bi(OH)_3$ (B. 21, 2022; J. pr. [2] 40, 346; Bl. [3] 7, 624; [3] 9, 692; M. 19, 595). — II, 1920.
- 11) Dimethylester d. Furan-2,5-Dicarbonsäure. Sm. 112° (G. 20, 519). — III, 715.

 $C_6H_4O_2$

- 12) Aethylester d. Komensäure. Sm. 135° (126,5°). NH_4 , Na (A. 80, 65, 88; J. 1855, 494; J. pr. [2] 24, 277; [2] 26, 453; G. 24 [2] 82). — I, 779. C 48,0 — H 4,0 — O 48,0 — M. G. 200.
- 1) 1,4-Diketo-hexahydrobenzol-2,5-Dicarbonsäure (Succinylbernsteinsäure). Zers. bei 200° (A. 49, 192; 211, 306, 321; 213, 149; 219, 94; 245, 74; 253, 182; B. 8, 1039, 1409; 10, 107; 16, 133, 134; 19, 432; 22, 2168; G. 20, 167). — I, 822.
- 2) 2,5-Dioxybenzol-1,4-Dicarbonsäure + $2H_2O$ (Hydrochinondicarbonsäure). $(NH_4)_2 + 2H_2O$, Na + $2H_2O$, $Na_2 + 2H_2O$, $Na_2 + 2NaOH + 10H_2O$, K, K_2 , CaH + $5H_2O$, Ca + $5H_2O$, Ba, Pb, Ag_2 (B. 10, 112; 16, 135; 20, 2393; 22, 1278; A. 211, 335; 213, 162; 219, 74). — II, 2001.
- 3) R-Tetramethylen-1,3-Di[Oxymethylencarbonsäure] (Tetramethylen-1,3-Dioxalylsäure). Sm. 239,5—240,5°. NH_4 , Na, K, Ag, Phenylhydrazinsalz, Piperidinsalz (B. 29, 2273).
- 4) Pektolaktinsäure + $2\frac{1}{2}H_2O$. Ba + $4\frac{1}{2}H_2O$, $(FeO)_2 + 7H_2O$? (A. 100, 281). — I, 824.
- 5) Aethylester d. Oxykomensäure. Sm. 204° (J. pr. [2] 23, 440; [2] 24, 287). — II, 1991.

 $C_6H_3O_7$

- C 44,7 — H 3,7 — O 51,8 — M. G. 216.
- 1) Monoanhydrid d. Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure (vom Sm. 236°). Sm. 232° u. Zers. (B. 27, 1127).
 - 2) $\alpha\beta$ -Anhydrid d. β -Acetoxylpropan- $\alpha\beta\gamma$ -Tricarbonsäure (A. d. Acetyl-citronensäure). Sm. 115° (121°) (B. 22, 984, 985; Soc. 61, 1003). — I, 840.
 - 3) Anhydrid d. $\alpha\beta$ -Diacetoxyläthan- $\alpha\beta$ -Dicarbonsäure (A. d. Diacetylweinsäure). Sm. 126—127° (135°) (J. 1861, 368; 1882, 856; A. Spl. 5, 288; B. 13, 1178; Ph. Ch. 8, 473). — I, 796.
 - 4) Anhydrid d. Diacetyltraubensäure. Sm. 126° (122—123°) (A. Spl. 5, 287; B. 13, 1178). — I, 801.
- C 41,4 — H 3,4 — O 55,2 — M. G. 232.

 $C_6H_5O_8$

- 1) β -Buten- $\alpha\beta\gamma\delta$ -Tetracarbonsäure (Diglykolylnaleinsäure). Sm. 176° (M. 9, 456). — I, 865.
 - 2) R-Tetramethylen-1,1,2,2-Tetracarbonsäure + $2H_2O$. Sm. 198—203°. Ag_2 (Soc. 51, 21; 65, 580; B. 26, 2244). — I, 865.
 - 3) Anhydroäpfelsäure (aus Crassulaceen). Ag_2 (B. 31, 1444).
- C 36,4 — H 3,0 — O 60,6 — M. G. 264.

 $C_6H_5O_{10}$

- 1) Propan- $\alpha\alpha\beta\beta\gamma$ -Pentacarbonsäure. Sm. 149—151°. $K_2 + 4H_2O$, Ba, + $4H_2O$ (B. 15, 1108; 21, 2114). — I, 870.
- C 72,7 — H 6,1 — O 21,2 — M. G. 132.

 $C_6H_5N_2$

- 1) 1,4-Di[Imidomethyl]benzol (p-Xylylidendiamin) (B. 19, 576). — III, 93.
- 2) 2-Methylindazol. Sm. 35° (B. 26, 218). — IV, 866.
- 3) 3-Methylindazol. Sm. 113°; Sd. 280—281°₇₃₆. HCl (A. 227, 317). — IV, 869.

$C_5H_5N_3$

- 4) 5-Methylindazol. Sm. 116—117°; Sd. 293—294°₇₄₇. Pikrat (B. 26, 218; 29, 308; A. 305, 365). — IV, 870.
- 5) 1-Methylbenzimidazol. Sm. 33°; Sd. 278°₇₃₀ (HCl, AuCl₃). (B. 22, 644; 25, 2711; Ph. Ch. 22, 391). — IV, 868.
- 6) 2-Methylbenzimidazol (Aethenylphenylenamidin). Sm. 175°. HCl, (2HCl, PtCl₄ + 2H₂O), HNO₃, H₂SO₄ (A. 209, 353; 273, 327; B. 8, 677; 27, 2189). — IV, 876.
- 7) 4-Methylbenzimidazol? Sm. 143° (2HCl, PtCl₄ + 3H₂O), HNO₃ (B. 17, 777). — IV, 875.
- 8) 5-Methylbenzimidazol. Sm. 114°. HCl, (2HCl, PtCl₄), Ag (A. 273, 321, 333; B. 10, 1123; 22, 644; 30, 3064, 3070). — IV, 876.
- 9) 1,2-Dihydro-1,2-Benzdiazin (Dihydrocinnolin). Sm. 87—88°. HCl, H₂SO₄ (B. 30, 523). — IV, 871.
- 10) 3,4-Dihydro-1,3-Benzdiazin (Dihydrochinazolin). Sm. 126—127°. HCl, (2HCl, PtCl₄), Pikrat (B. 23, 2814; 24, 3097; 29, 1314). — IV, 871.
- 11) Apoharmin. Sm. 183° (186°). (2HCl, PtCl₄), (HCl, AuCl₃), HJ + H₂O, Pikrat (B. 18, 403; 22, 640; 30, 2488). — III, 887.
- 12) Nitril d. Phenylamidoessigsäure. Sm. 55° (B. 6, 1004; 13, 2120; 14, 1967; 25, 2028; 29, 2103). — II, 428.
- 13) Nitril d. α -Amido- α -Phenylessigsäure (B. 14, 1967). — II, 1323.
- 14) Nitril d. 2-Amidophenylessigsäure (B. 17, 508). — II, 1320.
- 15) Nitril d. 3-Amidophenylessigsäure. Fl. (B. 17, 506). — II, 1322.
- 16) Nitril d. 4-Amidophenylessigsäure. Sm. 46° (43,5—44,5°); Sd. 312°. HCl, (2HCl, PtCl₄), H₂SO₄ (B. 3, 474; 15, 835; 16, 853, 1023; 17, 237; A. 229, 229). — II, 1322.
- 17) Nitril d. 1-Amidomethylbenzol-2-Carbonsäure. HCl + H₂O, Pikrat (B. 20, 2231; 23, 2488; 31, 2738). — II, 1334.
- 18) Nitril d. 4-Amido-1-Methylbenzol-2-Carbonsäure. Sm. 88°. HCl, (2HCl, PtCl₄), Pikrat (B. 31, 2881).
- 19) Nitril d. 2-Amido-1-Methylbenzol-4-Carbonsäure. Sm. 81—82° (B. 27, 2163). — II, 1351.
- 20) Nitril d. 3-Amido-1-Methylbenzol-4-Carbonsäure. Sm. 94° (J. pr. [2] 40, 6; B. 21, 2662). — II, 1352.
- 21) 2-Methylphenylecyanamid. Sm. 77°. Ag (B. 24, 381). — II, 474.
- 22) Benzylecyanamid. Sm. 33° (B. 5, 694). — II, 531.

 $C_6H_5N_4$

- C 60,0 — H 5,0 — O 35,0 — M. G. 160.
- 1) 1-[4-Amidophenyl]-1,2,3-Triazol. Sm. 138—139° (Am. 20, 392). — IV, 1098.
 - 2) 3-Imido-1-Phenyl-2,3-Dihydro-1,2,4-Triazol. Sm. 150°. HCl + 2H₂O, (2HCl, PtCl₄), 2 + PtCl₄, HNO₃, Pikrat (G. 29 [1] 15).
 - 3) 3-Amido-1-Phenyl-1,2,5-Triazol. Sm. 70° (A. 295, 157). — IV, 1234.
 - 4) 5-[4-Methylphenyl]-1,2,3,4-Tetrazol (p-Tolyltetrazotsäure). Sm. 248° (234°) u. Zers. Ag (B. 27, 3278; A. 298, 8, 105). — IV, 1139, 1271.
 - 5) 1-Methyl-5-Phenyl-1,2,3,4-Tetrazol (Methylester d. Benzenyltetrazotsäure). Sm. 40° (A. 298, 95). — IV, 1266.
 - 6) 2,4-Diamido-1,3-Benzdiazin. Sm. 248—250° (J. pr. [2] 47, 303). — IV, 1269.
 - 7) 2,3-Diimido-1,2,3,4-Tetrahydro-1,4-Benzdiazin (o-Phenylendiaminocyanid). Sm. noch nicht bei 280° (2HCl, PtCl₄ + 3H₂O) (B. 18, 672). — IV, 566.
 - 8) Nitril d. Amidophenylhydrazonessigsäure (Dicyanphenylhydrazin). Sm. 165° (B. 26, 2395; 28, 2082; A. 190, 140). — IV, 742.

 $C_6H_5N_5$

- 1) 5-Benzylidenhydrazido-1,2,3,4-Tetrazol. Sm. 235°. Na + 3H₂O, Ca + 6H₂O, Ba + 6H₂O (A. 273, 155; 303, 63). — IV, 1329.

 $C_6H_5Cl_2$

- 1) $\alpha\alpha$ -Dichloräthylbenzol (Bl. 1858/59, 7; A. 217, 105; C. 1898 [1] 1019). — II, 51.
- 2) $\alpha\beta$ -Dichloräthylbenzol (Styrolchlorid). Sd. 233—234°₇₃₉ (A. 53, 309; 296, 275). — II, 51.
- 3) $\beta\beta$ -Dichloräthylbenzol. Fl. (B. 17, 982). — II, 51.
- 4) 2,5-Dichlor-1-Aethylbenzol. Sd. 213,5° (A. ch. [6] 6, 476). — II, 50.
- 5) 1,2-Di[Chlormethyl]benzol. Sm. 54,6—54,8°; Sd. 239—241° (B. 12, 648; A. ch. [6] 6, 109; [6] 11, 22; Bl. 46, 2; C. 1898 [1] 1019). — II, 51.

$C_6H_4Cl_2$

- 6) 1,3-Di[Chlormethyl]benzol. Sm. 34,2°; Sd. 250—255° (A. ch. [6] 6, 113; [6] 11, 23; J. 1887, 752; C. 1898 [1] 1019). — II, 52.
- 7) 1,4-Di[Chlormethyl]benzol. Sm. 100°; Sd. 240—250° u. Zers. (Z. 1867, 381; 1870, 394; Bl. 46, 2; A. ch. [6] 11, 22; C. 1898 [1] 1019). — II, 53.
- 8) 1-Methyl-2-Dichlormethylbenzol. Sm. 103°; Sd. 225° u. Zers. (Bl. 26, 534—535). — II, 51.
- 9) 4,5-Dichlor-1,2-Dimethylbenzol. Fl. Modif. Sd. 227° (B. 18, 1368). — II, 51.
- 10) 4,5-Dichlor-1,2-Dimethylbenzol. Feste Modif. Sm. 73° (B. 23, 2321). — II, 51.
- 11) 2,4-Dichlor-1,3-Dimethylbenzol. Sd. 221,5° (B. 23, 2319). — II, 52.
- 12) 4,5-Dichlor-1,3-Dimethylbenzol. Sd. 231—232° (B. 29, 312).
- 13) 4,6-Dichlor-1,3-Dimethylbenzol. Sm. 68°; Sd. 222° (Z. 1865, 544; A. 144, 268; J. pr. [2] 41, 556; B. 23, 2319). — II, 52.
- 14) 2,5-Dichlor-1,4-Dimethylbenzol. Sm. 71°; Sd. 221° (B. 18, 2099). — II, 53.

 $C_6H_4Br_2$

- 1) $\alpha\beta$ -Dibromäthylbenzol (Styrolbromid). Sm. 74—74,5°; Sd. 139—141°,₁₅ (A. 53, 306; 154, 154; 216, 194, 288; 235, 328; B. 6, 493; 11, 1400, 1451; 18, 354; 26, 1708; Bl. 35, 55). — II, 63.
- 2) 1,2-Di[Brommethyl]benzol. Sm. 94,9° (B. 18, 1279, 1281; A. ch. [6] 6, 105; J. 1884, 581; Soc. 53, 5; Bl. 46, 2). — II, 64.
- 3) 1,3-Di[Brommethyl]benzol. Sm. 77° (A. ch. [6] 6, 110; J. 1884, 742; Bl. 46, 2; B. 18, 1278, 1282). — II, 63.
- 4) 1,4-Di[Brommethyl]benzol. Sm. 143,5°; Sd. 240—250° (Z. 1870, 394; Bl. 46, 2; [3] 11, 382; B. 15, 1744; 18, 1280, 2072). — II, 64.
- 5) 3,4-Dibrom-1,2-Dimethylbenzol. Sm. 6,8°; Sd. 277° (B. 17, 2377). — II, 63.
- 6) 4,5-Dibrom-1,2-Dimethylbenzol. Sm. 88°; Sd. 278° (B. 17, 2376; 27, [2] 591). — II, 64.
- 7) 2,4-Dibrom-1,3-Dimethylbenzol. Sd. 269° (B. 21, 2824, 2827). — II, 64.
- 8) 4,5-Dibrom-1,3-Dimethylbenzol. Sd. 252° (A. 192, 216). — II, 64.
- 9) 4,6-Dibrom-1,3-Dimethylbenzol. Sm. 72°; Sd. 255—256° (A. 147, 25; 156, 236; B. 19, 2139). — II, 64.
- 10) 2,5-Dibrom-1,4-Dimethylbenzol. Sm. 75,5°; Sd. 261° (A. 147, 26; B. 10, 1357; 18, 358; 29, 2343; Soc. 57, 975). — II, 65.
- 11) 2,6-Dibrom-1,4-Dimethylbenzol. Fl. (B. 18, 358). — II, 65.
- 12) $\alpha\beta$ -Dijodäthylbenzol (Bl. 6, 295; 7, 277). — II, 76.
- 13) 1,2-Di[Jodmethyl]benzol. Sm. 109—110° (B. 17, 1826). — II, 76.
- 14) 1,4-Di[Jodmethyl]benzol. Sm. 170° u. Zers. (Z. 1870, 395). — II, 76.
- 15) 4,6-Dijod-1,3-Dimethylbenzol. Sm. 72° (B. 23, 1635; 26, 1105). — II, 76.

 C_6H_4S

- 1) Methylphenylthioketon (Thioacetophenon). Fl. (B. 28, 897, 900). — III, 129.
- 2) Anhydrid d. 1,2-Di[Merkaptomethyl]benzol. Fl. 2 + HgCl₂ (B. 17, 1824; 22, 2904). — II, 1097.
- 3) Anhydrid d. 1,3-Di[Merkaptomethyl]benzol (B. 22, 2905). — II, 1097.
- 4) Phenyläthan- $\alpha\beta$ -Sulfid (Styrolsulfid). Fl. (B. 28, 1637).
- 5) Verbindung (aus $\alpha\beta$ -Dibromäthylbenzol). Fl. (Bl. [3] 7, 14). — II, 1098.

 C_6H_4N

- 1) Phenylimidoäthan (Aethylidenanilin). (2HCl, PtCl₄) (A. Spl. 3, 343; A. 210, 118).
- 2) Benzylimidomethan. Sm. 43°; Sd. 245° (B. 28 [2] 925).
- 3) 2-Methylphenylimidomethan (Anhydroformaldehyd-o-Toluidin). Sm. bei 100° (B. 18, 3307; 27, 1808). — II, 473.
- 4) Methylimidomethylbenzol (Benzylidenmethylamin). Sd. bei 180° (A. 245, 281). — III, 28.
- 5) β -Amidoäthenylbenzol (B. 26 [2] 677). — II, 584.
- 6) 2-Amido-1-Aethenylbenzol (o-Amidostyrol) (B. 26 [2] 677). — II, 584.
- 7) 3-Amido-1-Aethenylbenzol. Sd. 112—115°₁₂₋₁₃ (B. 26 [2] 677). — II, 584.
- 8) 4-Amido-1-Aethenylbenzol. Sm. 81° (2HCl, PtCl₄ + 6H₂O) (B. 14, 2360; 15, 1982). — II, 584.
- 9) Anhydro-4-Amido-3-Methyl-1-Oxymethylbenzol (C. 1898 [1] 541, 812; 1898 [2] 159).

- C₈H₇N** 10) 2-Allylpyridin (γ -2-Pyridylpropen). *Sd.* 189—190° (2HCl, PtCl₄), (HCl, AuCl₃) (*A.* 247, 26). — IV, 187.
- 11) 1,3-Dihydroisindol. *Sd.* 213°. HCl, (2HCl, PtCl₄) (*B.* 26, 526, 2213; 28, 607). — IV, 187.
- C₈H₇N₃** C 65,3 — H 6,1 — N 28,6 — *M. G.* 147.
- 1) 4- oder 7-Amido-2-Methylbenzimidazol. 2HCl + 1½H₂O (*B.* 10, 1694). — IV, 1149.
- 2) 5-Amido-2-Methylbenzimidazol + 2H₂O. *Sm.* 55—80°. H₂SO₄, Pikrat (*B.* 5, 923; 30, 1911). — IV, 1149.
- 3) 3-Amido-5-Methylindazol. *Sm.* 190,5—191,5° (*A.* 305, 366).
- 4) 7-Amido-5-Methylindazol. *Sm.* 172° u. Zers. Pikrat (*B.* 29, 308). — IV, 1151.
- 5) 1-Aethyl-1,2,3-Benzotriazol. *Sd.* 280—281° (*J. pr.* [2] 41, 165). — IV, 1143.
- 6) 5,7-Dimethylbenzisotriazol (Azimidoxylol). *Sm.* 186°. Ag (*Am.* 17, 453).
- 7) 3-Methyl-3,4-Dihydro-1,2,3-Benzotriazin. *Sm.* 72—73°. HCl, (2HCl, PtCl₄), Pikrat (*J. pr.* [2] 51, 132). — IV, 626.
- 8) Base (aus Diacetonitril). *Sm.* 157° (*J. pr.* [2] 52, 89).
- 9) Verbindung (aus Diacetonitril). *Sm.* 222—223°. (2HCl, PtCl₄) (*J. pr.* [2] 39, 236; [2] 52, 86). — IV, 1150.
- C₈H₇N₅** C 54,9 — H 5,1 — N 40,0 — *M. G.* 175.
- 1) 3,4-Diamido-1-Phenyl-1,2,5-Triazol. *Sm.* 143°. HCl, H₂SO₄, Pikrat, + AgNO₃ (*A.* 295, 138). — IV, 1313.
- 2) 3,5-Diamido-1-Phenyltetrahydro-1,2,4-Triazol. *Sm.* 174—175°. HCl, (2HCl, PtCl₄), + AgNO₃ (*G.* 21 [2] 146). — IV, 1313.
- 3) 5-Benzylamido-1,2,3,4-Tetrazol? *Sm.* 181° (*A.* 287, 254).
- 4) 5-Amido-1-Benzyl-1,2,3,4-Tetrazol? *Sm.* 191—192° (*A.* 287, 253).
- 5) 1,2-Phenylenbiguanid + H₂O. *Sm.* 242° u. Zers. HCl, 2 + 5HNO₃ + 3H₂O, H₂SO₄ + 4H₂O, 2 + H₂SO₄ + H₂O, H₂CrO₄, Ferrocyanat + 3H₂O, + PtCl₄ + 2H₂O, Co + 3½H₂O, Ni (*M.* 17, 648). — IV, 1325.
- C₈H₇Cl** 1) α -Chloräthylbenzol. *Sd.* 194° u. ger. Zers. (*B.* 7, 1127; 26, 1706; *M.* 8, 102). — II, 50.
- 2) β -Chloräthylbenzol. *Sd.* 200—204° u. Zers. (*A.* 156, 246; 235, 329; *B.* 26, 1707). — II, 50.
- 3) 4-Chlor-1-Aethylbenzol. *Sd.* 180—182° (*B.* 26, 2944).
- 4) *p*-Chlor-1-Aethylbenzol (drei Isomere). *Sd.* 179—182° (*A. ch.* [6] 6, 402). — II, 50.
- 5) 1-Methyl-2-Chlormethylbenzol. *Sd.* 197—199° (*Bl.* 26, 534; 27, 496; *C.* 1898 [1] 1019). — II, 51.
- 6) 1-Methyl-3-Chlormethylbenzol. *Sd.* 195—196° (*Bl.* 26, 43; *Z.* 1866, 488). — II, 52.
- 7) 1-Methyl-4-Chlormethylbenzol. *Sd.* 192° (200—202°) (*Z.* 1867, 381; *C.* 1898 [1] 1019). — II, 52.
- 8) 3-Chlor-1,2-Dimethylbenzol. *Sd.* 189,5° (*B.* 18, 1368, 1755). — II, 51.
- 9) 4-Chlor-1,2-Dimethylbenzol. *Sd.* 191,5° (*B.* 18, 1757; *J. pr.* [2] 43, 256). — II, 51.
- 10) 4-Chlor-1,3-Dimethylbenzol. *Sd.* 186,5°₇₆₇ (*Z.* 1866, 488; *B.* 18, 1761; 26, 2942; 29, 310). — II, 52.
- 11) 5-Chlor-1,3-Dimethylbenzol. *Sd.* 190—191°₇₅₅ (*B.* 27, 3025; 29, 310).
- 12) *p*-Chlor-1,4-Dimethylbenzol. *Sd.* 186° (*B.* 18, 2099). — II, 52.
- C₈H₇Br** 1) α -Bromäthylbenzol. *Sd.* 148—152°₅₀₀ (*Bl.* 10, 343; *B.* 6, 492; 7, 140, 1126; 15, 1983; 18, 351; 26, 1710; *Z.* 1871, 131; *A.* 235, 328). — II, 63.
- 2) β -Bromäthylbenzol? *Sd.* 145—150°₅₀ (*J.* 1884, 562; *B.* 15, 1983). — II, 62, 63.
- 3) 2-Brom-1-Aethylbenzol. *Sd.* 202—204° (*B.* 18, 1273). — II, 62.
- 4) 4-Brom-1-Aethylbenzol. *Sd.* 204° (199°) (*A.* 144, 282; 216, 222; *Z.* 1871, 131). — II, 62.
- 5) 1-Methyl-2-Brommethylbenzol. *Sm.* 21°; *Sd.* 216—217°₇₄₃ (*B.* 15, 1747; 18, 1278, 1281). — II, 63.
- 6) 1-Methyl-3-Brommethylbenzol. *Sd.* 212—215°₇₃₅ (*B.* 15, 1745; 18, 1277, 1282; 23, 109). — II, 64.
- 7) 1-Methyl-4-Brommethylbenzol. *Sm.* 35,5°; *Sd.* 218—220°₇₄₀ (*B.* 15, 1743; 18, 1277, 1279). — II, 65.
- 8) 3-Brom-1,2-Dimethylbenzol. *Sd.* 206° (*B.* 20, 904). — II, 63.

- C₈H₇Br**
- 9) 4-Brom-1,2-Dimethylbenzol. *Sd.* 214,5° (*B.* 17, 2372). — II, 63.
 - 10) 4-Brom-1,3-Dimethylbenzol. *Sd.* 203—204° (*A.* 147, 31). — II, 64.
 - 11) 5-Brom-1,3-Dimethylbenzol. *Sd.* 204° (*A.* 192, 215). — II, 64.
 - 12) 2-Brom-1,4-Dimethylbenzol. *Sd.* 205,5°₇₅₅ (*A.* 151, 283; 171, 82; *B.* 17, 2379; 18, 356). — II, 65.
- C₈H₇J**
- 1) 4-Jod-1,3-Dimethylbenzol. *Sd.* 232° (*B.* 23, 1634). — II, 76.
 - 2) 5-Jod-1,3-Dimethylbenzol. *Sd.* 234—235°₇₆₀ (*Am.* 20, 802).
- C₈H₁₀O**
- C 78,7 — H 8,2 — O 13,1 — M. G. 122.
 - 1) α-Oxyäthylbenzol. *Sd.* 202—204° (*B.* 6, 1006; 7, 141; 31, 1003; *Z.* 1868, 589). — II, 1063.
 - 2) β-Oxyäthylbenzol. *Sd.* 212° (*B.* 9, 372). — II, 1064.
 - 3) 2-Oxy-1-Aethylbenzol (Phlorol). *Sd.* 206,5—207,5°. Ba + 2H₂O (*A.* 102, 166; *B.* 12, 1661; 25, 2410; *M.* 1, 175; *G.* 13, 264; *Bl.* [3] 11, 210, 702). — II, 756.
 - 4) 3-Oxy-1-Aethylbenzol. *Sd.* 214°₇₅₅ (*Bl.* [3] 11, 211; *B.* 22, 2674). — II, 757.
 - 5) 4-Oxy-1-Aethylbenzol. *Sm.* 46°; *Sd.* 218,5—219° (*A.* 156, 211, 251; *B.* 7, 1166; 17, 670; *G.* 14, 484; *Bl.* [3] 11, 209). — II, 757.
 - 6) 2-Oxymethyl-1-Methylbenzol. *Sm.* 31°; *Sd.* 223°₇₅₀ (*Bl.* 27, 498; *B.* 23, 1028; 24, 174; *A. ch.* [6] 6, 115). — II, 1064.
 - 7) 3-Oxymethyl-1-Methylbenzol. *Sd.* 217° (*Z.* 1866, 489; *B.* 15, 1747; *A. ch.* [6] 6, 117). — II, 1064.
 - 8) 4-Oxymethyl-1-Methylbenzol. *Sm.* 58,5—59,5°; *Sd.* 217° (*A.* 124, 255). — II, 1064.
 - 9) 3-Oxy-1,2-Dimethylbenzol. *Sm.* 75°; *Sd.* 218° (*B.* 18, 2562, 2673). — II, 757.
 - 10) 4-Oxy-1,2-Dimethylbenzol. *Sm.* 65°; *Sd.* 225°₇₅₇. Na (*B.* 11, 28; 12, 437; 17, 161; 20, 410; *J. pr.* [2] 34, 316). — II, 758.
 - 11) 6-Oxy-1,2-Dimethylbenzol. *Sm.* 74—75°; *Sd.* 218° (*Soc.* 75, 192).
 - 12) 2-Oxy-1,3-Dimethylbenzol. *Sm.* 49°; *Sd.* 211—212° (*B.* 11, 26; 21, 2829). — II, 758.
 - 13) 4-Oxy-1,3-Dimethylbenzol. *Sm.* 26°; *Sd.* 211,5°. Na (*A.* 150, 332; *B.* 11, 24, 374, 2032; 13, 1558; 18, 2921, 3464; 29, 1129; *J. pr.* [2] 34, 317; *Bl.* [3] 11, 702). — II, 758.
 - 14) 5-Oxy-1,3-Dimethylbenzol. *Sm.* 68° (64°); *Sd.* 219,5°. Na (*Bl.* [3] 11, 702; *B.* 18, 362, 2679; 20, 410; 26, 1951; *A.* 281, 121). — II, 759.
 - 15) 2-Oxy-1,4-Dimethylbenzol. *Sm.* 74,5°; *Sd.* 211,5°. Na (*A.* 147, 374; *B.* 11, 26; 18, 2665; *J. pr.* [2] 34, 317). — II, 759.
 - 16) Xylylalkohol (aus Aloe) (*A.* 138, 188). — II, 1064.
 - 17) Methyläther d. Oxymethylbenzol (M. d. Benzylalkohol). *Sd.* 167—168° (*A.* 161, 334; *A. ch.* [5] 10, 23; *B.* 31, 2644). — II, 1048.
 - 18) Methyläther d. 2-Oxy-1-Methylbenzol. *Sd.* 171,3° (*A.* 243, 37; *Am.* 19, 567). — II, 737.
 - 19) Methyläther d. 3-Oxy-1-Methylbenzol. *Sd.* 177,2° (*B.* 8, 887; *A.* 243, 41; *J. pr.* [2] 35, 24). — II, 743.
 - 20) Methyläther d. 4-Oxy-1-Methylbenzol. *Sd.* 175° (*Z.* 1868, 326; *J.* 1872, 388; *B.* 19, 561; *A.* 243, 44; *Bl.* 40, 107; *Am.* 19, 534). — II, 748.
 - 21) Aethyläther d. Oxybenzol (Phenetol). *Sd.* 170,3° (*A.* 70, 271; 74, 314; 78, 225; 220, 105; 234, 318; 243, 35; *J. pr.* [2] 27, 424; *R.* 12, 182; *B.* 19, 1820; *Bl.* [3] 19, 403). — II, 652.
 - 22) Furfurbutylen. *Sd.* 153° (*B.* 10, 1365).
 - 23) Dracoresinotannol (*C.* 1896 [2] 713).
 - C 69,5 — H 7,2 — O 23,2 — M. G. 138.
 - 1) Dimethyläther d. α,β-Dioxy-β-Hexadiin. *Sm.* —9°; *Sd.* 104,5—105,5° (*C.* 1897 [2] 183, 281).
 - 2) αβ-Dioxyäthylbenzol (Styrolenalkohol). *Sm.* 67—68°; *Sd.* 272—274°₇₅₅ (*B.* 10, 1005; 11, 1399; *A.* 216, 294). — II, 1097.
 - 3) 3-Oxy-1-α-Oxyäthylbenzol. *Sm.* 116—117° (*G.* 24 [1] 441). — II, 1111.
 - 4) 2,5-Dioxy-1-Aethylbenzol. *Sm.* 112—113° (*Bl.* [3] 11, 1130).
 - 5) 1,2-Di[Oxymethyl]benzol (Phtalalkohol). *Sm.* 64,2—64,8°; *subl.* (*B.* 12, 646; 17, 124; 19, 1539; *A. ch.* [6] 6, 106). — II, 1096.
 - 6) 1,3-Di[Oxymethyl]benzol. *Sm.* 46—47° (*A. ch.* [6] 6, 112). — II, 1097.
 - 7) 1,4-Di[Oxymethyl]benzol. *Sm.* 112—113° (*A.* 155, 342; 231, 374; *Z.* 1870, 395). — II, 1097.

$C_8H_{10}O_2$

- 8) 2-Oxy-*p*-Oxymethyl-1-Methylbenzol. Sm. 40° (*J. pr.* [2] 50, 226).
- 9) 3-Oxy-*p*-Oxymethyl-1-Methylbenzol. Sm. 110° (*J. pr.* [2] 50, 226).
- 10) 3-Oxy-*p*-Oxymethyl-1-Methylbenzol. Sm. 105° (*B.* 27, 2412).
- 11) 4-Oxy-3-Oxymethyl-1-Methylbenzol (*p*-Homosaligenin). Sm. 105° (*B.* 11, 784; 27, 2411). — II, 1110.
- 12) 4-Oxy-*p*-Oxymethyl-1-Methylbenzol. Sm. 107° (*J. pr.* [2] 50, 226).
- 13) 4-Oxy-*p*-Oxymethyl-1-Methylbenzol. Sm. 133° (*J. pr.* [2] 50, 226).
- 14) 5-Oxy-2-Oxymethyl-1-Methylbenzol. Sm. 117–118° (*B.* 27, 2412).
- 15) 3,6-Dioxy-1,2-Dimethylbenzol. Sm. 221° u. Zers. (*B.* 18, 2673). — II, 967.
- 16) 4,6-Dioxy-1,2-Dimethylbenzol^p (*J. pr.* [2] 46, 156). — II, 967.
- 17) 2,4-Dioxy-1,3-Dimethylbenzol. Sm. 146–148° (*B.* 23, 3114; *J. pr.* [2] 46, 153). — II, 967.
- 18) 2,5-Dioxy-1,3-Dimethylbenzol. Sm. 149–151° (*B.* 18, 1151). — II, 967.
- 19) 2,6-Dioxy-1,3-Dimethylbenzol. Sm. 120° (*Bl.* 28, 345). — II, 968.
- 20) 4,5-Dioxy-1,3-Dimethylbenzol. Sm. 73–74° (*Soc.* 63, 108). — II, 968.
- 21) 4,6-Dioxy-1,3-Dimethylbenzol. Sm. 124,5–125°; Sd. 276–279° (*B.* 16, 1138; 19, 2324). — II, 968.
- 22) 2,5-Dioxy-1,4-Dimethylbenzol. Sm. 212° (208°) (*A.* 151, 164; 215, 169; *B.* 13, 472; *J. pr.* [2] 23, 429). — II, 969.
- 23) 3,5-Dioxy-1,4-Dimethylbenzol (β -Orcin). Sm. 163°; Sd. 277–280° (*A.* 68, 104; 134, 248; 203, 287; *Bl.* 2, 428; *B.* 19, 2321; *J. pr.* [2] 58, 528). — II, 968.
- 24) 1-Methyläther d. 2-Oxy-1-Oxymethylbenzol. Sd. 128–130°₄₀ (*A.* 305, 110).
- 25) 2-Methyläther d. 2-Oxy-1-Oxymethylbenzol. Sd. 247,5°₇₈₅ (*B.* 5, 436). — II, 1109.
- 26) 4-Methyläther d. 4-Oxy-1-Oxymethylbenzol. Sm. 45°; Sd. 258,8° (*A.* 98, 190; *B.* 5, 436; 19, 2376; 24, 175). — II, 1110.
- 27) Monomethyläther d. 2,3-Dioxy-1-Methylbenzol. Sm. 39°; Sd. 209° (*B.* 24, 4136). — II, 954.
- 28) Monomethyläther d. 2,5-Dioxy-1-Methylbenzol. Sm. 72°; Sd. 240 bis 245° (*B.* 11, 1279; *A.* 215, 166). — II, 955.
- 29) 3-Methyläther d. 3,4-Dioxy-1-Methylbenzol. Sd. 221–222°. K + 2H₂O, Ba + 3H₂O, Pikrat (*A.* 106, 339; *B.* 8, 1136; 10, 206; 14, 2024; 26, 3045; *M.* 1, 616; *Bl.* [3] 11, 704; *C.* 1898 [1] 1025). — II, 958.
- 30) 4-Methyläther d. 3,4-Dioxy-1-Methylbenzol. Sd. 185° u. Zers. (*B.* 22, 350; *C.* 1898 [1] 1025). — II, 958.
- 31) Monomethyläther d. 3,5-Dioxy-1-Methylbenzol. Sd. 273° (261°) (*Z.* 1867, 561; *B.* 14, 2001; *M.* 18, 172). — II, 961.
- 32) Dimethyläther d. 1,2-Dioxybenzol (Veratrol). Sd. 205–206° (*A.* 180, 60; 152, 74; 159, 244; *M.* 1, 277; *B.* 14, 2017; *R.* 12, 277; *J. pr.* [2] 53, 250; *G.* 26 [2] 9). — II, 909.
- 33) Dimethyläther d. 1,3-Dioxybenzol. Sd. 214–215° (*Bl.* 34, 150; *B.* 10, 869; 19, 562; *J. pr.* [2] 35, 27). — II, 916.
- 34) Dimethyläther d. 1,4-Dioxybenzol. Sm. 55–56° (*A.* 177, 341; 207, 252; *J. pr.* [2] 35, 27). — II, 939.
- 35) Monoäthyläther d. 1,2-Dioxybenzol (Guäthol). Sm. 28–29°; Sd. bei 217° (240–241°) (*C.* 1898 [2] 521; *M.* 15, 237). — II, 909.
- 36) Monoäthyläther d. 1,3-Dioxybenzol. Sd. 246–247° (*M.* 19, 536).
- 37) Monoäthyläther d. 1,4-Dioxybenzol. Sm. 66°; Sd. 246–247° (*B.* 12, 1501–1502 Anm.; *J. pr.* [2] 22, 462). — II, 939.
- 38) β -Oxyäthyläther d. Oxybenzol (Phenyläther d. $\alpha\beta$ -Dioxyäthan). Sd. 237° (*M.* 15, 675, 678; *C.* 1895 [1] 825; *Soc.* 69, 164).
- 39) Kaffeol. Sd. 195–197° (*M.* 1, 459; *A.* 305, 103). — II, 1109.
- 40) Mekonoiosin. Sm. 88° (*J.* 1878, 957). — II, 1928.
- 41) *p*-Trimethyl-1,2-Pyron + 3H₂O. Sm. 45–46° (74° wasserfrei) (*B.* 27, 849).
- 42) 3-Acetyl-2,5-Dimethylfuran. Sd. 193–196° (*B.* 27 [2] 405; *G.* 24 [1] 435). — III, 727.
- 43) Furfurbutylenoxyd. Sd. 186° (*B.* 17, 854). — III, 693.
- 44) Hydrotropilidencarbonsäure. Sm. 74–75°. Ag (*B.* 30, 718).

- $C_9H_{10}O_2$ 45) **Terebentilsäure.** Sm. 90°; Sd. 250°. K, Pb, Ag (A. 100, 253; 180, 85). — I, 536.
 $C_9H_{10}O_3$ C 62,3 — H 6,5 — O 31,2 — M. G. 154.
- 1) **2,4,5-Triox-1,3-Dimethylbenzol** + H_2O . Sm. 88—90° (121—122° wasserfrei) (A. 180, 37). — II, 1023.
 - 2) **2,4,6-Triox-1,3-Dimethylbenzol** + $3H_2O$. Sm. 163° (wasserfrei). + $1\frac{1}{2}C_9H_{10}O_3$, Na (M. 19, 237; A. 302, 180).
 - 3) **Monomethyläther d. 2,4,6-Triox-1-Methylbenzol.** Sm. 124° (M. 19, 230).
 - 4) **Monomethyläther d. 2,4,6-Triox-1-Methylbenzol** + H_2O . Sm. 91° (117—119° wasserfrei) (A. 302, 187).
 - 5) **3-Methyläther d. 3,4-Diox-1-Oxymethylbenzol** (Vanillylalkohol). Sm. 115°; + Formaldehyd Sm. 110—111° (B. 8, 1126; 9, 415; 18, 1599; 27, 2411). — II, 1112.
 - 6) **Dimethyläther d. 1,2,3-Trioxybenzol.** Sm. 51—52°; Sd. 253°. Pikrat, Sm. 53° (B. 11, 334; 26, 3045; M. 15, 297; 19, 561). — II, 1011.
 - 7) **Dimethyläther d. 1,3,5-Trioxybenzol.** Sm. 36—38°; Sd. 172—175°, 17 (M. 18, 736).
 - 8) **Dimethyläther d. p-Trioxybenzol.** Sm. 24°; Sd. 251—252° (B. 24, 2609). — II, 1023.
 - 9) **Monäthyläther d. 1,2,3-Trioxybenzol.** Sm. 95° (B. 9, 125; 11, 799; M. 2, 212). — II, 1011.
 - 10) **2-Aethyläther d. 1,2,4-Trioxybenzol.** Sm. 112,5° (B. 20, 1133). — II, 1017.
 - 11) **Monoäthyläther d. 1,3,5-Trioxybenzol** + $2H_2O$. Sm. 72—73°; Sd. 220—221°, 30 (M. 18, 357, 745).
 - 12) **Methylphysciol.** Sm. 142° (B. 30, 360).
 - 13) $\beta\epsilon$ -**Diketohehexan- γ -Methylcarbonsäure?** Sm. 93°. Ag (J. pr. [2] 53, 560).
 - 14) **Methyluvinsäure.** Sm. 98°. Ca + $4H_2O$, Ba + $4H_2O$, Ag (A. 250, 205). — III, 709.
 - 15) **Säure** (aus Isodehydracetsäureäthylester). Sm. 149°. Ba + $2H_2O$, Ag (A. 259, 158). — I, 627.
 - 16) **Anhydrid d. γ -Hexen- $\gamma\delta$ -Dicarbonsäure** (A. d. Xeronsäure). Sd. 242° (B. 15, 2012; 23, 3423; A. 188, 61, 64). — I, 721.
 - 17) **Anhydrid d. Isotrimethylglutakonsäure.** Sm. 107° (Soc. 71, 1184).
 - 18) **Anhydrid d. cis-Hexahydrobenzol-1,2-Dicarbonsäure.** Sm. 32°; Sd. 145°, 18 (A. 258, 219). — II, 1731.
 - 19) **Anhydrid d. trans-Hexahydrobenzol-1,2-Dicarbonsäure.** Sm. 140° (A. 258, 216). — II, 1731.
 - 20) **Anhydrid d. cis-Hexahydrobenzol-1,3-Dicarbonsäure.** Sm. 187 bis 189° (Soc. 59, 812). — I, 722.
 - 21) $\alpha\gamma$ -**Lakton- γ -Hepten- $\delta\eta$ -Oxyd- γ -Carbonsäure** (Dibutolakton). Sm. 86,5° (A. 267, 192). — I, 786.
 - 22) **Methylester d. 2,5-Dimethylfuran-3-Carbonsäure.** Sd. 198° (B. 22, 156). — III, 708.
 - 23) **Aethylester d. Carbacetessigsäure.** Sd. 290—295° (B. 15, 1387; 25, 1310; A. 213, 179).
 - 24) **Aethylester d. 2-Methylfuran-5-Carbonsäure.** Sd. 213—214° (Am. 15, 170). — III, 707.
 - 25) **Propylester d. Furan-2-Carbonsäure.** Sd. 210,9°_{759.3} (B. 27 [2] 246; G. 24 [1] 253). — III, 698.
 - 26) **Isopropylester d. Furan-2-Carbonsäure.** Sd. 198,6°_{758.1} (B. 27 [2] 246; G. 24 [1] 253). — III, 698.
 - 27) **Acetat d. 1-Keto-5-Oxy-1,2,3,4-Tetrahydrobenzol** (A. 278, 47).
 $C_9H_{10}O_4$ C 56,4 — H 5,9 — O 37,6 — M. G. 170.
 - 1) **Dimethyläther d. 1,2,3,4-Tetraoxybenzol.** Sm. 105—106°; Sd. 298° (B. 22, 119, 2482). — II, 1029.
 - 2) **1,3-Dimethyläther d. 1,2,3,5-Tetraoxybenzol.** Sm. 166° (B. 8, 67; 11, 332; 21, 609; 23, 1217). — II, 1030.
 - 3) **isom. p-Dimethyläther d. 1,2,3,5-Tetraoxybenzol.** Sm. 87° (B. 26, 2037). — II, 1031.
 - 4) $\beta\delta\epsilon\eta$ -**Tetraketooktan** (Oxalyldiaceton). Sm. 120—121° (B. 21, 1142). — I, 1027.

$C_8H_{10}O_4$

- 5) cis-1,2,3,4-Tetrahydrobenzol-1,4-Dicarbonsäure. Sm. 150—155° (A. 251, 308; 258, 46). — II, 1733.
- 6) cistrans-1,2,3,4-Tetrahydrobenzol-1,4-Dicarbonsäure. Sm. bei 220° (A. 251, 307; 258, 46). — II, 1733.
- 7) 1,2,3,4-Tetrahydrobenzol-1,6-Dicarbonsäure. Sm. 215°. Ag_2 (A. 258, 198; J. pr. [2] 43, 539; B. 30, 504). — II, 1732.
- 8) cis-1,2,3,4-Tetrahydrobenzol-2,3-Dicarbonsäure. Sm. 174° (A. 258, 212; 269, 202). — II, 1733.
- 9) trans-1,2,3,4-Tetrahydrobenzol-2,3-Dicarbonsäure. Sm. 215—218° (A. 258, 211; 269, 203). — II, 1733.
- 10) 1,2,3,4-Tetrahydrobenzol-2,5-Dicarbonsäure. Sm. oberh. 300°. Ba (A. 245, 160; 251, 281; 280, 94; J. pr. [2] 43, 5). — II, 1833.
- 11) 1,2,3,4-Tetrahydrobenzol-5,6-Dicarbonsäure + H_2O . Sm. 120° (wasserfrei). Ba + H_2O , Pb (A. 166, 346; 258, 203). — II, 1732.
- 12) isom. 1,2,3,4-Tetrahydrobenzol-5,6-Dicarbonsäure? (Suberkolsäure). subl. bei 225—230° (ohne Sm.). Mg + 2 H_2O , Ca, Ba, Ag_2 (B. 18, 820). — I, 732.
- 13) 4-Methyl-2,3-Dihydro-R-Penten-3,5-Dicarbonsäure. Sm. 188°. Ag_2 (Soc. 57, 233). — I, 732.
- 14) α -Mesityloxydoxalsäure + H_2O . Sm. 92—93° (wasserhaltig); Sm. 84 bis 86° (wasserfrei) (A. 291, 131).
- 15) β -Mesityloxydoxalsäure. Sm. 166—167° (A. 291, 122).
- 16) Anhydrid d. Säure $C_8H_{10}O_5$ (aus Camphersäure) (C. 1897 [2] 489).
- 17) $\beta\delta$ -Lakton d. β -Oxy- β -Hexen- $\gamma\delta$ -Dicarbonsäure (Ketolaktonsäure). Sm. 181°. Ba + 2 $\frac{1}{2}$ (5) H_2O , Ag (A. 216, 45; Soc. 71, 1160). — I, 732.
- 18) Dilakton d. $\beta\delta$ -Dioxy- γ -Methylpentan- $\beta\delta$ -Dicarbonsäure (B. 28, 2942).
- 19) $\beta\delta$ - $\gamma\delta$ -Dilakton d. $\beta\delta$ -Dioxy- β -Methylbutan- δ -Carbonsäure- γ -Methylcarbonsäure (Dilakton d. Oxydiaterpensäure). Sm. 129° (B. 27, 1221, 1496).
- 20) Dimethylester d. 1,2-Dihydro-R-Buten-3,4-Dicarbonsäure. Sm. 44—46° (Soc. 65, 974).
- 21) Dimethylester d. $\alpha\gamma$ -Butadien- $\alpha\delta$ -Dicarbonsäure (Dimethylester d. Mukonsäure). Sm. 154° (A. 266, 23). — I, 730.
- 22) Diäthylester d. Aethindicarbonsäure (D. d. Acetylendicarbonsäure). Sd. 120—121°₁₀ (J. pr. [2] 46, 224; B. 18, 2271; M. 14, 493). — I, 729.
- 23) Diallylester d. Oxalsäure. Sd. 215,5° (217°_{788,7}) (A. 102, 288, 294; Ph. Ch. 1, 387; B. 6, 387). — I, 648.
- 24) Verbindung (aus Acetondicarbonsäurediäthylester u. Bernsteinsäurediäthylester). Sm. 98° (G. 26 [2] 379).

$C_8H_{10}O_5$

- 1) Bergelit + H_2O . Sm. 130° (C. r. 93, 646).
- 2) δ -Oxy- β -Methyl- $\alpha\gamma$ -Pentadien- $\alpha\gamma$ -Dicarbonsäure (Oxymesitendicarbonsäure). Cu (Lit. siehe d. Lakton $C_8H_8O_4$). — I, 776.
- 3) Methyldehydrohexondicarbonsäure. Sm. 185—190° u. Zers. (Soc. 51, 739). — I, 777.
- 4) 6-Oxy-1,2,3,4-Tetrahydrobenzol-2,5-Dicarbonsäure (B. 22, 2180). — II, 1917.
- 5) Anhydrid d. 1,3-Dioxyhexahydrobenzol-1,3-Dicarbonsäure. Sm. 174—176° (A. 278, 53). — II, 1990.
- 6) Anhydrid d. Pentan- $\beta\gamma\delta$ -Tricarbonsäure. α -Modif. Sm. 111—113°; β -Modif. Sm. 129—130°; γ -Modif. Sm. 117—119° (B. 29, 335, 337).
- 7) isom. Anhydrid d. Pentan- $\beta\gamma\delta$ -Tricarbonsäure. 3 Modifikationen. Fl. (B. 29, 335, 337).
- 8) Anhydrid d. β -Methylbutan- $\beta\gamma\gamma$ -Tricarbonsäure. Sm. 67—82° (B. 23, 649). — I, 812.
- 9) Anhydrid d. β -Methylbutan- $\beta\gamma\delta$ -Tricarbonsäure (A. d. Dimethyltricarballysäure). Sm. 142,5° (145—146°); Sd. 225°₁₆ (B. 28, 1349; 29, 2792; Soc. 73, 710).
- 10) Anhydrid d. Butyryläpfelsäure (B. 26 [2] 492).
- 11) Säureanhydrid (aus $\alpha\beta$ -Dioxybuttersäure) (A. 267, 19).
- 12) Lakton d. δ -Oxy- δ -Acetoxyl- γ -Keto- β -Methylbutan- β -Carbonsäure. α Modif. Sm. 114°; β -Modif. Sm. 154° (B. 30, 860).
- 13) $\beta\delta$ -Lakton d. δ -Oxy- γ -Ketobutan- $\alpha\beta$ -Dicarbonsäure- α -Aethylester (Aethylester d. Carboxytetrinsäure). Sm. 96—97° (95°) (B. 21, 2605; Soc. 71, 333). — I, 774.

- C₈H₁₀O₅** 14) Dimethylester d. δ -Oxy- $\alpha\gamma$ -Butadien- $\alpha\gamma$ -Dicarbonsäure (D. d. α -Oxy-methylenglutakonsäure). Sm. 88—89° (A. 273, 174).
 15) Methyläthylester d. α -Ketoäthan- $\alpha\beta$ -Dicarbonsäure (Methyläthylester d. Oxaleessigsäure). Sd. 130°₂₂. Na, Cu (A. 277, 381).
 16) Verbindung (aus d. Aldehyd C₄H₆O₃) (A. 165, 288). — I, 968.
 17) Verbindung (aus Santalin) (B. 12, 15). — III, 672.
- C₈H₁₀O₆** C 47,5 — H 4,9 — O 47,5 — M. G. 202.
 1) Glykuvinsäure = (C₈H₆O₄ + 2H₂O)? Sm. 83°; Sd. 245—247°. K, Ca, Ba, Ag (A. 196, 96; B. 14, 316).
 2) $\beta\epsilon$ -Dioxy- $\beta\delta$ -Hexadien- $\gamma\delta$ -Dicarbonsäure (α -Diacetylbernsteinsäure) (B. 27, 1160; A. 293, 102).
 3) $\beta\epsilon$ -Diketohexan- $\gamma\delta$ -Dicarbonsäure (β -Diacetylbernsteinsäure). Sm. 185 bis 186° u. Zers. (A. 293, 106).
 4) isom. $\beta\epsilon$ -Diketohexan- $\gamma\delta$ -Dicarbonsäure (γ -Diacetylbernsteinsäure). Zers. bei 160°. Ba, Ag, Phenylhydrazinsalz (B. 7, 892; 22, 170; 27, 1160; A. 201, 144; 266, 88; 293, 103). — I, 819.
 5) α -Penten- $\delta\delta\epsilon$ -Tricarbonsäure (Allyläthenyltricarbonsäure). Sm. 151° u. Zers. (B. 16, 333). — I, 820.
 6) 1,4-Dioxy-1,2,3,4-Tetrahydrobenzol-2,5-Dicarbonsäure. Sm. 189 bis 190° u. Zers. (NH₄)₂, Ba, Ag + 2H₂O (B. 22, 1279). — II, 1990.
 7) Tetrahydrooxyterephthalsäure. Sm. 139°. Ba + 2H₂O (A. 211, 325). — I, 820.
 8) dreibas. Hämatinsäure (B. 29, 823; 30, 106).
 9) $\beta\epsilon$ -Lakton d. ϵ -Oxypentan- $\alpha\beta\beta$ -Tricarbonsäure (Dicarbocaprolakton-säure). Sm. 152—153°. Ba, Ag₂ (B. 16, 1258). — I, 843.
 10) trans- $\beta\delta$ -Lakton d. δ -Oxy- β -Methylbutan- $\beta\gamma\delta$ -Tricarbonsäure. Sm. 211—212° (B. 30, 1960).
 11) cis- $\beta\delta$ -Lakton d. δ -Oxy- β -Methylbutan- $\beta\gamma\delta$ -Tricarbonsäure (L. d. α -Oxydimethyltricarballysäure). Sm. 207° u. Zers. Ca + 3H₂O (B. 29, 2794; 30, 1960).
 12) Diäthylester d. Diketoäthan- $\alpha\beta$ -Dicarbonsäure (D. d. Dioxobernstein-säure). Sd. 233—234° (B. 25, 1976; 27, 1304). — I, 815.
 13) Diformiat d. Isomannid. Sm. 115°; Sd. 166°₁₈ (Bl. 41, 124). — I, 398.
- C₈H₁₀O₇** C 44,0 — H 4,6 — O 51,4 — M. G. 218.
 1) β -Ketopentan- $\delta\epsilon\epsilon$ -Tricarbonsäure. Sm. 121—124° (B. 17, 2286; 19, 43; J. pr. [2] 53, 310). — I, 845.
 2) β -Ketobutan- $\gamma\delta$ -Dicarbonsäure- γ -Methylcarbonsäure (β -Acettricarballysäure) (A. 190, 323; B. 23, 3755). — I, 845.
- C₈H₁₀O₈** C 41,0 — H 4,3 — O 54,7 — M. G. 234.
 1) Butan- $\alpha\alpha\delta\delta$ -Tetracarbonsäure (Aethylendimalonsäure). Ag₄ (Soc. 51, 19; 65, 1002). — I, 859.
 2) Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure. Sm. 189°. Na₄, Ag₄ (B. 24, 312; 27, 1121; 28, 882; Ph. Ch. 10, 579). — I, 860.
 3) isom. Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure. Sm. 244° (236°). Na₄ (B. 21, 2112; 24, 313; 26, 372; 27, 1122, 1126).
 4) Butan- $\beta\beta\gamma\gamma$ -Tetracarbonsäure (Dimethylacetylentetracarbonsäure). K₄ (A. 234, 63, 70; Am. 16, 581). — I, 860.
 5) Butan- β -Tetracarbonsäure. Sm. 120—130°₁₀ u. Zers. Ba₂ + 2H₂O (J. pr. [2] 45, 58). — I, 860.
 6) Butan- β -Tetracarbonsäure. Ba₂ (J. pr. [2] 45, 59). — I, 860.
 7) β -Acetoxypropen- $\alpha\beta\gamma$ -Tricarbonsäure (Acetylcitronensäure). Sm. 138 bis 140° (Soc. 61, 1005). — I, 840.
 8) Diacetylweinsäure + 3H₂O. Sm. 58°. K, Ba, Cu, Ag₂ (J. 1861, 368; A. Spl. 5, 288; J. 1882, 855; Bl. [3] 7, 238; B. 13, 1178; 15, 2242). — I, 796.
 9) Dimethylester d. Aethan- $\alpha\alpha\beta\beta$ -Tetracarbonsäure. Sm. 158—160° u. Zers. K₂ (Soc. 67, 771).
 10) Tetraformiat d. $\alpha\beta\gamma\delta$ -Tetraoxybutan. Sm. 150° (A. ch. [6] 7, 227). — I, 398.
- C₈H₁₀O₉** C 38,4 — H 4,0 — O 57,6 — M. G. 250.
 1) Säure (aus Crassulaceenanhydroäpfelsäure). Ag₃ (B. 31, 1444).
 2) Säure (aus d. Tetraäthylester d. Dimethylenmalonsäure). Sm. 108° (A. 273, 48).



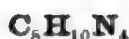
C 34,0 — H 3,5 — O 62,4 — M. G. 282.

- 1) Ditartrylsäure (Tartralsäure). Ba, Cu, Pb, Ag₂ (A. 29, 144; 78, 304; 125, 129; J. 1847/48, 508). — I, 797.



C 71,7 — H 7,4 — N 20,9 — M. G. 134.

- 1) β -Imido- β -Amido- α -Phenyläthan. Sm. 116–117°. HCl + H₂O, (2HCl, PtCl₄), HNO₃, HNO₂, H₂S₂O₃, H₂SO₄, Acetat, Oxalat (A. 184, 327; 265, 165; B. 17, 1423). — IV, 849.
- 2) α -Imido- α -Methylamidophenylmethan (Methylbenzamidin). HCl (Am. 20, 489).
- 3) α -Imido- α -Amido- α -[4-Methylphenyl]methan. Sm. 101–102°. HCl + $\frac{1}{2}$ H₂O, (2HCl, PtCl₄), HNO₃, HNO₂ + 2H₂O, H₂SO₄, H₂SO₄ + 2H₂O (B. 21, 2653; 24, 391; 26, 2839; A. 265, 167; 297, 350). — IV, 851.
- 4) α -Aethyliden- α -Phenylhydrazin (Phenyläthanamidin). Fl. (2HCl, PtCl₄), Oxalat (A. 184, 359; J. 1877, 477). — II, 346.
- 5) α -Aethyliden- β -Phenylhydrazin. α -Modif. Sm. 98–101°; β -Modif. Sm. 63–65°; Sd. 140–150°_{20–20} (A. 190, 136; 236, 137; B. 16, 2242; 29, 795; 30, 1240; Bl. [3] 15, 844; [3] 17, 245; [3] 19, 145; Am. 21, 55). — IV, 746.
- 6) α -Phenyläthylidenhydrazin. Sd. 255° (J. pr. [2] 44, 540). — III, 130.
- 7) α -Methyl- β -Benzylidenhydrazin. Sm. 179° (B. 31, 62).
- 8) Phenylazoäthan. Sd. 175–185° u. Zers. (64–70°_{10–12}) (A. 199, 328; B. 29, 794). — IV, 1374.
- 9) 1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 81°. HCl, (2HCl, PtCl₄) (J. pr. [2] 51, 129; [2] 53, 419). — IV, 636.
- 10) 1,2,3,4-Tetrahydro-1,4-Benzdiazin (Tetrahydrochinoxalin). Sm. 96 bis 97°; Sd. 288,5–289,5°. 2 + 3HCl, Oxalat, Pikrat (B. 20, 1191; A. 287, 225). — IV, 556.
- 11) 1,2,3,4-Tetrahydro-2,3-Benzdiazin. Fl. HCl, Pikrat (B. 26, 2213). — IV, 852.
- 12) Dihydroapoharmin. Sm. 48–49°; Sd. 262°. HCl, (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃) (B. 22, 641). — III, 887.



C 59,3 — H 6,2 — N 34,5 — M. G. 162.

- 1) 1,3-Di[Imidoamidomethyl]benzol (Isophthalimidin). Ag₂, 2HCl, (2HCl, PtCl₄), 2HNO₃, 2HNO₂, H₂SO₄ (B. 17, 1432; A. 265, 168). — IV, 1261.
- 2) 1,4-Di[Imidoamidomethyl]benzol (Terephthalamidin). 2HCl, (2HCl, PtCl₄) (B. 17, 1436). — IV, 1262.
- 3) Benzylidenamidoguanidin. Sm. 178°. HCl + 3H₂O, (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃), HNO₃, HNO₂ (A. 270, 35; G. 24 [1] 455). — III, 38.
- 4) 4,6-Diamido-2-Methylbenzimidazol? 2HCl, H₂SO₄ (B. 20, 333; 30, 541). — IV, 1262.
- 5) Verbindung (aus Diacetonitril) + $\frac{1}{2}$ H₂O. Sm. 85° (J. pr. [2] 52, 97). — IV, 1264.
- 6) Verbindung (aus Diacetonitril). Sm. 107° (J. pr. [2] 52, 98). — IV, 1264.
- 7) Verbindung (aus Diacetonitril). Sm. 200–201°. (2HCl, PtCl₄) (J. pr. [2] 52, 98). — IV, 1264.



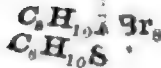
C 50,5 — H 5,2 — N 44,2 — M. G. 190.

- 1) β -Dihydro-5-Benzylidenhydrazido-1,2,3,4-Tetrazol. Sm. 187–191° u. Zers. Na (A. 287, 240). — IV, 1327.

- 2) α -Benzyltetrazylhydrazin. Sm. 123°. HCl (A. 287, 262). — IV, 1328.



- 1) 1,2-Dimethylbenzolhexachlorid. Sm. 194,5°; Sd. 260–265° (C. 1896 [1] 1019).



- 1) Oktobromoktan. Fl. (B. 26, 2437).

- 1) α -Merkaptoäthylbenzol (α -Phenyläthylmercaptan). Sd. 119–120° (B. 28, 910).

- 2) 1-Methyl-3-Merkaptomethylbenzol (3-Methylphenyl-Methylmercaptan). Fl. (Z. 1866, 489).

- 3) β -Merkapto- β -Dimethylbenzol. Sd. 213° (Z. 1865, 360). — II, 826.

- 4) 11) Methyläther d. Merkaptomethylbenzol. Sd. 195–198° (B. 20, 2926). — II, 1052.

- 12) L-Äthyläther d. Merkapto- β -Benzol. Sd. 204°_{43,5} (J. pr. [2] 17, 457; B. 20, 2078; 27, 1733). — II, 781.

- 17) β -1,3-Phenyldisulfid. Fl. (B. 19, 3135; 20, 190). — II, 782.

- 1) Äthyläther d. 1,3-Dimerkapto- β -Benzol. Sd. 278° (B. 20, 2927). — II, 782.

- 2) Dimerkapto- β -Benzol. Sd. 271°_{33,5}.



- 1) Äthyläther d. 1,3-Dimerkapto- β -Benzol. Sd. 271°_{33,5}. — II, 782.

$C_8H_9S_3$

- 1) **Verbindung** (aus d. Nitril d. γ -Chlor-norm. Buttersäure). Sm. 113—114° (B. 23, 2491). — I, 1465.

 $C_8H_{11}N$

- C 79,3 — H 9,1 — N 11,6 — M. G. 121.
- 1) **Aethylamidobenzol** (Aethylanilin). Sd. 206°₇₆₀. HCl, (2HCl, PtCl₄), HBr, HBr + CdJ₂, 2HBr + SnBr₄, HJ, Oxalat, Dioxalat (A. 74, 129; 111, 87, 92; 227, 182; B. 7, 218; 13, 1704; 15, 690; 16, 30; 21, 1111; 32, 72; R. 6, 373; Soc. 61, 455; J. 1882, 522). — II, 331.
 - 2) **α -Amidoäthylbenzol** (α -Phenyläthylamin). Sd. 187,5°₇₆₀. HCl, (2HCl, PtCl₄), HNO₃, H₂SO₄, Oxalat, Bitartrat + 1½ H₂O, Pikrat (B. 19, 1929; 22, 1856; 23, 2783; 26, 2167; 27, 2306; 29, 2313; 30, 1127; 31, 1426; J. r. 25, 529). — II, 538.
 - 3) **β -Amidoäthylbenzol**. Sd. 197—198°₇₆₀. HCl, (2HCl, PtCl₄), Oxalat, Dioxalat (A. 184, 306; 219, 202; J. 1879, 440; 1883, 703; G. 5, 124; R. 5, 254; 7, 373; B. 12, 186, 297, 1308, 1700; 14, 1788; 16, 1713; 18, 2740; 19, 783; 26, 1905; 31, 3066; J. pr. [2] 50, 556). — II, 538.
 - 4) **2-Amido-1-Aethylbenzol**. Sd. 215—216°. HCl, HNO₃ (A. 156, 209; Bl. [3] 11, 208; B. 17, 767, 2801). — II, 536.
 - 5) **3-Amido-1-Aethylbenzol**. Sd. 214—215°₇₆₀ (Bl. [3] 11, 211). — II, 536.
 - 6) **4-Amido-1-Aethylbenzol**. Sd. 216—216,5° (213—214°). HCl, (2HCl, PtCl₄), HNO₃, H₂SO₄ (A. 156, 208; B. 7, 527; 15, 1646; 17, 2801; 23, 1849; 29, 2538). — II, 537.
 - 7) **Dimethylamidobenzol** (Dimethylanilin). Sd. 192°. Salze meist bekannt. Lit. bedeutend. — II, 327.
 - 8) **2-Methylamido-1-Methylbenzol**. Sd. 207—208°. HCl, (2HCl, PtCl₄), Oxalat, Pikrat (B. 11, 2279; 16, 30; A. 304, 96; J. pr. [2] 38, 303). — II, 457.
 - 9) **3-Methylamido-1-Methylbenzol**. Sd. 206—207°. (2HCl, PtCl₄) (B. 11, 2279). — II, 476.
 - 10) **4-Methylamido-1-Methylbenzol**. Sd. 208°. HCl, (2HCl, PtCl₄) (B. 10, 1582; 11, 2281; 16, 914; 24, 2081). — II, 483.
 - 11) **2-Amidomethyl-1-Methylbenzol**. Sd. 199,5° (cor.). (2HCl, PtCl₄), Pikrat (B. 21, 577, 1890; 23, 1026). — II, 541.
 - 12) **3-Amidomethyl-1-Methylbenzol**. Sd. 201—202°₇₆₀ (196°). HCl, (2HCl, PtCl₄), Oxalat, Pikrat (A. 151, 132; B. 21, 2701; 23, 3165). — II, 545.
 - 13) **4-Amidomethyl-1-Methylbenzol**. Sd. 195°. HCl, (2HCl, PtCl₄) (B. 8, 441; 20, 1710; 23, 1030; 28, 2988). — II, 547.
 - 14) **3-Amido-1,2-Dimethylbenzol**. Sd. 223°₇₆₀. HCl + H₂O, HNO₃, H₂SO₄ (B. 18, 2562, 2671; 21, 3153; 31, 1699). — II, 540.
 - 15) **4-Amido-1,2-Dimethylbenzol**. Sm. 49°; Sd. 226°. HCl + H₂O, HNO₃, H₂SO₄ (B. 17, 160; 18, 2680; 20, 1040; 21, 646, 3153; 31, 1699). — II, 541.
 - 16) **2-Amido-1,2-Dimethylbenzol**. Sd. 215°. HCl + ½ H₂O, HNO₃, H₂SO₄ + 2½ H₂O, Oxalat (A. 207, 98).
 - 17) **2-Amido-1,3-Dimethylbenzol**. Sd. 216° (210—212°). HCl + ½ H₂O, HNO₃, H₂SO₄ + 2½ H₂O (A. 193, 179; B. 17, 2430; 21, 3151; G. 27 [1] 297). — II, 542.
 - 18) **4-Amido-1,3-Dimethylbenzol**. Sd. 212°. HCl (+ ½ H₂O), (2HCl, PtCl₄), HBr, HNO₃, H₂SO₄ + 4½ H₂O, Oxalat, Additionsverbindungen (J. 1882, 504) (A. 144, 273; 193, 177; 208, 319; B. 2, 12, 680; 9, 1295; 15, 318; 16, 28; 17, 2430; 18, 2920; 20, 871, 1041; 21, 461; 31, 1699; Z. 1866, 22; 1870, 418; J. 1882, 504; M. 9, 513). — II, 542.
 - 19) **5-Amido-1,3-Dimethylbenzol**. Sd. 220—221°. HCl, HNO₃, H₂SO₄ + H₂O (A. 207, 95; B. 18, 362). — II, 545.
 - 20) **2-Amido-1,4-Dimethylbenzol**. Sm. 15,5°; Sd. 213,5°. HCl + H₂O, HNO₃, H₂SO₄, Oxalat (B. 11, 1537; 18, 2664; 26, 39; 31, 1699). — II, 546.
 - 21) **Methylbenzylamin**. Sd. 184—185°₇₆₀. (2HCl, PtCl₄) (A. 245, 282; 265, 184). — II, 515.
 - 22) **Bz- $\Delta^{1,2}$ -Tropidin**. (HCl, AuCl₃) (B. 23, 2879). — IV, 133.
 - 23) **2-Propylpyridin** (Conyryn). Sd. 165—168° (2HCl, PtCl₄) (B. 17, 825; 23, 684; 25, 1622; 27, 2853; A. 247, 20). — IV, 133.
 - 24) **2-Isopropylpyridin**. Sd. 158—159°. (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (A. 247, 22). — IV, 134.
 - 25) **4-Isopropylpyridin**. Sd. 177—178°. (2HCl, PtCl₄), (HCl, AuCl₃) (A. 247, 25). — IV, 134.

- C₈H₁₁N**
- 26) **2-Methyl-4-Aethylpyridin.** *Sd.* 169—174°. (2HCl, PtCl₄), (HCl, AuCl₃) (*A.* 247, 47). — **IV**, 134.
 - 27) **2-Methyl-5-Aethylpyridin (Aldehydcollidin).** *Sd.* 173—174°. (2HCl, 5HgCl₂), (HCl, 6HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat. Lit. bedeutend. — **IV**, 134.
 - 28) **2-Methyl-6-Aethylpyridin.** *Sd.* 158—163°. (2HCl, PtCl₄), (HCl, AuCl₃) (*A.* 247, 46). — **IV**, 135.
 - 29) **3-Methyl-2-Aethylpyridin (β-Collidin).** *Sd.* 195—196°_{753.3}. + H₂O (Hydrat). HCl, (2HCl, HgCl₂), (2HCl, PtCl₄), (2HCl, AuCl₃), Pikrat, 2 + PtCl₄ (*J.* 1855, 550; *Bl.* 32, 488; 42, 102; *A. ch.* [5] 27, 469; *B.* 16, 426; 27, 1503). — **IV**, 135.
 - 30) **2,4,5-Trimethylpyridin.** *Sd.* 165—168°. (2HCl, PtCl₄ + H₂O), (HCl, AuCl₃), Pikrat (*B.* 29, 2999). — **IV**, 136.
 - 31) **2,4,6-Trimethylpyridin (γ-Collidin).** *Sd.* 171—172°. Salze meist bek. (*A.* 215, 32; 238, 17; *B.* 20, 1344; 21, 1011, 2713; 25, 374; 28, 796; *Soc.* 71, 308). — **IV**, 136.
 - 32) **isom. Trimethylpyridin?** *Sd.* 177°. (2HCl, 7HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (*B.* 25, 3486). — **IV**, 137.
 - 33) **α-Collidin (2-Methyl-4-Aethylpyridin?).** *Sd.* 177,8°_{758.4} (2HCl, PtCl₄) (*A.* 94, 360; *J.* 1854, 494; 1860, 359; *Bl.* 32, 488; *M.* 5, 659; *B.* 30, 1867). — **IV**, 134.
 - 34) **isom. Collidin (Propylpyridin?).** *Sd.* 170° (*J.* 1881, 928). — **IV**, 134.
 - 35) **isom. p-Collidin (aus Cinchonin).** *Sd.* 179° (*A. ch.* [5] 27, 468). — **IV**, 134.
 - 36) **isom. Collidin.** *Sd.* 165—170° (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃) (*B.* 28, 795). — **IV**, 137.
 - 37) **Isocollidin.** *Sd.* 173,8° (*M.* 5, 662). — **IV**, 137.
 - 38) **Paracollidin.** *Sd.* 220—230° (*A.* 155, 307). — **IV**, 137.
 - 39) **Base (aus Leim).** Fl. (2HCl, PtCl₄) (*J. pr.* [2] 26, 50). — **IV**, 137.
 - 40) **Base (aus d. Fleisch. d. Tintenfisches).** *Sd.* 202°. HCl, (2HCl, HgCl₂), (2HCl, 3HgCl₂), (2HCl, PtCl₄), 2 + PtCl₄ (*Bl.* 54, 730, 1118). — **IV**, 137.
 - 41) **Nitril d. α,γ-Heptadien-δ-Carbonsäure (N. d. Diallylensäure).** *Sd.* 186—188° (*B.* 29, 2006).
- C₈H₁₁N₃**
- C 64,4 — H 7,4 — N 28,2 — M. G. 149.
- 1) **α-Imido-α-[β-Phenylhydrazido]äthan.** HCl (*B.* 17, 2003). — **IV**, 1096.
 - 2) **α-Amido-α-Hydrazon-α-[4-Methylphenylmethan(p-Tolonylhydrazidin).** *Sm.* 75—77°. HCl, HNO₃, Carbonat, Pikrat, Benzoat + H₂O (*B.* 27, 3275; *A.* 298, 1). — **IV**, 1138.
 - 3) **Dimethylamidoazobenzol.** *Sd.* 113—114°₁₁. Pikrat (*B.* 8, 149; *A.* 260, 249). — **IV**, 1567.
 - 4) **Aethylamidoazobenzol** (*A.* 137, 66; *B.* 8, 150). — **IV**, 1567.
- C₈H₁₁N₅**
- C 54,2 — H 6,2 — N 39,5 — M. G. 177.
- 1) **Phenylguanylguanidin.** HCl, HNO₃, H₂SO₄ (*B.* 13, 1583; *M.* 9, 230; 12, 16). — **II**, 352.
- C₈H₁₁Cl**
- 1) **5-Chlor-1,3-Dimethyl-1,2-Dihydrobenzol.** *Sd.* 176—178° (*B.* 27, 3023; 28, 2044).
 - 2) **p-Chlor-3,5-Dimethyl-1,2-Dihydrobenzol.** *Sd.* 105—110° (i. V.) (*Bl.* [3] 17, 182).
- C₈H₁₁Br**
- 1) **Bromokton (Caprylidenbromid).** *Sd.* 203—205° (*A.* 142, 300). — **I**, 188.
- C₈H₁₁Br₃**
- 1) **p-Tribrom-p-Dimethyltetrahydrobenzol.** *Sm.* 246° (*B.* 15, 2258; *A. ch.* [6] 1, 236). — **II**, 17.
- C₈H₁₁P**
- 1) **Dimethylphenylphosphin.** *Sd.* 192°. HCl, 2HCl, (2HCl, PtCl₄), + CS₂ (*A.* 181, 359; *B.* 15, 2017). — **IV**, 1654.
 - 2) **4-Aethylphenylphosphin.** *Sd.* 200°. (2HCl, PtCl₄), HJ (*A.* 293, 322). — **IV**, 1674.
- C₈H₁₁As**
- 1) **Dimethylphenylarsin.** *Sd.* 200° (*A.* 207, 205). — **IV**, 1687.
- C₈H₁₂O**
- C 77,4 — H 9,7 — O 12,9 — M. G. 124.
- 1) **1-Keto-4-Isopropyl-2,3-Dihydro-R-Penten (Tanacetophoron).** *Sd.* 89 bis 90°₁₃ (*B.* 25, 3350, 3513; 30, 439). — **I**, 1012.
 - 2) **4-Acetyl-5-Methyl-2,3-Dihydro-R-Penten.** *Sd.* 191° (*Soc.* 57, 231, 242). — **I**, 1012.
 - 3) **1-Keto-3,5-Dimethyl-1,2,3,4-Tetrahydrobenzol.** *Sd.* 211° (208—209°) (*A.* 215, 50, 297; 281, 111; 288, 356; *B.* 18, 2582). — **I**, 1012.

C_5H_8O

4) **Methyl-1,2,3,4-Tetrahydrophenylketon** (Granatal). Sd. 200—201° (B. 26, 2748; 29, 486). — IV, 53.

5) **Cannabidon** (B. 27 [2] 515).

6) **Umbellol**. Sd. 215—216° (B. 13, 629, 630). — III, 548.

7) **Keton** (aus Holztheeröl). Sd. 192—193° (C. 1898 [2] 1232).

 $C_5H_{10}O_2$

8) **Verbindung** (aus Dipropargyl). Sd. 75° (J. pr. [2] 44, 233). — I, 140. C 68,6 — H 8,6 — O 22,8 — M. G. 140.

1) **Propyläther d. 2-Oxymethylfuran**. Sd. 164—168° (A. 272, 299). — III, 697.

2) **6-Oxy-4-Keto-2,2-Dimethyl-1,2,3,4-Tetrahydrobenzol** (Dimethylhydroresorcin). Sm. bei 150° (B. 28, 1123; A. 294, 315).

3) **2,5-Diketo-1,4-Dimethylhexahydrobenzol**. Sm. 93° (B. 25, 2122). — I, 1023.

4) **isom. 2,5-Diketo-1,4-Dimethylhexahydrobenzol**. Sm. 115—117° (B. 31, 3206).

5) **Acetylmesityloxyd**. Sd. 204—206°. Cu (B. 22, 1013). — I, 1022.

6) **Dipyrrotartraceton**. Sd. 230° (Bl. 29, 309). — I, 782.

7) **α -Heptadien- δ -Carbonsäure** (Diallylessigsäure). Sd. 227—227,5°. NH_4 , Ca + 2H₂O, Ba, Ag (A. 201, 49; 204, 173; 216, 73; Bl. 29, 228; J. pr. [2] 34, 498; Soc. 49, 211; B. 29, 2005). — I, 532.

8) **2,3,4,5-Tetrahydro-R-Hepten-6-Carbonsäure** (Suberencarbonsäure). Sm. 54° (49—51°) (A. 211, 119; Soc. 39, 541; B. 31, 399, 401, 2506; 32, 705). — I, 533.

9) **2-Methyl-1,2,3,4-Tetrahydrobenzol-5-Carbonsäure**. Sm. 132° (A. 280, 92, 163). — II, 1130.

10) **isom. 2-Methyl-1,2,3,4-Tetrahydrobenzol-5-Carbonsäure**. Sm. 60 bis 61° (C. 1898 [1] 499).

11) **isom. 2-Methyl-1,2,3,4-Tetrahydrobenzol-5-Carbonsäure**. Fl. (C. 1898 [1] 499).

12) **1-Aethyl-2,3-Dihydro-R-Penten-3-Carbonsäure**. Fl. Ca + 4H₂O, Cu + 2H₂O (A. 280, 126). — II, 1130.

13) **isom. 1-Aethyl-2,3-Dihydro-R-Penten-3-Carbonsäure**. Fl. (A. 280, 134). — II, 1130.

14) **2-Aethyl-2,3-Dihydro-R-Penten-4-Carbonsäure**. Sm. 47—50°; Sd. 254—260°. Ca + 4H₂O (A. 280, 131, 136). — II, 1130.

15) **Säure** (aus Pfefferminzöl). Fl. (C. 1895 [1] 547).

16) **Lakton d. β -Oxy- $\delta\delta$ -Dimethyl- β -Penten- ϵ -Carbonsäure**. Sd. 80°, 14 (A. 299, 179).

17) **Lakton d. trans-1-Oxymethylhexahydrobenzol-2-Carbonsäure**. Sd. 160—165°₈₀ (A. 300, 175).

18) **Lakton d. Säure C₈H₁₄O₃** (aus Camphen). Sd. bei 250° (Soc. 69, 85).

19) **Lakton d. Säure C₈H₁₄O₃** (aus Bromdipropylelessigsäureanhydrid). Sd. 235—240° (A. 216, 75).

20) **Methylester d. 1,2,3,4-Tetrahydrobenzol-1-Carbonsäure**. Sd. 188 bis 189° (A. 132, 81; 271, 239). — II, 1130.

21) **Methylester d. 1,2,3,4-Tetrahydrobenzol-5-Carbonsäure**. Sd. 193,5 bis 194,5° (A. 271, 273). — II, 1129.

22) **Aethylester d. Sorbinsäure**. Sd. 195,5° (A. 110, 137). — I, 532.

 $C_5H_{12}O_3$

23) **Acetat d. Alkohol C₆H₁₀O**. Sd. 126—128° (B. 18, 2931).

C 61,5 — H 7,7 — O 30,8 — M. G. 156.

1) **Aethyläther d. α -Oxy- γ -Keto- β -Aethanoyl- α -Buten** (Ae. d. Oxymethylenacetylaceton). Sd. 256—258° (B. 26, 2731; A. 297, 57).

2) **δ -Oxy- α -Heptadien- δ -Carbonsäure** (α -Oxydiallylessigsäure; Diallyloxalsäure). Sm. 48,5°. Salze meist bekannt (A. 185, 183; B. 9, 344; J. pr. [2] 31, 349; [2] 34, 485; [2] 48, 522). — I, 623.

3) **Digsäure**. Ca + 6H₂O (B. 27 [2] 882). — III, 581.

4) **Heptinsäure**. Sm. 150—151°. Ba + 5H₂O (A. ch. [5] 20, 472). — I, 624.

5) **Säure** (aus Dibromtetrahydroisophenylelessigsäure). Sm. 125—126° (B. 30, 633; 31, 2245).

6) **Anhydrid d. Hexan- α -Dicarbonsäure** (Anhydrid d. Korksäure). Sm. 62—63° (65—66°) (G. 24 [1] 475; C. 1896 [2] 1091).

7) **Anhydrid d. Hexan- γ -Dicarbonsäure** (A. d. s-Diäthylbernsteinsäure). Sd. 245—246° (B. 21, 2103; J. r. 21, 381). — I, 682.

$C_8H_{12}O_4$

- 8) Anhydrid d. β -Methylpentan- $\beta\delta$ -Dicarbonsäure (A. d. Trimethylglutarsäure). Sm. 95—96°; Sd. 262° (B. 23, 305). — I, 684.
- 9) Anhydrid d. cis- β -Methylpentan- $\gamma\delta$ -Dicarbonsäure. Sd. 138—140°_{ss} (Soc. 69, 281).
- 10) Anhydrid d. trans- β -Methylpentan- $\gamma\delta$ -Dicarbonsäure. Sd. 46° (Soc. 69, 280).
- 11) Anhydrid d. β -Methylpentan- $\gamma\epsilon$ -Dicarbonsäure. Sm. 53° (60°) (Soc. 69, 1496, 1508; G. 26 [2] 43).
- 12) Anhydrid d. β -Methylpentan- $\delta\epsilon$ -Dicarbonsäure. Fl. (B. 32, 529).
- 13) Anhydrid d. $\beta\beta$ -Dimethylbutan- $\alpha\gamma$ -Dicarbonsäure. + $\frac{1}{2}$ H₂O, Sm. 61° (82° wasserfrei) (Soc. 75, 65).
- 14) Anhydrid d. $\beta\gamma$ -Dimethylbutan- $\alpha\gamma$ -Dicarbonsäure. Sm. 39° (Soc. 71, 1188).
- 15) Anhydrid d. $\beta\gamma$ -Dimethylbutan- $\beta\gamma$ -Dicarbonsäure (A. d. Tetramethylbernsteinsäure). Sm. 147°; Sd. 230,5° (B. 23, 304; A. 274, 50; 290, 42). — I, 684.
- 16) Lakton d. α -Oxy- β -Keto- γ -Aethylpentan- γ -Carbonsäure. Sd. 219 bis 225° (B. 31, 2954).
- 17) Monaldehyd d. Norpinsäure. Fl. (B. 29, 1909).
- 18) Aethylester d. δ -Keto- β -Penten- γ -Carbonsäure (Aethylester d. Aethy-lidenacetessigsäure). Sd. 210—212° (B. 14, 346; 31, 735, 745; J. pr. [2] 50, 140; A. 218, 172). — I, 620.
- 19) Aethylester d. 1-Keto-R-Pentamethylen-2-Carbonsäure. Sd. 120°_{ss} (A. 297, 112).
- 20) Aethylester d. 1-Acetyl-R-Trimethylen-1-Carbonsäure. Sd. 195 bis 196,5° (Soc. 47, 829; 51, 825; B. 19, 2563). — I, 619.
- 21) Verbindung (aus Diallyloxyessigsäure) (J. pr. [2] 39, 95).
- 22) Verbindung (aus Brom- α -Propionylpropionsäureäthylester) oder C₁₆H₂₄O₆. Sd. 240—260° (A. 231, 210). — I, 605.

 $C_8H_{12}O_4$

- C 55,8 — H 7,0 — O 37,2 — M. G. 172.
- 1) γ -Oxy- $\beta\epsilon\zeta$ -Triketo- γ -Methylheptan. Sd. 190°_{ss} (B. 21, 1419; 28, 1846).
 - 2) Heptan- $\alpha\gamma\delta\eta$ -Dioxyd- γ -Carbonsäure (Oxetoncarbonsäure). Sm. 156°. Ca, Ba, Ag (A. 267, 194). — I, 786.
 - 3) α -Hexen- $\alpha\beta$ -Dicarbonsäure (Propylcitrakonsäure). Sm. 80°. Ca + H₂O, Ba, Ag₂ (A. 304, 245).
 - 4) α -Hexen- $\alpha\beta$ -Dicarbonsäure (Propylmesakonsäure). Sm. 170°; Sd. 240°_{ss}. Ca + 2H₂O, Ba + H₂O, Ag₂ (A. 304, 250).
 - 5) α -Hexen- $\delta\delta$ -Dicarbonsäure (Allyläthylmalonsäure). Sm. 107—108° (B. 29, 1856).
 - 6) α -Hexen- $\delta\epsilon$ -Dicarbonsäure (α -Paramethylallylbernsteinsäure). Sm. 147 bis 148°. Ca + H₂O, Ba + H₂O, Cu, Ag₂ (B. 25, 490). — I, 721.
 - 7) isom. α -Hexen- $\delta\epsilon$ -Dicarbonsäure (Mesomethylallylbernsteinsäure). Sm. 86—87°. Ca + 2H₂O, Ba + 2H₂O (B. 25, 490). — I, 721.
 - 8) β -Hexen- $\alpha\beta$ -Dicarbonsäure (Propylitakonsäure). Sm. 159—160,5°. Ca + H₂O, Ba + $1\frac{1}{2}$ H₂O (A. 255, 84; 256, 106; 304, 241). — I, 720.
 - 9) γ -Hexen- $\gamma\delta$ -Dicarbonsäure (Xeronsäure). Ca + H₂O, Ba + $\frac{1}{2}$ H₂O, Ag₂ (B. 15, 1321, 2012; 23, 3423; A. 188, 59; 239, 277). — I, 721.
 - 10) δ -Methyl- α -Penten- $\alpha\beta$ -Dicarbonsäure (Isopropylcitrakonsäure). Sm. 78 bis 81°. Ba, Ag₂ (A. 304, 262).
 - 11) δ -Methyl- α -Penten- $\alpha\beta$ -Dicarbonsäure (Isopropylmesakonsäure). Sm. 183° (185°). Ca, Ba (A. ch. [5] 20, 493; A. 304, 266). — I, 721.
 - 12) β -Methyl- β -Penten- $\epsilon\epsilon$ -Dicarbonsäure. Sm. 82,5—83,5°. Ag₂ (C. 1898 [2] 661).
 - 13) γ -Methyl- β -Penten- $\alpha\beta$ -Dicarbonsäure (γ -Methyläthylitakonsäure). Sm. 141—142°. Ca, Ba + 3H₂O, Ag₂ (A. 282, 301).
 - 14) δ -Methyl- β -Penten- $\alpha\beta$ -Dicarbonsäure (Isopropylitakonsäure). Sm. 189 bis 192° u. Zers. Ca + H₂O, Ba + 2H₂O, Ag₂ (A. 283, 132; 304, 259).
 - 15) $\beta\gamma$ -Dimethyl- α -Buten- $\alpha\gamma$ -Dicarbonsäure ($\alpha\alpha\beta$ -Trimethylglutakonsäure). Sm. 148°. Ag₂ (C. 1896 [2] 728; Soc. 71, 1182).
 - 16) Isotrimethylglutakonsäure. Sm. 133°. Ag₂ (Soc. 71, 1186).
 - 17) γ -Methyläthylitakonsäure. Sm. 165—167° (A. 282, 303).
 - 18) Norpinsäure. Sm. 173—175°; subl. bei 100° (B. 29, 882, 1910, 2784, 2788).
 - 19) Suberconsäure. Sm. 165—170° (B. 15, 149; A. 211, 120).

- $C_6H_8O_4$ 20) **cis-Hexahydrobenzol-1,2-Dicarbonsäure**. Sm. 192° (A. 258, 217). — II, 1731.
- 21) **trans-Hexahydrobenzol-1,2-Dicarbonsäure**. Sm. 215° (221°). Ca, Pb + H_2O (B. 4, 558; 30, 505; A. 166, 350; 258, 214; 300, 171). — II, 1731.
- 22) **cis-Hexahydrobenzol-1,3-Dicarbonsäure**. Sm. 161—163°. Ca + $3H_2O$, Ag₂ (Soc. 59, 808; A. 276, 259). — I, 722; II, 1731.
- 23) **trans-Hexahydrobenzol-1,3-Dicarbonsäure**. Sm. 118—120°. Ag₂ (Soc. 59, 814; A. 276, 259). — I, 722; II, 1731.
- 24) **cis-Hexahydrobenzol-1,4-Dicarbonsäure**. Sm. 161—162°. Ba (A. 245, 172; J. pr. [2] 43, 7). — II, 1834.
- 25) **trans-Hexahydrobenzol-1,4-Dicarbonsäure**. Sm. bei 300°. Ba (B. 19, 1806; A. 245, 170; 280, 95; J. pr. [2] 43, 7; Soc. 61, 175). — II, 1834.
- 26) **1-Methyl-R-Pentamethylen-2,2-Dicarbonsäure**. Sm. 173—175° u. Zers. Ag₂ (Soc. 53, 193). — I, 721.
- 27) **1-Methyl-R-Pentamethylen-3,3-Dicarbonsäure**. Sm. 140—142° (B. 28, 2958).
- 28) **R-Pentamethylen-1-Methyldicarbonsäure** (R-Pentamethenylmalonsäure). Sm. 162—163°. K₂, Ba (B. 29, 1997).
- 29) **Säure** (aus α -Brombuttersäureäthylester). Ag₂ (A. 208, 348). — I, 722.
- 30) **Säure** (aus Camphoronsäure) (M. 5, 415).
- 31) **Säure** (aus Isophoron). Sm. 102—103° (A. 299, 225).
- 32) **Säure** (aus Malonsäurediäthylester u. Pentamethylenbromid) (J. r. 25, 675).
- 33) **Säure** (aus Oxyterpenylsäure). Sm. 94—95°. Ag₂ (B. 27, 1496; 28, 2149).
- 34) **Säure** (aus Suberancarbonsäure) oder $C_8H_{14}O_4$ (B. 15, 1087).
- 35) **$\alpha\gamma$ -Lakton d. γ -Oxyhexan- $\alpha\beta$ -Dicarbonsäure** (L. d. Propylitamalsäure; Propylparakonsäure). Sm. 73,5°. Ca + $2H_2O$, Ba, Ag (A. 255, 68; 304, 244). — I, 756.
- 36) **$\gamma\epsilon$ -Lakton d. ϵ -Oxyhexan- $\beta\gamma$ -Dicarbonsäure** (Paramethylcarbocaprolaktonsäure). Sm. 140—141° (B. 29, 1860).
- 37) **isom. $\gamma\epsilon$ -Lakton d. ϵ -Oxyhexan- $\beta\gamma$ -Dicarbonsäure** (Mesomethylcarbocaprolaktonsäure). Sm. 60—68° (B. 29, 1860).
- 38) **$\beta\delta$ -Lakton d. δ -Oxy- β -Methylpentan- $\beta\delta$ -Dicarbonsäure** (L. d. γ -Oxy- α -Trimethylglutarsäure). Sm. 103—104°. Ag (B. 23, 307). — I, 756.
- 39) **$\gamma\epsilon$ -Lakton d. γ -Oxy- β -Methylpentan- $\gamma\epsilon$ -Dicarbonsäure** (Isopropylglutolaktonsäure). Sm. 67—68°. Ca + $2\frac{1}{2}H_2O$, Ba + $2H_2O$, Ag (A. 288, 185).
- 40) **$\beta\delta$ -Lakton d. β -Oxy- β -Methylpentan- $\delta\epsilon$ -Dicarbonsäure** (Isopropylisoparakonsäure). Sm. 143°. Ca + $3\frac{1}{2}H_2O$, Ba, Ag (A. 304, 272, 286).
- 41) **$\gamma\epsilon$ -Lakton d. γ -Oxy- β -Methylpentan- $\delta\epsilon$ -Dicarbonsäure** (L. d. Isopropylitamalsäure; Isopropylparakonsäure). Sm. 68—69°. Ca + $2H_2O$, Ba + $3H_2O$, Ag (A. 255, 86; 283, 130). — I, 756.
- 42) **$\alpha\gamma$ -Lakton d. γ -Oxy- γ -Methylpentan- $\alpha\beta$ -Dicarbonsäure** (Methyläthylparakonsäure). Sm. 125—126°. Ca, Ag (A. 282, 313).
- 43) **$\beta\delta$ -Lakton d. β -Oxy- β -Methylbutan- γ -Methylcarbonsäure- δ -Carbon-säure** (Terpenylsäure; Lakton d. Diaterpensäure) + H_2O . Sm. 57° (90° wasserfrei). subl. bei 130—140°. Ba, Cu + xH_2O , Ag (B. 10, 521, 1660; 27, 1220, 1660; 29, 928, 1921, 2613, 2621, 3026; A. 180, 79; 208, 71; 256, 110; 277, 119; 288, 176; J. pr. [2] 42, 387; Soc. 63, 1338). — I, 756.
- 44) **$\alpha\gamma$ -Lakton d. α -Oxy- $\beta\beta$ -Dimethylbutan- $\alpha\gamma$ -Dicarbonsäure**. Sm. 163 bis 164°. Ba + $4H_2O$, Ag (B. 27, 2136; 28, 1507, 2161).
- 45) **$\alpha\delta$ -Lakton d. δ -Oxybutan- $\alpha\beta$ -Dicarbonsäure- β -Monäthylester?** (Monäthylester d. Oxyäthylbernsteinsäurelakton). Sd. 242—245°₄₅ (M. 11, 518; 13, 601). — I, 751.
- 46) **$\alpha\gamma$ -Lakton d. γ -Oxybutan- $\alpha\gamma$ -Dicarbonsäure- γ -Monäthylester** (Monäthylester d. Methyloxyglutarsäurelakton). Sd. 262° (A. 238, 295). — I, 750.
- 47) **$\alpha\delta$ -Lakton d. δ -Oxybutan- $\alpha\gamma$ -Dicarbonsäure- γ -Monäthylester** (Monäthylester d. δ -Oxy- α -Methylglutarsäurelakton). Sd. 245—247°₅₀ (M. 11, 507; 13, 601). — I, 751.
- 48) **$\beta\delta$ -Lakton d. δ -Oxybutan- $\beta\beta$ -Dicarbonsäuremonäthylester**. Sd. 262 bis 263°₇₅₅ (B. 28, 9; A. 294, 104).

$C_3H_2O_4$

- 49) Dilakton (aus α -Brombuttersäure). Sm. 21—22°; Sd. 258—260° (A. 279, 100; B. 27, 2951).
- 50) Bianhydrid d. α -Oxy-norm. Buttersäure. Sm. 21—22°; Sd. 257—258° (B. 26, 264; A. 279, 101).
- 51) Methylester d. α -Oxy- γ -Keto- α -Butenäthyläther- β -Carbonsäure. Sd. 265—268° u. geringer Zers. (A. 297, 18).
- 52) Dimethylester d. cis-R-Tetramethylen-1,2-Dicarbonsäure. Sd. 222 bis 223° (225°) (B. 26, 2244; Soc. 65, 583).
- 53) Dimethylester d. R-Tetramethylen-1,3-Dicarbonsäure (D. d. Homotakonsäure). Sd. 220° (A. 208, 338). — I, 717.
- 54) Dimethylester d. β -Buten- $\beta\gamma$ -Dicarbonsäure (Dimethylester d. Dimethylfumarsäure) (B. 15, 1319).
- 55) Aethylester d. α -Acetoxylpropen- β -Carbonsäure? Sd. 132°₁₈ (B. 25, 1051). — I, 597.
- 56) Aethylester d. β -Acetoxylisocrotonsäure. Sd. 98°₁₂ (A. 266, 103; 276, 206, 212; 278, 223).
- 57) Aethylester d. Acetylpropenylkohlsäure. Sd. 221—224° (A. 277, 178).
- 58) Aethylester d. α -Oxy- γ -Keto- α -Butenmethyläther- β -Carbonsäure. Sd. 150—152°₁₉ (A. 297, 19).
- 59) Aethylester d. $\beta\delta$ -Diketopentan- γ -Carbonsäure (Aethylester d. Diacetylessigsäure oder d. α -Acetyl- β -Oxyisocrotonsäure). Sd. 200—205°. Al, Ni + 2H₂O, Hg, Cu + 2H₂O, Ag (A. 226, 211; 266, 102, 123; 276, 232; 277, 171; 278, 225; J. pr. [2] 37, 109; A. ch. [6] 12, 257; Soc. 61, 856; R. 3, 248). — I, 692.
- 60) Diäthylester d. Fumarsäure. Sd. 218° (A. 156, 177; 164, 299; 248, 190; B. 11, 1644; 12, 2282; 15, 1848; 21, 1801; A. ch. [6] 20, 390; G. 17, 227; J. r. 11, 284). — I, 699.
- 61) Diäthylester d. Maleinsäure. Sd. 223° (B. 12, 2283; A. 248, 193; Soc. 53, 573, 710). — I, 702.
- 62) Diäthylester d. Methylenmalonsäure. Sd. 208° (B. 19, 1054 Anm.; 22, 3295; A. 273, 48; Soc. 73, 341; C. 1898 [2] 1169). — I, 706.
- 63) Diäthylester d. Metamethylenmalonsäure = (C₃H₃O₄)_x. Zers. bei 240 bis 250° (Soc. 73, 342).
- 64) Diacetat d. $\gamma\delta$ -Dioxy- α -Buten? Sd. 202—203° (110°₂₀) (B. 5, 1059; 6, 71; 26 [2] 315; A. ch. [6] 7, 214). — I, 414.
- 65) Diacetat d. $\alpha\alpha$ -Dioxy- β -Buten (Essigsaurer α -Crotonaldehyd). Sd. 205 bis 210° (J. r. 11, 79; J. 1872, 450). — I, 960.
- 66) Aldoldiacetat? Sd. 150—160° (J. 1872, 450). — I, 964.

 $C_3H_2O_5$

- C 51,1 — H 6,4 — O 42,5 — M. G. 188.
- 1) 1-Oxyhexahydrobenzol-1,3-Dicarbonsäure. Ag₂ (B. 22, 2186). — II, 1917.
- 2) β -Ketohehexan- $\gamma\delta$ -Dicarbonsäure. Ba, Ag₂ (A. 216, 49; Soc. 71, 1161). — I, 769.
- 3) 1- α -Keto- $\beta\beta$ -Dimethylbutan- $\alpha\gamma$ -Dicarbonsäure? (aus Camphersäure). Sm. 120—121°. NH₄, (NH₄)₂, Ca + 2H₂O, Ba (B. 25 [2] 641; 27, 2133; 27 [2] 79; 28, 2159; 30, 289, 1901; G. 26 [1] 53, 60).
- 4) Terpentinsäure. Sm. 164°. NH₄, Ca, Zn, Cu, Ag₂ (J. 1888, 1639). — I, 770.
- 5) Monolakton d. $\beta\delta$ -Dioxy- γ -Methylpentan- $\beta\delta$ -Dicarbonsäure. Sm. 119—120°. Ca (B. 28, 2941).
- 6) $\beta\gamma$ -Lakton d. $\beta\delta$ -Dioxy- β -Methylbutan- δ -Carbonsäure- γ -Methylcarbonsäure (Oxyterpenylsäure). Sm. 192,5°. Ag (B. 27, 1219, 1495, 3333).
- 7) Monomethylester d. β -Acetylpropan- $\alpha\gamma$ -Dicarbonsäure. Sm. 99° (A. 295, 106).
- 8) Aethylester d. Terechrysinsäure (A. 64, 379).
- 9) Diäthylester d. β -Oxyakrylkohlensäure. Sd. 135°₂₅ (A. 276, 216).
- 10) Diäthylester d. β -Oxyäthen- $\alpha\alpha$ -Dicarbonsäure (D. d. Oxymethylenmalonsäure). Sd. 217—219°. K, Ba, Cu + H₂O (A. 295, 301 Anm.; 297, 78).
- 11) Diäthylester d. α -Ketoäthan- $\alpha\beta$ -Dicarbonsäure (D. d. Oxaleessigsäure). Sd. 131—132°₂₄. NH₄, Na, Ba, Cu (A. 246, 317; 295, 350; G. 17, 520; J. pr. [2] 50, 140; B. 27, 795; 28, 788; 30, 952; Bl. [3] 11, 484). — I, 761.

- $C_5H_{11}O_5$ 12) Aethylidenoxysuccinat. Fl. (A. 226, 228). — I, 927.
 13) Monacetat d. Isomannid. Sd. 185—187°₂₅ (Bl. 41, 122). — I, 417.
 14) Diacetat d. Verb. $C_4H_9O_5$ (aus d. Chlorhydrat d. Isobutylglyceramin-triacetat). Sd. 174—176°₃₀ (B. 30, 2066).
- $C_5H_{11}O_6$ 15) Verbindung (Harz aus Kamala). Sm. 191° (J. 1860, 563). — III, 671.
 C 47,1 — H 5,9 — O 47,0 — M. G. 204.
 1) Pentan- $\alpha\beta\beta$ -Tricarbonsäure. Sm. 148° (A. 214, 59; A. ch. [6] 27, 259). — I, 811.
 2) Pentan- $\alpha\beta\gamma$ -Tricarbonsäure (Aethyltricarballysäure). Sm. 147—148°. Ag_3 (B. 24, 310, 2897). — I, 812.
 3) Pentan- $\alpha\gamma\epsilon$ -Tricarbonsäure. Sm. 106—107° (114—115°). Ag_3 (B. 24, 284; Soc. 69, 1510). — I, 811.
 4) Pentan- $\alpha\delta\delta$ -Tricarbonsäure. Fl. (B. 28 [2] 985).
 5) Pentan- $\beta\gamma\delta$ -Tricarbonsäure. α -Modif. Sm. 203—204°; β -Modif. Sm. 175—176°; γ -Modif. Sm. 148—149° (B. 29, 333, 616).
 6) β -Methylbutan- $\beta\gamma\delta$ -Tricarbonsäure (Dimethyltricarballysäure). Sm. 147° (149—151°; 156—157°). Pb_3 (B. 28, 1349; 29, 2792; Soc. 73, 710; Bl. [3] 21, 179).
 7) β -Methylbutan- $\gamma\gamma\delta$ -Tricarbonsäure. Sm. 145° u. Zers. (B. 16, 2622). — I, 812.
 8) β -Methylbutan- $\gamma\delta\delta$ -Tricarbonsäure (α -Carbonpimelinsäure). Sm. 160° u. Zers. Ba_3 , Ag_3 (A. 220, 274; 267, 122). — I, 812.
 9) $\beta\beta$ -Dimethylpropan- $\alpha\alpha\gamma$ -Tricarbonsäure. Sm. 168°; Zers. bei 173°. Ag_3 (B. 29 [2] 660; Soc. 69, 1473).
 10) Butyryläpfelsäure (B. 26 [2] 492).
 11) 1,3-Dioxyhexahydrobenzol-1,3-Dicarbonsäure. Sm. 217—218° u. Zers. $Ba + 4H_2O$ (A. 278, 51). — II, 1990.
 12) Tartrophthalssäure (Dioxyhexahydrobenzoldicarbonsäure). Sm. 178—180° u. Zers. $Pb + H_2O$ (A. 166, 355). — I, 812.
 13) Methylester d. $\alpha\beta$ -Di[Acetoxyl]propionsäure. Sd. 242—244° (Soc. 63, 1420, 1430; 73, 194).
 14) Dimethylester d. α -Acetoxyläthan- $\alpha\beta$ -Dicarbonsäure (D. d. Acetäpfelsäure). Sd. 126°₁₁ (B. 18, 1952; 31, 1419; A. 254, 166). — I, 743.
 15) Trimethylester d. Aethan- $\alpha\alpha\beta$ -Tricarbonsäure. Sm. 34,5° (B. 29, 967).
 16) Diäthylester d. Dioxymaleinsäure. Sm. 74—75° (Soc. 69, 554).
 17) Triacetat d. Trioxyäthan (Aethenyltriacetat). Sd. oberh. 250° (A. 100, 115). — I, 415.
- $C_5H_{11}O_7$ C 43,6 — H 5,4 — O 51,0 — M. G. 220.
 1) d-Glykondimethylenäthersäure. Sm. 220°. $NH_4 + 2H_2O$, $Na + 1\frac{1}{2}(2)H_2O$, $K + H_2O$, $Mg + 6H_2O$, $Ca + 4H_2O$, $Sr + 7H_2O$, $Ba + 4H_2O$, $Zn + 3(3\frac{1}{2})H_2O$, $Cu + 2H_2O$, $Pb + 3H_2O$ (A. 292, 32).
 2) Dimethylester d. β -Oxypropan- $\alpha\beta\gamma$ -Tricarbonsäure (D. d. Citronensäure) (A. 60, 325; 80, 302). — I, 839.
 3) Monäthylester d. β -Oxypropan- $\alpha\beta\gamma$ -Tricarbonsäure (M. d. Citronensäure). Na_3 , Ag_3 (B. 8, 737, 868; J. r. 7, 159). — I, 839.
- $C_5H_{11}O_8$ C 38,1 — H 4,7 — O 57,1 — M. G. 252.
- $C_5H_{11}N_2$ 1) Monacetyl Schleimsäure + H_2O . Sm. 198° (M. 14, 490).
 C 70,6 — H 8,8 — N 20,6 — M. G. 136.
 1) α -Amido- β -Phenylamidoäthan (Aethylenphenyldiamin). Sd. 262—264°. HCl , $2HCl$, $2HBr$, Pikrat (B. 22, 2224; 28, 2935). — II, 343.
 2) α -Amido- α -[2-Amidophenyl]äthan. Fl. HCl , $2HCl$, Pikrat (B. 26, 1899). — IV, 640.
 3) $\alpha\beta$ -Diamidoäthylbenzol ($\alpha\beta$ -Diamidophenyläthan). Sd. 243—246°. ($2HCl$, $PtCl_4$), Pikrat (B. 28, 425, 3172; G. 24 [2] 430). — IV, 640.
 4) 2-Amido-1-Aethylamidobenzol. Sd. 248—249° (J. pr. [2] 39, 200; [2] 41, 164). — IV, 555.
 5) 3-Amido-1-Aethylamidobenzol. Sd. 276°. $2HCl$ (B. 19, 547). — IV, 571.
 6) 4-Amido-1-Aethylamidobenzol. Sd. 261—262°. $2HCl$, ($2HCl$, $PtCl_4$), H_2SO_4 (B. 17, 267; 19, 149; 20, 930). — IV, 583.
 7) 1,2-Di[Amidomethyl]benzol. Fl. $2HCl + \frac{1}{2}H_2O$, ($2HCl$, $AuCl_3$), $H_2S_2O_8$, Pikrat (B. 21, 579; 26, 2212; 28, 606). — IV, 641.
 8) 1,3-Di[Amidomethyl]benzol. Sd. 245—248°_{56,5}. $2HCl$, ($2HCl$, $PtCl_4$), $H_2S_2O_8$, $H_2S_2O_6$, Pikrat (B. 21, 2704; 28, 601). — IV, 642.

$C_8H_{11}N_2$

- 9) 1,4-Di[Amidomethyl]benzol. Sm. 35°. 2HCl + 1½ H₂O, (2HCl, PtCl₄), Pikrat (B. 28, 604; 28, 2992). — IV, 643.
- 10) 1,3-Di[Methylamido]benzol. Sd. 275—280°₇₈₀ (A. 286, 174). — IV, 570.
- 11) 3-Amido-1-Dimethylamidobenzol. Sd. 268—270° (258°) (B. 19, 200, 1945; Bl. [3] 21, 20). — IV, 570.
- 12) 4-Amido-1-Dimethylamidobenzol. Sm. 41°; Sd. 262,3°. 2HCl, (2HCl, PtCl₄) (B. 8, 619; 10, 762; 12, 523, 530; 16, 2235; 17, 2938; 19, 2011; 29, 1481; Soc. 69, 1246). — IV, 581.
- 13) 2-Amido-1-Methylamidomethylbenzol (o-Amidobenzylmethylamin). Fl. 2HCl (J. pr. [2] 51, 131). — IV, 626.
- 14) 4-Amidomethyl-2-Amido-1-Methylbenzol. 2HCl, Pikrat (B. 28, 2991; Bl. [3] 21, 19). — IV, 644.
- 15) 4-Methylamido-3-Amido-1-Methylbenzol. Sm. 43—44°; 2HCl, Oxalat, Pikrat (B. 18, 1487; 24, 2082; 26, 194). — IV, 611.
- 16) 2-Methylamido-4-Amido-1-Methylbenzol. Sd. 273° (A. 304, 106).
- 17) 2,4-Diamido-1,3-Dimethylbenzol (B. 17, 2427). — IV, 642.
- 18) 4,5-Diamido-1,3-Dimethylbenzol. Sm. 77—78°. 2HCl (B. 9, 1298; 18, 2683; 21, 2826). — IV, 642.
- 19) 4,6-Diamido-1,3-Dimethylbenzol. Sm. 104°. 2HCl, (2HCl, SnCl₂), H₂SO₄ (A. 144, 275; 147, 20; B. 17, 2426; 21, 2419). — IV, 642.
- 20) 2,3-Diamido-1,4-Dimethylbenzol. Sm. 75° (A. 228, 251; B. 19, 1145). — IV, 643.
- 21) 2,5-Diamido-1,4-Dimethylbenzol. Sm. 150° (142° u. Zers.). 2HCl, H₂SO₄ (B. 13, 471; 18, 2685, 2686; 20, 979; 23, 1021). — IV, 643.
- 22) 2,6-Diamido-1,4-Dimethylbenzol. Sm. 101,5—102,5° (A. 228, 252; B. 19, 145). — IV, 643.
- 23) α-Aethylphenylhydrazin. Fl. Oxalat (A. 199, 325). — IV, 658.
- 24) uns-Aethylphenylhydrazin. Sd. 237°. HCl (A. 199, 325; 252, 270; B. 8, 1642; 30, 2810). — IV, 658.
- 25) αβ-Dimethyl-α-Phenylhydrazin. Sd. 93—94°. HBr (B. 27, 698). — IV, 658.
- 26) 2,4-Dimethylphenylhydrazin. Sm. 85°. HCl + 2H₂O (M. 11, 283; 12, 211). — IV, 813.
- 27) 2,5-Dimethyl-3-Aethyl-1,4-Diazin. Sd. 180—181° (2HCl, PtCl₄ + 2H₂O), (HCl, PtCl₄), Pikrat (J. pr. [2] 47, 472; [2] 55, 69). — IV, 826.
- 28) 2,3,5,6-Tetramethyl-1,4-Diazin + 3H₂O. Sm. 86° (wasserfrei); Sd. 189,5°₇₈₀. HCl + 2H₂O, (HCl, AuCl₃ + H₂O), (2HCl, PtCl₄ + 4H₂O), + AuCl₃, + 3(6)HgCl₂, Pikrat (B. 12, 2291; 13, 1116; 14, 1469; 28, 2040; J. pr. [2] 53, 510; A. 264, 239; Bl. [3] 6, 820). — IV, 827.
- 29) Base (aus Fuselöl). Sd. 180—230°. H₂SO₄ (B. 12, 1432). — IV, 827.
- 30) Nitril d. βγ-Dimethylbutan-βγ-Dicarbonsäure. Sm. 169° (A. 290, 39). C 58,5 — H 7,3 — N 34,2 — M. G. 164.

 $C_8H_{12}N_4$

- 1) Phenylamidomethylguanidin. HCl, (2HCl, PtCl₄), HNO₃, Pikrat (G. 24 [1] 466). — IV, 1222.
- 2) 2-Methylphenylamidoguanidin. HCl, (2HCl, PtCl₄), HNO₃, Pikrat (G. 24 [1] 455). — IV, 801.
- 3) 4-Methylphenylamidoguanidin. HCl, (2HCl, PtCl₄), HNO₃, Pikrat (G. 24 [1] 458). — IV, 809.
- 4) Amido-4-Methylphenylguanidin. HNO₃ (G. 26 [2] 191). — IV, 810.
- 5) Diazobenzoläthylazid. Fl. (A. 199, 306). — IV, 1568.
- 6) Nitril d. α-Azoisobuttersäure. Sm. 105—106° u. Zers. (A. 290, 30). C 43,6 — H 5,4 — N 50,9 — M. G. 220.

 $C_8H_{12}N_5$

- 1) 1,4-Di[Imidoamidomethylhydrazon]-1,4-Dihydrobenzol (Chinonbisamidoguanidin). Sm. 250° u. Zers. 2HCl, 2HNO₃ (A. 302, 318). — IV, 1223.

 $C_8H_{12}Br_2$

- 1) Verbindung (aus d. Kohlenw. C₈H₁₄ aus Camphersäure) (B. 20, 2961). — I, 136.

 $C_8H_{12}S$

- 1) 2-Butylthiophen. Sd. 181—182° (cor.) (B. 17, 1561). — III, 747.
- 2) 2,5[?]-Diäthylthiophen. Sd. 181° (cor.) (B. 19, 633). — III, 747.
- 3) Tetramethylthiophen. Sd. 182—184° (B. 21, 1838). — III, 747.

 $C_8H_{12}S_3$

- 1) Aethenyltrisulfid, siehe C₄H₆S₃.

 $C_8H_{13}N$

- 1) 5-Isopropyl-2-Methylpyrrol. Fl. (B. 30, 434). — IV, 74.
- 2) 1,3-Diäthylpyrrol. Sd. 165—175° (G. 19, 294). — IV, 71.

$C_8H_{13}N$

- 3) *p*-Diäthylpyrrol. *Sd.* 185—187° (*B.* 23, 2563). — IV, 74.
- 4) Tetramethylpyrrol (*M.* 17, 386).
- 5) Dihydrocollidin. *Sd.* 205° (*J.* 1882, 1239). — IV, 75.
- 6) isom. Dihydrocollidin. *Sd.* 175—180° (165—166°). *HCl*, (2*HCl*, *PtCl*₄), (*HCl*, *AuCl*₃). *HJ* (*A.* 215, 44; *B.* 31, 1035). — IV, 75.
- 7) isom. Dihydrocollidin. *Sd.* 210°. (2*HCl*, *PtCl*₄) (*Bl.* 48, 11). — IV, 75.
- 8) Norgratanenin (Granatenin). *HCl*, (2*HCl*, *PtCl*₄), (*HCl*, *AuCl*₃), 2*HJ* (*B.* 27, 2858). — IV, 75.
- 9) Tropidin (N-Methyltropenin). *Sd.* 162—163°. *HCl*, (2*HCl*, *PtCl*₄), (*HCl*, *AuCl*₃), (*HJ*, *J*₂), Pikrat (*B.* 12, 944; 13, 252; 14, 232, 2130, 2405; 15, 1029, 1142; 23, 1339, 2889; 25, 3073; 29, 942; 31, 2664; *A.* 217, 117). — III, 788.
- 10) Nitril d. α -Hepten- α -Carbonsäure. *Sd.* 197—200°₇₆₀ (*C.* 1896 [2] 663).
- 11) Nitril d. Heptanaphtencarbonsäure. *Sd.* 199—201° (*B.* 24, 2714). — I, 1469.

 $C_8H_{13}N_2$

- C* 63,6 — *H* 8,6 — *N* 27,8 — *M. G.* 151.
- 1) 2,4,6-Triamido-1,3-Dimethylbenzol. Zers. bei 140—150° (*A.* 144, 276; *B.* 17, 2427; *M.* 19, 237). — IV, 1131.
 - 2) 3,5-Diamido-2-Methylamido-1-Methylbenzol. 2*HCl* + *H*₂*O* (*R.* 3, 399). — IV, 1128.
 - 3) 3,5-Diamido-4-Methylamido-1-Methylbenzol. *Sm.* 92°. 2*HCl* (*R.* 3, 407). — IV, 1129.
 - 4) 2,4-Diamido-1-Dimethylamidobenzol. *Sm.* 42—44°; *Sd.* 298° (289°). 2*HCl*, 2*HBr*, 2*HJ* + $\frac{1}{2}$ *C*₂*H*₅*O* (*B.* 12, 1806; 27, 605; 29, 1053; 30 3116). — IV, 1121.
 - 5) uns-Aethyl-2-Amidophenylhydrazin. *Fl.* 2*HCl*, (2*HCl*, *PtCl*₄) (*J. pr.* [2] 41, 170). — IV, 1126.
 - 6) 6-Amido-4,5-Dimethyl-2-Aethyl-1,3-Diazin? *Sm.* 204° (2*HCl*, *PtCl*₄ + 3*H*₂*O*) (PINNER, Imidoäther 116). — IV, 1131.
 - 7) Kyanmethäthin. *Sm.* 165,5°; subl. unterh. 100°. (2*HCl*, *PtCl*₄), (*HCl*, *AuCl*₃), *AgNO*₃ (*J. pr.* [2] 31, 112). — IV, 1131.

 $C_8H_{13}N_3$

- C* 53,6 — *H* 7,2 — *N* 39,1 — *M. G.* 179.
- 1) 2-Piperidyl-4-Amido-1,3,5-Triazin (Piperidylformoguanamin). *Sm.* 194,5°. *HCl*, (2*HCl*, *PtCl*₄), (*HCl*, *AuCl*₃), + *AgNO*₃, 2 + *AgNO*₃, *H*₂*SO*₄ + *H*₂*O*, Pikrat (*B.* 25, 529). — IV, 1316.

 $C_8H_{13}Br$

- 1) Verbindung (aus d. Dibromid d. Campholytischen Säure). *Sd.* 176° u. geringer Zers. (*B.* 26, 460; *Soc.* 63, 502).

 $C_8H_{14}O$

- C* 76,2 — *H* 11,1 — *O* 12,7 — *M. G.* 126.
- 1) δ -Oxy- δ -Methyl- α -Heptadien (Methyldiallylcarbinol). *Sd.* 158,4° (*J. r.* 9, 12; 11, 388; *A.* 185, 169; *J. pr.* [2] 23, 27; [2] 26, 111; [2] 46, 544). — I, 257.
 - 2) δ -Oxymethyl- α -Heptadien ($\beta\beta$ -Diallyläthylalkohol). *Sd.* 170—173° (*B.* 29, 2007).
 - 3) Methyläther d. δ -Oxy- α -Heptadien. *Sd.* 135—136° (*J. pr.* [2] 23, 269; *J. r.* 11, 395). — I, 304.
 - 4) Isoamyläther d. γ -Oxypropin (Propargylisoamyläther). *Sd.* 140—145° (*B.* 5, 455). — I, 304.
 - 5) ζ -Keto- β -Methyl- β -Hepten. *Sd.* 171—172°₇₆₀ (*A.* 258, 324; 275, 171; *B.* 26, 2721; 28, 2123, 2126; *C.* 1896 [2] 289; *Bl.* [3] 17, 175, 191). — I, 1010.
 - 6) ζ -Keto- β -Methyl- γ -Hepten. *Sd.* 163° (*B.* 28, 2122).
 - 7) ϵ -Keto- γ -Methyl- γ -Hepten? *Sd.* 157—158° (*J. pr.* [2] 58, 321).
 - 8) β -Keto- ζ -Methyl- γ -Hepten. *Sd.* 180°₇₅₀ (*B.* 27 [2] 121; *Bl.* [3] 17, 108).
 - 9) 4-Keto-1-Aethylhexahydrobenzol. *Sd.* 169—171° (*G.* 23 [2] 456; *C.* 1896 [2] 1114). — II, 2068.
 - 10) 2-Keto-1,3-Dimethylhexahydrobenzol. *Sd.* 174—176° (*B.* 27 [2] 594; *Soc.* 67, 349).
 - 11) 5-Keto-1,3-Dimethylhexahydrobenzol. *Sd.* 181—182°₇₆₀ (*A.* 297, 163).
 - 12) 2-Acetyl-1-Methyl-R-Pentamethylen. *Sd.* 170—171° (*Soc.* 53, 200). — I, 1010.
 - 13) 2-Keto-1,3-Diäthyl-R-Tetramethylen. *Sd.* 160—165° (*C.* 1897 [2] 342).
 - 14) Keto-R-Oktamethylen (Azelaäinketon; Azelaon). *Sd.* 90—91°₇₅ (*A.* 275, 364; *B.* 31, 1960).

$C_8H_{14}O$

- 15) Keton (aus Propionylehlorid u. Zinkmethyl). Sd. 167—168° (A. 188, 138; J. r. 8, 319). — I, 1010.
- 16) Keton (aus Benzol u. Methyläthylketon). Sd. 163—165°₇₃₉ (B. 16, 1581). — I, 1010.
- 17) 2,2,6-Trimethyl-5,6-Dehydrohexon. Sd. 129° (Bl. [3] 17, 188).
- 18) Aldehyd d. γ -Hepten- γ -Carbonsäure (α -Aethyl- β -Propylakrolein). Sd. 172,4—173,4°_{741,4} (M. 8, 112). — I, 961.
- 19) Aldehyd d. $\beta\delta$ -Dimethyl- β -Penten- δ -Carbonsäure (α -Diisobutylenaldehyd) oder $C_8H_{14}O$. Sd. 149—151° (i. CO_2). + $NaHSO_3$ (M. 2, 618; 19, 360, 374; Bl. [3] 13, 1049). — I, 961.
- 20) β -Diisobutylenaldehyd. Sd. 230—231°_{771,6} (Bl. 36, 209). — I, 961.
- 21) Verbindung (aus Dimethyloxyconiummethyloxydhydrat). Sd. 165—167° (B. 18, 120). — IV, 38.

 $C_8H_{14}O_2$

- C 67,6 — H 9,8 — O 22,5 — M. G. 142.
- 1) $\delta\epsilon$ -Dioxy- $\beta\gamma$ -Oktadien. Sd. 122—123° (Bl. [3] 15, 390).
- 2) $\beta\epsilon$ -Dimethylhexan- $\alpha\beta\epsilon\zeta$ -Dioxyd (Diisobutylendioxyd). Sd. 170—180°₁₂₃ (B. 20, 3242). — I, 317.
- 3) $\beta\gamma$ -Diketooktan (Acetylcaproyl). Sd. 172—173°_{732,8} (G. 28 [2] 281; J. pr. [2] 58, 402).
- 4) $\beta\eta$ -Diketooktan (Diacetylbutan). Sm. 43—44° (Soc. 57, 241). — I, 1019.
- 5) $\gamma\zeta$ -Diketo- β -Methylheptan. Sd. 102—106°₇₃ (B. 30, 433).
- 6) $\epsilon\zeta$ -Diketo- β -Methylheptan (Methylamyldiketon). Sd. 163° (B. 22, 2123). — I, 1019.
- 7) $\beta\epsilon$ -Diketo- $\gamma\delta$ -Dimethylhexan. Sd. 210° (Bl. [3] 6, 809).
- 8) α -Hepten- δ -Carbonsäure (Allylpropylelessigsäure). Sd. 221° (B. 29, 1856).
- 9) ϵ -Methyl- α -Hexen- α -Carbonsäure. Sm. +3°; Sd. 239—240°. Ca + H_2O , Ba, Ag (A. 283, 283, 295).
- 10) ϵ -Methyl- α -Hexen- δ -Carbonsäure (Allylisopropylelessigsäure). Sd. 217° (B. 29, 1857).
- 11) ϵ -Methyl- β -Hexen- α -Carbonsäure. Sd. 231—232°. Ca, Ba, Pb, Zn, Ag (A. 255, 103; 283, 279; 284, 291). — I, 520.
- 12) R-Heptamethylencarbonsäure (Suberonsäure). Sd. 248—250°. Ca (Soc. 65, 600; A. 211, 119; 280, 140; B. 27, 2829; 31, 2008, 2504). — I, 520; II, 1128.
- 13) Heptanaphtencarbonsäure. Sd. 237—239°. Na, K, Ca, Ba, Ag (B. 24, 2710; 25, 3668). — I, 520.
- 14) α -Oktonaphtensäure (1-Methylhexahydrobenzol-1-Carbonsäure?). Sd. 237—238°. Na, Zn, Ag (J. r. 19, 156; 25, 646; J. pr. [2] 49, 81). — I, 520.
- 15) cis-1-Methylhexahydrobenzol-2-Carbonsäure. Sd. 235—236° (Soc. 53, 208; 67, 125; A. 300, 172). — I, 519.
- 16) trans-1-Methylhexahydrobenzol-2-Carbonsäure. Sm. 50—52°; Sd. 241—242°₇₄₆. Na, Ca + $1\frac{1}{2}H_2O$, Ba, Zn, Ag (J. pr. [2] 49, 65; J. r. 25, 632; Soc. 67, 123; A. 300, 171). — II, 1127.
- 17) 1-Methylhexahydrobenzol-3-Carbonsäure. Sd. 245° (239—241°). Na, Ca + $4H_2O$, Ba, Zn + $3H_2O$, Ag (J. pr. [2] 49, 71; J. r. 25, 638; C. 1898 [1] 498). — II, 1127.
- 18) 1-Methylhexahydrobenzol-4-Carbonsäure. Sm. 110—111°; Sd. 246 bis 247°. Na, Ca, Ba, Zn, Ag (J. pr. [2] 49, 76; A. 280, 93, 160; J. r. 25, 642). — II, 1128.
- 19) isom. 1-Methylhexahydrobenzol-4-Carbonsäure. Fl. (A. 280, 156). — II, 1128.
- 20) Säure (aus Tanacetogensäure). Sd. 229° (B. 31, 2031).
- 21) Säure (aus dem Aldehyd $C_8H_{14}O$). Fl. Ca (M. 2, 622). — I, 520.
- 22) Lakton d. β -Oxyheptan- δ -Carbonsäure (Propylvalerolakton). Sd. 233° (B. 29, 1857, 2001).
- 23) Lakton d. ϵ -Oxy- β -Methylhexan- γ -Carbonsäure (Isopropylvalerolakton). Sd. 224° (B. 29, 1857).
- 24) Lakton d. δ -Oxy- β -Methylhexan- ζ -Carbonsäure. Fl. (A. 255, 106). — I, 575.
- 25) Lakton d. β -Oxy- γ -Methylhexan- δ -Carbonsäure. Sd. 226—227° (A. 216, 43). — I, 576.
- 26) Lakton d. γ -Oxy- γ -Aethylpentan- α -Carbonsäure. Sd. 228—232° (B. 15, 1851; A. 143, 262). — I, 576.

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- 27) Lakton d. δ -Oxy- γ -Aethylpentan- α -Carbonsäure. Sd. 254—255° (A. 268, 117). — I. 575.
- 28) Lakton d. δ -Oxy- $\beta\delta$ -Dimethylpentan- β -Carbonsäure. Sm. 53,5 bis 54,5° (42°); Sd. 209—211° (205°) (J. r. 19, 437; B. 28, 2845; M. 17, 96). — I. 577.
- 29) Lakton d. δ -Oxy- $\gamma\gamma$ -Dimethylpentan- α -Carbonsäure. Sd. 239—241° (Soc. 73, 846).
- 30) Dialdehyd d. Hexan- $\alpha\gamma$ -Dicarbonsäure (D. d. Korksäure). Sd. 230 bis 240° u. Zers. (B. 30, 1963).
- 31) Methylester d. Hexahydrobenzocarbonensäure. Sd. 179—180° (181 bis 183°₇₅₀) (A. 271, 264; B. 25, 3361, 3663; J. pr. [2] 49, 88). — II. 1126.
- 32) Methylester d. Hexanaphtencarbonensäure. Sd. 165,5—167,5° (B. 23, 870). — I. 519.
- 33) Aethylester d. α -Penten- α -Carbonsäure? (Aethylester d. β -Propylakrylsäure?). Fl. (M. 15, 33).
- 34) Aethylester d. β -Penten- α -Carbonsäure? (Aethylester d. Hydrosorbinsäure). Sd. 166—167°. + CaCl₂ (A. 161, 312). — I. 517.
- 35) Aethylester d. β -Penten- γ -Carbonsäure (Aethylester d. α -Aethylcrotonsäure). Sd. 165° (A. 136, 3; B. 26, 459). — I. 516.
- 36) Aethylester d. γ -Methyl- α -Buten- α -Carbonsäure. Sd. 155° (B. 31, 736; Soc. 75, 168).
- 37) Allylester d. Isovaleriansäure. Sd. 162° (154—155°₇₆₇) (A. 102, 296; Ph. Ch. 1, 385). — I. 428.
- 38) Hexenylester d. Essigsäure. Sd. 145° (B. 16, 229; A. ch. [5] 27, 68). — I. 252.
- 39) Acetat d. δ -Oxy- α -Hexen (A. d. Aethylallylcarbinol). Sd. 150—152° (Bl. [3] 11, 125).
- 40) Acetat d. ϵ -Oxy- α -Hexen (Methylcrotylcarbinolester d. Essigsäure). Sd. 147—148° (A. 201, 44). — I. 412.
- 41) isom. Acetat d. ϵ -Oxy- α -Hexen (Diallylhydratester d. Essigsäure). Sd. 155° (157—158°) (J. 1864, 514; J. pr. [2] 23, 21; J. r. 13, 355). — I. 412.
- 42) Acetat d. δ -Oxy- δ -Methyl- α -Penten (Dimethylallylcarbinolester d. Essigsäure). Sd. 137,5° (A. 185, 155). — I. 412.
- 43) Acetat d. γ -Oxy- $\beta\gamma$ -Dimethyl- α -Buten (Dimethylisopropenylcarbinolester d. Essigsäure). Sd. 140—145° (J. r. 21, 433). — I. 412.
- 44) Acetat d. Oxyhexahydrobenzol. Sd. 172—174°₇₂₀ (A. 278, 99).
- 45) Isobutytrat d. α -Oxy- β -Buten. Sd. 158—159° (C. 1896 [2] 576).

 $C_6H_{14}O_3$

- 1) 1-Oxy-R-Heptamethylen-1-Carbonensäure + $\frac{1}{2}$ H₂O (Suberyloxyessigsäure; Oxyuberansäure). Sm. 50° (79—80° wasserfrei). Na + 2 H₂O, Ca + 6 H₂O, Ba + 6 H₂O, Pb + $\frac{1}{2}$ H₂O, Ag (A. 211, 118; B. 30, 1950; 31, 401, 2005, 2505). — I. 610.
- 2) trans-1-Oxymethylhexahydrobenzol-2-Carbonensäure. Sd. 113,5° (112°) (B. 29, 1594; A. 300, 170, 174).
- 3) 2-Oxy-1-Methylhexahydrobenzol-4-Carbonensäure. Sm. 153° (B. 28, 2143).
- 4) β -Oxypropenisobutyläther- α -Carbonensäure (A. 256, 208). — I. 582.
- 5) δ -Ketoheptan- α -Carbonensäure (γ -Butyrylbuttersäure). Sm. 34°; Sd. 280 bis 285°. Ag (B. 28, 1464).
- 6) β -Ketoheptan- η -Carbonensäure (ϵ -Acetylcapronsäure). Sm. 29—30°. Ag (Soc. 55, 338). — I. 608.
- 7) δ -Keto- β -Methylhexan- γ -Carbonensäure (β -Isovalerylpropionsäure; Isopropyllävulinsäure). Sm. 47°. Ca + 3 H₂O, Ba, Ag (A. 283, 293).
- 8) β -Keto- γ -Aethylpentan- γ -Carbonensäure (Diäthylacetyllessigsäure). Na, Ba + 2 H₂O (B. 16, 830). — I. 602.
- 9) β -Keto- γ -Aethylpentan- ϵ -Carbonensäure (γ -Acetyl- γ -Aethylbuttersäure). Sd. 279—281° u. ger. Zers. Ca, Ba, Ag (A. 268, 113). — I. 608.
- 10) δ -Keto- $\beta\beta$ -Dimethylpentan- α -Carbonensäure. Sd. 125—150°₁₄. Ca + H₂O (A. 299, 177; 304, 20).
- 11) δ -Keto- $\gamma\gamma$ -Dimethylpentan- α -Carbonensäure. Sm. 48—49° (50—51°) (B. 28, 2176; 30, 418; Soc. 73, 844).
- 12) β -Keto- $\gamma\gamma$ -Dimethylpentan- ϵ -Carbonensäure. Sm. 48°; Sd. 178°₂₀. NH₄ (B. 30, 253, 257; Bl. [3] 19, 534, 702).
- 13) Säure (aus Camphen). Na (Soc. 69, 85).

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- 14) Säure (aus Phoron). *Sd.* 150°₁₅. *Ag* (*A.* [289](#), 10 *Anm.*; [290](#), 143).
- 15) $\beta\delta$ -Lakton d. $\beta\zeta$ -Dioxyheptan- δ -Carbonsäure. *Fl.* (*A.* [216](#), 71). — [I](#), [635](#).
- 16) $\delta\zeta$ -Lakton d. $\delta\epsilon$ -Dioxy- β -Methylhexan- ζ -Carbonsäure. *Sm.* 33—34° (*A.* [283](#), 291).
- 17) Anhydrid d. norm. Buttersäure. *Sd.* 191—193° (*A.* [87](#), [155](#); [161](#), 179). — [I](#), [463](#).
- 18) Anhydrid d. Isobuttersäure. *Sd.* 181,5°₇₃₄ (180—181°) (*Z.* [1866](#), 501; *B.* [17](#), 850). — [I](#), [463](#).
- 19) Gem. Anhydrid d. Essigsäure u. Capronsäure. *Sd.* 165—170° (*B.* [20](#), 3188). — [I](#), [463](#).
- 20) Aldehyd d. Hexan- $\alpha\zeta$ -Dicarbonsäure (Aldehyd d. Korksäure). *Sd.* 202° u. *Zers.* (*A.* [143](#), 34). — [I](#), [967](#).
- 21) Dialdan (Aldehyd d. $\beta\zeta$ -Dioxy- γ -Hepten- α -Carbonsäure). *Sm.* 130° (*Bl.* [28](#), 169; *C. r.* [91](#), 1030; [92](#), 1371). — [I](#), [964](#).
- 22) Isodialdan. *Sm.* 113—114° (*J.* [1880](#), 524; *Bl.* [42](#), 163). — [I](#), [964](#).
- 23) Methylester d. 3-Oxyhexahydrobenzol-1-Carbonsäure. *Sd.* 140—150°₁₄ (*A.* [291](#), 300).
- 24) Methylester d. β -Oxy- β -Pentenmethyläther- γ -Carbonsäure (Methylester d. β -Oxy- α -Äthyltetrakylmethyläthersäure). *Sd.* 188—190° (*A.* [249](#), 321). — [I](#), [605](#).
- 25) Methylester d. γ -Oxy- β -Butenäthyläther- β -Carbonsäure. *Sd.* 203 bis 204° (*A.* [249](#), 311). — [I](#), [602](#).
- 26) Methylester d. β -Oxypropenpropyläther- α -Carbonsäure. *Sd.* 230,4° (*A.* [256](#), 208). — [I](#), [589](#).
- 27) Methylester d. γ -Keto- β -Methylpentan- β -Carbonsäure (Methylester d. Propionyldimethylelessigsäure). *Sd.* 188,5° (193—196°) (*A.* [245](#), 90; *Bl.* [3](#), 4, 638). — [I](#), [608](#).
- 28) Äthylester d. β -Oxypropenäthyläther- α -Carbonsäure. *Sm.* 29,5° (30—30,5°); *Sd.* 195° (*A.* [219](#), 333; [249](#), 324; [297](#), 18; *B.* [26](#), 2731; *Am.* [17](#), 438). — [I](#), [589](#).
- 29) Äthylester d. β -Ketopentan- γ -Carbonsäure (Äthylester d. Äthylacetylessigsäure). *Sd.* 195—196°. *Na* (*J.* [1863](#), 324; *A.* [138](#), 214; [186](#), 187; [200](#), 281; [219](#), 100; [226](#), 204; [234](#), 181; *R.* [3](#), 234; *J. pr.* [2](#), 50, 132, 140; *B.* [28](#), 2619). — [I](#), [602](#).
- 30) Äthylester d. β -Ketopentan- δ -Carbonsäure (Äthylester d. α -Methyl- β -Acetylpropionsäure). *Sd.* 206—208° (*A.* [206](#), 323). — [I](#), [605](#).
- 31) Äthylester d. β -Ketopentan- ϵ -Carbonsäure (Äthylester d. γ -Acetylbuttersäure). *Sd.* 221—222° (*A.* [294](#), 270).
- 32) Äthylester d. γ -Ketopentan- β -Carbonsäure (Äthylester d. α -Propionylpropionsäure). *Sd.* 199° (196—197°) (*B.* [10](#), 699; *A.* [231](#), 199; *Bl.* [3](#), 2, 338; *C.* [1897](#) [1](#), 904). — [I](#), [604](#).
- 33) Äthylester d. γ -Keto- β -Methylbutan- α -Carbonsäure (Äthylester d. β -Methyl- β -Acetylpropionsäure). *Sd.* 204—206° (*A.* [206](#), 334). — [I](#), [605](#).
- 34) Äthylester d. γ -Keto- β -Methylbutan- β -Carbonsäure (Äthylester d. Dimethylacetylessigsäure). *Sd.* 184° (*A.* [138](#), 330). — [I](#), [606](#).
- 35) Propylester d. β -Oxypropenmethyläther- α -Carbonsäure. *Sd.* 180 bis 182° (*A.* [256](#), 212). — [I](#), [589](#).
- 36) Propylester d. β -Ketobutan- δ -Carbonsäure (Propylester d. β -Acetylpropionsäure). *Sd.* 215—216° (*A.* [206](#), 322). — [I](#), [599](#).
- 37) Isobutylester d. β -Ketopropan- α -Carbonsäure (Isobutylester d. Acetylessigsäure). *Sd.* 202—206° (198—202°) (*B.* [9](#), 1097; *A.* [257](#), 357). — [I](#), [597](#).
- 38) act. Amylester d. α -Oxypropionsäure. *Sd.* bei 195° (*Bl.* [3](#), 11, 766).
- 39) Isoamyloster d. α -Ketoäthan- α -Carbonsäure (Isoamyloster d. Acetylameisensäure). *Fl.* (*Bl.* [3](#), 9, 137).
- 40) Acetat d. ζ -Oxy- β -Ketoheptan. *Sd.* 231—232°₇₁₃. + NaHSO₄ (*A.* [289](#), 192).

 $C_8H_{14}O_4$

- C* [55](#), 1 — *H* [8](#), 0 — *O* [36](#), 8 — *M. G.* [174](#).
- 1) $\gamma\delta$ -Dioxy- $\beta\epsilon$ -Diketo- $\gamma\delta$ -Dimethylhexan. *Sm.* 96° (*B.* [21](#), 1421). — [I](#), [282](#).
 - 2) Äthyläther d. Isomannid. *Sd.* 165°₁₇ (*Bl.* [41](#), 124). — [I](#), [317](#).
 - 3) Butyrylsuperoxyd (*J.* [1863](#), 318). — [I](#), [464](#).
 - 4) Hexan- $\alpha\alpha$ -Dicarbonsäure (norm. Pentylmalonsäure). *Sm.* 82°. *Ca*, *Sr*, *Ba*, *Cd*, *Pb*, *Ag*₂ (*B.* [18](#), 626). — [I](#), [682](#).

- $C_6H_{10}O_4$
- 5) Hexan- $\alpha\beta$ -Dicarbonsäure (norm. Butylbernsteinsäure). Sm. 81° (82°) (A. 256, 107; 304, 254). — I, 682.
 - 6) Hexan- $\alpha\delta$ -Dicarbonsäure (α -Aethyladipinsäure). Sm. 48—50°; Sd. 225 bis 226°₃₀ (B. 28 [2] 985; G. 26 [2] 286; Soc. 71, 1067).
 - 7) Hexan- $\alpha\epsilon$ -Dicarbonsäure (α -Methylpimelinsäure). Sm. 57—58°; Sd. 223 bis 224°₁₅. Ca (B. 29, 729; A. 295, 175).
 - 8) Hexan- $\alpha\zeta$ -Dicarbonsäure (Korksäure). Sm. 141—142° (140°); Sd. 300° (152,5°). Salze meist bek. Lit. bedeutend. — I, 680.
 - 9) Para-Hexan- $\beta\delta$ -Dicarbonsäure (Methyläthylglutarsäure). Sm. 105° (B. 23, 652; 24, 1054). — I, 683.
 - 10) Meso-Hexan- $\beta\delta$ -Dicarbonsäure (Methyläthylglutarsäure). Sm. 61° (B. 23, 652; 24, 1054). — I, 683.
 - 11) Hexan- $\beta\epsilon$ -Dicarbonsäure (s-Dimethyladipinsäure). Sm. 140—141°; Sd. 320—322°. Ag₂ (B. 24, 4002; 27, 1580; Soc. 65, 1006). — I, 683.
 - 12) isom. Hexan- $\beta\epsilon$ -Dicarbonsäure (s-Dimethyladipinsäure). Sm. 75—76,5° (74—76°); Sd. 320—322°. Ag₂ (B. 24, 4002; 27, 1580; Soc. 65, 1006). — I, 683.
 - 13) fum. Hexan- $\gamma\delta$ -Dicarbonsäure (fum. s-Diäthylbernsteinsäure). Sm. 192° u. ger. Zers. Na₂, Ca + 2H₂O, Zn + 2H₂O, Cu + H₂O, Ag (B. 6, 30; 13, 475, 479; 21, 2089, 2096, 2097, 2100, 2103; A. 239, 279; 274, 46; Ph. Ch. 3, 286). — I, 682.
 - 14) mal. Hexan- $\gamma\delta$ -Dicarbonsäure (m. s-Diäthylbernsteinsäure). Sm. 129°. Na₂, Ca + H₂O, Zn + 6H₂O, Cu + H₂O, Ag₂. Lit. siehe fumaröide Form. — I, 682.
 - 15) β -Methylpentan- $\alpha\epsilon$ -Dicarbonsäure. Sm. 48—50°. Ca (A. 295, 179).
 - 16) β -Methylpentan- $\beta\gamma$ -Dicarbonsäure (Dimethyläthylbernsteinsäure). Sm. 139°; Sd. 235—240°. Ag₂ (B. 23, 3411; 24, 1050). — I, 683.
 - 17) β -Methylpentan- $\beta\delta$ -Dicarbonsäure (Trimethylglutarsäure). Sm. 95° (97°) unter Anhydridbildung. Ca, Ba, Pb (B. 7, 321; 22, 2013; 23, 300; 26, 1458; Ph. Ch. 5, 406; A. 292, 220). — I, 683.
 - 18) β -Methylpentan- $\beta\epsilon$ -Dicarbonsäure. Sm. 87°. Ag₂ (B. 31, 883).
 - 19) cis- β -Methylpentan- $\gamma\delta$ -Dicarbonsäure. Sm. 125—126°. Ag₂ (Soc. 69, 279).
 - 20) trans- β -Methylpentan- $\gamma\delta$ -Dicarbonsäure. Sm. 174—175°. Ag₂ (Soc. 69, 278).
 - 21) β -Methylpentan- $\gamma\epsilon$ -Dicarbonsäure. Sm. 94—95° (96°). Ag₂ (C. 1898 [1] 703; 1898 [2] 726; Soc. 69, 1495, 1508; G. 26 [2] 42, 518).
 - 22) β -Methylpentan- $\delta\delta$ -Dicarbonsäure. Sm. 122°. Ag₂ (Soc. 67, 510).
 - 23) β -Methylpentan- $\delta\epsilon$ -Dicarbonsäure (Isobutylbernsteinsäure). Sm. 103 bis 104° (109°). Ca, Ba (A. ch. [5] 22, 492; C. 1898 [1] 107; Soc. 73, 50, 63; A. 304, 271, 285; B. 32, 528). — I, 683.
 - 24) β -Methylpentan- $\epsilon\epsilon$ -Dicarbonsäure (Isoamylmalonsäure). Sm. 93° u. Zers. (98°). Ca, Ag₂ (B. 23, 1496; C. 1898 [2] 957). — I, 683.
 - 25) γ -Methylpentan- $\alpha\epsilon$ -Dicarbonsäure. Sm. 56—57°. Ca (A. 295, 185).
 - 26) $\beta\beta$ -Dimethylbutan- $\alpha\gamma$ -Dicarbonsäure. Sm. 88—89° (94°). Ca + 2 $\frac{1}{2}$ H₂O (B. 27, 2136; 28, 1507, 2161; Soc. 73, 30; 75, 65).
 - 27) $\beta\beta$ -Dimethylbutan- $\alpha\delta$ -Dicarbonsäure. Sm. 87° (B. 31, 860, 884; 31, 2074).
 - 28) $\beta\gamma$ -Dimethylbutan- $\alpha\gamma$ -Dicarbonsäure ($\alpha\alpha\beta$ -Trimethylglutarsäure). Sm. 112°. Ag₂ (Soc. 71, 1187).
 - 29) $\beta\gamma$ -Dimethylbutan- $\beta\gamma$ -Dicarbonsäure (Tetramethylbernsteinsäure). Sm. 190—192° (193—195°). K₂ (B. 22, 2013; 23, 297; 26, 1458; Ph. Ch. 5, 404; A. 274, 48; 290, 40, 42; 292, 175; 296, 318). — I, 684.
 - 30) β -Isopropylpropan- $\alpha\gamma$ -Dicarbonsäure (β -Isopropylglutarsäure). Sm. 99 bis 100° (96,5—97°). Ag₂ (Soc. 63, 1345; B. 31, 2580).
 - 31) Dialdonsäure. Sm. 80°; Sd. 198°₃₀. Na, K, Ca, Ba, Ag (Bl. 28, 170). — I, 684.
 - 32) Säure (aus Suberancarbonsäure) oder C₈H₁₂O₄ (B. 15, 1087).
 - 33) Lakton d. $\beta\delta\zeta$ -Trioxyheptan- δ -Carbonsäure (L. d. Trioxydipropyl-essigsäure) (J. pr. [2] 39, 92). — I, 738.
 - 34) Methyl ester d. δ -Oxy- γ -Keto- β -Methylbutanmethyläther- β -Carbon-säure. Sm. 70°; Sd. 240—242° (B. 30, 856).
 - 35) Dimethylester d. Butan- $\alpha\beta$ -Dicarbonsäure (D. d. Aethylbernsteinsäure). Sd. 202—205° (A. 242, 125). — I, 675.

$C_8H_{14}O_4$

- 36) Dimethylester d. fum. Butan- $\beta\gamma$ -Dicarbonsäure (D. d. fum. α -Dimethylbernsteinsäure). *Sd.* 198—199° (*B.* 22, 650) — I, 672.
- 37) Dimethylester d. mal. Butan- $\beta\gamma$ -Dicarbonsäure (D. d. mal. α -Dimethylbernsteinsäure). *Sd.* 199—200° (*B.* 22, 646). — I, 672.
- 38) Dimethylester d. β -Methylpropan- $\alpha\alpha$ -Dicarbonsäure. *Sd.* 195°₇₇₀ (*B.* 29, 977).
- 39) Dimethylester d. β -Methylpropan- $\alpha\beta$ -Dicarbonsäure (D. d. uns-Dimethylbernsteinsäure). *Sd.* 200° (*A.* 242, 139). — I, 674.
- 40) Aethylester d. α -Acetoxybuttersäure. *Sd.* 198° (*A.* 142, 373). — I, 561.
- 41) Aethylester d. norm. Butyryloxyessigsäure. *Sd.* 205—207° (*A.* 142, 372; 208, 271). — I, 550.
- 42) Aethylester d. Isobutyryloxyessigsäure. *Sd.* 197—198° (*A.* 208, 271). — I, 550.
- 43) Aethylester d. ϵ -Oxy- β -Ketopentan- γ -Carbonsäure (Ae. d. β -Oxyäthylacetessigsäure). *Fl.* (*A.* 226, 326). — I, 676.
- 44) Aethylester d. γ -Oxy- β -Ketopropanäthyläther- α -Carbonsäure? *Sd.* 105°₁₄. Na, Cu (*B.* 21, 2138; *A.* 269, 19). — I, 663.
- 45) Allo-Methyl-ortho-Aethylester d. Propan- $\alpha\beta$ -Dicarbonsäure (d. Methylbernsteinsäure). *Sd.* 198—199°₃₄ (*J. pr.* [2] 47, 288; *B.* 26, 341).
- 46) Diäthylester d. Aethan- $\alpha\alpha$ -Dicarbonsäure (D. d. Methylmalonsäure). *Sd.* 198,5—199,5° (196,5°) (*A.* 204, 146; *Soc.* 45, 510; *B.* 10, 409; 26, 2358; 27, 796; 28, 2617; 29, 1864; *Am.* 16, 450). — I, 663.
- 47) Diäthylester d. Aethan- $\alpha\beta$ -Dicarbonsäure (D. d. Bernsteinsäure). *Sd.* 216,5° (*A.* 49, 186; 95, 327; 141, 55; 211, 306; 221, 89; *B.* 6, 1178; 13, 1692; 14, 340, 637; 26 [2] 95; *Ph. Ch.* 1, 381; *Bl.* 20, 130; *A. ch.* [6] 8, 143; *Soc.* 45, 515; *R.* 4, 350; *J. pr.* [2] 50, 140). — I, 653.
- 48) Aethylpropylester d. Malonsäure. *Sd.* 211° (*A.* 253, 299). — I, 651.
- 49) Dipropylester d. Oxalsäure. *Sd.* 213,5° (*B.* 9, 1610; *Bl.* 21, 75; *A.* 253, 295; *Ph. Ch.* 1, 380). — I, 648.
- 50) Diisopropylester d. Oxalsäure. *Sd.* 190° (*A.* 139, 229). — I, 648.
- 51) Monacetat d. Hexandioxyhydrat. *Sd.* 137°₂₅ (*A. ch.* [6] 22, 457). — I, 316.
- 52) Diacetat d. $\alpha\gamma$ -Dioxybutan. *Sd.* 208,5° (*Bl.* 41, 362). — I, 413.
- 53) Diacetat d. β -Dioxybutan (aus Fuselölbuten). *Sd.* 200° (*J.* 1859, 499; *A. ch.* [3] 55, 452). — I, 413.
- 54) Dipropionat d. $\alpha\alpha$ -Dioxyäthan. *Sd.* 192,2° (*A.* 225, 277). — I, 926.
- 55) Dipropionat d. $\alpha\beta$ -Dioxyäthan. *Sd.* 210,5—212° (*Soc.* 45, 505). — I, 420.
- 56) Acetobutyrat d. $\alpha\alpha$ -Dioxyäthan. *Sd.* 192,6° (*A.* 225, 284). — I, 926.
- 57) Acetobutyrat d. $\alpha\beta$ -Dioxyäthan. *Sd.* 208—215° (*A.* 113, 117). — I, 423.

 $C_8H_{14}O_5$

C 50,5 — H 7,4 — O 42,1 — M. G. 190.

- 1) Dimethylenäther d. Rhamnit. *Sm.* 138—139° (*A.* 299, 321).
- 2) γ -Oxyhexan- $\alpha\beta$ -Dicarbonsäure (Propylitamalsäure). Ca + 5H₂O, Ba + 2H₂O, Ag₂ (*A.* 255, 72). — I, 755.
- 3) ϵ -Oxyhexan- $\alpha\delta$ -Dicarbonsäure. *Fl.* Ca, Ba, Ag₂ (*B.* 30, 2048).
- 4) ϵ -Oxyhexan- $\beta\gamma$ -Dicarbonsäure. Ba (*B.* 29, 1860).
- 5) isom. ϵ -Oxyhexan- $\beta\gamma$ -Dicarbonsäure. Ba (*B.* 29, 1861).
- 6) γ -Oxy- β -Methylpentan- $\gamma\epsilon$ -Dicarbonsäure (Isopropyloxyglutarsäure). Ca + 3H₂O, Ba, Ag₂ (*A.* 288, 188).
- 7) β -Oxy- β -Methylpentan- $\delta\epsilon$ -Dicarbonsäure. Ca, Ba, Ag₂ (*A.* 304, 277).
- 8) γ -Oxy- β -Methylpentan- $\delta\epsilon$ -Dicarbonsäure (Isopropylitamalsäure). Ba + 2H₂O, Ag₂ (*A.* 255, 89; *B.* 25, 3173). — I, 756.
- 9) α -Oxy- β -Aethylbutan- $\alpha\beta$ -Dicarbonsäure. *Sm.* 117°. Ag₂ (*B.* 31, 2955).
- 10) β -Oxy- $\beta\gamma$ -Dimethylbutan- $\alpha\gamma$ -Dicarbonsäure. *Sm.* 128° (*Soc.* 71, 1180).
- 11) α -Oxy- β -Isopropylpropan- $\alpha\gamma$ -Dicarbonsäure? (Diaterpensäure). Ba + 2H₂O, Ag₂ (*B.* 10, 1660; 28, 1779; *A.* 188, 77; 208, 77; 252, 318). — I, 756.
- 12) Diisopropyläther- $\alpha\alpha'$ -Dicarbonsäure (Dibutylaktinsäure). Na₂, Pb, Ag₂ (*J.* 1878, 704; 1880, 789; *B.* 11, 1694). — I, 757.
- 13) Oxykorksäure (Suberomalsäure). *Sm.* 110—112°. Mg + H₂O, Zn + 2¹/₂H₂O, Cu, Ag₂ (*B.* 18, 817; *A.* 155, 252; 275, 365). — I, 757.
- 14) Oxyisokorksäure. Ag₂ (*B.* 13, 477). — I, 757.

$C_5H_{14}O_5$

- 15) Aethylisomalsäure (*A.* 139, 264).
- 16) α -Oxyäthanisobutyläther- $\alpha\beta$ -Dicarbonsäure (Oxybernsteinisobutyläthersäure). Ca, Ba, Ag₂ (*Soc.* 39, 348; 75, 155). — *I*, 745.
- 17) Säure (aus Isobuttersäure) (*B.* 11, 1693).
- 18) Lakton d. $\alpha\beta\zeta\eta$ -Tetraoxyheptan- δ -Carbonsäure (Lakton d. Tetraoxydipropylessigsäure). Fl. (*B.* 15, 628; *A.* 216, 66, 77). — *I*, 786.
- 19) Dimethylester d. Dilaktylsäure. *Sd.* 260° (*J. r.* 22, 107). — *I*, 558.
- 20) Dimethylester d. d- α -Oxyäthanäthyläther- $\alpha\beta$ -Dicarbonsäure. *Sd.* 133°₁₀ (*Soc.* 67, 971).
- 21) Dimethylester d. l- α -Oxyäthanäthyläther- $\alpha\beta$ -Dicarbonsäure. *Sd.* 119 bis 120°₁₀ (*Soc.* 67, 972).
- 22) Aethylester d. Dilaktylsäure. *Sd.* 235° (*A. ch.* [3] 63, 112). — *I*, 557.
- 23) Aethylester d. Isomalsäure (*A.* 139, 264).
- 24) Diäthylester d. Diglykolsäure. *Sd.* 240° u. Zers. (130°₁₂) (*A.* 147, 201; 149, 95; 273, 65; *J. pr.* [2] 38, 431). — *I*, 551.
- 25) Diäthylester d. α -Oxyäthan- $\alpha\beta$ -Dicarbonsäure (Diäthylester d. Aepfelsäure). *Sd.* 128°₁₀ (*B.* 13, 1394; 18, 1925; *Soc.* 69, 823). — *I*, 743.
- 26) Diäthylester d. α -Oxyäthan- $\alpha\beta$ -Dicarbonsäure (D. d. inact. Aepfelsäure). *Sd.* 255° (*B.* 25, 2448; 28, 1325; 30, 953). — *I*, 744.
- 27) Aethylester- β -Oxyäthylester d. Bernsteinsäure. *Sd.* 182—183°₂₅ (*A.* 280, 199).
- 28) Diacetat d. $\alpha'\alpha''$ -Dioxydiäthyläther. *Sd.* 191—193° (*A.* 226, 223; 245, 102). — *I*, 925.
- 29) Diacetat d. $\beta^1\beta^2$ -Dioxydiäthyläther (D. d. Diäthylenglykol). *Sd.* 245 bis 251° (*A. ch.* [3] 69, 335, 336). — *I*, 413.
- 30) Verbindung (aus Formaldehyd) (*B.* 16, 920 Anm.).
C 46,6 — H 6,8 — O 46,6 — M. G. 206.

 $C_5H_{14}O_6$

- 1) Dimethylenäther d. Dulcit. *Sm.* 244—245° (*A.* 299, 318).
- 2) $\alpha\zeta$ -Dioxyhexan- $\alpha\zeta$ -Dicarbonsäure (Dioxykorksäure; Suberoweinsäure). *Sm.* 168°. Ag₂ (*B.* 15, 150; 28, 665; 31, 2106; *A.* 155, 251). — *I*, 806.
- 3) $\beta\epsilon$ -Dioxyhexan- $\beta\epsilon$ -Dicarbonsäure. *Sm.* 212° (*B.* 29, 819).
- 4) $\beta\delta$ -Dioxy- γ -Methylpentan- $\beta\delta$ -Dicarbonsäure. *Sm.* 83—84° (*B.* 28, 2940).
- 5) $\beta\delta$ -Dioxy- β -Methylbutan- δ -Carbonsäure- γ -Methylcarbonsäure (Oxydiaterpensäure). Ag₂ (*B.* 27, 1220).
- 6) $\alpha\alpha$ -Dioxyäthandiäthyläther- $\alpha\beta$ -Dicarbonsäure (Diäthoxylbernsteinsäure) (*B.* 28, 2512).
- 7) d- $\alpha\beta$ -Dioxyäthandiäthyläther- $\alpha\beta$ -Dicarbonsäure. *Sm.* 126—128°. Ba + 4H₂O (*Soc.* 75, 159).
- 8) Lakton d. $\alpha\beta\delta\zeta\eta$ -Pentaoxyheptan- δ -Carbonsäure (L. d. Tetraoxydipropyloxyessigsäure). Fl. (*J. pr.* [2] 39, 68). — *I*, 831.
- 9) Lakton d. isom. $\alpha\beta\delta\zeta\eta$ -Pentaoxyheptan- δ -Carbonsäure. Fl. (*J. r.* 22, 530; *J. pr.* [2] 48, 529). — *I*, 831.
- 10) Diäthylester d. d-Weinsäure. *Sd.* 280°. Na, Na₂ (*A.* 189, 324; *B.* 13, 1117, 1538; 14, 918; 18, 1399; 20, 2003; *Soc.* 51, 363; *A. Spl.* 5, 293; *J. r.* 7, 150; *J.* 1882, 856; *R.* 8, 374; 9, 250; 10, 171; *Bl.* [3] 13, 199; *Soc.* 73, 194). — *I*, 795.
- 11) Diäthylester d. Traubensäure. *Sd.* 157°_{11,5} (*J.* 1851, 515; *B.* 18, 1399; *Soc.* 51, 364). — *I*, 800.
- 12) Diäthyläthylenester d. Kohlensäure. *Sd.* 225—227° (*A.* 226, 82). — *I*, 543.
- 13) Monacetat d. Isodulcit (*Bl.* 47, 673). — *I*, 418.
- 14) Monacetat d. Quercit (*A. ch.* [5] 15, 40). — *I*, 416.
C 43,6 — H 6,4 — O 50,9 — M. G. 222.

 $C_5H_{14}O_7$ $C_5H_{14}O_8$

- 1) Anhydrid d. Rhamnoheptonsäure. *Sm.* 160° (*B.* 23, 3106). — *I*, 851.
C 40,3 — H 5,9 — O 53,8 — M. G. 238.
- 1) Lakton d. α -Galaoktonsäure. *Sm.* 220—223° (225—228° cor.) (*A.* 288, 149).
- 2) Lakton d. α -Glykooktonsäure. *Sm.* 145—147° (*A.* 270, 93; *Bl.* [3] 7, 395). — *I*, 867.
- 3) Lakton d. β -Glykooktonsäure. *Sm.* 186—188° (*A.* 270, 100). — *I*, 867.
- 4) Lakton d. d-Mannooktonsäure. *Sm.* 167—170° (*B.* 23, 2233). — *I*, 867.
- 5) Dimethylester d. Norisozuckersäure. *Sm.* 51° (*B.* 27, 128).

- $C_8H_{14}O_9$ 6) Dimethylester d. Schleimsäure. Sm. 205° u. Zers. (A. ch. [2] 63, 92; R. 17, 326). — I, 855.
7) Monäthylester d. Schleimsäure. Sm. unter 100° (Berz. J. 27, 512; A. 165, 255). — I, 855.
8) Diäthylester d. Tetraoxybernsteinsäure. Fl. (B. 25, 1978). — I, 815.
- $C_8H_{14}O_9$ 9) Diformiat d. Mannit (A. 74, 348). — I, 398.
C 37,8 — H 5,5 — O 56,7 — M. G. 254.
- $C_8H_{14}N$ 1) Verbindung (aus Traubenzucker u. Glyoxalsäure) (B. 28 [2] 1056).
- $C_8H_{14}N_2$ 1) Pseudo-Triacetonein = $(C_8H_{14}N)_x$. Sm. 128° (B. 17, 1792).
C 69,6 — H 10,1 — N 20,3 — M. G. 138.
- $C_8H_{14}N_2$ 1) 1-Isoamylimidazol. Sd. 240–245°. (2HCl, PtCl₄) (A. 214, 322; B. 15, 651). — IV, 501.
2) 2-Aethyl-1-Propylimidazol (Oxalpropylin). Sd. 229–230°. (2HCl, ZnCl₂), (2HCl, PtCl₄) (B. 16, 491; A. 214, 314). — IV, 524.
3) 1-Aethyl-2-Propylimidazol. Sd. 218–222°₇₃₆. (2HCl, PtCl₄) (M. 9, 607). — IV, 527.
4) Oktohydro-1,8-Benzdiazin (Oktohydronaphtyridin). Sm. 67°; Sd. 248°₇₃₄. (2HCl, PtCl₄), Pikrat (B. 26, 2144; 27, 982). — IV, 530.
5) Base (aus Diäthylformamid). (2HCl, PtCl₄) (A. 237, 236). — I, 1236.
6) Dibutyronitril? Sd. 279–280° (J. pr. [2] 39, 245). — I, 1465.
C 57,8 — H 8,4 — N 33,7 — M. G. 166.
- $C_8H_{14}N_4$ 1) Nitril d. α -Hydrazoisobuttersäure. Sm. 92–93° (A. 290, 22).
2) Verbindung (Base aus d. Säure $C_8H_{14}O_4N_4$). (2HCl, SnCl₄) (B. 9, 392).
C 43,2 — H 6,3 — N 50,4 — M. G. 222.
- $C_8H_{14}N_6$ 1) 1,4-Di-Imidoamidomethylhydrazido benzol (Dihydrochinonbisamido-guanidin). 2HCl (A. 302, 319). — IV, 1223.
- $C_8H_{14}Br_2$ 1) Dibromokten (Conylenbromid) (A. 123, 182). — I, 186.
2) Dibromokten (aus Colophonium) (B. 15, 2258).
3) 5,6-Dibrom-1,3-Dimethylhexahydrobenzol. Sd. 105–107° (A. 297, 167).
- $C_8H_{14}Br_4$ 1) $\delta\epsilon\zeta\eta$ -Tetrabrom- β -Methylheptan. Fl. (Bl. [3] 15, 401).
2) Tetrabromoktan. Fl. (A. 142, 299). — I, 180.
C 76,8 — H 12,0 — N 11,2 — M. G. 125.
- $C_8H_{15}N$ 1) α -Isobutylidenamido- β -Methylpropan (Isobutenylbutylidenamin). Sd. 145–147°₇₁₅ (A. 205, 8; 211, 349; B. 14, 1748). — I, 948.
2) Di[α -Butenyl]amin. Pikrat (B. 28, 3118).
3) δ -Amidomethyl- $\alpha\zeta$ -Heptadien ($\beta\beta$ -Diallyläthylamin). Sd. 167°. HCl, (2HCl, PtCl₄) (B. 29, 2007).
4) γ -Isoamylamidopropin (Isoamylpropargylamin). Fl. HBr, Dioxalat + H₂O (B. 22, 3084). — I, 1147.
5) 4-Amido-2,6-Dimethyl-1,2,3,4-Tetrahydrobenzol. Sd. 169–170°. HCl, (2HCl, PtCl₄) (A. 281, 122). — IV, 51.
6) 1-Methyl-2,3-Aethylenhexahidropyridin. Sd. 161–162°₇₃₄. (HCl, 6HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (A. 294, 149; 301, 123, 147). — IV, 51.
7) 1-Allylhexahidropyridin (B. 14, 233). — IV, 8.
8) 2-Allylhexahidropyridin. (HCl, AuCl₃) (B. 24, 1675). — IV, 51.
9) 1-Methyl-2-Aethenylhexahidropyridin. Sd. 159–162°. (2HCl, PtCl₄) (B. 26, 1061; A. 301, 136). — IV, 51.
10) 2-Isopropyl-1,2,3,4-Tetrahydro-pyridin (α -Isopropylpiperidein). Sd. 163–165°. (2HCl, PtCl₄) (B. 20, 1646). — IV, 51.
11) 6-Methyl-1-Aethyl-1,2,3,4-Tetrahydro-pyridin. Sd. 163°. (HCl, 6HgCl₂), (2HCl, PtCl₄) (A. 304, 54).
12) 1,5,6-Trimethyl-1,2,3,4-Tetrahydro-pyridin. Sd. 165–167°. (HCl, AuCl₃), Pikrat (B. 32, 63).
13) Vinylacetonein. Sd. 137°₇₄₁. HBr, HJ, Mandelsaures Salz (B. 17, 1795; 31, 668). — I, 982.
14) α -Conicein. Sm. — 16°; Sd. 158°. (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 18, 7; 28, 1463; A. 259, 206). — IV, 36.
15) β -Conicein. Sm. 41°; Sd. 168°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (B. 18, 16, 23). — IV, 36.
16) γ -Conicein (6-Propyl-1,2,3,4-Tetrahydro-pyridin). Sd. 173°. HCl, (2HCl, SnCl₄), (2HCl, PtCl₄), (HCl, AuCl₃), HBr, HJ, Pikrat (B. 18, 113; 22, 1001; 23, 681; 28, 303; 29, 1956). — IV, 36.

- C₈H₁₅N**
- 17) δ -Conicein. Sd. 158°. HCl + H₂O, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (A. 259, 197). — IV, 37.
 - 18) ϵ -Conicein. Sd. 150—151°. HCl, (HCl, AuCl₃), Pikrat (A. 259, 201). — IV, 37.
 - 19) Paraconiin. Sd. 168—170°. (2HCl, PtCl₄) (A. 157, 352; 166, 88; Am. 2, 172; B. 14, 2105). — IV, 54.
 - 20) Hydrotropidin (N-Methyltropanin; Tropan). Sd. 167—169° (167,5 bis 168,5°). (2HCl, PtCl₄) (B. 16, 1408; 25, 3124; 30, 723, 2692). — III, 790.
 - 21) Granatanin. Sm. 50—60°. (2HCl, PtCl₄), (HCl, AuCl₃) (B. 26, 2752; 27, 2851; 29, 489, 2851; G. 27 [1] 384). — IV, 52.
 - 22) Lupinidin. Fl. + H₂O. HCl, (2HCl, HgCl₂), (2HCl, PtCl₄ + 2H₂O), (2HCl, AuCl₃), HJ + $\frac{1}{2}$ H₂O, H₂SO₄ (A. 224, 325; 225, 368; 227, 215; G. 19, 432; C. 1896 [2] 669; 1897 [2] 361, 554, 767). — III, 892.
 - 23) Base (aus Aceton u. Ammoniumformiat). Sd. 155—156°. HCl, (2HCl, PtCl₄) (J. pr. [2] 41, 337). — IV, 54.
 - 24) Nitril d. Heptan- α -Carbonsäure (N. d. Caprylsäure). Sd. 198—200° (194—195°) (J. 1868, 634; B. 17, 1410, 1920). — I, 1467.
- C₈H₁₅N₃**
- 1) 4,6-Diamido-2-Amyl-1,3,5-Triazin (Amylenguanamin). Sm. 177 bis 178°. HCl (B. 9, 243). — IV, 1318.
- C₈H₁₅Cl**
- 2) 4,6-Diamido-2-Isoamyl-1,3,5-Triazin (B. 25, 541). — IV, 1318.
 - 1) α -Chlor- α -Okten. Sd. 167—168° (A. ch. [6] 15, 277). — I, 162.
 - 2) δ -Chlor- ζ -Methyl- α -Hepten. Sd. 150—155° u. Zers. (Bl. [3] 15, 400).
 - 3) Chlorokten (aus Campher) (B. 20, 2960). — I, 136.
 - 4) 2-Chlor-1,3-Dimethylhexahydrobenzol. Sd. 173—175° (B. 30, 1219).
 - 5) 5-Chlor-1,3-Dimethylhexahydrobenzol. Sd. 80—85°₂₅ u. ger. Zers. (A. 289, 146).
 - 6) Chloroktonaphten. Sd. 174—176° (J. r. 16 [2] 294). — II, 17.
 - 7) Chlorisooktonaphten (J. r. 16 [2] 295). — II, 17.
- C₈H₁₅Cl₃**
- 1) Trichlorokten (aus Diisobutylen) (A. ch. [6] 19, 394; Bl. [3] 2, 482).
- C₈H₁₅Br**
- 1) 3-Brom-1,3-Dimethylhexahydrobenzol. Sd. 185—190° u. ger. Zers. (A. 297, 162).
 - 2) Bromokten. Sd. 185° (185—190°) (A. 142, 298; 165, 15). — I, 180.
 - 3) Bromokten? (aus Campher) (B. 20, 2960). — I, 136.
- C₈H₁₅Br₃**
- 1) Tribromokten (A. 142, 298—299). — I, 181.
- C₈H₁₅J**
- 1) 5-Jod-1,3-Dimethylhexahydrobenzol. Sd. 92—93°₁₀ (A. 289, 146; 297, 163).
 - 2) 1-Methyl-2-[α -Jodäthyl]-R-Pentamethylen. Sd. 155—160°₉₀ u. Zers. (Soc. 57, 249). — I, 199.
 - 3) Jodoktonaphten (J. r. 16 [2] 294). — II, 17.
- C₈H₁₆O**
- C 75,0 — H 12,5 — O 12,5 — M. G. 128.
- 1) Oxy-R-Oktomethylen (Azelaol). Sd. 187—188°₄₉ (B. 31, 1964).
 - 2) δ -Oxy- δ -Methyl- α -Hepten (Methylallylpropylcarbinol). Sd. 159—160°_{742,5} (J. pr. [2] 23, 263; J. r. 11, 401). — I, 254.
 - 3) δ -Oxy- ζ -Methyl- α -Hepten (Isobutylallylcarbinol). Sd. 162—164° (Bl. [3] 11, 360; B. 27, 2435).
 - 4) ζ -Oxy- β -Methyl- β -Hepten. Sd. 175° (A. 275, 171; B. 26, 2720; 28, 2115; 31, 2991).
 - 5) δ -Oxy- δ -Aethyl- α -Hexen (Diäthylallylcarbinol). Sd. 156°₁₈₇ (J. pr. [2] 26, 111; A. 196, 113; J. r. 10, 393). — I, 254.
 - 6) δ -Oxy- $\delta\epsilon$ -Dimethyl- α -Hexen (Methylallylisopropylcarbinol). Sd. 151 bis 153° (Soc. 63, 1336).
 - 7) cis-5-Oxy-1,3-Dimethylhexahydrobenzol. Sd. 187—187,5°₇₆₀ (A. 297, 160).
 - 8) trans-5-Oxy-1,3-Dimethylhexahydrobenzol. Sd. 187° (A. 289, 143; 297, 176).
 - 9) 2-[α -Oxyäthyl]-1-Methyl-R-Pentamethylen. Sd. 180° (Soc. 57, 245). — I, 254.
 - 10) Oktonaphtylalkohol (Oktonaphtenol). Sd. 182,5—184,5° (J. r. 24, 205). — I, 254.
 - 11) Isoamyläther d. γ -Oxypropen (Allylisoamyläther). Sd. 120° (A. ch. [3] 48, 292). — I, 302.
 - 12) Oktanoxyd (Oktylenoxyd). Sd. 145° (Z. 1870, 411). — I, 310.
 - 13) $\beta\gamma$ -Dimethylhexan- $\gamma\epsilon$ -Oxyd. Sd. 127—129° (A. 275, 171).

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- 14) $\beta\epsilon$ -Dimethylhexan- $\beta\epsilon$ -Oxyd. Sd. 113°_{746} (C. 1899 [1] 773).
- 15) $\beta\beta\delta$ -Trimethylpentan- $\alpha\delta$ -Oxyd. Sd. $120-122^{\circ}$ (M. 3, 624; 4, 671; 17, 85, 99). — I, 1002.
- 16) β -Ketooktan (Methylhexylketon). Sd. $171-171,5^{\circ}$. + NH_4HSO_5 , + $KHSO_5$ + $\frac{1}{2}H_2O$ (A. 93, 242; 97, 34; 106, 271; 118, 75; 203, 29; 220, 103; J. 1857, 360; 1884, 207; J. pr. [2] 23, 476; [2] 51, 508; A. ch. [6] 15, 275; Bl. [3] 6, 132; [3] 13, 188; B. 25 [2] 504; 29, 102). — I, 1002.
- 17) γ -Ketooktan (Aethylamylketon). Sd. $164-166^{\circ}$ ($169-170^{\circ}_{787,8}$) (Bl. 50, 359; G. 28 [2] 273; J. pr. [2] 58, 396). — I, 1002.
- 18) δ -Keto- β -Methylheptan (Propylisobutylketon). Sd. 155°_{750} (J. r. 16, 668; B. 14, 1409). — I, 1002.
- 19) ϵ -Keto- β -Methylheptan (Aethylisoamylketon). Sd. $163-163,5^{\circ}_{784,2}$ (G. 28 [2] 275; J. pr. [2] 58, 397).
- 20) ζ -Keto- β -Methylheptan (Isoamylacetone). Sd. $170-171^{\circ}$ (A. ch. [6] 12, 249). — I, 1002.
- 21) ζ -Keto- β -Methylheptan? (Methylisohexylketon). Sd. $202-204^{\circ}$ (A. 218, 61). — I, 1002.
- 22) γ -Keto- $\beta\epsilon$ -Dimethylhexan. Sd. $135-137^{\circ}$ (M. 19, 62).
- 23) δ -Keto- $\gamma\gamma$ -Dimethylhexan (Aethylamylpinakolin). Sd. $150,5-151,5^{\circ}$ (J. r. 7, 229; 8, 338; J. pr. [2] 23, 466; A. 178, 107; 185, 126; M. 14, 233). — I, 1002.
- 24) Methylbutyron (Keton). Sd. 180° (A. 108, 184). — I, 1002.
- 25) Keton (aus Dimethylpinakon). Sd. $132-133^{\circ}$ (M. 14, 242).
- 26) Keton (aus Diisobutylhydrat). Sd. $159-161^{\circ}$ (Soc. 35, 130). — I, 1002.
- 27) Aldehyd d. Heptan- γ -Carbonsäure. Sd. $160-162^{\circ}$. + $NaHSO_3$ (M. 8, 115). — I, 956.

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- 28) Viscikautschin (J. 1860, 542).
C 66,7 — H 11,1 — O 22,2 — M. G. 144.
- 1) β -Dioxyoktan (Conylenglykol) (A. 130, 298). — I, 270.
- 2) $\alpha\gamma$ -Propylenäther d. $\delta\delta$ -Dioxy- β -Methylbutan (Amylidentrimethylenäther). Sd. $164-166^{\circ}_{784,2}$ (A. ch. [6] 16, 50). — I, 952.
- 3) γ -Oxy- $\beta\beta\delta$ -Trimethylpentan- $\gamma\delta$ -Oxyd (Oxoktenol). Sm. $49,5^{\circ}$; Sd. 178 bis $178,5^{\circ}$ (J. r. 13, 199; 14, 203; B. 16, 1623). — I, 270.
- 4) Isoamyläther d. γ -Oxypropan- $\alpha\beta$ -Oxyd (Isoamylglycidäther). Sd. 188° (A. ch. [3] 60, 59). — I, 314.
- 5) ϵ -Oxy- δ -Ketooktan (Butyroin). Sd. $180-190^{\circ}$ (B. 24, 1273; 31, 1218; G. 25 [2] 57, 129). — I, 270.
- 6) β -Oxy- ζ -Keto- β -Methylheptan. Sm. 68° ; Sd. 124°_{722} (Bl. [3] 17, 184).
- 7) γ -Oxy- ζ -Keto- β -Methylheptan. Sd. 127°_{727} (Bl. [3] 17, 190).
- 8) δ -Oxy- γ -Keto- $\beta\epsilon$ -Dimethylhexan (Diisobutyraldehyd). Sm. $90-92^{\circ}$; Sd. $136-138^{\circ}_{118}$ (M. 2, 623; 3, 622; 17, 638, 643, 647; B. 5, 1052; 6, 1064; 12, 1746; 31, 1221; Bl. [3] 13, 1049). — I, 946.
- 9) Iriscampher (A. 15, 158).
- 10) Heptan- α -Carbonsäure (norm. Caprylsäure). Sm. $16,5^{\circ}$; Sd. $236-237^{\circ}$. Na, Ca + H_2O , Ba, Zn, Pb, Cu, Ag. Lit. bedeutend. — I, 437.
- 11) Heptan- γ -Carbonsäure (Aethylbutylelessigsäure). Ba, Ag (M. 8, 115). — I, 437.
- 12) Heptan- δ -Carbonsäure (Dipropylelessigsäure). Sd. $219,5^{\circ}$. Ca + $2H_2O$, Ag (Am. 3, 389; M. 9, 319; B. 29, 2000). — I, 438.
- 13) β -Methylhexan- δ -Carbonsäure. Sd. $219-220^{\circ}_{739}$ (Bl. [3] 13, 183).
- 14) $\beta\beta$ -Dimethylpentan- δ -Carbonsäure (Isodibutolsäure). Sd. 215° u. Zers. Ag (A. 189, 70). — I, 438.
- 15) $\beta\gamma$ -Dimethylpentan- ϵ -Carbonsäure. Sd. $230-232^{\circ}$. Ag. (Soc. 73, 19, 36).
- 16) $\beta\beta\gamma$ -Trimethylbutan- γ -Carbonsäure? (Pentamethylpropionsäure). Sd. $210-230^{\circ}$ (A. 202, 314). — I, 438.
- 17) Isooktylsäure. Sd. $218-220^{\circ}$. Mg + $2H_2O$, Ag (A. 189, 70). — I, 438.
- 18) β -Hexylelessigsäure? Sd. $232-234^{\circ}$ (B. 16, 789).
- 19) Aldehyd d. γ -Oxy- $\beta\delta$ -Dimethylpentan- β -Carbonsäure. Sd. 95°_{14} (Bl. [3] 13, 1050).
- 20) Aldehyd d. α -Oxyisobutterisobutyläthersäure. Sd. $106-108^{\circ}$ (J. r. 19, 447). — I, 965.
- 21) Methylester d. Hexan- α -Carbonsäure. Sd. $172,5-173,5^{\circ}$ ($158-164^{\circ}$) (J. 1866, 323; Bl. 34, 481; A. 233, 281). — I, 435.

- $C_8H_{16}O_2$
- 22) **Methylester d. Isoheptylsäure.** *Sd.* 156–157°_{758.5} (*A.* 209, 324). — *I.* 436.
 - 23) **Methylester d. Isoönanthsäure.** *Sd.* 166–167,5° (*A.* 218, 69). — *I.* 436.
 - 24) **Aethylester d. norm. Capronsäure.** *Sd.* 166,9–167,3°₇₂₂ (*A.* 165, 122; 170, 94; 233; 279; *B.* 28, 2435). — *I.* 432.
 - 25) **Aethylester d. β -Methylbutan- α -Carbonsäure.** *Sd.* 157–158° (*Soc.* 67, 267).
 - 26) **Aethylester d. Isobutylelessigsäure.** *Sd.* 160,4°₇₂₇ (*A.* 165, 125). — *I.* 432.
 - 27) **Aethylester d. Methylpropylelessigsäure.** *Sd.* 153° (151,8°) (*A.* 193, 352; *B.* 15, 309; *J. r.* 10, 107; *M.* 4, 26). — *I.* 434.
 - 28) **Aethylester d. Diäthylelessigsäure.** *Sd.* 151°_{721.4} (*A.* 138, 218; 193, 352; 200, 27). — *I.* 433.
 - 29) **Propylester d. norm. Valeriansäure.** *Sd.* 167,5° (*A.* 233, 274). — *I.* 426.
 - 30) **norm. Propylester d. Isovaleriansäure.** *Sd.* 155,9° (*A. ch.* [4] 29, 229; *P.* [2] 12, 42; *A.* 218, 328; 220, 334; 223, 84; 234, 344). — *I.* 428.
 - 31) **Isopropylester d. Isovaleriansäure.** *Sd.* 142°₇₂₆ (*A.* 153, 136). — *I.* 428.
 - 32) **Propylester d. d-Butan- β -Carbonsäure.** *Sd.* 154–157°₇₂₀ (*Bl.* [3] 15, 295).
 - 33) **norm. Butylester d. norm. Buttersäure.** *Sd.* 164,8° (*A.* 158, 170; 161, 195; 233, 269). — *I.* 423.
 - 34) **Isobutylester d. norm. Buttersäure.** *Sd.* 156,9° (*P.* [2] 12, 41; *A.* 162, 207; 163, 283; 218, 326; 220, 333; 223, 81; 234, 344). — *I.* 423.
 - 35) **Isobutylester d. Isobuttersäure.** *Sd.* 146,6° (*P.* [2] 12, 42; *A.* 162, 193; 218, 335; 220, 334; 223, 82; 234, 344; *B.* 7, 1362; 13, 1693; 25 [2] 501; *Bl.* [3] 15, 17). — *I.* 425.
 - 36) **Isoamylester d. Propionsäure.** *Sd.* 160,2° (*P.* [2] 12, 41; *A.* 218, 330; 220, 111; 223, 79; 234, 344). — *I.* 420.
 - 37) **Dimethyläthylcarbinolester d. Propionsäure.** *Sd.* 142–143,5°_{727.2} (*J. pr.* [2] 48, 482; *J. r.* 25, 447).
 - 38) **β -Methylbutylester d. Propionsäure.** *Sd.* 156–158°₇₂₆ (*Bl.* [3] 15, 280).
 - 39) **norm. Hexylester d. Essigsäure (Acetat d. α -Oxyhexan).** *Sd.* 159,2° (*A.* 163, 197; 231, 261). — *I.* 410.
 - 40) **Methylbutylcarbinolester d. Essigsäure (Acetat d. β -Oxyhexan).** *Sd.* 154–157° (*A.* 135, 150; 178, 20). — *I.* 410.
 - 41) **Aethylpropylcarbinolester d. Essigsäure (Acetat d. γ -Oxyhexan).** *Sd.* 149–151° (*B.* 9, 193). — *I.* 410.
 - 42) **Methylpropylcarbincarbinolester d. Essigsäure (Acetat des α -Oxy- β -Methylpentan).** *Sd.* 162,2°_{746.3} (*M.* 4, 33). — *I.* 410.
 - 43) **Aethylisopropylcarbinolester d. Essigsäure (Acetat d. γ -Oxy- β -Methylpentan).** *Sd.* 148–148,5°₇₄₇ (*J. r.* 23, 165). — *I.* 410.
 - 44) **Methylisobutylcarbinolester d. Essigsäure (Acetat d. δ -Oxy- β -Methylpentan).** *Sd.* 147°_{750.3} (*J. r.* 19, 206). — *I.* 410.
 - 45) **Methyldiäthylcarbinolester d. Essigsäure (Acetat d. γ -Oxy- γ -Methylpentan).** *Sd.* 148° (143°) (*J. pr.* [2] 36, 343; [2] 48, 485; *J. r.* 25, 453). — *I.* 410.
 - 46) **Hexylester d. Essigsäure (aus Chlordiisopropyl).** *Sd.* 155–160° (*B.* 6, 147). — *I.* 410.
 - 47) **Hexylester d. Essigsäure (aus Petroleumhexan).** *Sd.* 145° (*J.* 1863, 527). — *I.* 410.
 - 48) **Hexylester d. Essigsäure (aus Pinakolinalkohol).** *Sd.* 140–143° (*J.* 1873, 339). — *I.* 410.
 - 49) **norm. Heptylester d. Ameisensäure (Formiat d. α -Oxyheptan).** *Sd.* 176,7° (*A.* 233, 255). — *I.* 397.
- $C_8H_{16}O_3$
- C 60,0 — H 10,0 — O 30,0 — M. G. 160.
- 1) **ξ , η -Dioxyoktan- β δ -Oxyd (Dialdanalkohol).** *Sm.* 49–53°; *Sd.* 162–165°₁₀ (*J.* 1881, 515). — *I.* 279.
 - 2) **Oxypropylenäther d. δ δ -Dioxy- β -Methylbutan (Isovaleroglycerol).** *Sd.* 224–228° (*A.* 136, 127). — *I.* 952.
 - 3) **α -Oxyheptan- α -Carbonsäure (α -Oxycaprylsäure).** *Sm.* 69,5°. *Ag* (*A.* 177, 102; *J. r.* 9, 143). — *I.* 574.
 - 4) **β -Oxyheptan- δ -Carbonsäure.** *Ba, Ag* (*B.* 29, 2001).

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- 5) δ -Oxyheptan- δ -Carbonsäure? (Dipropyloxyessigsäure). Sm. 80—81° (72—73°; 78°). K, Ba, Zn, Ag (*J. r.* 13, 237; *B.* 10, 1104; 31, 1218; siehe auch *B.* 24, 1273). — I, 575.
- 6) δ -Oxy- β -Methylhexan- γ -Carbonsäure. Ba (*A.* 255, 102; 283, 287). — I, 575.
- 7) ϵ -Oxy- β -Methylhexan- γ -Carbonsäure. Sm. 36—37°. Ca + H₂O, Ba + H₂O, Ag (*A.* 283, 287).
- 8) β -Oxy- γ -Methylhexan- γ -Carbonsäure (β -Oxy- α -Methyl- α -Propylbuttersäure). Zn (*A.* 226, 288). — I, 576.
- 9) β -Oxy- γ -Methylhexan- δ -Carbonsäure (γ -Oxy- β -Methyl- α -Aethylvaleriansäure). Ba, Ag (*A.* 216, 44). — I, 576.
- 10) γ -Oxy- γ -Aethylpentan- α -Carbonsäure (γ -Oxy- $\gamma\gamma$ -Diäthylbuttersäure). Ca + x H₂O, Ba (*A.* 143, 262; *B.* 15, 1852). — I, 576.
- 11) δ -Oxy- γ -Aethylpentan- α -Carbonsäure (δ -Oxy- γ -Aethylcapronsäure). Fl. Ca, Ba, Ag (*A.* 268, 118, 122). — I, 575.
- 12) β -Oxy- γ -Aethylpentan- γ -Carbonsäure (β -Oxy- $\alpha\alpha$ -Diäthylbuttersäure). Fl. Na + 6 H₂O, Cu, Ag (*A.* 201, 65). — I, 576.
- 13) δ -Oxy- $\beta\beta$ -Dimethylpentan- δ -Carbonsäure. Sm. 107°. Ag (*J. r.* 14, 205). — I, 576.
- 14) γ -Oxy- $\beta\delta$ -Dimethylpentan- β -Carbonsäure (β -Oxy- $\alpha\alpha$ -Dimethylisocapronsäure). Sm. 92°. Ca (*B.* 20, 2334; 28, 2463, 2843; *A.* 249, 59; *M.* 3, 623; 4, 676; 17, 92, 645, 674). — I, 577.
- 15) δ -Oxy- $\beta\delta$ -Dimethylpentan- β -Carbonsäure? (γ -Oxy- $\alpha\alpha$ -Dimethylisocapronsäure). Ca, Ba (*J. r.* 19, 437; *M.* 17, 98). — I, 577.
- 16) γ -Oxy- $\beta\delta$ -Dimethylpentan- γ -Carbonsäure (Diisopropyloxyessigsäure). Sm. 110—111°. Ba + 3 H₂O, Zn (*Z.* 1870, 516; *B.* 20, 2334; 28, 2464; *A.* 249, 59; 297, 96). — I, 576.
- 17) γ -Oxy- $\beta\beta\gamma$ -Trimethylbutan- δ -Carbonsäure. Ag (*J. pr.* [2] 57, 110).
- 18) ζ -Oxyhexanmethyläther- γ -Carbonsäure. Sd. 250° (*Soc.* 65, 993).
- 19) α -Oxyisobutterisobutyläthersäure. Sd. 141—144°₄ (*J. r.* 19, 436). — I, 564.
- 20) Methylester d. α -Oxyhexan- α -Carbonsäure. Sd. 160—165° (*B.* 8, 1170). — I, 573.
- 21) Aethylester d. Oxycapronsäure (*J. r.* 12, 367). — I, 569.
- 22) Aethylester d. β -Oxy- β -Methylbutan- γ -Carbonsäure. Sd. 105°₈₀ (*C.* 1896 [2] 728; *Soc.* 69, 1483).
- 23) Aethylester d. α -Oxybutteräthyläthersäure. Sd. 168,5°₇₆₀ (*A.* 197, 16, 21; *A. ch.* [5] 17, 540). — I, 561.
- 24) Aethylester d. β -Oxybutteräthyläthersäure. Sd. 168—173° (*Soc.* 59, 478). — I, 562.
- 25) Aethylester d. Oxyisobutteräthyläthersäure. Sd. 155° (*B.* 12, 179). — I, 564.
- 26) Aethylester d. α -Oxydiäthyllessigsäure. Sd. 175° (*A.* 126, 109; 135, 29; *B.* 6, 1175). — I, 571.
- 27) Propylester d. Oxyessigpropyläthersäure. Sd. 192°₇₆₀ (*A.* 197, 8, 21). — I, 550.
- 28) Butylester d. 1- α -Oxybuttersäure. Sd. 197—203° (*C.* 1895 [1] 826; *Bl.* [3] 15, 483).
- 29) Isobutylester d. d- α -Oxybuttersäure. Sd. 196° (*C.* 1895 [1] 774; *Bl.* [3] 15, 485).
- 30) Isobutylester d. l- α -Oxybuttersäure. Sd. 197° (*C.* 1895 [1] 774, 826; *Bl.* [3] 15, 483).
- 31) Aethylisoamylester d. Kohlensäure. Sd. 182,3° (*A.* 205, 246). — I, 543.
- 32) Monacetat d. Diallyldihydrat. Sd. 210° (*J. pr.* [2] 23, 18; *A. ch.* [4] 3, 162). — I, 414.
- 33) Verbindung. Sm. 185—195°₃₀ (*Bl.* 28, 169).

 $C_nH_{10}O_4$

- 1) $\zeta\zeta$ -Dioxheptan- δ -Carbonsäure (Dioxydipropyllessigsäure). Ba (*A.* 216, 70). — I, 635.
- 2) $\delta\epsilon$ -Dioxy- β -Methylhexan- δ -Carbonsäure (Methylisobutylglycerinsäure). Ca (*A. ch.* [5] 20, 445). — I, 635.
- 3) $\delta\epsilon$ -Dioxy- β -Methylhexan- ζ -Carbonsäure. Ca, Ba, Ag (*A.* 283, 292).

- C₈H₁₆O₄**
- 4) ϵ -Dioxy- β -Methylhexan- γ -Carbonsäure. Sm. 106°. Ca, Ba, Ag (A. 283, 296).
 - 5) Säure (aus d. Dilakton d. Dioxydipropylmalonsäure). Ba (A. 216, 71).
 - 6) Paralдол (polym. Aldehyd d. β -Oxybuttersäure). Sm. 80—90°; Sd. 90 bis 100° (i. V.) (J. 1876, 484). — I, 964.
 - 7) polym. Essigsäurealdehyd (Am. 16, 57).
 - 8) Aethylester d. Dioxyessigdiäthyläthersäure. Sd. 199,2° (Z. 1870, 167). — I, 631.
 - 9) i- β -Methylbutylester d. d- $\alpha\beta$ -Dioxypropionsäure. Fl. (Soc. 71, 264).
 - 10) l- β -Methylbutylester d. d- $\alpha\beta$ -Dioxypropionsäure. Sd. 144—148° (Soc. 71, 261).
 - 11) l- β -Methylbutylester d. i- $\alpha\beta$ -Dioxypropionsäure. Sd. 144—147° (Soc. 71, 256).
 - 12) Monacetat d. Quercit (A. ch. [5] 15, 1).
- C₈H₁₆O₅**
- 13) Monoisovalerat d. $\alpha\beta\gamma$ -Trioxypropan (A. ch. [3] 41, 254). — I, 429. C 50,0 — H 8,3 — O 41,7 — M. G. 192.
 - 1) Aethylchinovosid (Chinovit) (A. 111, 188; B. 16, 935; 17, 872; 26, 2415; R. 2, 170). — III, 575.
 - 2) Aethylrhamnosid. Fl. (B. 26, 2409).
 - 3) $\beta\delta\zeta$ -Trioxyheptan- δ -Carbonsäure (Trioxydipropylessigsäure). Ba (J. pr. [2] 39, 91). — I, 378.
 - 4) Methylester d. Trioxyessigmethyläthyläthersäure. Sd. 90—92°, (A. 254, 35). — I, 737.
- C₈H₁₆O₆**
- C 46,2 — H 7,7 — O 46,1 — M. G. 208.
 - 1) Aethylgalaktosid. Sm. 138—139° (cor.) (B. 27, 2481).
 - 2) α -Aethylglykosid (Diglykose). Sm. 113—114° (J. 1874, 883; B. 26, 2402, 2410; 27, 2479; 28, 1153; C. 1898 [2] 1081).
 - 3) Dimethyläther d. i-Inosit (Dambonit) + 3H₂O. Sm. 195° (Z. 1869, 67). — I, 1051.
 - 4) Aethyläther d. Lävulose (A. 244, 312). — I, 1054.
 - 5) $\alpha\beta\zeta\eta$ -Tetraoxyheptan- δ -Carbonsäure (Tetraoxydipropylessigsäure) (A. 216, 77). — I, 786.
- C₈H₁₆O₇**
- 6) Monacetat d. Diglycerin. Fl. (J. pr. [2] 55, 423). C 42,9 — H 7,1 — O 50,0 — M. G. 224.
 - 1) Acetaldehydglykose (A. 244, 22). — I, 1049.
 - 2) Methylglykoheptosid. Sm. 168—170° (B. 28, 1156).
 - 3) Rhamnoheptose. Fl. (B. 23, 3107). — I, 1058.
 - 4) β -Oxyäthylglykosid. Fl. (B. 26, 2411).
 - 5) $\alpha\beta\delta\zeta\eta$ -Pentaoxyheptan- δ -Carbonsäure (Tetraoxydipropyl oxyessigsäure). Ca, CaOH, Ba₃, BaOH (J. pr. [2] 39, 65). — I, 830.
 - 6) isom. $\alpha\beta\delta\zeta\eta$ -Pentaoxyheptan- δ -Carbonsäure (Tetraoxydipropyl oxyessigsäure). Ca + 2H₂O, Ba (J. r. 22, 530; J. pr. [2] 48, 529). — I, 831.
 - 7) Aethylester d. d-Galaktonsäure. Fl. 2 + CaCl₂ (M. 16, 334).
 - 8) Aethylester d. d-Glykonsäure (Ae. d. Dextronsäure). 2 + CaCl₂ (A. 155, 127). — I, 826.
- C₈H₁₆O₈**
- C 40,0 — H 6,7 — O 53,3 — M. G. 240.
 - 1) α -Glykooktose + 2H₂O. Sm. 93° (A. 270, 95). — I, 1058.
 - 2) d-Mannooktose. Fl. (B. 23, 2234). — I, 1058.
 - 3) Oktit (aus Rosaceen) (Bl. [3] 21, 89).
 - 4) Rhamnoheptonsäure (B. 23, 3106). — I, 850.
- C₈H₁₆O₉**
- C 37,5 — H 6,2 — O 56,2 — M. G. 256.
 - 1) α -Galaoktonsäure. Ba (A. 288, 149).
 - 2) α -Glykooktonsäure. Ba (A. 270, 93). — I, 867.
 - 3) β -Glykooktonsäure. Ba (A. 270, 99). — I, 867.
- C₈H₁₆N₂**
- C 68,6 — H 11,4 — N 20,0 — M. G. 140.
 - 1) Bismethyläthylazimethylen. Sd. 168—172° (J. pr. [2] 44, 165; B. 29, 611). — I, 1028.
 - 2) Diisobutylidenhydrazin. Sd. 163—165°. HCl, (2HCl, PtCl₄), + AgNO₃ (M. 19, 526, 531).
 - 3) 5-Methyl-3,5-Diäthyl-4,5-Dihydropyrazol. Sd. 90—93°, (J. pr. [2] 58, 318).
 - 4) Tropylamin. Sd. 211°, (2HCl, PtCl₄), (2HCl, 2AuCl₃), Pikrat (B. 31, 1211, 2663 Anm.).

- C₈H₁₆N₂**
- 5) **Isotropylamin.** Sm. 8,5°; Sd. 206—207° (cor.). 2 HCl, (2 HCl, PtCl₄), (2 HCl, 2 AuCl₃) (B. 31, 2661, 2665).
 - 6) **Pseudotropylamin.** Sd. 213° (107°₃₀). 2 HCl, (2 HCl, PtCl₄ + 2 H₂O), (2 HCl, 2 AuCl₃), Pikrat, Carbamat (B. 31, 1208).
 - 7) **Base** (aus Phoron u. αβ-Diamidoäthan). Fl. HCl, (2 HCl, PtCl₄ + 2 H₂O), HBr, 2 HCNS (B. 28 [2] 161). — IV, 483.
 - 8) **Nitril d. α-Amidoheptan-α-Carbonsäure** (Nitril d. α-Amidocaprylsäure). HCl, (2 HCl, PtCl₄) (A. 177, 124). — I, 1467.
 - 9) **Nitril d. γ-Dimethylamidopentan-γ-Carbonsäure.** Sd. 176—177°₁₀₄ (C. 1899 [1] 195).
 - 10) **Nitril d. γ-Dimethylamido-β-Methylbutan-γ-Carbonsäure.** Sd. 176 bis 177° (C. 1899 [1] 195).
 - 11) **Verbindung** (aus Diisobutylidenhydrazin). Sd. 192° (M. 19, 534). C 57,1 — H 9,5 — N 33,3 — M. G. 168.
- C₈H₁₆N₄**
- 1) **Diäthylentetramethylentetramin.** Sm. 196°; Sd. 250° u. Zers. (B. 31, 3254).
- C₈H₁₆Cl₂**
- 1) **αγ-Dichloroktan.** Sd. 240—242° (C. 1899 [1] 26).
 - 2) **ββ-Dichloroktan.** Sd. 190—200° (A. 106, 271). — I, 156.
 - 3) **βε-Dichlor-βε-Dimethylhexan.** Sm. 64° (C. 1899 [1] 773).
 - 4) **Dichloroktan** (aus Caprylen). Sd. 197—200° (A. 106, 271). — I, 156.
 - 5) **Dichloroktan** (aus Paraffin). Sd. 230—240° (A. 165, 16). — I, 156.
- C₈H₁₆Br₂**
- 1) **αγ-Dibromoktan.** Sm. 15—16°; Sd. 150—161°₃₀₋₃₅ (C. 1899 [1] 26).
 - 2) **γδ-Dibrom-δ-Methylheptan** (Methylpropylbutylenbromid) (J. pr. [2] 39, 445). — I, 179.
 - 3) **βε-Dibrom-βε-Dimethylhexan.** Sm. 68,5—69° (C. 1899 [1] 773).
 - 4) **βγ-Dibrom-β-Methyl-γ-Aethylpentan** (s-Dimethyldiäthyläthylenbromid). Fl. (J. r. 23, 172). — I, 179.
 - 5) **Dibromoktan** (aus Okten) (J. pr. [2] 39, 443). — I, 180.
 - 6) **Dibromoktan** (aus Paraffin). Fl. (A. 165, 14). — I, 180.
 - 7) **Dibromoktan** (aus Ricinusöl). Fl. (A. 142, 297).
- C₈H₁₇N**
- C 75,6 — H 13,4 — N 11,0 — M. G. 127.
 - 1) **Amidookten.** (2 HCl, PtCl₄) (J. r. 26, 383).
 - 2) **ε-Dimethylamido-α-Hexen.** Sd. 138—140°. (2 HCl, PtCl₄) (A. 264, 326; B. 25, 3072). — I, 1145.
 - 3) **ζ-Dimethylamido-α-Hexen.** Sd. 143—143,5° (B. 25, 3072; A. 264, 337). — I, 1145.
 - 4) **ε-Dimethylamido-δ-Methyl-α-Penten.** Sd. 129—130°. HCl (A. 278, 7).
 - 5) **Allylisoamylamin.** Sd. 148—153° (B. 16, 531). — I, 1143.
 - 6) **α-Isobutylimido-β-Methylpropan** (Isobutylisobutylidenamin). Sd. 130 bis 131° (Bl. [3] 7, 547). — I, 1133.
 - 7) **2-Dimethylamido-1-Methyl-R-Pentamethylen** (Dimethylpipercolin). Sd. 142—143° (A. 279, 359).
 - 8) **1-Propylhexahydropyridin.** Sd. 149—150°. (2 HCl, SnCl₄) (B. 14, 1348; 15, 1147; J. 1882, 1085). — IV, 7.
 - 9) **d-2-Propylhexahydropyridin** (d-Coniin). Sm. — 2,5°; Sd. 166—166,5°. Salze meist bek. Lit. bedeutend. — IV, 31.
 - 10) **l-2-Propylhexahydropyridin.** Sd. 174°_{782,5}. HCl, Tartrat (B. 30, 1062).
 - 11) **i-2-Propylhexahydropyridin** (i-Coniin). Sd. 156°₇₅₆. HCl, (2 HCl, PtCl₄) (B. 23, 684; 26, 854; 29, 1956). — IV, 35.
 - 12) **Isoconiin.** Sd. 164,5°_{750,5}. HCl, (2 HCl, PtCl₄) (B. 26, 854; 27, 859; 29, 1957, 2706). — IV, 35.
 - 13) **3-Propylhexahydropyridin** (β-Propylpiperidin). Sd. 174°₇₅₈. HCl, (2 HCl, PtCl₄), (HCl, AuCl₃), Tartrat, Pikrat (B. 28, 1203; 30, 1060). — IV, 38.
 - 14) **l-Isopropylhexahydropyridin.** Sd. 149—150°. (2 HCl, SnCl₄), (2 HCl, PtCl₄) (B. 14, 1348; J. 1882, 1085). — IV, 7.
 - 15) **2-Isopropylhexahydropyridin.** Sd. 159,5°. HCl, (2 HCl, PtCl₄), HBr, HJ (A. 247, 73). — IV, 38.
 - 16) **4-Isopropylhexahydropyridin.** Sd. 168—171°. 2 HCl, PtCl₄ (A. 247, 79). — IV, 38.
 - 17) **2-Methyl-1-Aethylhexahydropyridin.** Sd. 147—148°. (HCl, 6 HgCl₂), (HCl, AuCl₃) (A. 304, 56).
 - 18) **1-Methyl-2-Aethylhexahydropyridin.** Sd. 150—151,5°. HCl, (HCl, AuCl₃) (A. 247, 71; B. 31, 291). — IV, 29.

- C₈H₁₇N** 19) **1-Methyl-3-Aethylhexahydropyridin**. *Sd.* 150—151,5°₇₅₆. HCl, (HCl, AuCl₃) (*A.* 301, 148).
 20) **2-Methyl-4-Aethylhexahydropyridin**. *Sd.* 155—160°. HCl (*A.* 247, 47). — **IV**, 38.
 21) **2-Methyl-5-Aethylhexahydropyridin** (Copellidin). i-Modif. *Sd.* 162 bis 162,5°₇₅₇; d-Modif. *Sd.* 162,2—162,8°₇₅₉; l-Modif. *Sd.* 162—164°₇₆₃. HCl, (HCl, AuCl₃), HBr, Bitartrat (*A.* 247, 90; *B.* 28, 1764, 2270, 2273; **29**, 1959). — **IV**, 39.
 22) **isom. 2-Methyl-5-Aethylhexahydropyridin** (Isocopellidin). i-Modif. *Sd.* 162—164°₇₆₃; d-Modif. *Sd.* 163—166°₇₇₀; l-Modif. *Sd.* 162—162,5°₇₇₆. HCl, (HCl, AuCl₃), HBr, Bitartrat (*B.* 28, 2271; **29**, 1959). — **IV**, 39.
 23) **2-Methyl-6-Aethylhexahydropyridin**. *Sd.* 147—151°. HCl, HBr (*A.* 247, 95). — **IV**, 39.
 24) **2, 4, 6-Trimethylhexahydropyridin**. *Sd.* 145—146°. HCl, (2HCl, PtCl₄), (HBr, J) (*B.* 21, 275; *A.* 246, 43). — **IV**, 40.
 25) **Hexahydrocollidin**. *Sd.* 175—180° (*Bl.* 42, 122). — **IV**, 40.
 26) **Base** (aus Allylpyridin). *Sd.* 166—170°. HCl, (2HJ, CdJ₂) (*B.* 19, 440). — **IV**, 38.
 27) **Base** (aus cis-Dihydrocampholytsäureamid). *Sd.* 156,5°. HCl, (2HCl, PtCl₄) (*Am.* 18, 692). — **IV**, 40.
 28) **Base** (aus Hexahydrocumol). *Sd.* 172—177° (*J. r.* 22, 15). — **II**, 15.
C₈H₁₇N₃ C 61,9 — H 11,0 — N 27,1 — M. G. 155.
C₈H₁₇Cl 1) **Tetraäthylentriamin** (*B.* 3, 762). — **I**, 1161.
 1) **α-Chloroktan** (norm. Oktylchlorid). *Sd.* 179,5—180,5° (*A.* 152, 4). — **I**, 156.
 2) **β-Chloroktan** (sec. Oktylchlorid). *Sd.* 175° (171—173°) (*A.* 92, 398; **125**, 112; *J.* 1863, 528; *Bl.* [3] 3, 69; *J. pr.* [2] 31, 495). — **I**, 156.
 3) **γ-Chlor-γ-Aethylhexan** (Diäthylpropylcarbinolchlorid). *Sd.* 155° (*Bl.* 5, 24). — **I**, 156.
 4) **γ-Chlor-β-Methyl-γ-Aethylpentan** (Diäthylisopropylcarbinolchlorid). *Sd.* 150—155° u. Zers. (*J. r.* 23, 169). — **I**, 156.
 5) **δ-Chlor-ββδ-Trimethylpentan** (Isodibutolchlorid). *Sd.* 145—150° u. Zers. (*A.* 189, 52; *Bl.* [3] 7, 584; *J. pr.* [2] 54, 449). — **I**, 156.
 6) **prim. Chloroktan** (aus βε-Dimethylhexan) (*B.* 10, 908).
 7) **sec. Chloroktan** (aus βε-Dimethylhexan) (*B.* 10, 908).
 8) **Chloroktan** (aus βε-Dimethylhexan). *Sd.* 165° (*A.* 144, 190). — **I**, 156.
 9) **Chloroktan** (aus Fuselöloktan). *Sd.* 162—167° (*Bl.* [1863] 5, 312). — **I**, 156.
 10) **Chloroktan** (aus Petroleum). *Sd.* 164—166°₇₆₀ (*Am.* 19, 258).
 11) **isom. Chloroktan** (aus Petroleum). *Sd.* 173—174°₇₆₀ (*Am.* 19, 261).
C₈H₁₇Br 1) **α-Bromoktan**. *Sd.* 198—200° (203—204°) (*A.* 152, 5; *B.* 16, 1224; *J. pr.* [2] 31, 500). — **I**, 179.
 2) **β-Bromoktan**. *Sd.* 191° (*A. ch.* [3] 44, 130; *J. r.* 15, 175; *A.* 220, 185; *J.* 1865, 514). — **I**, 179.
 3) **δ-Brom-ββδ-Trimethylpentan** (Isodibutolbromid). *Sd.* 62°₁₈ (*J. pr.* [2] 54, 450).
C₈H₁₇J 1) **α-Jodoktan** (norm. Oktyljodid). *Sd.* 225,5° (*A.* 152, 5; **185**, 55; **243**, 29; *B.* 19, 2222; *J. pr.* [2] 31, 504). — **I**, 196.
 2) **β-Jodoktan** (Methylhexylcarbinoljodid). *Sd.* 210° (206—207°) (*J.* 1855, 526; *B.* 15, 1293; *J. r.* 15, 174; *M.* 3, 172). — **I**, 196.
 3) **δ-Jod-ββδ-Trimethylpentan** (Isodibutoljodid). *Sd.* 108—109°₁₅ (*A.* 189, 52; *J. pr.* [2] 54, 450). — **I**, 196.
 4) **γ-Jod-β-Methyl-γ-Aethylpentan** (Diäthylisopropylcarbinoljodid). *Fl.* (*J. r.* 23, 170). — **I**, 196.
C₈H₁₇O 5) **Jodoktan** (aus Caprylen). *Sd.* 120° (i. V.) (*Z.* 1868, 492). — **I**, 196.
 C 73,8 — H 13,8 — O 12,3 — M. G. 130.
 1) **α-Oxyoktan** (norm. Oktylalkohol). *Sd.* 195,5° (190—192°) (*A.* 152, 4, 155; **166**, 82; **185**, 26; **224**, 84; *B.* 4, 822). — **I**, 238.
 2) **β-Oxyoktan** (Methylhexylcarbinol). *Sd.* 179,5° (177,6—177,8°). *Lit.* bedeutend. — **I**, 238.
 3) **δ-Oxy-δ-Methylheptan** (Methyldipropylcarbinol). *Sd.* 161,5° (*J. pr.* [2] 33, 204). — **I**, 238.
 4) **γ-Oxy-γ-Aethylhexan** (Diäthylpropylcarbinol). *Sd.* 160,5° (*Z.* 1865, 615; *J. pr.* [2] 39, 440). — **I**, 238.

$C_8H_{18}O$

- 5) δ -Oxy- γ -Aethylhexan. Sd. 164—166° (A. 191, 141; J. r. 9, 268). — I, 238.
 - 6) γ -Oxy- β -Methyl- γ -Aethylpentan (Diäthylisopropylcarbinol). Sd. 159,5 bis 161°₇₅₀ (J. r. 23, 169). — I, 238.
 - 7) δ -Oxy- $\beta\beta\delta$ -Trimethylpentan (Isodibutol). Sd. 146,5—147,5° (A. 189, 53). — I, 238.
 - 8) ρ -Oxyoktan (Diisobutylhydrat). Sd. 179—180° (Soc. 35, 127). — I, 238.
 - 9) ρ -Oxyoktan (isom. Diisobutylhydrat). Sd. 160—163° (Soc. 35, 127). — I, 238.
 - 10) isom. Oxyoktan (Caprylenhydrat). Sd. 174—178° (Z. 1868, 493; 1869, 727). — I, 239.
 - 11) isom. Oxyoktan (aus Weinöl). Sd. 163—165° (J. pr. [2] 23, 467).
 - 12) Methyläther d. α -Oxyheptan (Methyl-norm. Heptyläther). Sd. 149,8° (A. 243, 3). — I, 300.
 - 13) Methyläther d. β -Oxyheptan (Methyl-sec. Heptyläther). Sd. 160,5 bis 161° (J. 1853, 510). — I, 300.
 - 14) Aethyläther d. α -Oxyhexan (Aethyl-norm. Hexyläther). Sd. 134—137° (A. 187, 139). — I, 299.
 - 15) Aethyläther d. β [ρ]-Oxyhexan (Aethyl-sec. Hexyläther). Sd. 132—133° (A. 144, 241; Z. 1866, 606). — I, 299.
 - 16) Aethyläther d. γ -Oxyhexan (Aethylhexyläther). Sd. 131,1°_{740,8} (A. 178, 14). — I, 299.
 - 17) Propyläther d. α -Oxy- β -Methylbutan. Sd. 125—127°₇₂₉ (Bl. [3] 15, 302).
 - 18) Propyläther d. δ -Oxy- β -Methylbutan (norm. Propylisoamyläther). Sd. 125—130° (A. 151, 305). — I, 299.
 - 19) norm. Butyläther d. α -Oxybutan (norm. Butyläther). Sd. 140,5° (A. 165, 110; 243, 8). — I, 298.
 - 20) norm. Butyläther d. β -Oxybutan (norm. Butyl-sec. Butyläther). Sd. 131—131,5° (Bl. [3] 2, 25; A. 276, 25). — I, 298.
 - 21) sec. Butyläther d. β -Oxybutan (sec. Butyläther). Sd. 120—121° (A. 175, 54). — I, 298.
 - 22) norm. Butyläther d. α -Oxy- β -Methylpropan (Butylisobutyläther). Sd. 131,5—132° (Bl. [3] 2, 25; A. 276, 186). — I, 298.
 - 23) sec. Butyläther d. α -Oxy- β -Methylpropan (Isobutyl-sec. Butyläther). Sd. 121—122° (Bl. [3] 2, 26; A. 276, 189). — I, 298.
 - 24) Isobutyläther d. α -Oxy- β -Methylpropan (Isobutyläther). Sd. 122 bis 122,5° (A. ch. [3] 42, 153; Bl. [3] 2, 26; Am. 6, 244; A. 175, 55; B. 26, 2833). — I, 298.
 - 25) norm. Butyläther d. β -Oxy- β -Methylpropan (norm. Butyl-tert. Butyläther). Sd. 124—125° (Bl. [3] 2, 25). — I, 298.
- C 65,7 — H 12,3 — O 21,9 — M. G. 146.

 $C_8H_{18}O_2$

- 1) $\gamma\delta$ -Dioxy- δ -Methylheptan (Methyläthylpropyläthylenglykol). Sd. 210 bis 215° (J. pr. [2] 49, 54).
- 2) $\gamma\delta$ -Dioxy- $\gamma\delta$ -Dimethylhexan (s-Dimethyldiäthyläthylenglykol). Feste α -Modif. Sm. 49,5°; flüssige β -Modif. Sd. 200—205° (A. 185, 124; J. r. 8, 338; 24, 24; B. 16, 1582). — I, 266.
- 3) $\alpha\gamma$ -Dioxy- $\beta\beta\delta$ -Trimethylpentan (oder $\gamma\delta$ -Dioxy- $\beta\epsilon$ -Dimethylhexan). Sm. 51,5°; Sd. 222—223° (M. 3, 623; 4, 664; 17, 69, 85, 94, 641, 646, 673; 19, 521; Bl. [3] 13, 1049). — I, 265.
- 4) isom. Dioxyoktan (aus Fuselölokten) (A. 128, 231). — I, 266.
- 5) isom. Dioxyoktan (aus Methylhexylcarbinolokten). Sd. 235—240° (A. Spl. 3, 254). — I, 266.
- 6) Diäthyläther d. $\alpha\alpha$ -Dioxy- β -Methylpropan. Sd. 134—136° (Bl. 35, 500). — I, 948.
- 7) Methylisoamyläther d. $\alpha\alpha$ -Dioxyäthan. Sd. 141—144° (A. 218, 47). — I, 924.
- 8) Aethylisobutyläther d. $\alpha\alpha$ -Dioxyäthan. Sd. 155° (B. 19, 3007). — I, 924.
- 9) Dipropyläther d. $\alpha\alpha$ -Dioxyäthan. Sd. 146—148° (J. 1880, 695). — I, 924.
- 10) Dipropyläther d. $\alpha\beta$ -Dioxyäthan. Sd. 159—160°₇₃₄ (A. 276, 173).
- 11) norm. Butylenglykoldiäthylin. Sd. 131,4° (A. 178, 14).
- 12) Isobutylacetal. Sd. 168—170° (134—136°) (C. r. 91, 629; 92, 886).



C 59,3 — H 11,1 — O 29,6 — M. G. 162.

- 1) $\delta\epsilon\eta$ -Trioxy- β -Methylheptan. Sm. 50°; Sd. 198—200°₃₀ (B. 27, 2435; Bl. [3] 13, 123).
- 2) $\alpha\beta\delta$ -Trioxy- δ -Methylheptan. Sd. 210°₈₀ (J. pr. [2] 40, 412). — I, 279.
- 3) $\beta\delta\epsilon$ -Trioxy- β -Aethylhexan. Sd. 204—207°₅₅₋₆₀ (J. pr. [2] 40, 408). — I, 279.
- 4) Isoamyläther d. $\alpha\beta\gamma$ -Trioxypropan (Isoamylglycerinäther). Sd. 260 bis 262° (J. 1860, 464). — I, 313.
- 5) Triäthyläther d. $\alpha\alpha\alpha$ -Trioxyäthan (Orthoessigsäuretriäthyläther). Sd. 142° (Z. 1871, 128). — I, 312.
- 6) Triäthyläther d. $\alpha\alpha\beta$ -Trioxyäthan (Aethylenglykolacetal). Sd. 168° (164°) (A. 146, 196; B. 5, 150). — I, 963.
- 7) Methylpropyläther d. Trioxymethan (Orthoameisensäuremethylpropyläther). Sd. 180—182° (B. 16, 1647). — I, 312.
- 8) Diäthylpropyläther d. Trioxymethan (Orthoameisensäurediäthylpropyläther). Sd. 165—170° (B. 16, 1647). — I, 312.
- 9) Dimethylisoamyläther d. Trioxymethan (Orthoameisensäuredimethylisoamyläther). Sd. 234—240° (B. 16, 1647). — I, 312.
- 10) Diäthyläther d. α',α'' -Dioxydiäthyläther. Sd. 153° (A. 218, 25). — I, 922.



C 53,9 — H 10,1 — O 36,0 — M. G. 178.

- 1) $\alpha\beta\epsilon\zeta$ -Tetraoxy- $\beta\epsilon$ -Dimethylhexan (Oktylerythrit). Fl. (B. 20, 3244). — I, 280.
- 2) Oktinalkohol (J. r. 20, 511). — I, 280.
- 3) Diäthyläther d. $\alpha\beta\gamma\delta$ -Tetraoxybutan (D. d. Erythrit). Sm. 13,5°; Sd. 144°₃₂ (A. ch. [6] 7, 230). — I, 316.



C 49,5 — H 9,3 — O 41,2 — M. G. 194.

- 1) Tetraäthylenglykol. Sd. 230°₃₅ (A. ch. [3] 67, 280; [3] 69, 334). — I, 261.



C 45,7 — H 8,6 — O 45,7 — M. G. 210.

- 1) Dimethylmannit. Sm. 230—250° (B. 15, 1633).



C 39,7 — H 7,4 — O 52,9 — M. G. 242.

- 1) α -Galaoktid. Sm. 224—226° (230—232° cor.) (A. 288, 151).
- 2) α -Glykooktid. Sm. 141° (A. 270, 98).
- 3) d-Mannoktid. Sm. 258° (B. 23, 2235). — I, 291.



C 37,2 — H 7,0 — O 55,8 — M. G. 258.

- 1) α -Galaoktose. Sm. 109—111° (cor.) (A. 288, 150).



C 67,6 — H 12,7 — N 19,7 — M. G. 142.

- 1) l-[γ -Amidopropyl]hexahydropyridin (γ -Amidopropylpiperidin). Sd. 204°₇₅₁. Pikrat (B. 27, 2177). — IV, 8.
- 2) l-Amido-2-Methyl-5-Aethylhexahydropyridin. Sd. 205° (C. 1896 [1] 1126).
- 3) stabil. 4-Amido-2,2,6-Trimethylhexahydropyridin. Sm. 25—26°; Sd. 60°₇₅. 2HCl, (2HCl, AuCl₃), 2HBr, 2HJ, Pikrat, Oxalat, Bioxalat (B. 29, 524; A. 294, 352). — IV, 485.
- 4) lab. 4-Amido-2,2,6-Trimethylhexahydropyridin. Sd. 82—84°₂₂. 2HCl, 2HBr (A. 294, 365). — IV, 485.
- 5) 1,4-Diäthylhexahydro-1,4-Diazin (1,4-Diäthylpiperazin). Sd. 165° (185°). 2HCl, (2HCl, PtCl₄) (J. 1859, 389; B. 24, 3247; C. 1898 [1] 727). — I, 1154.
- 6) α -2,5-Dimethyl-3-Aethylhexahydro-1,4-Diazin + $\frac{1}{2}$ H₂O (2,5-Dimethyl-3-Aethylpiperazin). Sm. 62° (wasserhaltig); Sd. 173—174°. 2HCl, (2HCl, PtCl₄ + 3H₂O), Pikrat (J. pr. [2] 47, 519; [2] 55, 70). — IV, 484.
- 7) β -2,5-Dimethyl-3-Aethylhexahydro-1,4-Diazin. Sd. 185—186°. (2HCl, PtCl₄ + 2H₂O), 2Pikrat + $\frac{1}{2}$ H₂O (J. pr. [2] 55, 71). — IV, 485.
- 8) α -2,3,5,6-Tetramethylhexahydro-1,4-Diazin + 2H₂O (α -2,3,5,6-Tetramethylpiperazin). Sm. 84° (37°; 46° wasserfrei); Sd. 171° (176—177°). 2HCl, (2HCl, PtCl₄) (B. 26, 724; J. pr. [2] 55, 74). — IV, 485.
- 9) β -2,3,5,6-Tetramethylhexahydro-1,4-Diazin (β -2,3,5,6-Tetramethylpiperazin). Sd. 176° (181°₆₄) (B. 26, 724; J. pr. [2] 55, 76). — IV, 485.



C 42,5 — H 8,0 — N 49,5 — M. G. 226.

- 1) $\beta\epsilon$ -Di[Imidoamidomethylhydrazon]hexan (Acetonylacetonbisamidoguanidin). Sm. 224—225°. 2HCl + 2H₂O, (2HCl, PtCl₄ + 2H₂O), 2HNO₃ (A. 302, 295).

- C₈H₁₈S** 1) norm. Dibutylsulfid. Sd. 182° (A. 171, 253; 175, 348; *J. pr.* [2] 38, 512). — I, 361.
2) sec. Dibutylsulfid. Sd. 165° (B. 7, 1288). — I, 362.
3) Diisobutylsulfid. Sd. 172—173° (170,5°) (*J. pr.* [2] 17, 445; [2] 28, 519; A. 171, 256; *Am.* 19, 249). — I, 361.
- C₈H₁₈S₂** 1) Diisobutyldisulfid. Sd. 220° (B. 15, 1940). — I, 362.
2) Diäthyläther d. αα-Dimerkapto-β-Methylpropan. Sd. 200—210° (A. 253, 152). — I, 949.
- C₈H₁₈Hg** 1) Quecksilberdiisobutyl. Sd. 196° u. Zers. (205—207°) (*J.* 1873, 521; *J. r.* 19, 202; B. 21, 2038). — I, 1526.
- C₈H₁₈Zn** 1) Zinkdiisobutyl. Sd. 185° (165—167°₇₃₄) (*Bl.* 21, 357; B. 21, 2038; A. 223, 168). — I, 1524.
- C₈H₁₉N** C 74,4 — H 14,7 — N 10,9 — M. G. 129.
1) α-Amidooktan. Sd. 185—187° (175—177°₇₄₅). HCl, (2HCl, PtCl₄) (A. 166, 86; 298, 146; B. 12, 1885; 15, 773; 17, 629, 1920; 27, 175, 3401; R. 6, 387; *Am.* 20, 213; 21, 229). — I, 1137.
2) β-Amidooktan. Sd. 162,5° (172—175°). (2HCl, PtCl₄), (HCl, AuCl₃) (A. 92, 339, 400; *J.* 1855, 526; 1863, 529; M. 3, 173; B. 8, 805; 17, 634; *J. r.* 25, 494). — I, 1137.
3) δ-Amidomethylheptan. Sd. 167° (2HCl, PtCl₄) (*G.* 26 [2] 246).
4) β-Amido-βε-Dimethylhexan. Sd. 145°₄₄₅. HCl, (2HCl, PtCl₄) (B. 28, 1854).
5) α-Butylamidobutan (norm. Dibutylamin). Sd. 160° (2HCl, PtCl₄) (A. 158, 175; B. 10, 130). — I, 1131.
6) δ-Methyläthylamido-γ-Methylbutan (Methyläthylisoamylamin). Sd. 135° (2HCl, PtCl₄) (A. 78, 285). — I, 1135.
7) α-Isobutylamido-β-Methylpropan (Diisobutylamin). Sd. 139—140°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HJ, Oxalat, Aethyloxalat (B. 12, 949; 17, 627; 27 [2] 579; *Soc.* 55, 697; A. ch. [6] 13, 497, 535; [6] 19, 412; *Bl.* [3] 4, 253; *J. pr.* [2] 36, 125; *G.* 23 [1] 345). — I, 1132.
8) tert. Dibutylamin. HJ (*J. r.* 11, 163). — I, 1133.
9) α-Aethylpropylamidopropan (Dipropyläthylamin). Sd. 132—134° (2HCl, PtCl₄), (HCl, AuCl₃) (B. 24, 1680). — I, 1130.
- C₈H₁₉P** 1) norm. Oktylphosphin. Sd. 184—187°. HJ (A. 185, 65). — I, 1505.
2) Diisobutylphosphin. Sd. 153° (B. 6, 296). — I, 1503.
- C₈H₂₀O₂** C 58,5 — H 12,2 — O 29,3 — M. G. 164.
1) Aethylsuperoxyd (*C. r.* 92, 895).
- C₈H₂₀N₂** C 66,7 — H 13,9 — N 19,4 — M. G. 144.
1) αβ-Diamidooktan. Sm. 50—52°; Sd. 236—240°. (2HCl, PtCl₄) (R. 13, 34).
2) βε-Diamido-βε-Dimethylhexan. Fl. (2HCl, PtCl₄) (B. 28, 1854).
3) αδ-Di[Dimethylamido]butan. (2HCl, 2AuCl₃). — I, 1156.
4) s-Diisobutylhydrazin. Sd. 170—175° (M. 19, 530).
C 55,8 — H 11,6 — N 32,6 — M. G. 172.
1) Tetraäthyltetrazon. Fl. Zers. bei 135—140°. (2HCl, PtCl₄), + HgCl₂ (A. 199, 319). — I, 1150.
- C₈H₂₀As₂** 1) Arsendiäthyl, siehe C₈H₁₀As. — I, 1512.
- C₈H₂₀Ge** 1) Germaniumtetraäthyl. Sd. 160° (*J. pr.* [2] 36, 204). — I, 1527.
- C₈H₂₀Pb** 1) Bleitetraäthyl. Sd. 152° (*Soc.* 35, 245; A. 109, 224; 112, 226; 122, 66; B. 27 [2] 78; *G.* 24 [1] 44). — I, 1530.
- C₈H₂₀Si** 1) Siliciumtetraäthyl. Sd. 153° (A. 127, 31; 138, 19; 164, 330; *G.* 27 [2] 441; *Ph. Ch.* 25, 355). — I, 1518.
- C₈H₂₀Sn** 1) Zinntetraäthyl. Sd. 181° (A. 109, 226; 111, 46; 112, 223; *Soc.* 35, 130). — I, 1529.
- C₈H₂₀Ti** 1) Titanetetraäthyl? (B. 22, 468). — I, 1523.
- C₈H₂₁N₃** C 60,4 — H 13,2 — N 26,4 — M. G. 159.
1) Diäthyläthylentriamin. 3HCl, 2HJ (*J.* 1861, 518). — I, 1161.
- C₈OCl₈** 1) Anhydro-3,4,5,6-Tetrachlor-1,2-Di[Dichloroxymethyl]benzol. Sm. 140° (A. 238, 329). — II, 1820.
- C₈OCu₄** 1) Kupferverbindung (aus Acetylen) (B. 30, 764).
- C₈O₂Cl₆** 1) Lakton d. 3,4,5,6-Tetrachlor-1-Dichloroxymethylbenzol-2-Carbonsäure. Sm. 118°; Sd. 336°₇₃₃ (A. 238, 328). — II, 1819.
2) Chlorid d. 3,4,5,6-Tetrachlorbenzol-1,2-Dicarbonsäure (B. 16, 861).
- C₈O₃Cl₄** 1) Anhydrid d. 3,4,5,6-Tetrachlorbenzol-1,2-Dicarbonsäure. Sm. 252° (A. 149, 20; 238, 320; *J.* 1884, 465). — II, 1819.

- $C_6O_3Br_4$ 1) Anhydrid d. 3,4,5,6-Tetrabrombenzol-1,2-Dicarbonsäure. Sm. 258 bis 259° (B. 17, 2494; 29, 1633). — II, 1821.
- $C_6O_3J_4$ 1) Anhydrid d. 3,4,5,6-Tetrajodbenzol-1,2-Dicarbonsäure. Sm. 320 bis 325° (B. 29, 1634).
- $C_6O_3Cl_{14}$ 1) Di[Perchloräthylester] d. Tetrachlorbernsteinsäure. Sm. 116—120° (A. 47, 297). — I, 659.
- $C_6O_3C_{10}$ 1) Anhydrid d. Oxalsäurepentachlormonoäthylester. Fl. (A. 37, 76). — I, 647.
- $C_6Cl_8S_2$ 1) Hexachlor-2,2'-Bithiophen (Hexachlordithienyl). Sm. 189,5—190° cor. (B. 28, 2386, 3302). — III, 751.
- $C_6Br_8S_2$ 1) Hexabrom-2,2'-Bithiophen (Hexabrom- $\alpha\alpha$ -Dithienyl). Sm. 257° (B. 27, 667, 1745). — III, 751.
- 2) Hexabrom-3,3'-Bithiophen (Hexabrom- $\beta\beta$ -Dithienyl). Sm. 183° (B. 27, 1743). — III, 752.
- $C_6S_3Na_2$ 1) Kohlenstoffsulfidnatrium (J. 1860, 398 Anm.). — I, 881.

C_8 -Gruppe mit drei Elementen.

- $C_8HO_3Cl_3$ 1) Anhydrid d. ρ -Trichlorbenzol-1,2-Dicarbonsäure. Sm. 157° (B. 10, 1843). — II, 1819.
- $C_8HO_3Br_3$ 1) Anhydrid d. ρ -Tribrombenzol-1,2-Dicarbonsäure. Sm. 157° (B. 17, 1484). — II, 1821.
- $C_8H_4OCl_6$ 1) Anhydro- ρ -Dichlor-1,2-Di[Dichloroxymethyl]benzol. Sm. 117° (A. 238, 354). — II, 1819.
- $C_8H_2O_2Cl_4$ 1) Lakton d. 3,4,5,6-Tetrachlor-1-Oxymethylbenzol-2-Carbonsäure. Sm. 208,5° (A. 238, 330). — II, 1556.
- 2) Lakton d. ρ -Dichlor-1-Dichloroxymethylbenzol-2-Carbonsäure. Sm. unter 50°; Sd. 312—316° (A. 238, 354). — II, 1818.
- 3) Chlorid d. 2,5-Dichlorbenzol-1,4-Dicarbonsäure. Sm. 80,5—81° (B. 22, 2109). — II, 1837.
- $C_8H_2O_3Cl_2$ 1) Anhydrid d. 3,6-[oder 3,4-]Dichlorbenzol-1,2-Dicarbonsäure. Sm. 187° (A. 160, 64; B. 10, 547). — II, 1818.
- 2) Anhydrid d. 4,5-Dichlorbenzol-1,2-Dicarbonsäure. Sm. 143° (J. pr. [2] 43, 61, 254). — II, 1818.
- 3) Anhydrid d. isom. ρ -Dichlorbenzol-1,2-Dicarbonsäure. Sm. 149 bis 151°; Sd. 339—340°₇₃₀ (A. 238, 351). — II, 1818.
- $C_8H_2O_3Br_2$ 1) Anhydrid d. 3,6-Dibrombenzol-1,2-Dicarbonsäure. Sm. 207,5—208° (A. 222, 276). — II, 1820.
- 2) Anhydrid d. ρ -Dibrombenzol-1,2-Dicarbonsäure. Sm. 208° (B. 17, 2491). — II, 1821.
- $C_8H_2O_4Cl_4$ 1) 3,4,5,6-Tetrachlorbenzol-1,2-Dicarbonsäure. Sm. 250°. K_2 , Ba + $2\frac{1}{2}H_2O$, Pb, Cu + $2H_2O$, Ag₂ (A. 149, 18; 238, 320; 272, 266; B. 15, 1402; 16, 861, 1017; 19, 1166; 27, 3148). — II, 1819.
- 2) 2,4,5,6-Tetrachlorbenzol-1,3-Dicarbonsäure. Sm. 267—269°. Ag₂ (B. 29, 1632).
- 3) 2,3,5,6-Tetrachlorbenzol-1,4-Dicarbonsäure. Sm. 279—281°. Ag₂ (B. 29, 1629).
- $C_8H_2O_4Br_4$ 1) 3,4,5,6-Tetrabrombenzol-1,2-Dicarbonsäure. Sm. 266°. Ca, Ba (B. 17, 2494; 29, 1633). — II, 1821.
- 2) 2,4,5,6-Tetrabrombenzol-1,3-Dicarbonsäure. Sm. 288—292°. Ag₂ (B. 29, 1631).
- 3) 2,3,5,6-Tetrabrombenzol-1,4-Dicarbonsäure. Sm. bei etwa 300° u. Zers. Ag₂ (B. 29, 1625).
- $C_8H_2O_4J_4$ 1) 3,4,5,6-Tetrajodbenzol-1,2-Dicarbonsäure. Sm. 324—327°. Ag₂ (B. 29, 1634).
- 2) 2,4,5,6-Tetrajodbenzol-1,3-Dicarbonsäure. Sm. 308—312° u. Zers. Ag₂ (B. 29, 1632).
- 3) 2,3,5,6-Tetrajodbenzol-1,4-Dicarbonsäure. Sm. 315—320° u. Zers. Mg + $6H_2O$, Ca + $2H_2O$, Sr + $8H_2O$, Ba + $4H_2O$, Cd + $4H_2O$, Cu + $3H_2O$. Ag₂ (B. 29, 1629, 2836).
- $C_8H_2O_6J_4$ 1) 3,6-Dijod-2,5-Dijodosobenzol-1,4-Dicarbonsäure (B. 29, 2838).

- $C_6H_2O_3N_4$ C 34,0 — H 0,7 — O 45,3 — N 19,9 — M. G. 282.
 1) 2,4,6-Trinitrophenylimid d. Oxalsäure. Sm. 146° (Soc. 63, 1066). — II, 409.
- $C_6H_2Cl_4S_2$ 1) p-Tetrachlor-2,2'-Bithiophen (Tetrachlordithienyl). Sm. 126,5—127° cor. (B. 28, 2385). — III, 751.
- $C_6H_2Br_4S_2$ 1) Tetrabrom-2,2'-Bithiophen (Tetrabrom- $\alpha\alpha$ -Dithienyl). Sm. 139—140° (B. 27, 1745). — III, 751.
 2) Tetrabrom-3,3'-Bithiophen (Tetrabrom- $\beta\beta$ -Dithienyl). Sm. 137—138° (B. 27, 1742). — III, 752.
- $C_6H_3O_2Cl_3$ 1) Lakton d. 4-Chlor-1-Dichloroxymethylbenzol-2-Carbonsäure. Sd. 275—276° (A. 233, 236). — II, 1818.
 2) Dichlorid d. 2-Chlorbenzol-1,4-Dicarbonsäure. Sd. bei 300° (B. 19, 1638).
- $C_6H_3O_2Cl_2$ 1) Pentachlorphenylester d. Essigsäure. Sm. 147—148° (149,5—150,5°) (B. 18, 336; Bl. [3] 13, 342). — II, 672.
- $C_6H_3O_3N_3$ C 50,8 — H 1,6 — O 25,4 — N 22,2 — M. G. 189.
 1) Nitril d. α -Cyan- β -[p-Nitro-2-Furanyl]akrylsäure. Sm. 179° u. Zers. (B. 28, 2257). — III, 718.
- $C_6H_3O_3Cl$ 1) Anhydrid d. 3-Chlorbenzol-1,2-Dicarbonsäure. Sm. 124,5—125,5° (122°) (B. 18, 1759; G. 17, 122). — II, 1817.
 2) Anhydrid d. isom. 3-Chlorbenzol-1,2-Dicarbonsäure? Sm. 140 bis 143° (148°) (J. 1880, 862; B. 27, 741). — II, 1817.
 3) Anhydrid d. 4-Chlorbenzol-1,2-Dicarbonsäure. Sm. 98,5°; Sd. 249,5°; 30 (Bl. 36, 434; B. 15, 320; 25, 2116; J. 1886, 1453; A. 233, 238). — II, 1818.
- $C_6H_3O_3Br$ 1) Anhydrid d. 3-Brombenzol-1,2-Dicarbonsäure. Sm. 132—134° (130,5 bis 131,5°) (A. 222, 293; B. 25, 2114; Soc. 35, 792). — II, 1820.
 2) Anhydrid d. isom.? 3-Brombenzol-1,2-Dicarbonsäure. Sm. 60—65° (B. 12, 2126). — II, 1820.
 3) Anhydrid d. 4-Brombenzol-1,2-Dicarbonsäure. Sm. 106—108°; Sd. 297—301° (B. 20, 1017). — II, 1820.
 4) Anhydrid d. isom. ?-Brombenzol-1,2-Dicarbonsäure. Sm. 207 bis 208° (B. 10, 294; 15, 528). — II, 1820.
- $C_6H_3O_3J$ 1) Anhydrid d. 3-Jodbenzol-1,2-Dicarbonsäure. Sm. 153° (J. pr. [2] 53, 383).
 2) Anhydrid d. 4-Jodbenzol-1,2-Dicarbonsäure. Sm. 123° (J. pr. [2] 53, 387).
- $C_6H_3O_4Cl_3$ 1) ?-Trichlorbenzol-1,2-Dicarbonsäure (B. 10, 1843; 18, 1370). — II, 1819.
 2) 2,4,6-Trichlorbenzol-1,3-Dicarbonsäure. Sm. 223°. Ba + 5 H₂O, Ag₂ (J. pr. [2] 41, 560). — II, 1828.
- $C_6H_3O_4Br_3$ 1) ?-Tribrombenzol-1,2-Dicarbonsäure. Sm. 190—191°. Ca + 2 H₂O, Ba + 2 H₂O, Ag₂ (B. 17, 1482). — II, 1821.
- $C_6H_3O_4Br_2$ 1) Acetat d. 2,2,4,4,6-Pentabrom-5-Oxy-1,3-Diketo-1,2,3,4-Tetrahydrobenzol. Sm. 142° (B. 23, 1728). — I, 1026.
- $C_6H_3O_3N$ C 49,7 — H 1,6 — O 41,4 — N 7,3 — M. G. 193.
 1) Anhydrid d. 3-Nitrobenzol-1,2-Dicarbonsäure. Sm. 163—164° (B. 15, 1127 Ann.). — II, 1821.
 2) Anhydrid d. 4-Nitrobenzol-1,2-Dicarbonsäure. Sm. 114° (A. 208, 230). — II, 1822.
- $C_6H_3Cl_3S_2$ 1) Trichlor-2,2'-Bithiophen. Sm. 103° (B. 26, 2946; 28, 2386). — III, 751.
- $C_6H_3Br_3S$ 1) ?-Tribrombenzthiofuran. Sm. 123° (C. 1897 [2] 270).
- $C_6H_4ON_2$ C 66,7 — H 2,8 — O 11,1 — N 19,4 — M. G. 144.
 1) Nitril d. α -Cyan- β -[2-Furanyl]akrylsäure. Sm. 76° (B. 28, 2252). — III, 718.
- $C_6H_4OCl_3$ 1) Anhydro-3,4,5,6-Tetrachlor-1,2-Di[Oxymethyl]benzol. Sm. 218° (A. 238, 331). — II, 1097.
 2) Trichlormethyl-4-Chlorphenylketon. Sm. 28°; Sd. 181°₄₅ (A. ch. [6] 14, 403). — III, 120.
 3) Chlorid d. 1-Trichlormethylbenzol-2-Carbonsäure. Sm. 88°; Sd. 275° u. Zers. (B. 13, 418; C. 1895 [2] 363; Bl. [3] 17, 874). — II, 1559.
 4) Verbindung (aus Phtalid). Sm. 47°; Sd. 262° u. ger. Zers. (B. 13, 419; 19, 1188; Bl. [3] 17, 874). — II, 1559.

- $C_8H_4O_2N_2$ C 60,0 — H 2,5 — O 20,0 — N 17,5 — M. G. 160.
 1) 1,3-Phenylendicarbonimid. Sm. 51°. — IV, 575.
 2) 1,4-Phenylendicarbonimid. Sm. 91° (B. 18, 2604). — IV, 591.
- $C_8H_4O_2N_2$ C 44,4 — H 1,8 — O 14,8 — N 38,9 — M. G. 216.
 1) Diazid d. Benzol-1,3-Dicarbonsäure. Sm. 56° (J. pr. [2] 54, 77).
 2) Diazid d. Benzol-1,4-Dicarbonsäure. Sm. 110° (J. pr. [2] 54, 84).
- $C_8H_4O_2Cl_2$ 1) Lakton d. 2-Dichlor-1-Oxymethylbenzol-2-Carbonsäure. Sm. 122° (A. 238, 355). — II, 1556.
 2) Lakton d. 3,6-Dichlor-1-Oxymethylbenzol-2-Carbonsäure (Dichlorphthalid). Sm. 163° (B. 19, 1155). — II, 1556.
 3) Dichlorid d. Benzol-1,2-Dicarbonsäure (Phtalylchlorid). Sd. 275,4°₇₂₆ (A. 143, 260; 235, 14; 238, 329; J. 1863, 393; Am. 3, 26; B. 19, 1187; A. ch. [6] 22, 295). — II, 1794.
 4) Dichlorid d. Benzol-1,3-Dicarbonsäure. Sm. 41°; Sd. 276° (B. 7, 708; 19, 1849). — II, 1826.
 5) Dichlorid d. Benzol-1,4-Dicarbonsäure. Sm. 77–78°; Sd. 259° (B. 7, 707; 10, 1743; Bl. [3] 11, 927; A. 121, 90). — II, 1832.
- $C_8H_4O_2Cl_2$ 1) Dichlormethylenäther d. 3,4-Dioxy-1-Dichlormethylbenzol (Dichlorpiperonalchlorid). Sd. 280° u. Zers. (A. 159, 147). — III, 102.
 2) 2,4,5,6-Tetrachlor-1-Methylbenzol-3-Carbonsäure. Sm. 180–181° (B. 29, 1632).
 3) 2,3,5,6-Tetrachlor-1-Methylbenzol-4-Carbonsäure. Sm. 212°. Ag (B. 29, 1628).
 4) 2,3,4,6-Tetrachlorphenylester d. Essigsäure. Sm. 59° (B. 27, 549 Anm.). — II, 671.
- $C_8H_4O_2Br_2$ 1) Lakton d. 3,6-Dibrom-1-Oxymethylbenzol-2-Carbonsäure (Dibromphthalid). Sm. 188–189° (A. 222, 282; G. 16, 151). — II, 1557.
- $C_8H_4O_2Br_2$ 1) Methylester d. 2,3,4,6-Tetrabrombenzol-1-Carbonsäure. Sm. 77° (Soc. 67, 599).
- $C_8H_4O_2S$ 1) Anhydrid d. Benzol-1,2-Dithiolcarbonsäure (Thiophtalsäureanhydrid). Sm. 114°; Sd. 284° (B. 7, 707; 17, 1176; Bl. 47, 898). — II, 1823.
- $C_8H_4O_2N_2$ C 54,5 — H 2,3 — O 27,3 — N 15,9 — M. G. 176.
 1) Cyanid d. 2-Nitrobenzol-1-Carbonsäure. Sm. 54° (B. 12, 351; 23, 1577). — II, 1231.
 2) Cyanid d. 3-Nitrobenzol-1-Carbonsäure. Sd. 230–231,5°_{142–147} (B. 12, 1943; 14, 1156). — II, 1233.
- $C_8H_4O_2Cl_2$ 1) Aldehyd d. 3,4-Dioxybenzol-3,4-Dichlormethylenäther-1-Carbonsäure (Dichlorpiperonal). Sm. 90°; Hydrat (A. 159, 147). — III, 102.
- $C_8H_4O_2Cl_2$ 1) Methylester d. 2,4,5,6-Tetrachlor-3-Oxybenzol-1-Carbonsäure. Sm. 37–38° (A. 261, 244). — II, 1519.
- $C_8H_4O_2Br_2$ 1) Dibromsantal (Z. 1870, 84). — III, 672.
- $C_8H_4O_4N_2$ C 50,0 — H 2,1 — O 33,3 — N 14,6 — M. G. 192.
 1) 2-Nitro-2-Oxy-3-Ketopseudoindol (Nitroisatin). Sm. 226–230° (B. 12, 1312). — II, 1607.
 2) Nitril d. 2-Nitro-3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure. Sm. 138–139° (B. 24, 625). — II, 1746.
- $C_8H_4O_2Cl_2$ 1) 3,6[oder 3,4]-Dichlorbenzol-1,2-Dicarbonsäure. Sm. 183–185°. Ca + 4H₂O, Ba + H₂O (A. 160, 64; J. pr. [2] 43, 61; B. 10, 547, 1844). — II, 1818.
 2) 4,5-Dichlorbenzol-1,2-Dicarbonsäure. Sm. 183°. Ca + 4H₂O, Ba + 2H₂O, Ag₂ (B. 18, 1370; J. pr. [2] 43, 253). — II, 1818.
 3) 4,5-Dichlorbenzol-1,2-Dicarbonsäure? Ba, Pb, Ag₂ (B. 19, 3175). — II, 1818.
 4) isom. Dichlorbenzol-1,2-Dicarbonsäure. Sm. 118°. (NH₄)₂, Ca + 4H₂O, Ba + 2H₂O, Ag₂ (A. 238, 350). — II, 1818.
 5) 4,6-Dichlorbenzol-1,3-Dicarbonsäure. Sm. 280°. Ba + H₂O, Ag₂ (J. pr. [2] 41, 558). — II, 1828.
 6) 2,5-Dichlorbenzol-1,4-Dicarbonsäure. Sm. 305–306°. Ba + 4H₂O, Ag₂ (B. 21, 1467, 1959). — II, 1836.
- $C_8H_4O_2Cl_2$ 1) 1,1,3,3,4,5-Hexachlor-1-Acetoxyl-2,3-Dihydro-R-Penten-2-Carbonsäure. Sm. 65° u. 130°. Ba (B. 23, 827). — I, 621.
- $C_8H_4O_2Br_2$ 1) 3,6-Dibrombenzol-1,2-Dicarbonsäure. Sm. 135°. Na₂ (A. 222, 274). — II, 1820.

- $C_6H_4O_2Br_2$ 2) *p*-Dibrombenzol-1,2-Dicarbonsäure. Sm. 206°. Ca, Ba, Ag₂ (B. 17, 2490). — II, 1820.
3) *p*-Dibrombenzol-1,3-Dicarbonsäure. Sm. 155°. Ca, Ag₂ (J. pr. [2] 38, 317). — II, 1828.
4) 2,5-Dibrombenzol-1,4-Dicarbonsäure. Sm. 316—317°. Ca + 4H₂O, Ba + 2H₂O, Ag + 2H₂O (B. 13, 904; 18, 1762; G. 18, 309; J. pr. [2] 37, 22). — II, 1837.
- $C_6H_4O_2N_2$ C 46,1 — H 1,9 — O 38,5 — N 13,5 — M. G. 208.
1) α -Cyan- β -[*p*-Nitro-2-Furanyl]akrylsäure. Sm. 250° u. Zers. Ag (B. 28, 2257). — III, 711.
2) Inn. Anhydrid d. *p*-Nitrobenzol-1-Carbonsäure-2-Amidoameisensäure. Sm. 220—230° u. Zers. (J. pr. [2] 30, 477). — II, 1283.
- $C_6H_4O_2Cl_2$ 1) Dichlorhydrochinondicarbonsäure + 2H₂O (B. 20, 1312, 2796; 21, 1758). — II, 2003.
- $C_6H_4O_2Cl_2$ 1) Weinsäurechloralid (A. 193, 46). — I, 935.
- $C_6H_4O_2Br_2$ 1) Dibromhydrochinondicarbonsäure (B. 21, 1760). — II, 2003.
- $C_6H_4O_2N_2$ C 37,5 — H 1,6 — O 50,0 — N 10,9 — M. G. 256.
1) 3,5-Dinitrobenzol-1,2-Dicarbonsäure. Sm. 226°. Ca, Ba (A. 202, 226; 239, 77; B. 15, 2725; 28, 370). — II, 1822.
2) 3,6-Dinitrobenzol-1,2-Dicarbonsäure. Sm. 200° (201—202°). Ba (B. 15, 2727; 28, 369). — II, 1822.
3) isom. *p*-Dinitrobenzol-1,2-Dicarbonsäure. (NH₄)₂, Ba (Z. 1871, 263). — II, 1823.
4) *p*-Dinitrobenzol-1,3-Dicarbonsäure + 5H₂O. Sm. 215°. K₂ + 2H₂O, Mg + 4H₂O, Ca + 4H₂O, Ba + 7H₂O, Ag (J. pr. [2] 38, 314). — II, 1829.
5) 2,3-Dinitrobenzol-1,4-Dicarbonsäure. Sm. oberh. 200° u. Zers. (B. 26, 2982). — II, 1838.
6) 2,5-Dinitrobenzol-1,4-Dicarbonsäure. Sm. oberh. 280° u. Zers. Ba (B. 26, 2984). — II, 1838.
7) 3,5-Dinitrobenzol-1,4-Dicarbonsäure. Sm. 255° u. Zers. Ba (B. 26, 2983; 28, 81). — II, 1838.
8) 1,2-Diazin-3,4,5,6-Tetracarbonsäure (Pyridazintetracarbonsäure). K + H₂O, K₂ (B. 28, 452). — IV, 837.
9) 1,4-Diazin-2,3,5,6-Tetracarbonsäure + 2H₂O. Sm. 204—205° u. Zers. Na₂ + 2H₂O, Ca₂ + 2½H₂O, Ba₂ + 1½H₂O, Ag₂ + ½H₂O (B. 26, 722; 28, 1516). — IV, 837.
- $C_6H_4O_2N_2$ C 35,3 — H 1,5 — O 52,9 — N 10,3 — M. G. 272.
1) *p*-Dinitro-3-Oxybenzol-1,2-Dicarbonsäure (Juglonsäure). (NH₄)₂, K + H₂O (B. 18, 210; 19, 168). — II, 1935.
2) *p*-Dinitro-2-Oxybenzol-1,4-Dicarbonsäure. Sm. 178°. Ca, Pb, Ag, Ag₂ + 2H₂O (B. 10, 1273). — II, 1938.
- $C_6H_4O_2N_2$ C 32,0 — H 1,3 — O 48,0 — N 18,7 — M. G. 300.
1) 2,4,6-Trinitrophenyloxaminsäure. Sm. 220° u. Zers. (Soc. 61, 469). — II, 409.
- $C_6H_4NCl_3$ 1) Nitril d. 1-Trichlormethylbenzol-2-Carbonsäure. Sm. 94—95°; Sd. 280° (B. 20, 3198). — II, 1332.
- $C_6H_4NF_3$ 1) Nitril d. 1-Trifluormethylbenzol-3-Carbonsäure. Sm. 14,5°; Sd. 189° (C. 1898 [2] 26).
- $C_6H_4N_2Cl_2$ 1) 2,4-Dichlor-1,3-Benzdiazin. Sm. 115° (J. pr. [2] 39, 150). — IV, 898.
2) 2,3-Dichlor-1,4-Benzdiazin. Sm. 150° (B. 29, 784; A. 292, 25).
- $C_6H_4N_2S_2$ 1) 1,2-Phenylensenfö. Sm. 59° (B. 20, 231). — IV, 560.
2) 1,3-Phenylensenfö. Sm. 53°; Sd. oberh. 250° (B. 20, 230). — IV, 560.
3) 1,4-Phenylensenfö. Sm. 130° (B. 20, 230). — IV, 592.)
4) 1,3-Dirhodanbenzol. Sm. 54° (B. 10, 184). — II, 935.
5) Dithiocarbonyl-1,3-Diamidobenzol (G. 16, 188). — IV, 576.
- $C_6H_4Cl_2S_2$ 1) *p*-Dichlor-2,2'-Bithiophen. Sm. 109—110° (B. 26, 2945; 28, 238). — III, 751.
- $C_6H_4Br_2S$ 1) 1,2[*p*]-Dibrombenzthiofuran. Sm. 55,3° (C. 1897 [2] 270).
- $C_6H_4Br_2S_2$ 1) Dibrom-2,2'-Bithiophen (Dibrom- α -Dithienyl). Sm. 142—143° (C. 1745). — III, 751.
- C_6H_5ON C 73,3 — H 3,8 — O 12,2 — N 10,7 — M. G. 131.
1) Aldehyd d. 3-Cyanbenzol-1-Carbonsäure. Sm. 79—81° (B. 24, 2). — III, 16.

- C₅H₅ON** 2) Aldehyd d. 4-Cyanbenzol-1-Carbonsäure. Sm. 96—98° (92°) (*B.* 24, 2422; *Ph. Ch.* 13, 522). — III, 16.
3) Cyanid d. Benzolcarbonsäure. Sm. 32—33°; Sd. 206—208° (208—210°) (*A.* 3, 267; 90, 63; 98, 346; 287, 305; *B.* 10, 480; 14, 1185; 20, 2196; 31, 1024; *Soc.* 37, 742). — II, 1156.
4) polym. Cyanid d. Benzolcarbonsäure. Sm. 95° (*J. pr.* [2] 39, 260; *B.* 31, 1024). — II, 1157.
- C₅H₅ON₃** C 60,4 — H 3,1 — O 10,1 — N 26,4 — M. G. 159.
1) Azoisatin (oder C₁₆H₁₀O₂N₆). Sm. 161° u. Zers. Hg (*J. pr.* [2] 44, 551). — II, 1611.
- C₅H₅OCl** 1) p-Chlorbenzofuran (Chlorcumaron). Sm. 74—75°; Sd. 215—217° (*B.* 23, 80). — II, 1676.
- C₅H₅OCl₂** 1) Trichlorvinylphenyläther. Sm. 26,5°; Sd. 106—108°₁₂ (*J. pr.* [2] 35, 96). — II, 654.
2) Trichlormethylphenylketon. Sd. 145°₂₅ (*A. ch.* [6] 14, 398). — III, 120.
3) Dichlormethyl-4-Chlorphenylketon. Sm. 51°; Sd. 178°₄₅ (*A. ch.* [6] 14, 402). — III, 120.
- C₅H₅OBr** 1) p-Brombenzofuran (Bromcumaron). Sm. 39°; Sd. 218—220° (*A.* 226, 354; *B.* 23, 79). — II, 1676.
2) Bromäthynylphenyläther. Fl. (*A.* 216, 283). — II, 655.
- C₅H₅OBr₂** 1) Dibrommethyl-4-Bromphenylketon. Sm. 92—93° (*Bl.* [3] 21, 68).
- C₅H₅OBr₃** 1) Pentabromäthylphenyläther. Sm. 103—106° u. Zers. (*A.* 216, 284). — II, 652.
- C₅H₅O₂N** C 65,3 — H 3,4 — O 21,8 — N 9,5 — M. G. 147.
1) 2-Nitrophenylacetylen. Sm. 81—82° (*B.* 13, 2259; 15, 214; *A.* 212, 140). — II, 174.
2) 4-Nitrophenylacetylen. Sm. 149° (152°) (*A.* 212, 133, 158). — II, 174.
3) Isodiphenyldinitrosacyl. Sm. 179° (*B.* 21, 2840). — III, 299.
4) 2-Oxy-3-Ketopseudoindol (Isatin; i. Anhydrid d. 2-Amidobenzol-1-Ketocarbonsäure). Sm. 200—201°. K, Cu, Ag. Lit. bedeutend. — II, 1601.
5) 2-Keto-1,3-Benzoxazin (Lakton d. 2-Oxybenzylidenamidoameisensäure). Zers. bei 70° (*B.* 31, 1600).
6) 2-Cyanbenzol-1-Carbonsäure. Sm. 180—190°. NH₄, K, Ba, Ag (*B.* 18, 1499; 24, 2347; *Am.* 3, 26; *R.* 11, 91; *A. ch.* [6] 22, 289). — II, 1228.
7) 3-Cyanbenzol-1-Carbonsäure. Sm. 217°. Ca + 3H₂O, Ba + 3½H₂O, Zn, Ag (*B.* 18, 1498; 20, 521; *Ph. Ch.* 3, 258). — II, 1228.
8) 4-Cyanbenzol-1-Carbonsäure (*B.* 18, 1497). — II, 1229.
9) Inn. Anhydrid d. 1-Oximidomethylbenzol-2-Carbonsäure (*B.* 24, 2347). — II, 1626.
10) Aldehyd d. p-Cyan-2-Oxybenzol-1-Carbonsäure? (Cyanosalicyl) (*A.* 108, 318). — III, 75.
11) Anthroxanaldehyd. Sm. 72,5° (*B.* 16, 2222). — II, 1624.
12) 1,2-Imid d. Benzol-1,2-Dicarbonsäure (o-Phthalimid). Sm. 233,5°. Na, K, Mg, Ba + 4H₂O, Hg, Ag + ½H₂O (*J.* 1847, 48, 590; 1868, 549; *Am.* 3, 28; 18, 333; *A.* 41, 110; 205, 301; 215, 181; *B.* 10, 579 Anm.; 10, 1166; 11, 93; 13, 1684; 19, 1398). — II, 1798.
13) Nitril d. 3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure. Sd. 94—95° (*G.* 20, 698; 25 [2] 205; *B.* 24, 3656). — II, 1743.
- C₅H₅O₂N₃** C 54,9 — H 2,8 — O 18,3 — N 24,0 — M. G. 175.
1) Dicarboxyl-1,2,4-Triamidobenzol (*J. pr.* [2] 38, 135). — IV, 1123.
2) 6-Nitro-1,4-Benzdiazin. Sm. 177° (*A.* 292, 253). — IV, 898.
3) Nitril d. 6-Oxy-2-Keto-4-Methyl-2,5-Dihydropyridin-3,5-Dicarbonsäure + 2½H₂O. Sm. 244° (250—252° wasserfrei). NH₄ + 2H₂O, Na, Ba + 4H₂O, Cu, Ag (*C.* 1897 [1] 903, 904).
- C₅H₅O₂N₅** C 47,3 — H 2,4 — O 15,6 — N 34,5 — M. G. 203.
1) 4-Nitrodiazobenzolcyanidhydrocyanid. Sm. 126° (*B.* 28, 671). — IV, 1453.
- C₅H₅O₂Cl₃** 1) Mono-[αββ-Trichlorvinyläther] d. 1,4-Dioxybenzol. Sm. 66—66,5° (*Am.* 9, 211). — II, 940.
2) 2,3,5-Trichlorphenylester d. Essigsäure. Sd. 258—259° (*J. pr.* [2] 33, 379). — II, 671.
3) 2,4,6-Trichlorphenylester d. Essigsäure. Sd. 261—262° (*A. Spl.* 7, 184). — II, 671.

- $C_8H_5O_2Br$ 1) Lakton d. 1-Bromoxymethylbenzol-2-Carbonsäure. Sm. 85—86° (A. 239, 79). — II, 1556.
2) Lakton d. 3-Brom-1-Oxymethylbenzol-2-Carbonsäure. Sm. 98—100° (A. 239, 76). — II, 1556.
3) Aldehyd d. 4-Brombenzol-1-Ketocarbonsäure + H_2O . Sm. 132—133°. — III, 92.
- $C_8H_5O_2Br_3$ 1) Methylester d. 2,4,6-Tribrombenzol-1-Carbonsäure. Sm. 67° (68 bis 69°) (Soc. 67, 597; B. 31, 502).
2) Methylester d. 3,4,5-Tribrombenzol-1-Carbonsäure. Sm. 154° (B. 27, 514; Soc. 67, 596).
3) 2,4,6-Tribromphenylester d. Essigsäure. Sm. 82° (A. 278, 347). — II, 674.
- $C_8H_5O_2F_3$ 1) 1-Trifluormethylbenzol-3-Carbonsäure. Sm. 103°; Sd. 238,5°₇₇₀. Na, Ba, Pb, Ag (C. 1898 [2] 26).
C 58,9 — H 3,1 — O 29,4 — N 8,6 — M. G. 163.
- $C_8H_5O_2N$ 1) 4-Nitrobenzofuran (Nitrocumaron). Sm. 134° (B. 30, 2095).
2) 6-Nitrobenzofuran. Sm. 85° (B. 30, 2095).
3) Phtalylhydroxylamin. Sm. 230° u. Zers. NH_4 , Na, K, 4Ba + $BaCl_2$, Pb + PbO + $3H_2O$, Ag (A. 205, 295; B. 16, 1781; G. 25 [2] 23). — II, 1815.
4) Ptomain (aus Harn). — III, 890.
5) Inn. Anhydrid d. 2-Pyrroylbrenztraubensäure. Zers. bei 250° (B. 23, 1794). — IV, 89.
6) Anthranilcarbonsäure. Sm. 230° u. Zers. (B. 16, 2227; 22, 1673; J. pr. [2] 30, 485, 499; [2] 36, 385). — II, 1250.
7) Anthroxansäure. Sm. 190—191° u. Zers. (B. 16, 2224). — II, 1624.
8) α -Cyan- β -[2-Furanyl]akrylsäure. Sm. 218° (J. pr. [2] 50, 16; B. 27, 2626; 28, 2254). — III, 711.
9) Inn. 1,6-Anhydrid d. 6-Amido-3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure. Sm. 110,5°. + $HgCl_2$ (B. 28, 1385). — II, 1746.
C 50,3 — H 2,6 — O 25,1 — N 22,0 — M. G. 191.
- $C_8H_5O_2N_3$ 1) Amidimid d. Pyridin-2,3,4-Tricarbonsäure (M. 18, 242).
- $C_8H_5O_2Cl$ 1) 4-Chlorbenzol-1-Ketocarbonsäure (Bl. [3] 21, 70).
- $C_8H_5O_2Cl_3$ 1) Methylester d. 2,4,6-Trichlor-3-Oxybenzol-1-Carbonsäure. Sm. 90° (A. 261, 241). — II, 1519.
- $C_8H_5O_2Br$ 1) 2-Brombenzol-1-Ketocarbonsäure. Sm. 93—103° (B. 25, 3298). — II, 1600.
2) 4-Brombenzol-1-Ketocarbonsäure. Sm. 108° (B. 28, 259; Bl. [3] 21, 68). — II, 1600.
3) Aldehyd d. 2-Brom-3,4-Dioxybenzylmethylenäther-1-Carbonsäure (Brompiperonal). Sm. 129° (B. 24, 2593; A. 152, 49). — III, 103.
- $C_8H_5O_3Br_3$ 1) Methyl-2-Tribrom-2,4-Dioxyphenylketon. Sm. 112—113° (M. 17, 322).
2) Methylenmethylenäther d. 4,5,6-Tribrom-1,2,3-Trioxybenzol. Sm. 160° (A. 254, 350; B. 24, 3822). — II, 1013.
3) 2,4,6-Tribrom-5-Oxy-1-Methylbenzol-3-Carbonsäure (Tribromkresotinsäure). Sm. 220°. Ca + $5H_2O$ (B. 30, 690, 1742 Ann.).
4) Methylester d. 2,4,6-Tribrom-3-Oxybenzol-1-Carbonsäure. Sm. 119—121° (B. 32, 123).
5) Monacetat d. 2-Tribrom-1,3-Dioxybenzol. Sm. 114° (B. 11, 1442). — II, 921.
- $C_8H_5O_4N$ C 53,6 — H 2,8 — O 35,7 — N 7,8 — M. G. 179.
1) Lakton d. 3[oder 6]-Nitro-1-Oxymethylbenzol-2-Carbonsäure. Sm. 135° (A. 202, 219; B. 18, 3452). — II, 1559.
2) Lakton d. 5-Nitro-1-Oxymethylbenzol-2-Carbonsäure. Sm. 141° (B. 18, 3447; 31, 2734). — II, 1559.
3) Aldehyd d. 2-Nitrobenzol-1,4-Dicarbonsäure. Sm. 86° (A. 231, 364). — III, 93.
- $C_8H_5O_4N_3$ C 46,4 — H 2,4 — O 30,9 — N 20,3 — M. G. 207.
1) 5-Keto-3-[4-Nitrophenyl]-4,5-Dihydro-1,2,4-Oxdiazol. Sm. 286° (B. 22, 2423). — II, 1237.
2) 2-Nitro-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Benzodiazin (B. 2, 416). — IV, 896.
3) Nitril d. 3,5-Dinitro-1-Methylbenzol-4-Carbonsäure. Sm. 103° (A. 266, 224). — II, 1349.

- C₈H₅O₄N₅** C 40,9 — H 2,1 — O 27,2 — N 29,8 — M. G. 235.
 1) 1-[*p*-Nitrophenyl]-1,2,3,5-Tetrazol-4-Carbonsäure + H₂O. Sm. 175° u. Zers. (B. 25, 1411). — IV, 1239.
- C₈H₅O₄Cl** 1) 3-Chlorbenzol-1,2-Dicarbonsäure. Sm. 184° (179—181°). Ba + H₂O, Ag₂ (B. 18, 1759; G. 17, 120). — II, 1817.
 2) isom. 3-Chlorbenzol-1,2-Dicarbonsäure? Sm. 158° (149—150°). Na (J. 1880, 862; B. 27, 741). — II, 1817.
 3) 4-Chlorbenzol-1,2-Dicarbonsäure. Sm. 150—150,5° (148°). Ba + H₂O (Bl. 36, 434; B. 15, 320; 18, 1759; 25, 2116; A. 233, 236; Ph. Ch. 3, 378). — II, 1817.
 4) 4-Chlorbenzol-1,3-Dicarbonsäure. Sm. noch nicht bei 340° (J. pr. [2] 43, 358). — II, 1827.
 5) 5-Chlorbenzol-1,3-Dicarbonsäure + 1/2 H₂O. Sm. 278°. K₂, Mg + 7 H₂O, Ca + 2 H₂O, Sr + H₂O, Ba + 2 H₂O, Cd, Cu, Ag₂ (J. pr. [2] 25, 506; B. 28, 2045). — II, 1828.
 6) 2-Chlorbenzol-1,4-Dicarbonsäure. Sm. oberh. 300°. Ag₂ (B. 19, 1637; G. 18, 313). — II, 1836.
- C₈H₅O₄Br** 1) *p*-Brom-3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure. Sm. 204—205° (A. 172, 158). — II, 1745.
 2) 3-Brombenzol-1,2-Dicarbonsäure. Sm. 178,5°. Ba (Soc. 35, 792; 47, 511; A. 222, 292; 239, 76; B. 19, 135; 25, 2114; G. 18, 10). — II, 1820.
 3) isom. *p*-3-Brombenzol-1,2-Dicarbonsäure. Sm. 138—140°. K₂ + 2 H₂O, Ba + 2 H₂O, Pb, Cu, Ag₂ (A. 160, 62; B. 12, 2126). — II, 1820.
 4) 4-Brombenzol-1,2-Dicarbonsäure. Sm. 170,5° (168°) (B. 12, 2126; 20, 1017; 25, 2115; Soc. 65, 253). — II, 1820.
 5) isom. *p*-Brombenzol-1,2-Dicarbonsäure. Sm. 135° (B. 10, 294). — II, 1820.
 6) 4-Brombenzol-1,3-Dicarbonsäure. Sm. 283°. (NH₄)₂, Ba + H₂O (J. pr. [2] 43, 359; B. 24, 3777). — II, 1828.
 7) 2-Brombenzol-1,4-Dicarbonsäure + H₂O. Sm. 304—305° (291—297°). Cu, Ag₂ (B. 12, 619; G. 16, 285, 297). — II, 1837.
- C₈H₅O₄Br₃** 1) Monacetat d. 2,4,6-Tribrom-1,3,5-Trioxymethylbenzol. Sm. 169° (B. 23, 1728). — II, 1021.
- C₈H₅O₄J** 1) 3-Jodbenzol-1,2-Dicarbonsäure + 3 H₂O. Sm. 206°. K + 3 H₂O, Ba, Cu, Ag + 2 1/2 H₂O (J. pr. [2] 53, 381, 384).
 2) 4-Jodbenzol-1,2-Dicarbonsäure + 1 1/2 H₂O. Sm. 182°. Ba, Cu + 3 H₂O (J. pr. [2] 53, 386; B. 29, 1575).
 3) 4-Jodbenzol-1,3-Dicarbonsäure. Sm. 285—286°. Ag₂ (B. 28, 89). — II, 1828.
 4) 5-Jodbenzol-1,3-Dicarbonsäure. Sm. 288—289°. Ag₂ (B. 28, 85). — II, 1828.
 5) isom. Jodbenzol-1,3-Dicarbonsäure. Sm. 203—204°. Ba (B. 18, 2701; 28, 86). — II, 1820.
 6) 2-Jodbenzol-1,4-Dicarbonsäure. Sm. 274—276°. Ca, Ag₂ (B. 26, 2951). — II, 1838.
- C₈H₅O₅N** C 49,2 — H 2,6 — O 41,0 — N 7,2 — M. G. 195.
 1) 2-Nitrobenzol-1-Ketocarbonsäure. Sm. 49° (122—123° wasserfrei) (B. 12, 353, 1945 Anm.). — II, 1600.
 2) 3-Nitrobenzol-1-Ketocarbonsäure. Sm. 77—78°. Ba + H₂O, Ag (B. 12, 1945). — II, 1600.
 3) Aldehyd d. 6-Nitro-3,4-Dioxybenzylmethylenäther-1-Carbonsäure. Sm. 95,5° (A. 159, 134). — III, 103.
 4) 1-Aldehyd d. 2-Nitrobenzol-1,4-Dicarbonsäure. Sm. 160° (A. 231, 368). — II, 1627.
 5) 1-Aldehyd d. 3-Nitrobenzol-1,4-Dicarbonsäure. Sm. 184° (A. 231, 368). — II, 1627.
 6) Cancerin (Ptomain) (B. 27 [2] 517).
- C₈H₅O₅N₃** C 38,3 — H 2,0 — O 31,8 — N 27,9 — M. G. 251.
 1) Diazoverbindung (aus d. Nitril d. 3-Nitro-4-Amidophenyllessigsäure) (B. 15, 839). — II, 1327.
- C₈H₅O₅J** 1) 4-Jodosobenzol-1,3-Dicarbonsäure. Sm. 269° u. Zers. Na + H₂O, Ag (B. 28, 89). — II, 1828.

- $C_8H_5O_3J$ 2) 2-Jodosobenzol-1,4-Dicarbonsäure. Sm. 260° u. Zers. $Na + 2H_2O$, Ca , Ba , Ag (*B.* 26, 2953). — II, 1838.
- $C_8H_5O_3N$ C 45,5 — H 2,4 — O 45,5 — N 6,6 — M. G. 211.
- 1) p-Nitro-3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure. Sm. 172°. $K + 1/2 H_2O$, $Pb + H_2O$, $Cu + 4H_2O$, Ag (*A.* 199, 70). — II, 1746.
- 2) 3-Nitrobenzol-1,2-Dicarbonsäure. Sm. 218° (219—220°). NH_4 , $(NH_4)_2 + 2H_2O$, $K + H_2O$, $K_2 + H_2O$, Ba , Zn , $Pb + 1 1/2 H_2O$, Ag_2 (*A.* 38, 7; 41, 110; 160, 57; 202, 217; 208, 237; *B.* 5, 899; 10, 294; 14, 1330; 15, 1127, 2724; 28, 377; *Ph. Ch.* 3, 377). — II, 1821.
- 3) 4-Nitrobenzol-1,2-Dicarbonsäure + H_2O . Sm. 161° (wasserfrei). K_2 , $Ba + 2H_2O$, Ag_2 (*A.* 208, 229; *B.* 18, 3448; *J. r.* 10, 192; *Ph. Ch.* 1, 539; 3, 377; *Soc.* 65, 289). — II, 1822.
- 4) 4-Nitrobenzol-1,3-Dicarbonsäure. Sm. 246° (258—259°). $K_2 + H_2O$, $Mg + 6H_2O$, $Ba + 4(1 1/2)H_2O$, $Ag_2 + 7 1/2 H_2O$ (*J. pr.* [2] 22, 352; [2] 38, 318; *Am.* 10, 485). — II, 1829.
- 5) 5-Nitrobenzol-1,3-Dicarbonsäure. Sm. 248—249°. Salze meist bek. (*A.* 153, 285; *J. pr.* [2] 22, 352; [2] 25, 470; *B.* 15, 1023). — II, 1829.
- 6) 2-Nitrobenzol-1,4-Dicarbonsäure. Sm. 270°. Ag_2 (*B.* 10, 145; *A.* 121, 90; *Am.* 10, 483; *M.* 7, 148). — II, 1838.
- 7) Pyridin-2,3,4-Tricarbonsäure + $1 1/2 H_2O$ (Carbocinchomeronsäure). Sm. 249—250°. $K_2 + 3H_2O$, $Ca_3 + 13(14)H_2O$, $Ca + 2 1/2 H_2O$, $Ba_3 + 12(16)H_2O$, $Cd_3 + 6H_2O$, $Cu + 3 1/2 H_2O$, $Cu_3 + 9H_2O$, $Ag_3 + 2H_2O$, $Ag_2 + H_2O$, $Ag + 2 1/2 H_2O$ (*A.* 173, 101; 201, 313; 204, 94; *M.* 1, 865; 2, 600; 6, 397; 10, 643; *B.* 12, 415; 13, 1640; 18, 2027; *Soc.* 35, 189; 73, 592; *R.* 2, 19; *Ph. Ch.* 3, 392). — IV, 178.
- 8) Pyridin-2,3,5-Tricarbonsäure + $2H_2O$ (Carbondinikotinsäure). Sm. 323°. $Ba_3 + 5H_2O$, Cu_3 , $Ag_3 + 1 1/2 H_2O$ (*B.* 16, 1615; 21, 835, 2707; 23, 689; *A.* 241, 11; *Ph. Ch.* 2, 902; 3, 392). — IV, 178.
- 9) Pyridin-2,3,6-Tricarbonsäure + $2H_2O$. Sm. oberh. 100°; Zers. bei 130°. $K + 5H_2O$, $Ca_3 + 4H_2O$, $Pb_3 + 5H_2O$, Ag_3 (*B.* 19, 1309; 24, 1917). — IV, 179.
- 10) Pyridin-2,4,5-Tricarbonsäure + $2H_2O$ (Berberonsäure). Sm. 235°. $K + 1 1/2 H_2O$, $K_2 + 3H_2O$, $K_3 + 4 1/2 H_2O$, $Ca_3 + 8H_2O$, $Cd_3 + 4H_2O$, Ag_3 (*B.* 12, 410; 29, 2999; *M.* 2, 416; 13, 346). — IV, 179.
- 11) Pyridin-2,4,6-Tricarbonsäure + $2H_2O$ (Trimesitinsäure). Sm. 227° u. Zers. $K + H_2O$, $K_2 + 5H_2O$, $Mg_3 + 12H_2O$, $Ca_3 + 4H_2O$, $Ba_3 + 6H_2O$, $Ba + 4H_2O$, $Cu_3 + 12H_2O$, $Ag_3 + 1 1/2 H_2O$ (*B.* 13, 2048; 14, 69, 134; 17, 94; *A.* 228, 31; 229, 248). — IV, 179.
- 12) Pyridin-3,4,5-Tricarbonsäure + $3H_2O$ (β-Carbocinchomeronsäure). Sm. 261° u. Zers. $Cu_3 + 24H_2O$, $Ag_3 + 2H_2O$ (*A.* 241, 16; *Ph. Ch.* 3, 392). — IV, 180.
- $C_8H_5O_6N_3$ C 36,0 — H 1,9 — O 35,9 — N 26,2 — M. G. 267.
- 1) Purpursäure (Murexid). $NH_4 + H_2O$, Na , K , K_2 , Ca , $Ba + 3H_2O$, $Ag + 1 1/2 H_2O$ (*Gm.* 5, 326; *A.* 26, 319; 32, 316; 33, 334; 107, 176). — I, 1340.
- 2) Isopurpursäure (Pikrocycaminsäure) + H_2O . NH_4 , K , $Ca + 3H_2O$, Ba , Pb , Ag (*A.* 110, 292; *J.* 1859, 457). — II, 692.
- $C_8H_5O_7N_3$ C 37,6 — H 2,0 — O 43,9 — N 16,5 — M. G. 255.
- 1) 2,4-Dinitrophenyloxaminsäure. Sm. 176—178° u. Zers. (*Soc.* 61, 468). — II, 409.
- $C_8H_5O_8N_3$ C 35,4 — H 1,8 — O 47,2 — N 15,5 — M. G. 271.
- 1) Methyl-p-Trinitro-4-Oxyphenylketon (*B.* 30, 1770).
- 2) 2,4,6-Trinitrophenylessigsäure. Sm. 161° (*B.* 28, 3067).
- 3) Methylester d. 2,4,6-Trinitrobenzol-1-Carbonsäure. Sm. 157° (*Soc.* 67, 600).
- 4) 2,4,6-Trinitrophenylester d. Essigsäure. Sm. 75—76° (*A.* 169, 167). — II, 692.
- $C_8H_5O_8N_5$ C 32,1 — H 1,7 — O 42,8 — N 23,4 — M. G. 299.
- 1) Amid d. 2,4,6-Trinitrophenyloxaminsäure. Sm. 255—260° u. Zers. (257°). NH_4 , Na , K (*Am.* 9, 359; *Soc.* 63, 1064). — II, 409.
- $C_8H_5O_9N_5$ C 33,4 — H 1,7 — O 50,2 — N 14,6 — M. G. 287.
- 1) 2,4,6-Trinitro-5-Oxy-1-Methylbenzol-3-Carbonsäure (Nitrococcusäure). Sm. 170—180° u. Zers. ($NH_4 + 1 1/2 H_2O$, K_2 , $Ba + H_2O$, Ag_2 (*A.* 64, 23; 163, 100; *B.* 18, 253). — II, 1548.

- C₈H₇NCl₂** 1) 2,3-Dichlorindol. Sm. 103—104° (B. 12, 457; 15, 786). — IV, 217.
 2) Nitril d. Phenylldichloressigsäure. Sd. 223—224° (B. 12, 626). — II, 1316.
 3) Nitril d. 1-Dichlormethylbenzol-2-Carbonsäure. Sd. 260° (B. 20, 3197). — II, 1332.
 4) Nitril d. Dichlormethylbenzol-3-Carbonsäure. Sd. 272—275° u. Zers. (B. 24, 2416). — II, 1337.
 5) Nitril d. 1-Dichlormethylbenzol-4-Carbonsäure. Sd. 273—276°₇₇₀ (B. 24, 2417). — II, 1346.
 6) Nitril d. 3,5-Dichlor-1-Methylbenzol-2-Carbonsäure. Sm. 92° (A. 274, 292). — II, 1332.
- C₈H₇NBr₂** 1) Nitril d. 3,5-Dibrom-1-Methylbenzol-2-Carbonsäure. Sm. 86° (A. 269, 214). — II, 1333.
 2) Nitril d. 2,4-Dibrom-1-Methylbenzol-4-Carbonsäure. Sm. 49° (A. 265, 378). — II, 1346.
 3) Nitril d. 3,5-Dibrom-1-Methylbenzol-4-Carbonsäure. Sm. 156° (A. 265, 377). — II, 1347.
- C₈H₇N₂Cl** 1) 4-Chlor-1,2-Benzdiazin. Sm. 70°. HCl, (2HCl, PtCl₄), HJ (B. 25, 2849). — IV, 894.
 2) 2-Chlor-1,3-Benzdiazin. Sm. 108° (B. 29, 1313). — IV, 895.
 3) 4-Chlor-1,3-Benzdiazin. Sm. 96° (B. 29, 1315). — IV, 895.
 4) 1-Chlor-2,3-Benzdiazin. Sm. 113°. (2HCl, PtCl₄) (B. 26, 525; 30, 3024). — IV, 900.
- C₈H₇N₂P** 1) Phenylldicyanphosphin. Sd. 144—145°₉₀ (A. 293, 212). — IV, 1648.
- C₈H₇N₃Cl₂** 1) 3,5-Dichlor-1-Phenyl-1,2,4-Triazol. Sm. 96°; Sd. 291° (C. 1897 [1] 594). — IV, 1099.
 2) 5-Chlor-1-[2-Chlorphenyl]-1,2,4-Triazol. Sm. 70°; Sd. 275° (C. 1897 [1] 593). — IV, 1099.
- C₈H₇N₃S₂** 1) Verbindung (aus Phenylldithiourazol). Sm. 230—240° (B. 28, 956).
- C₈H₇N₄Cl** 1) 4-Chlordiazobenzolcyanidhydrocyanid. Sm. 103° (B. 28, 671). — IV, 1453.
- C₈H₇N₄Br** 1) Nitril d. Imido-anti-4-Bromphenylazoessigsäure. Sm. 109—110° (B. 31, 637).
- C₈H₇ClS₂** 1) 2-Chlor-2,2'-Bithiophen. Sm. 40—42° (B. 26, 2948). — III, 751.
- C₈H₇Cl₃Br₂** 1) αββ-Trichlor-αβ-Dibromäthylbenzol. Sm. 47—48° (A. 296, 273).
 C 65,8 — H 4,1 — O 10,9 — N 19,2 — M. G. 146.
- C₈H₇ON₂** 1) Imesatin (J. pr. [1] 25, 457). — II, 1608.
 2) 3-Phenyl-1,2,5-Oxdiazol (Phenylfurazan). Sm. 36° (B. 24, 3503). — III, 131.
 3) 1-Nitrosoindol? Sm. 171—172° u. Zers. (B. 23, 2299). — IV, 218.
 4) 2-Keto-6-Azo-2,3-Dihydroindol + ½ H₂O. subl. bei 220°. Ba (A. 140, 27). — II, 1322.
 5) 4-Oxy-1,2-Benzdiazin. Sm. 225° (B. 16, 681). — IV, 895.
 6) 4-Oxy-1,3-Benzdiazin (β-Oxychinazolin). Sm. 212°; Sd. bei 360°. HCl, (2HCl, PtCl₄ + H₂O), Chromat (B. 18, 2419; 26, 1349; 27 [2] 516; 29, 1314, 1359; J. pr. [2] 43, 214; [2] 51, 565). — IV, 896.
 7) 2-Oxy-1,4-Benzdiazin. Sm. 265° (A. 292, 248). — IV, 899.
 8) 6-Oxy-1,4-Benzdiazin. Sm. 245° (B. 25, 494). — IV, 899.
 9) 2-Keto-1,2-Dihydro-1,3-Benzdiazin. HCl + H₂O, (2HCl, PtCl₄) (B. 28, 1035, 1037; 29, 1313). — IV, 895.
 10) 1-Keto-1,2-Dihydro-2,3-Benzdiazin (Phtalazon). Sm. 183—184°; Sd. 337°. Ag (B. 26, 535, 708; 29, 180; J. pr. [2] 51, 147). — II, 1626; IV, 900.
 11) Diazoacetophenon (Ketazophenylglyoxal). Sm. 50° (G. 23 [2] 349; 25 [2] 495). — III, 130.
 12) syn-2-Cyanbenzaldoxim. Sm. 173° (B. 30, 1697).
 13) 3-Cyanbenzaldoxim. Sm. 99—101° (B. 24, 2422). — III, 51.
 14) anti-4-Cyanbenzaldoxim. Sm. 180° (Ph. Ch. 13, 522). — III, 51.
 15) syn-4-Cyanbenzaldoxim. Sm. 143—145° (Ph. Ch. 13, 522). — III, 51.
 16) Amid d. 2-Cyanbenzol-1-Carbonsäure. Sm. 203° (B. 30, 1699).
 17) Amid d. 3-Cyanbenzol-1-Carbonsäure. Sm. oberh. 300° (B. 20, 527). — II, 1228.
 18) Cyanamid d. Benzolcarbonsäure. Sm. 126° u. Zers. NH₄, Na + 2H₂O, K, Ba + H₂O, Pb, Cu + 2H₂O, Ag (J. pr. [2] 13, 272, 280; [2] 42, 84). — II, 1173.

- C₆H₅ON₂** 19) Phenylamid d. Cyanameisensäure = (C₆H₅ON₂)_x (*J. pr.* [2] 10, 219). — II, 358.
 20) Nitril d. α -Oximido- α -Phenylelessigsäure. Sm. 129°. Na, K, Pb, Cu, Ag (*B.* 21, 1314; 24, 3504; 28, 1797; *A.* 250, 163). — II, 1599.
 21) Verbindung (aus d. Nitril d. 2-Amidophenylelessigsäure). Sm. 139° (*B.* 17, 508). — II, 1320.
- C₆H₅OCl₂** 1) Dichlormethylphenylketon. Sm. 19°; Sd. 247—248° u. Zers. (*B.* 10, 532; *A. ch.* [6] 14, 348, 388; *Bl.* 50, 634). — III, 120.
 2) Chlormethyl-4-Chlorphenylketon. Sm. 101°; Sd. 270° (*A. ch.* [6] 14, 395; *Bl.* [3] 19, 96). — III, 120.
 3) 1,2-Dichlor-1,2-Dihydrobenzofuran (Cumarondichlorid). Sd. 245—248° u. ger. Zers. (*B.* 23, 80). — II, 1676.
 4) Aldehyd d. Phenylchloroessigsäure. HCl (*Bl.* 41, 382). — III, 52.
 5) Chlorid d. Phenylchloroessigsäure. Sd. 124—126°₃ (*A.* 279, 122).
 6) Chlorid d. d-Phenylchloroessigsäure. Sd. 120°₃ (*B.* 28, 1295).
- C₆H₅OBr₂** 1) Phenyläther d. $\beta\beta$ -Dibrom- α -Oxyäthen (Dibromvinylphenyläther). Sm. 37—38°; Sd. 240—250° u. geringer Zers. (*A.* 216, 283; 298, 360). — II, 654.
 2) Dibrommethylphenylketon. Sm. 36—37° (*A.* 195, 161; *B.* 10, 2010; *C.* 1899 [1] 606). — III, 121.
 3) Brommethyl-4-Bromphenylketon. Sm. 109—109,5° (*Bl.* [3] 19, 96; [3] 21, 68).
 4) 1,2-Dibrom-1,2-Dihydrobenzofuran (Cumarondibromid). Sm. 86° (*A.* 216, 169; 226, 354). — II, 1676.
- C₆H₅OBr₄** 1) 2,3,5,6-Tetrabrom-4-Oxy-1-Aethylbenzol. Sm. 105—106°. NH₄, Ca (*A.* 156, 255). — II, 757.
 2) $\alpha\beta\beta\beta$ -Tetrabromäthylphenyläther. Sm. 58—59° (*A.* 216, 283). — II, 652.
 3) 1,4-Anhydrid d. 1,3,5,6-Tetrabrom-4-Oxy-2-Methyl-1-Oxymethyl-1,4-Dihydrobenzol. Sm. 171—173° (*A.* 302, 100).
 4) 1,4-Anhydrid d. 1,2,5,6-Tetrabrom-4-Oxy-3-Methyl-1-Oxymethyl-1,4-Dihydrobenzol (Tribromxylenolbromid). Sm. 135—136° (*B.* 29, 1103, 1129, 2348).
 5) Verbindung (aus d. Keton C₆H₅O). Sm. 138° (*A.* 215, 51). — I, 1012.
- C₆H₅OS** 1) 3-Oxybenzthiofuran ($\alpha\alpha$ -Oxythionaphten). Sm. 72° (*B.* 19, 1615). — III, 768.
 2) Lakton d. 1-Oxymethylbenzol-2-Thiolcarbonsäure (Thiophtalid). Sm. 57° (60°) (*A.* 247, 298; *B.* 23, 2480). — II, 1560.
- C₆H₅OSe** 1) Lakton d. 1-Selenomethylbenzol-2-Carbonsäure (Selenophtalid). Sm. 58° (*B.* 24, 2569). — II, 1561.
- C₆H₅O₂N₂** C 59,3 — H 3,7 — O 19,7 — N 17,3 — M. G. 162.
 1) Dioxyäthenyl-1,2-Phenylendiamin. Sm. oberh. 280°. subl. Ba + 2H₂O (*B.* 18, 2939). — IV, 560.
 2) 5-Keto-3-Phenyl-4,5-Dihydro-1,2,4-Oxdiazol. Sm. 198°. Cu, Ag (*B.* 18, 2468; 19, 1481). — II, 1202.
 3) 6-Keto-4-Phenyl-4,5-Dihydro-1,3,4-Oxdiazol (Formylphenylcarbizin). Sm. 73°; Sd. 255—256° (*B.* 21, 2458). — IV, 672.
 4) 4-Phenyl-1,2,3,6-Dioxdiazin (Phenylglyoximhyperoxyd). Sm. 89—95° u. Zers. (*B.* 23, 3503). — III, 131.
 5) 1-Nitroso-3-Oxyindol (*B.* 16, 2190). — II, 1614.
 6) 2-Oximido-3-Keto-2,3-Dihydroindol (Pseudoisatin- α -Oxim). Zers. bei 200° (*B.* 14, 1743; 15, 782; 16, 769). — II, 1614.
 7) 1-Oximido-3-Keto-1,3-Dihydroisoindol (Phtalimidoxim). Sm. 257—258° u. Zers. (*B.* 19, 1498; *R.* 11, 97). — II, 1228.
 8) 1-Keto-2-Nitroso-1,3-Dihydroisoindol (Nitrosophtalimidin). Sm. 156° (*A.* 247, 297). — II, 1558.
 9) 3-Oximido-2-Oxypseudoindol (Isatoxim; Nitrosooxindol). Ag (*A.* 140, 34; *B.* 14, 2333; 16, 518, 769, 1706). — II, 1611.
 10) Azodioxindol. Sm. bei 300°; subl. bei 260°. Ag₂ (*A.* 140, 26). — II, 1613.
 11) 2,3-Dioxy-1,4-Benzdiazin + H₂O. Sm. noch nicht bei 290° (*B.* 18, 674). — IV, 899.
 12) 2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 344°. Na + C₆H₅O (*B.* 2, 416; 22, 2939; 27, 44; 29, 1358; *J. pr.* [2] 39, 141; [2] 51, 128; *R.* 10, 9; 11, 101). — IV, 896.

- C₈H₆O₂N₂** 13) 2,3-Diketo-1,2,3,4-Tetrahydro-1,4-Benzdiazin (1,2-Phenylamid d. Oxalsäure) (B. 29, 2641). — IV, 560.
- 14) 1,4-Diketo-1,2,3,4-Tetrahydro-2,3-Benzdiazin (Hydrazid d. Benzol-1,2-Dicarbonsäure). Sm. noch nicht bei 340°. N₂H₄ + 4H₂O, Na, K + 4H₂O, Ca, Ba + 2H₂O, Ag (J. pr. [2] 51, 376; [2] 52, 447; [2] 54, 72). — II, 1814.
- 15) Indazol-3-Carbonsäure. Sm. 258—259° u. Zers. NH₄ + 1½H₂O (B. 26, 216). — IV, 890.
- 16) Benzimidazol-5-Carbonsäure. Sm. noch nicht bei 320° (A. 273, 328). — IV, 890.
- 17) Benzimidazol-6-Carbonsäure. Zers. bei 325°. HCl (B. 23, 3634). — II, 1275.
- 18) 3-Cyanamidobenzol-1-Carbonsäure + ½H₂O. Zers. oberh. 200°. Cu, Ag (B. 15, 2113). — II, 1269.
- 19) Oximanhydrid d. 2-[α-Oximidoäthyl]pyridin-3-Carbonsäure. Sm. 171° (B. 26, 1512). — IV, 156.
- 20) Amid d. α-Cyan-β-[2-Furanyl]akrylsäure. Sm. 156° (B. 28, 2252, 2254). — III, 711.
- 21) Amidoisimid d. Benzol-1,2-Dicarbonsäure. Sm. 250—251° (B. 27, 691). — II, 1814.
- 22) 1,3-Phenylamid d. Oxalsäure (B. 7, 1263). — IV, 577.
- 23) Nitril d. 2-Nitrophenylessigsäure. Sm. 82,5° (84°) (B. 17, 507; 19, 2635). — II, 1318.
- 24) Nitril d. 3-Nitrophenylessigsäure. Sm. 61° (B. 17, 506). — II, 1318.
- 25) Nitril d. 4-Nitrophenylessigsäure. Sm. 114° (116°) (B. 3, 198; 14, 2342; 15, 834; 21, 2477; 22, 328). — II, 1319.
- 26) Nitril d. 4-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 105° (B. 31, 2880).
- 27) Nitril d. 4-Nitro-1-Methylbenzol-3-Carbonsäure. Sm. 78—120° (B. 31, 390).
- 28) Nitril d. 6-Nitro-1-Methylbenzol-3-Carbonsäure. Sm. 80° (A. 144, 175). — II, 1338.
- 29) Nitril d. 2-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 107° (J. pr. [2] 40, 4; B. 27, 2161; Am. 10, 482). — II, 1348.
- 30) Nitril d. 3-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 100° (B. 19, 175; 21, 1993; Am. 10, 476). — II, 1348.
- 31) Verbindung (aus d. Amid d. α-Cyan-β-[2-Furanyl]akrylsäure). Sm. 150° (B. 28, 2255). — III, 711.
- C₈H₆O₂N₄** C 50,5 — H 3,1 — O 16,9 — N 29,5 — M. G. 190.
- 1) Dicarboxyl-1,2,4,5-Tetraamidobenzol (B. 22, 442). — IV, 1243.
- 2) 1-[4-Nitrophenyl]-1,2,3-Triazol. Sm. 203—204° (Am. 20, 392). — IV, 1098.
- 3) 1-[? -Nitrophenyl]-1,2,5-Triazol. Sm. 183—184° (A. 262, 292). — IV, 1098.
- 4) 1-Phenyl-1,2,3,5-Tetrazol-4-Carbonsäure + H₂O. Sm. 137—138° (wasserfrei) u. Zers. K, Cu + 2H₂O, Ag (B. 18, 2908; 31, 947). — IV, 1239.
- C₈H₆O₂Cl₂** 1) 3,4-Methylenäther d. 3,4-Dioxy-1-Dichlormethylbenzol (Piperonalchlorid). Sd. 230—240° u. Zers. (A. 159, 147). — III, 102.
- 2) 4,6-Dichlor-3,5-Dimethyl-1,2-Benzochinon. Sm. 108° (A. 296, 206).
- 3) 5,6-Dichlor-2,3-Dimethyl-1,4-Benzochinon. Sm. 159° (J. pr. [2] 43, 584). — III, 362.
- 4) 3,6-Dichlor-2,5-Dimethyl-1,4-Benzochinon. Sm. 175° (A. 151, 171; J. pr. [2] 23, 432). — III, 363.
- 5) 3,5-Dichlor-2,6-Dimethyl-1,4-Benzochinon. Sm. 178° (J. pr. [2] 42, 124). — III, 362.
- 6) Phenyldichloressigsäure. Sm. 50—55° (69°) (B. 2, 209; 12, 630). — II, 1316.
- 7) 3,5-Dichlor-1-Methylbenzol-2-Carbonsäure. Sm. 181° (A. 274, 293). — II, 1331.
- 8) 4,6-Dichlor-1-Methylbenzol-3-Carbonsäure. Sm. 170°. Ba + 2H₂O (J. pr. [2] 41, 557). — II, 1336.
- 9) isom. ?-Dichlor-1-Methylbenzol-3-Carbonsäure. Sm. 160—161°. Ca + 9H₂O, Ag (A. 144, 269). — II, 1336.

- $C_6H_4O_2Cl_2$ 10) **2,5-Dichlor-1-Methylbenzol-4-Carbonsäure**. Sm. 187°. Ba + 4H₂O (A. 265, 346, 359). — II, 1346.
 11) **2,6-Dichlor-1-Methylbenzol-4-Carbonsäure**. Sm. 186—188°. Ba + 4H₂O (A. 265, 361; 266, 239). — II, 1346.
 12) **Phenylester d. Dichloressigsäure**. Sm. 33° (B. 31, 171).
 13) **2,4-Dichlorphenylester d. Essigsäure**. Sd. 244—245° (A. Spl. 7, 184; A. 23, 60). — II, 670.
 14) **Verbindung (aus Albumin)** (A. 101, 191). — IV, 1585.
 15) **Verbindung (aus Dehydracetsäure)**. Sm. 101° (B. 9, 1100). — II, 1756.
- $C_6H_4O_2Cl_4$ 1) **1,2,2,6-Tetrachlor-3,4-Diketo-1,5-Dimethyl-1,2,3,4-Tetrahydrobenzol + 2H₂O**. Sm. 63°. + CH₄O (Sm. 118—120°) (A. 296, 198).
 2) **2,4,4,6-Tetrachlor-1,3-Diketo-2,5-Dimethyl-1,2,3,4-Tetrahydrobenzol**. Sm. 109° (A. 203, 291). — II, 968.
 3) **Dimethyläther d. 3,4,5,6-Tetrachlor-1,2-Dioxybenzol**. Sm. 88° (J. pr. [2] 53, 251).
 4) **Dimethyläther d. 2,3,5,6-Tetrachlor-1,4-Dioxybenzol**. Sm. 164° (B. 11, 1035; G. 22 [2] 60). — II, 943.
- $C_6H_4O_2Br_2$ 1) **1,2-Phenylenäther d. $\alpha\beta$ -Dibrom- $\alpha\beta$ -Dioxyäthan**. Sm. 103,5—104,5° (Bl. [3] 21, 296).
 2) **Methyl- β -Dibrom-4-Oxyphenylketon** (B. 30, 1770).
 3) **3,6-Dibrom-2,5-Dimethyl-1,4-Benzochinon**. Sm. 184° (J. pr. [2] 23, 434; B. 29, 2342; A. 301, 276; 302, 166). — III, 363.
 4) **3,5-Dibrom-2,6-Dimethyl-1,4-Benzochinon**. Sm. 174° (A. 195, 273). — III, 362.
 5) **β -Dibromphenylessigsäure** (Soc. 37, 97). — II, 1317.
 6) **3,5-Dibrom-1-Methylbenzol-2-Carbonsäure**. Sm. 157°. Ba + H₂O (A. 269, 216). — II, 1332.
 7) **4,5-Dibrom-1-Methylbenzol-2-Carbonsäure**. Sm. 210°. Ba + 6H₂O (A. 269, 213). — II, 1332.
 8) **β -Dibrom-1-Methylbenzol-3-Carbonsäure**. Sm. 185—186°. Ba + 9H₂O (A. 147, 36). — II, 1337.
 9) **2,3-Dibrom-1-Methylbenzol-4-Carbonsäure** (A. 265, 375). — II, 1346.
 10) **2,4-Dibrom-1-Methylbenzol-4-Carbonsäure**. Sm. 235—236°. Na + H₂O, K + 1½ H₂O (A. 265, 378). — II, 1346.
 11) **2,5-Dibrom-1-Methylbenzol-4-Carbonsäure**. Sm. 195° (200—201°). Na + 7½ H₂O, Ca + 4H₂O, Ba + 2H₂O (B. 18, 1762; G. 18, 308; A. 265, 374). — II, 1346.
 12) **3,5-Dibrom-1-Methylbenzol-4-Carbonsäure**. Sm. 182° (A. 265, 378). — II, 1347.
 13) **Methylester d. 2,4-Dibrombenzol-1-Carbonsäure**. Sm. 33° (Soc. 67, 592).
 14) **Methylester d. 2,6-Dibrombenzol-1-Carbonsäure**. Sm. 78° (Soc. 67, 595).
 15) **Methylester d. 3,5-Dibrombenzol-1-Carbonsäure**. Sm. 63° (Soc. 67, 593).
 16) **Bromid d. d-Phenylbromessigsäure**. Sd. 145—147°₄ (B. 28, 1296).
- $C_6H_4O_2Br_4$ 1) **2,4,4,6-Tetrabrom-1,3-Diketo-2,5-Dimethyl-1,2,3,4-Tetrahydrobenzol**. Sm. 101° (A. 203, 293). — II, 968.
 2) **Dimethyläther d. 3,4,5,6-Tetrabrom-1,2-Dioxybenzol**. Sm. 118° (J. pr. [2] 53, 251).
- $C_6H_4O_2J_2$ 1) **2,4-Dijodphenylester d. Essigsäure**. Sm. 76° (A. 241, 81). — II, 676.
 2) **isom. Dijodphenylester d. Essigsäure**. Sm. 107° (B. 16, 1902). — II, 676.
- $C_6H_4O_2S_2$ 1) **Benzol-1,4-Dithiolcarbonsäure** (B. 7, 708). — II, 1839.
 C 53,9 — H 3,4 — O 27,0 — N 15,7 — M. G. 178.
- $C_6H_4O_3N_2$ 1) **4-Nitro-1-Imido-1,2-Dihydroisobenzfuran (Nitropseudophtalimidin)**. Sm. 158°. (2HCl, PtCl₄), Pikrat (B. 31, 2735).
 2) **β -Nitroso-3-Oxy-2-Keto-2,3-Dihydroindol (Nitrosodioxindol)**. Sm. 300 bis 310°; subl. bei 340°. NH₄ + ½ H₂O, Ba, Ag₂ (A. 140, 20). — II, 1613.
 3) **β -Nitro-2-Keto-2,3-Dihydroindol**. Zers. bei 175° (B. 12, 1313). — II, 1321.
 4) **3-Nitro-1-Keto-1,3-Dihydroisindol (Nitrophtalimidin)**. Sm. 210° (A. 247, 300). — II, 1558.
 5) **2,3,6-Trioxo-1,4-Benzdiazin** (B. 25, 500). — IV, 899.

- C₈H₆O₃N₂**
- 6) 5,6-Dioxy-4-Keto-3,4-Dihydro-2,3-Benzdiazin (Noropiazon). Sm. 302 bis 305° (B. 27, 1421). — II, 1938.
 - 7) 2-Keto-2,3-Dihydrobenzimidazol-4-Carbonsäure (B. 5, 196). — II, 1263.
 - 8) 3-[2-Pyrryl]isoxazol-5-Carbonsäure? (Isosonitrosopyrrolylpropionsäureanhydrid). Sm. 179° u. Zers. (B. 23, 1796). — IV, 89.
 - 9) 2-Keto-2,3-Dihydrobenzimidazol-5-Carbonsäure. Sm. noch nicht bei 270°. NH₄, Ba + 4H₂O (B. 5, 196; 23, 3631; A. 291, 327, 335). — II, 1263, 1275.
 - 10) Nitril d. 2-Nitro-1-Oxymethylbenzol-4-Carbonsäure. Sm. 139° (B. 27, 2167). — II, 1561.
 - 11) Nitril d. 3-Nitro-1-Oxymethylbenzol-4-Carbonsäure. Sm. 138° (B. 27, 2168). — II, 1561.
 - 12) Nitril d. 6-Nitro-2-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 171° (R. 2, 212). — II, 1510.
 - 13) Nitril d. 3-Nitro-4-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 149 bis 150° (B. 2, 668). — II, 1538.
- C₈H₆O₃N₄**
- C 46,6 — H 2,9 — O 23,3 — N 27,2 — M. G. 206.
- 1) 6-Nitro-3-Amido-4-Keto-3,4-Dihydro-1,3-Benzdiazin. Sm. 170—171° (J. pr. [2] 53, 224).
 - 2) 6-Nitro-4-Keto-3-Methyl-3,4-Dihydro-1,2,3-Benztriazin. Sm. 195 199° (J. pr. [2] 53, 215). — IV, 1555.
 - 3) Phenylglyoxendioxytetrazotsäure. K, Ag (A. 297, 378). — IV, 1274.
 - 4) Säure (aus d. Perbromid C₈H₆O₈N₄Br₈) (B. 18, 963). — IV, 1526.
 - 5) 1-Amid d. 1,2,3-Benztriazol-1,5-Dicarbonsäure. Sm. noch nicht bei 270° (B. 15, 1881; A. 291, 335). — II, 1263; IV, 1154.
 - 6) 1-Amid d. 1,2,3-Benztriazol-1,6-Dicarbonsäure. Sm. noch nicht bei 270° (A. 291, 328). — IV, 1154.
- C₈H₆O₃Cl₂**
- 1) Methyl-β-Dichlor-2,4-Dioxyphenylketon. Sm. 195—196° (M. 17, 315).
 - 2) α-Oxy-2,5-Dichlorphenylessigsäure. Sm. 84° (A. 299, 350).
 - 3) β-Dichlor-4-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 196° (Z. 1866, 366). — II, 1536.
 - 4) Methylester d. 3,5-Dichlor-2-Oxybenzol-1-Carbonsäure. Sm. 142° (B. 11, 1226). — II, 1504.
 - 5) Methylester d. 3,5-Dichlor-4-Oxybenzol-1-Carbonsäure. Sm. 121 bis 122° (A. 261, 250; B. 29, 2359). — II, 1536.
- C₈H₆O₃Cl₆**
- 1) Methylester d. ααγγεεε-Hexachlor-δ-Keto-β-Methyl-β-Penten-α-Carbonsäure. Sm. 93,5° (B. 26, 323).
 - 2) Aethylester d. 2,2,3,3,4,5-Hexachlor-1-Oxy-2,3-Dihydro-R-Penten-1-Carbonsäure. Sm. 121° (B. 23, 2727). — I, 620.
- C₈H₆O₃Br₂**
- 1) Methyl-β-Dibrom-2,4-Dioxyphenylketon. Sm. 173—174° (M. 15, 242). — III, 196.
 - 2) β-Dibrom-2-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 232° (A. 295, 175).
 - 3) β-Dibrom-4-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 204—205° (A. 295, 185).
 - 4) β-Dibrom-3-Oxy-1-Methylbenzol-4-Carbonsäure. Sm. 234° (A. 295, 180).
 - 5) 3,5-Dibrom-2-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 193—194°. Ba + 2½H₂O (G. 16, 416, 421). — II, 1505.
 - 6) 3,5-Dibrom-4-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 213,5 bis 214,5° (207°). Na + 3H₂O, Ca + 3½H₂O, Ba + 4½H₂O, Ag (Z. 1866, 366; G. 11, 425; 13, 66; 14, 10). — II, 1537.
 - 7) Methylester d. 3,5-Dibrom-2-Oxybenzol-1-Carbonsäure. Sm. 148 bis 149° (G. 16, 416). — II, 1505.
 - 8) Methylester d. 3,5-Dibrom-4-Oxybenzol-1-Carbonsäure. Sm. 125° (B. 29, 2360).
- C₈H₆O₃J₂**
- 1) Aldehyd d. β-Dijod-3,4-Dioxybenzol-3-Methyläther-1-Carbonsäure (Bl. 17, 2). — III, 101.
 - 2) Methylester d. β-Dijod-2-Oxybenzol-1-Carbonsäure. Sm. 110° (C. 1896 [2] 121; 1898 [1] 228).
 - 3) Methylester d. 3,5-Dijod-4-Oxybenzol-1-Carbonsäure. Sm. 167° (B. 29, 2360).

- $C_5H_5O_4N_2$ C 49,5 — H 3,1 — O 33,0 — N 14,4 — M. G. 194.
- 1) β -Nitro- α -[2-Nitrophenyl]äthen (Dinitrostyrol). Sm. 106–107° (A. 225, 350; B. 31, 657). — II, 168.
 - 2) β -Nitro- α -[3-Nitrophenyl]äthen. Sm. 122° (122–124°) (A. 229, 233; B. 31, 658). — II, 168.
 - 3) β -Nitro- α -[4-Nitrophenyl]äthen. Sm. 199° (A. 225, 348; 229, 224; B. 16, 851). — II, 168.
 - 4) Amid d. 2-Nitrobenzol-1-Ketocarbonsäure. Sm. 199° (B. 12, 352; 23, 1577). — II, 1600.
 - 5) Amid d. 3-Nitrobenzol-1-Ketocarbonsäure. Sm. 151–152° (B. 14, 1187; J. 1881, 796). — II, 1601.
- $C_5H_5O_4N_3$ 1) Verbindung (aus Styrol). = $(C_5H_5O_4N_3)_x$. Sm. 103,5° (B. 28, 1330).
- $C_5H_5O_4N_4$ C 43,2 — H 2,7 — O 28,8 — N 25,2 — M. G. 222.
- 1) 4,6 [oder 5,7]-Dinitro-2-Methylbenzimidazol. Sm. 242° (B. 30, 543). — IV, 877.
- $C_5H_5O_4Cl_2$ 1) Dimethyläther d. 3,6-Dichlor-2,5-Dioxy-1,4-Benzochinon. α -Modif. Sm. 141–142°; β -Modif. Sm. 157–158° (J. pr. [2] 40, 370; Am. 17, 603; 20, 408). — III, 350.
- 2) 3,6-Dichlor-1,4-Dihydrobenzol-2,5-Dicarbonsäure. Sm. 272–275° u. Zers. Na + 3H₂O, Ca + 4H₂O, Ba + 3H₂O, Ag₂ (B. 21, 1464; 22, 2106). — II, 1760.
 - 3) Methylester d. Säure $C_5H_5O_4Cl_2$. Sm. 94,5° (A. 296, 179).
- $C_5H_5O_4Br_2$ 1) Dimethyläther d. 3,6-Dibrom-2,5-Dioxy-1,4-Benzochinon. Sm. 175° (B. 11, 332; 21, 609). — III, 349.
- 2) 2,6-Dibrom-3,5-Dioxy-1-Methylbenzol-4-Carbonsäure (A. 139, 38). — II, 1753.
- $C_5H_5O_4S$ 1) $\alpha\gamma$ -Diketo- α -[2-Thiänyl]propan- γ -Carbonsäure (Thiänoylbrenztraubensäure). Sm. bei 180° u. Zers. (G. 19, 446; 21 [2] 368; 22 [2] 24). — III, 760.
- 2) Anhydrid d. 1-Methylbenzol-4-Carbonsäure-3-Sulfonsäure. Sm. 97° (B. 25, 1742). — II, 1354.
- $C_5H_5O_5N_2$ C 45,7 — H 2,9 — O 38,1 — N 13,3 — M. G. 210.
- 1) 3,4-Methylenäther d. 6-Nitro-3,4-Dioxybenzaloxim. Sm. 203° (B. 24, 625). — III, 104.
 - 2) 2-Nitrophenyloxaminsäure. Sm. 112° (A. 209, 367). — II, 408.
 - 3) 4-Nitrophenyloxaminsäure + H₂O. Sm. 210° (B. 18, 2936). — II, 409.
 - 4) 3-Nitro-4-Formylamidobenzol-1-Carbonsäure. Sm. 221° u. Zers. (B. 23, 3634). — II, 1286.
 - 5) α -Oximido- α -[2-Nitrophenyl]essigsäure (B. 26, 1252). — II, 1600.
 - 6) Aldehyd d. 2-Dinitro-1-Methylbenzol-3-Carbonsäure. Sm. 110–112° (B. 17, 1473). — III, 53.
 - 7) Monamid d. Pyridin-2,3,4-Tricarbonsäure. (NH₄)₂ (M. 18, 241).
- $C_5H_5O_5N_4$ C 40,3 — H 2,5 — O 33,6 — N 23,5 — M. G. 238.
- 1) Dibarbitursäure. NH₄, Na₂ + 2H₂O, K + 2H₂O (A. 130, 145). — I, 1376.
- $C_5H_5O_5Br_2$ 1) Methylester d. 2,6-Dibrom-3,4,5-Trioxybenzol-1-Carbonsäure + H₂O. Sm. 139°. Pb (Bl. [3] 7, 625; [3] 9, 695). — II, 1923.
- 2) Aethylester d. Dibromkomensäure + H₂O (Aethylester d. Bromoxylbromkomensäure) (J. pr. [2] 26, 469). — I, 780.
- $C_5H_5O_5S$ 1) 1,2-Lakton d. 1-Oxymethylbenzol-2-Carbonsäure-2-Sulfonsäure. Ba, Cu + 2H₂O (B. 18, 3453). — II, 1561.
- $C_5H_5O_6N_2$ C 42,5 — H 2,6 — O 42,5 — N 12,4 — M. G. 226.
- 1) 2,4-Dinitrophenylessigsäure. Sm. 160° (B. 2, 210; 3, 648; 14, 823; A. 220, 134). — II, 1319.
 - 2) 4,6-Dinitro-1-Methylbenzol-2-Carbonsäure. Sm. 206°. Ba + 2H₂O (B. 16, 1959; A. 239, 77). — II, 1333.
 - 3) 2,3-Dinitro-1-Methylbenzol-4-Carbonsäure. Sm. 249°. Ca + H₂O, Ba + 4H₂O (B. 22, 2675; A. 266, 211). — II, 1349.
 - 4) 2,5-Dinitro-1-Methylbenzol-4-Carbonsäure. Sm. 188° (194°). Na + 3H₂O, Ca + 2H₂O, Ba + 2½H₂O (B. 22, 2675; A. 266, 211). — II, 1349.
 - 5) 2,6-Dinitro-1-Methylbenzol-4-Carbonsäure. Sm. 157–158°. K + 2H₂O, Ca + 2H₂O, Ba + 2H₂O, Ag (B. 8, 1678; A. 266, 220). — II, 1349.

- $C_5H_3O_5N_2$ 6) **3,5-Dinitro-1-Methylbenzol-4-Carbonsäure.** Sm. 226°. Ba + H_2O (A. 266, 226). — II, 1349.
- 7) **Aldehyd d. ?-Dinitro-3-Oxybenzoldimethyläther-1-Carbonsäure.** Sm. 110° (B. 15, 2056). — III, 80.
- 8) **Aldehyd d. ?-Dinitro-3-Oxybenzoldimethyläther-1-Carbonsäure.** Sm. 155° (B. 15, 2056). — III, 80.
- 9) **Aldehyd d. 3,5-Dinitro-4-Oxybenzoldimethyläther-1-Carbonsäure.** Sm. 86° (B. 29, 157). — III, 83.
- 10) **Methylester d. 2,4-Dinitrobenzol-1-Carbonsäure.** Sm. 70° (J. pr. [2] 52, 428 Anm.).
- 11) **Methylester d. 2,5-Dinitrobenzol-1-Carbonsäure.** Sm. 94,5° (J. pr. [2] 52, 428 Anm.).
- 12) **Methylester d. 2,6-Dinitrobenzol-1-Carbonsäure.** Sm. 147° (Soc. 67, 599).
- 13) **Methylester d. 3,5-Dinitrobenzol-1-Carbonsäure.** Sm. 112° (B. 28, 596).
- $C_5H_3O_5N_1$ C 37,8 — H 2,4 — O 37,8 — N 22,0 — M. G. 254.
- 1) **Dyslyt.** Sm. 200,5° (189°) (A. 81, 103; Z. 1871, 701; Soc. 59, 979; G. 19, 264). — I, 710.
- 2) **Hydursäure + H_2O .** Salze meist bekannt (A. 56, 11; 127, 14; 130, 133; 132, 303; B. 1, 151; 9, 1102). — I, 1403.
- $C_5H_3O_5Cl_3$ 1) **Methylester d. α,β -Di[Trichloracetoxyl]propionsäure.** Sd. 199—200°₁₅ (Soc. 73, 184).
- $C_5H_3O_7N_2$ C 39,6 — H 2,5 — O 46,3 — N 11,6 — M. G. 242.
- 1) **Oxyessig-2,4-Dinitrophenyläthersäure.** Sm. 147—148°. $NH_4 + \frac{1}{2} H_2O$, Na + H_2O , K + $\frac{1}{2} H_2O$, Cu + $5 H_2O$, Ag (G. 22 [1] 213). — II, 685.
- 2) **2,6-Dinitro-1-Oxymethylbenzol-4-Carbonsäure.** Sm. 119—120° (B. 27, 2171). — II, 1561.
- 3) **3,5-Dinitro-4-Oxybenzoldimethyläther-1-Carbonsäure.** Sm. 181—182° (179°). Na_2 , K + H_2O , Ag (A. 163, 57; B. 10, 1254; Am. 19, 209). — II, 1539.
- 4) **Methylester d. 3,5-Dinitro-2-Oxybenzol-1-Carbonsäure.** Sm. 127 bis 128° (124—125°). NH_4 , Ag (A. 69, 235; 173, 43). — II, 1510.
- $C_5H_3O_7N_1$ C 35,6 — H 2,2 — O 41,5 — N 20,7 — M. G. 270.
- 1) **?-Dinitrophenylharnstoff-3-Carbonsäure** (B. 5, 197; 14, 904 Anm.; 15, 1881 Anm.). — II, 1262.
- 2) **isom. ?-Dinitrophenylharnstoff-3-Carbonsäure.** Ba (B. 5, 197). — II, 1262.
- 3) **?-Dinitrophenylharnstoff-4-Carbonsäure.** Sm. 268° (B. 5, 855; A. 291, 332). — II, 1272.
- 4) **Säure (aus Toluallloxazin).** Sm. 265° u. Zers. Ba, Ag_3 (B. 27, 2117). — IV, 946.
- $C_5H_3O_8S$ 1) **Benzol-1,2-Dicarbonsäure-3-Sulfonsäure.** $Ba_3 + 8 H_2O$, Pb + $1\frac{1}{2} H_2O$, $KAg_2 + 2 H_2O$ (Am. 5, 107; 13, 203; A. 233, 220). — II, 1824.
- 2) **Benzol-1,2-Dicarbonsäure- α -Sulfonsäure + H_2O .** Sm. 138—140°. (NH_4)₂ + $1\frac{1}{2} H_2O$, K + $2 H_2O$, Ba + $5 H_2O$, BaH + $2 H_2O$, $Ba_3 + 2 H_2O$ (A. 143, 257; 233, 219; B. 18, 1127; Am. 5, 110). — II, 1825.
- 3) **Benzol-1,3-Dicarbonsäure-4-Sulfonsäure + $2 H_2O$.** Sm. 243—244° (235—240°). K + $2 H_2O$, K_3 , Ca + $4\frac{1}{2} H_2O$, Ba + $3 H_2O$, $Ba_3 + 3 H_2O$ (B. 13, 1556; Am. 1, 122; 3, 206). — II, 1830.
- 4) **Benzol-1,3-Dicarbonsäure-5-Sulfonsäure + $2 H_2O$.** Sm. 257—258°. K + $3 H_2O$, $K_3 + x H_2O$, $Ba_3 + 8 H_2O$, Pb (B. 13, 493, 704). — II, 1831.
- 5) **Benzol-1,4-Dicarbonsäure-2-Sulfonsäure.** K + H_2O , $K_3 + H_2O$, Ca + $1\frac{1}{2} H_2O$, Ba + $5 H_2O$, $Ba_3 + 8 H_2O$, Pb + $2 H_2O$, Ag_2 (A. 161, 2; B. 12, 1434; 14, 223; Am. 2, 405, 413; 4, 197; 5, 170). — II, 1840.
- $C_5H_3O_8N_1$ C 37,2 — H 2,3 — O 49,6 — N 10,9 — M. G. 258.
- 1) **?-Dinitro-3,4-Dioxybenzol-4-Methyläther-1-Carbonsäure + H_2O** (J. 1867, 520). — II, 1746.
- $C_5H_3O_8N_4$ C 33,5 — H 2,1 — O 44,8 — N 19,6 — M. G. 286.
- 1) **Alloxantin + $2 H_2O$.** Zers. bei 170° (A. 26, 262; 87, 126; 103, 216; 215, 310; J. 1878, 361; A. ch. [6] 28, 323; B. 26, 1920; 29, 892, 894, 2107, 2653; H. 16, 334; 18, 451). — I, 1401.
- 2) **Methylester d. 2,4,6-Trinitrophenylamidoameisensäure.** Sm. 192°. K (R. 10, 138). — II, 373.

- $C_5H_6O_5S$ 1) **Thiodimaleinsäure**. Sm. 205° u. Zers. (*M.* 18, 86).
 $C_5H_6O_5N_6$ C 29,1 — H 1,8 — O 43,6 — N 25,4 — M. G. 330.
- $C_5H_6O_{10}N_6$ 1) **Nitrosnitrobarbitursäure** (Violantin) + 4H₂O. Zers. bei 120°. K, Mg, Cu (*A.* 127, 223). — I, 1374.
 C 27,7 — H 1,7 — O 46,2 — N 24,3 — M. G. 346.
- $C_5H_6O_{10}S_2$ 1) **2,3,4,5,6-Pentanitro-1-Dimethylamidobenzol**. Sm. 127° (*B.* 12, 1790).
 1) **Benzol-1,3-Dicarbonsäure-2,4-Disulfonsäure**. Sm. 250° (*B.* 23, 3115). — II, 1331.
- C_5H_5NCl 1) **Nitril d. Phenylchloroessigsäure**. Sd. 131–133° (i. V.) (*B.* 25, 1679). — II, 1316.
 2) **Nitril d. 4-Chlorphenylessigsäure**. Sm. 29°? (*A.* 147, 347; *Am.* 2, 88). — II, 1315.
 3) **Nitril der 1-Chlormethylbenzol-2-Carbonsäure**. Sm. 60–61,5°; Sd. 252°_{788,5} (*B.* 20, 2222). — II, 1331.
 4) **Nitril d. 1-Chlormethylbenzol-3-Carbonsäure**. Sm. 67°; Sd. 258 bis 260° (*B.* 24, 2416). — II, 1336.
 5) **Nitril der 1-Chlormethylbenzol-4-Carbonsäure**. Sm. 79,5°; Sd. 263° (*B.* 22, 3208). — II, 1346.
 6) **Nitril d. 5-Chlor-1-Methylbenzol-2-Carbonsäure**. Sm. 67° (*A.* 274, 287). — II, 1331.
 7) **Nitril d. 2-Chlor-1-Methylbenzol-4-Carbonsäure**. Sm. 48–48,5° (*J. pr.* [2] 39, 497). — II, 1345.
 8) **Nitril d. 3-Chlor-1-Methylbenzol-4-Carbonsäure**. Sm. 61–62° (*J. pr.* [2] 39, 491). — II, 1345.
- $C_5H_5NCl_3$ 1) **γγγ-Trichlor-α-[2-Pyridyl]propen**. Sm. 97° (*A.* 265, 211). — IV, 187.
 C_5H_5NBr 1) **Nitril d. Phenylbromessigsäure** (*B.* 14, 1798). — II, 1317.
 2) **Nitril d. 2-Bromphenylessigsäure**. Fl. (*Am.* 2, 316). — II, 1316.
 3) **Nitril d. 3-Bromphenylessigsäure**. Fl. (*J.* 1880, 482). — II, 1316.
 4) **Nitril d. 4-Bromphenylessigsäure**. Sm. 47° (46°) (*B.* 10, 1210; *Am.* 3, 247). — II, 1317.
 5) **Nitril d. 1-Brommethylbenzol-2-Carbonsäure**. Sm. 76° (*B.* 24, 2570). — II, 1332.
 6) **Nitril d. 1-Brommethylbenzol-4-Carbonsäure**. Sm. 115–116° (*B.* 27, 2169). — II, 1346.
 7) **Nitril d. 5-Brom-1-Methylbenzol-2-Carbonsäure**. Sm. 70° (*B.* 20, 1017). — II, 1332.
 8) **Nitril d. p-Brom-1-Methylbenzol-2-Carbonsäure**. Sm. 42° (*J. pr.* [2] 39, 489). — II, 1332.
 9) **Nitril d. 2-Brom-1-Methylbenzol-4-Carbonsäure**. Sm. 44° (*J. pr.* [2] 39, 487). — II, 1346.
 10) **Nitril d. 3-Brom-1-Methylbenzol-4-Carbonsäure**. Sm. 47° (*J. pr.* [2] 39, 486). — II, 1346.
- C_5H_5NJ 1) **Nitril d. 4-Jodphenylessigsäure**. Sm. 50,5° (*B.* 11, 56; *Am.* 2, 253). — II, 1317.
- $C_5H_5N_2Br_2$ 1) **Nitril d. p-Dibrom-4-Amidophenylessigsäure** (*B.* 16, 1025). — II, 1322.
- $C_5H_5N_2S_2$ 1) **5-Merkapto-2-Phenyl-1,2,4-Thiodiazol**. Sm. 162° (*B.* 24, 387). — IV, 846.
 2) **2-Thiocarbonyl-4-Phenyl-2,4-Dihydro-1,3,4-Thiodiazol**. Sm. 190° u. Zers. (*B.* 28, 2640). — IV, 745.
 3) **2,4-Dimerkapto-1,3-Benzdiazin**. Sm. oberh. 250° (*J. pr.* [2] 47, 303). — IV, 898.
 4) **Verbindung (aus Benzenylamidoxim)**. Sm. 160° (*B.* 22, 2442). — II, 1203.
- $C_5H_5N_2S_3$ 1) **5-Merkapto-2-Thiocarbonyl-3-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol**. Sm. 90–91°; Sd. 230° u. Zers. NH₄, K, Ba₂, Methylaminsalz, Dimethylaminsalz, Trimethylaminsalz, Tripropylaminsalz, Anilinsalz (*B.* 27, 2510; 29, 2133). — IV, 683.
 2) **1,3-Phenylenthioharnstoffthiocarbonat** (*B.* 17, 2656). — IV, 576.
- $C_5H_5N_3Cl$ 1) **1-[p-Chlorphenyl]-1,2,4-Triazol**. Sm. 133° (*C.* 1897 [1] 593). — IV, 1099.
 2) **3-Chlor-1-Phenyl-1,2,4-Triazol**. Sm. 76°; Sd. 299° (*C.* 1897 [1] 857). — IV, 1099.
 3) **5-Chlor-1-Phenyl-1,2,4-Triazol**. Sm. 54° (*C.* 1897 [1] 593). — IV, 1099.

- $C_6H_4N_3Cl_3$ 1) 4,6,7-Trichlor-1,5-Dimethyl-1,2,3-Benzotriazol. Sm. 213° (A. 249, 370 Anm.). — IV, 1146.
- $C_6H_4N_3Br$ 1) 6-Brom-3-Methyl-1,2,4-Benzotriazin (B. 22, 2818). — IV, 1155.
- $C_6H_4N_3S_2$ 1) Dithiocarbonyl-1,2,4,5-Tetraamidobenzol (B. 22, 442). — IV, 1244.
- $C_6H_3ClBr_2$ 1) p-Chlor-p-Tribrom-1,4-Dimethylbenzol. Sm. 234° (J. pr. [2] 39, 405). — II, 66.
- $C_6H_3Cl_2Br_2$ 1) $\beta\beta$ -Dichlor- $\alpha\beta$ -Dibromäthylbenzol. Sd. 175°, (A. 296, 273).
- 2) 4,6-Dichlor-2,5-Dibrom-1,3-Dimethylbenzol. Sm. 230° (J. pr. [2] 42, 125). — II, 65.
- 3) 2,4-Dichlor-5,6-Dibrom-1,3-Dimethylbenzol. Sm. 215° (B. 23, 2320). — II, 65.
- 4) p-Dichlor-p-Dibrom-1,4-Dimethylbenzol. Sm. 226° (J. pr. [2] 39, 406). — II, 66.
- $C_6H_3Cl_3Br$ 1) p-Trichlor-p-Brom-1,4-Dimethylbenzol. Sm. 219° (J. pr. [2] 39, 407). — II, 65.
- $C_6H_4Br_2S_2$ 1) Verbindung (aus 3,4,5-Tribrom-2-Methylthiophen u. 2,4,5-Tribrom-3-Methylthiophen). Sm. 74° (B. 17, 787; 18, 3009). — III, 744.
- C_6H_7ON C 72,2 — H 5,3 — O 12,0 — N 10,5 — M. G. 133.
- 1) p-Anhydrohydroxylaminbenzylalkohol = $(C_6H_7ON)_x$ (C. 1898 [1] 987).
- 2) 2-Methylphenylisocyanat. Sd. 186° (B. 6, 445, 446; 25, 1086). — II, 463.
- 3) polym. 2-Methylphenylisocyanat. Sm. 168° (B. 21, 413). — II, 463.
- 4) 4-Methylphenylisocyanat. Sm. 21°; Sd. 187°, (B. 3, 656; 21, 411, 505; Am. 16, 373). — II, 494.
- 5) polym. 4-Methylphenylisocyanat. Sm. 185°. + C_2H_5O (Sm. 111°) (B. 21, 411). — II, 494.
- 6) Benzylisocyanat. Fl. (B. 5, 91, 692). — II, 525.
- 7) 1-Imido-1,2-Dihydroisobenzfuran (Pseudophthalimidin). Fl. HCl, (2HCl, $PtCl_4$ + 2H₂O), Pikrat (B. 20, 2234; 25, 3020; 31, 2732, 2736 Anm.). — II, 1558.
- 8) 3-Oxyindol (Indoxyl). Fl. (J. 1857, 564; 1863, 656; 1872, 942; B. 12, 1192; 13, 415; 14, 1744; 15, 56; 16, 2190; 26, 225; J. r. 13, 559). — II, 1613.
- 9) 2-Keto-2,3-Dihydroindol (Oxindol). Sm. 120° (123°). Ag, HCl (A. 140, 29; B. 16, 1704; M. 18, 531). — II, 1320.
- 10) 1-Keto-1,3-Dihydroisindol (Phthalimidin). Sm. 150°; Sd. 337°, (HCl, $AuCl_3$), Pikrat, Ag (B. 17, 2598; 20, 2233; 31, 2737, 2739; A. 247, 290). — II, 1557.
- 11) 1-Methylbenzoxazol (Aethenyl-o-Amidophenol). Sd. 200—201°. (2HCl, $PtCl_4$, H₂SO₄, (B. 9, 1525; 30, 3070). — II, 705.
- 12) 4-Methylbenzoxazol. Sm. 45—46° (B. 14, 572). — II, 753.
- 13) 6-Methylbenzoxazol. Sm. 38—39°; Sd. 200° (B. 14, 570). — II, 741.
- 14) Base (aus 3-Keto 3,4-Dihydro-1,4-Benzoxazin). Fl. (B. 20, 1943). — II, 712.
- 15) Anhydrid d. Phenylamidoessigsäure. Sm. 263° (B. 10, 1967).
- 16) Nitril d. α -Oxyphenylessigsäure. Fl. (A. 52, 361; B. 14, 239, 1967; C. 1896 [1] 698). — II, 1552.
- 17) Nitril d. 3-Oxyphenylessigsäure. Sm. 52—53° (B. 17, 506). — II, 1543.
- 18) Nitril d. 4-Oxyphenylessigsäure. Sm. 69—70°; Sd. 330,5°, (A. 199, 156; B. 17, 506; 22, 2139). — II, 1544.
- 19) Nitril d. Oxyessigphenyläthersäure. Sd. 235—238° (239—240°) (J. pr. [2] 20, 278; M. 15, 746; B. 29, 1424). — II, 664.
- 20) Nitril d. 1-Oxymethylbenzol-4-Carbonsäure. Sm. 133—134° (B. 27, 2170). — II, 1561.
- 21) Nitril d. 2-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 88,5° (B. 24, 3669). — II, 1545.
- 22) Nitril d. 4-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 100—101° (B. 24, 3661). — II, 1547.
- 23) Nitril d. 6-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 93° (B. 24, 3673). — II, 1548.
- 24) Nitril d. 2-Oxybenzoldimethyläther-1-Carbonsäure. Sd. 265—266° (255—256°) (B. 20, 2955; 22, 2800). — II, 1561.
- 25) Nitril d. 4-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 56—57° (61 bis 62°); Sd. 253—254° (B. 2, 667; 22, 2791; 27, 2159; G. 20, 699; 26, [2] 461). — II, 1530.

$C_8H_7ON_2$

C 59,6 — H 4,3 — O 9,9 — N 26,1 — M. G. 161.

- 1) 2-Cyanphenylharnstoff. Sm. noch nicht bei 300° (B. 29, 632).
- 2) Hydrazoisatin. Sm. 219° u. Zers. (B. 22, 2162; J. pr. [2] 44, 188). — II, 1610.
- 3) Methyläther d. anti-4-Oxy-1-Diazobenzolcyanid. Sm. 122° (B. 30, 2545). — IV, 1545.
- 4) Methyläther d. syn-4-Oxy-1-Diazobenzolcyanid. Sm. 50° (B. 30, 2545). — IV, 1545.
- 5) 3-Oxy-1-Phenyl-1,2,4-Triazol. Sm. 273—274°. HCl + H₂O, Ag + H₂O (B. 26, 2613; 29, 1953; Soc. 71, 312). — IV, 1100.
- 6) 5-Keto-1-Phenyl-4,5-Dihydro-1,2,4-Triazol. Sm. 182—183°. Ag. — IV, 1100.
- 7) 3-Oxy-1-Phenyl-1,2,5-Triazol. Sm. 124° (A. 295, 160).
- 8) 5-Methyl-3-[3-Pyridyl]-1,2,4-Oxdiazol (Nikotenzylazoximäthenyl). Sm. 109° (B. 24, 3441). — IV, 145.
- 9) 2-Phenyl-1,2,3,5-Oxtriazin. Sm. 110—120°. K, Ag, Ag + NH₃ (R. 16, 350). — IV, 1101.
- 10) 2-Nitroso-3-Methylindazol. Sm. 60,5° (A. 227, 320). — IV, 869.
- 11) 2-Nitroso-5-Methylindazol. Sm. 61° (B. 29, 309). — IV, 871.
- 12) 2-Imido-4-Keto-1,2,3,4-Tetrahydro-1,3-Benzdiazin. (2HCl, PtCl₄), HNO₃ (B. 2, 417; 13, 977). — II, 1255.
- 13) 2-Imido-3-Oxy-1,2-Dihydro-1,4-Benzdiazin? Sm. oberh. 280° (Bl. 42, 110). — IV, 566.
- 14) 4-Oxy-6-Methyl-1,2,3-Benztriazin. Sm. 228° (A. 305, 370).
- 15) 4-Keto-3-Methyl-3,4-Dihydro-1,2,3-Benztriazin. Sm. 123° (J. pr. [2] 35, 263; [2] 37, 435). — IV, 1553.
- 16) 4-Keto-7-Methyl-3,4-Dihydro-1,2,3-Benztriazin. Sm. 226° u. Zers. (B. 21, 1538). — II, 1352.

 $C_8H_7ON_2$

C 50,8 — H 3,7 — O 8,5 — N 37,0 — M. G. 189.

- 1) 2-Nitroso-3-Imido-1-Phenyl-2,3-Dihydro-1,2,4-Triazol (G. 29 [1] 22).
- 2) 5-Benzoylamido-1,2,3,4-Tetrazol. Sm. über 250° u. Zers. (A. 287, 234).
- 3) Amid d. 1-Phenyl-1,2,3,5-Tetrazol-4-Carbonsäure. Sm. 167,5 bis 168,5° (B. 18, 2910). — IV, 1239.

 C_8H_7OCl

- 1) α -[2-Oxyphenyl]- β -Chloräthen (2-Oxy-1-[β]-Chloräthenylbenzol). Sm. 54,5—55,5° (B. 26, 2970). — II, 849.
- 2) Chlormethylphenylketon. Sm. 58—59°; Sd. 244—245° (B. 4, 35; 10, 1830; A. ch. [6] 1, 507; [6] 14, 379; Bl. [3] 17, 506). — III, 119.
- 3) Methyl-4-Chlorphenylketon. Sm. 20°; Sd. 232° (A. ch. [6] 14, 373; Bl. [3] 21, 68). — III, 120.
- 4) Chlorid d. Phenylelessigsäure. Sd. 102,5°₁₇ (A. 113, 68; 298, 375; B. 20, 1389; 29, 1727 Anm., 1985). — II, 1311.
- 5) Chlorid d. 1-Methylbenzol-2-Carbonsäure. Sd. 211°₇₃₃ (B. 12, 2301). — II, 1329.
- 6) Chlorid d. 1-Methylbenzol-3-Carbonsäure. Sd. 218°₇₂₄ (B. 12, 2300). — II, 1336.
- 7) Chlorid d. 1-Methylbenzol-4-Carbonsäure. Sd. 214—216° (A. 108, 316; B. 12, 2298). — II, 1340.

 $C_8H_7OCl_3$

- 1) $\beta\beta\beta$ -Trichlor- α -Oxy- α -Phenyläthan. Sd. 154—155°₃₅ (C. 1897 [1] 1014).
- 2) Aethyläther d. 2,3,5-Trichlor-1-Oxybenzol. Sd. 245—246° (J. pr. [2] 33, 378). — II, 671.
- 3) Aethyläther d. 2,4,6-Trichlor-1-Oxybenzol. Sm. 43—44°; Sd. 246° (A. 149, 152). — II, 670.

 C_8H_7OBr

- 1) Bromoxystyrol. Sd. 265°. Ba + 6H₂O (M. 1, 181).
- 2) Bromvinylphenyläther. Fl. (A. 216, 277). — II, 654.
- 3) Brommethylphenylketon. Sm. 50° (B. 4, 148; 10, 2007; 11, 931; 13, 837; 14, 1238; 15, 2464; 16, 22; 21, 2595; J. 1882, 368; G. 25 [2] 496; Bl. [3] 17, 69). — III, 121.
- 4) Methyl-4[β]-Bromphenylketon. Sm. 51° (B. 24, 550). — III, 120.
- 5) Aldehyd d. α -Bromphenylelessigsäure. Fl. (B. 29, 213).

 $C_8H_7OBr_3$

- 1) $\beta\beta\beta$ -Tribrom- α -Oxy- α -Phenyläthan. Sm. 78—78,5° (C. 1899 [1] 606).
- 2) 2-Brom-4-Oxy-1-[$\alpha\beta$ -Dibromäthyl]benzol. Sm. 108° (B. 20, 2535). — II, 757.
- 3) β -Tribrom-4-Oxy-1-Aethylbenzol. Sm. 53,5—55° (A. 156, 256). — II, 757.

- $C_6H_5OBr_3$ 4) **4,5,6-Tribrom-3-Oxy-1,2-Dimethylbenzol**. Sm. 184° (B. 18, 2562). — II, 758.
 5) **3,5,6-Tribrom-4-Oxy-1,2-Dimethylbenzol**. Sm. 169° (171°) (B. 11, 28; A. 302, 160). — II, 758.
 6) **3,4,5-Tribrom-6-Oxy-1,2-Dimethylbenzol**. Sm. 184° (Soc. 75, 192).
 7) **4,5,6-Tribrom-2-Oxy-1,3-Dimethylbenzol**. Sm. 175° (B. 11, 26). — II, 758.
 8) **2,5,6-Tribrom-4-Oxy-1,3-Dimethylbenzol**. Sm. 179° (B. 11, 25; 29, 2350; A. 302, 160). — II, 759.
 9) **2,4,6-Tribrom-5-Oxy-1,3-Dimethylbenzol**. Sm. $162,5^\circ$ (166°) (B. 18, 362, 2679; A. 281, 122). — II, 759.
 10) **3,5,6-Tribrom-2-Oxy-1,4-Dimethylbenzol**. Sm. $179-180^\circ$ ($177-178^\circ$) (B. 11, 27; 26, 1951; 29, 1120, 2347; 32, 18; A. 301, 281; 302, 114, 160). — II, 759.
 11) **Aethyläther d. 2,3,5-Tribrom-1-Oxybenzol**. Sm. $72,5^\circ$ (J. pr. [2] 24, 484). — II, 674.
 12) **Aethyläther d. 2,4,6-Tribrom-1-Oxybenzol**. Sm. $72-73^\circ$ (69°) (G. 16, 528; 23 [2] 494; B. 32, 163). — II, 674.
- $C_6H_5OBr_2$ 1) **Dibromid d. 3,5,6-Tribrom-4-Oxy-1,3-Dimethylbenzol**. Sm. 174 bis 177° (B. 29, 1131, 2349).
- C_6H_5OJ 1) **Jodmethylphenylketon**. Sm. 28° (B. 32, 532, 601).
 2) **Methyl-4-Jodphenylketon**. Sm. 79° (B. 18, 2692). — III, 121.
 3) **Methyl-?-Jodphenylketon**. Sm. 85° (B. 24, 551). — III, 122.
- $C_6H_5O_2N$ C 64,4 — H 4,7 — O 21,5 — N 9,4 — M. G. 149.
 1) **β -Nitro- α -Phenyläthen (β -Nitrostyrol)**. Sm. 58° ; Sd. $250-260^\circ$ u. Zers. (A. 31, 269; 53, 297; 225, 321; B. 17, 412; 24, 2773). — II, 167.
 2) **polym. β -Nitro- α -Phenyläthen** = $(C_6H_5O_2N)_x$. Sm. $172-180^\circ$ u. Zers. (280°) (A. 225, 340; C. 1899 [1] 730). — II, 167.
 3) **2-Nitrophenyläthen (o-Nitrostyrol)**. Sm. $12-13,5^\circ$ (B. 16, 2213). — II, 167.
 4) **3-Nitrophenyläthen**. Fl. (B. 17, 597). — II, 167.
 5) **4-Nitrophenyläthen**. Sm. 29° (B. 16, 3005). — II, 167.
 6) **Nitrometastyrol** = $(C_6H_5O_2N)_x$ (A. 53, 316). — II, 167.
 7) **Nitrosomethylphenylketon?** (Benzoylformoxim; Oximidomethylphenylketon). Sm. $126-128^\circ$ (B. 20, 656, 2194). — III, 122.
 8) **Methyläther d. 4-Oxyphenylisocyanat** (A. 175, 312). — II, 719.
 9) **1-Oxy-3-Methylbenzoxazol?** Sm. $158-159^\circ$ (H. 12, 311). — II, 756.
 10) **5-Oxy-3-Methylbenzoxazol**. Sm. $162-163^\circ$ (M. 19, 515).
 11) **3-Oxy-2-Keto-2,3-Dihydroindol (Dioxindol; Hydrindinsäure)**. Sm. 180° . Na + $2H_2O$, Ba + $4H_2O$, Pb + $2H_2O$, Ag; HCl, H_2SO_4 (A. 140, 9; B. 12, 1309; Bl. [3] 9, 580). — II, 1612.
 12) **2-Oxy-1,3-Benzoxazin (Oxycumarazin)**. Sm. 98° (B. 31, 1602).
 13) **2-Keto-3,4-Dihydro-1,4-Benzoxazin (2-Keto-Phenmorpholin)** (J. pr. [2] 29, 289). — II, 712.
 14) **3-Keto-3,4-Dihydro-1,4-Benzoxazin (3-Keto-Phenmorpholin)**. Sm. 144° ($166-167^\circ$). Na, Ag (J. pr. [2] 20, 288; [2] 25, 266; [2] 29, 178; B. 20, 1943; Am. 20, 559). — II, 712.
 15) **Hydroisatin** (B. 12, 1309).
 16) **α -Imidophenylelessigsäure**. Sm. 59° (J. pr. [2] 52, 36).
 17) **Phenylimidoessigsäure (Anilglyoxylsäure)**. Ba, C_6H_7N (A. 198, 222). — II, 407.
 18) **β -[2-Pyridyl]akrylsäure**. Sm. $202-203^\circ$ u. Zers. Ca, Ag, HCl, ($2HCl$, $PtCl_4$), (HCl, $AuCl_3$), HBr (A. 265, 222). — IV, 211.
 19) **Inn. Anhydrid d. 2-Amido-3-Oxybenzoldimethyläther-1-Carbonsäure (m-Methoxyanthranil)**. Fl. + $HgCl_2$ (B. 28, 1385).
 20) **Lakton d. 1-Amidooxymethylbenzol-2-Carbonsäure (Amidophthalid)**. Sm. 167° u. Zers. (A. 239, 91). — II, 1560.
 21) **Lakton d. 5-Amido-1-Oxymethylbenzol-2-Carbonsäure (5-Amidophthalid)**. Sm. 178° . ($2HCl$, $PtCl_4$) (B. 18, 3448). — II, 1559.
 22) **α -Amid d. Benzolketocarbonsäure**. Sm. $90-91^\circ$ (B. 10, 1664; 12, 632). — II, 1598.
 23) **β -Amid d. Benzolketocarbonsäure + H_2O** . Sm. $64-65^\circ$ (B. 10, 1665; 12, 633). — II, 1598.

- $C_6H_5O_2N$ 24) γ -Amid d. Benzolketocarbonsäure = $(C_6H_5O_2N)_2$? Sm. 134—135° (B. 10, 1665; 12, 635). — II, 1598.
- 25) Nitril d. 3-Oxy-1-Oxymethylbenzol-4-Carbonsäure. Sm. 169° (B. 27, 2169). — II, 1755.
- 26) Nitril d. 3,4-Dioxybenzol-3-Methyläther-1-Carbonsäure. Sm. 87° (89—90°) (B. 24, 3654; 30, 2449). — II, 1741.
- $C_6H_5O_2N_3$ C 54,2 — H 3,9 — O 18,1 — N 23,7 — M. G. 177.
- 1) 3,5-Diketo-1-Phenyltetrahydro-1,2,4-Triazol (Phenylurazol). Sm. 262°. Na, Na, (B. 20, 2360; 21, 1220; 32, 13; Soc. 53, 554; A. 295, 170). — IV, 676.
- 2) 3,5-Diketo-4-Phenyltetrahydro-1,2,4-Triazol (Hydrazodicarbonanil). Sm. 203° (A. 283, 46).
- 3) 2-Amido-5-Keto-4-Phenyl-4,5-Dihydro-1,3,4-Oxdiazol (Phenyldehydrobiuret; Phenylcarbizincarbonamid). Sm. 166—167° (B. 21, 2463; 23, 2832). — IV, 676.
- 4) 6-Nitro-2-Methylindazol. Sm. 159° (B. 23, 3638). — IV, 866.
- 5) 7-Nitro-5-Methylindazol. Sm. 192° (B. 29, 305). — IV, 871.
- 6) 6-Nitro-2-Methylbenzimidazol. Sm. 216° (B. 21, 2307). — IV, 877.
- 7) *p*-Amido-2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Benzdiazin (B. 2, 416). — IV, 896.
- 8) 1-Methyl-1,2,3-Benztriazol-5-Carbonsäure. Sm. oberh. 270° (A. 291, 339). — IV, 1154.
- 9) 4-Methyl-1,2,3-Benztriazol-7-Carbonsäure. Sm. 295° u. Zers. Ca + 2H₂O (A. 266, 228). — IV, 1154.
- 10) Methylester d. 1,2,3-Benztriazol-5-Carbonsäure. Sm. 170—171° (A. 291, 338). — IV, 1153.
- 11) Nitril d. 3-Nitro-4-Amidophenylessigsäure. Sm. 117—118° (B. 15, 839). — II, 1327.
- $C_6H_5O_2N_5$ C 46,8 — H 3,4 — O 15,6 — N 34,1 — M. G. 205.
- 1) 4-Diazo-3-Oxy-1-Phenyl-1,2,5-Triazol (A. 295, 159). — IV, 1235.
- 2) 1-[*p*-Amidophenyl]-1,2,3,5-Tetrazol-4-Carbonsäure. Sm. 196° u. Zers. (B. 25, 1412). — IV, 1239.
- $C_6H_5O_2Cl$ 3) Azid d. Phenylnitrosamidoessigsäure. Sm. 41—42° (J. pr. [2] 52, 449).
- 1) Methyl-2-Chlor-1-Oxyphenylketon. Sm. 96° (B. 30, 1771).
- 2) Methyl-5-Chlor-2-Oxyphenylketon. Sm. 55° (57°) (B. 30, 1771; C. 1898 [2] 158).
- 3) Chlormethyl-4-Oxyphenylketon. Sm. 148° (B. 31, 169).
- 4) 3-Chlor-2,5-Dimethyl-1,4-Benzochinon. Sm. 48° (A. 151, 167; J. pr. [2] 23, 431). — III, 363.
- 5) 3-Chlor-2,6-Dimethyl-1,4-Benzochinon. Sm. 218° (B. 29, 314). — III, 362.
- 6) Phenylchloroessigsäure. Sm. 78°. Na + H₂O (B. 2, 208; 14, 239, 2392; 17, 1452; A. 220, 42; 225, 337; 279, 122; C. 1897 [1] 1014). — II, 1315.
- 7) *d*-Phenylchloroessigsäure. Sm. 56—58° (B. 28, 1295).
- 8) 4-Chlorphenylessigsäure. Sm. 103,5—104° (105—106°). Ca + H₂O, Ag (A. 147, 346; B. 2, 208; 11, 905; 25, 2240; Am. 2, 89; H. 7, 27 Ann.). — II, 1315.
- 9) 1-Chlormethylbenzol-2-Carbonsäure. Sm. bei 190° (B. 20, 2234). — II, 1331.
- 10) 1-Chlormethylbenzol-3-Carbonsäure. Sm. 135° (B. 24, 2418). — II, 1336.
- 11) 1-Chlormethylbenzol-4-Carbonsäure. Sm. 199° (B. 22, 3208). — II, 1345.
- 12) 4-Chlor-1-Methylbenzol-2-Carbonsäure. Sm. 130°. Ca (B. 18, 1757; A. 274, 308). — II, 1331.
- 13) 5-Chlor-1-Methylbenzol-2-Carbonsäure. Sm. 172°. K + H₂O, Ca + 3H₂O, Ba + 4H₂O (B. 18, 1758; A. 274, 288, 308). — II, 1331.
- 14) 6-Chlor-1-Methylbenzol-2-Carbonsäure. Sm. 156° (154°). Ca + 2H₂O (B. 18, 1758; A. 274, 156). — II, 1331.
- 15) 4-Chlor-1-Methylbenzol-3-Carbonsäure. Sm. 167° (J. pr. [2] 46, 27). — II, 1336.
- 16) 5-Chlor-1-Methylbenzol-3-Carbonsäure. Sm. 178° (B. 28, 2045).
- 17) 6-Chlor-1-Methylbenzol-3-Carbonsäure. Sm. 209—210°. Ca + 3H₂O,

- Ba + 3H₂O (A. 144, 182, 266; J. 1866, 605; B. 18, 1761; Am. 3, 424). — II, 1336.
- C₈H₇O₂Cl** 18) **2-Chlor-1-Methylbenzol-4-Carbonsäure.** Sm. 194—196° (199—201° cor.). K + $\frac{1}{2}$ H₂O, Ca + 3H₂O, Ba + 4H₂O (B. 6, 1090; 10, 1249; 11, 366). — II, 1345.
- 19) **3-Chlor-1-Methylbenzol-4-Carbonsäure.** Sm. 155—155,5°. Na + H₂O, Ca + 2H₂O, Ba + 5H₂O, Ag (J. pr. [2] 39, 492; G. 16, 290). — II, 1345.
- 20) **Aldehyd d. 2-Chlor-4-Oxybenzoldimethyläther-1-Carbonsäure.** Sm. 62—63° (B. 24, 709). — III, 82.
- 21) **Methylester d. 2-Chlorbenzol-1-Carbonsäure.** Sd. 229—230° (Ph. Ch. 24, 245).
- 22) **Methylester d. 3-Chlorbenzol-1-Carbonsäure.** Sm. 21°; Sd. 114°₁₈ (Ph. Ch. 24, 245).
- 23) **Methylester d. 4-Chlorbenzol-1-Carbonsäure.** Sm. 42° (43—43,5°) (B. 8, 883; Ph. Ch. 24, 245). — II, 1218.
- 24) **Phenylester d. Chloroessigsäure.** Sm. 41°; Sd. 230—235° (J. pr. [2] 4, 379; J. r. 25, 121; B. 30, 1715). — II, 662.
- 25) **Benzylester d. Chlorameisensäure.** Sd. 103°₁₉₋₂₀ (A. 302, 257).
- 26) **Chlorid d. 2-Oxy-1-Methylbenzol-3-Carbonsäure.** Sm. 27—28° (B. 30, 222).
- 27) **Chlorid d. 2-Oxybenzoldimethyläther-1-Carbonsäure.** Sd. 254° (B. 28, 158). — II, 1494.
- 28) **Chlorid d. 4-Oxybenzoldimethyläther-1-Carbonsäure (Anisylchlorid).** Sm. 22°; Sd. 160—164°₃₅ (A. 70, 47; 175, 284 Anm.; C. 1897 [2] 616). — II, 1527.
- 29) **Chlorid d. Oxyessigphenyläthersäure.** Sd. 225—226° (C. 1898 [1] 988).
- C₈H₇O₂Cl₃** 1) **Dimethyläther d. ?-Trichlor-1,2-Dioxybenzol.** Sm. 68—69° (Bl. [3] 21, 90).
- 2) **Dimethyläther d. ?-Trichlor-?-Dioxybenzol.** Sm. 174° (B. 24, 2980). — II, 953.
- C₈H₇O₂Br** 1) **Methyl-5-Brom-2-Oxyphenylketon.** Sm. 61—62° (B. 31, 716; C. 1898 [2] 158).
- 2) **Phenylbromessigsäure.** Sm. 83—84° (B. 2, 208; 28, 2448; 31, 1420; Z. 1868, 142). — II, 1317.
- 3) **d-Phenylbromessigsäure.** Sm. 76—78° (B. 28, 1296; 31, 1420).
- 4) **2-Bromphenylelessigsäure.** Sm. 103—104°. Ca, Ba, Ag (Am. 2, 316; Soc. 37, 94). — II, 1316.
- 5) **3-Bromphenylelessigsäure.** Sm. 100—100,5° (97°) (B. 15, 841; J. 1880, 482). — II, 1316.
- 6) **4-Bromphenylelessigsäure.** Sm. 114,5°. Ca, Ba, Cu, Ag (Soc. 37, 94; B. 2, 208; 10, 1210; Am. 3, 247). — II, 1316.
- 7) **4-Brom-1-Methylbenzol-2-Carbonsäure.** Sm. 167° (174—176°). Ca + H₂O, Ba + 5H₂O (B. 16, 1956; 17, 2375; 28, 187; A. 239, 74). — II, 1332.
- 8) **5-Brom-1-Methylbenzol-2-Carbonsäure.** Sm. 187° (B. 20, 1016). — II, 1332.
- 9) **?-Brom-1-Methylbenzol-2-Carbonsäure.** Sm. 118°. Ca + 2H₂O (J. pr. [2] 39, 489; B. 19, 3088). — II, 1332.
- 10) **4-Brom-1-Methylbenzol-3-Carbonsäure.** Sm. 152—153°. Ca, Ba + 4H₂O (B. 5, 425; 14, 2352; A. 235, 295; J. pr. [2] 46, 21). — II, 1337.
- 11) **6-Brom-1-Methylbenzol-3-Carbonsäure.** Sm. 209°. Ca + 3H₂O, Ba + 4H₂O, Ag (A. 147, 32; 168, 258; Z. 1867, 525; J. 1867, 696; B. 14, 2351; 15, 41; Am. 3, 431). — II, 1337.
- 12) **isom. ?-Brom-1-Methylbenzol-3-Carbonsäure.** Sm. 185—190°. Ca + 8H₂O (Z. 1869, 106). — II, 1337.
- 13) **2-Brom-1-Methylbenzol-4-Carbonsäure.** Sm. 203,5—204°. Ca + 3H₂O, Ba + 4H₂O (B. 5, 268; 9, 407; 11, 225; A. 171, 83; J. pr. [2] 39, 488). — II, 1346.
- 14) **3-Brom-1-Methylbenzol-4-Carbonsäure.** Sm. 140°. Na + 3H₂O, K + 4H₂O, Ca + 2H₂O, Ba + 6H₂O (J. pr. [2] 39, 486). — II, 1346.
- 15) **Aldehyd d. 5-Brom-2-Oxybenzoldimethyläther-1-Carbonsäure.** Sm. 113—114,5° (A. 145, 304). — III, 70.

- C₈H₇O₂Br** 16) Aldehyd d. 3-Brom-4-Oxybenzylmethyläther-1-Carbonsäure (A. 56, 308). — III, 83.
 17) Methylester d. 2-Brombenzol-1-Carbonsäure. Sd. 246—247° (250°) (A. 198, 109; Soc. 67, 590). — II, 1221.
 18) Methylester d. 3-Brombenzol-1-Carbonsäure. Sm. 31—32°; Sd. 122,5°₁₅ (A. 159, 14; Soc. 67, 591; Ph. Ch. 24, 245). — II, 1222.
 19) Methylester d. 4-Brombenzol-1-Carbonsäure. Sm. 74° (81°; 78°) (B. 27, 3396; 28, 260; 29, 1407; Soc. 67, 591). — II, 1222.
 20) Phenylester d. Bromessigsäure. Sm. 32° (B. 31, 172).
- C₈H₇O₂Br₃** 1) 2,4,5-Tribrom-6-Oxy-3-Oxymethyl-1-Methylbenzol. Sm. 174—176° (B. 29, 2350).
 2) Dimethyläther d. 2-Tribrom-1,2-Dioxybenzol. Sm. 86—87° (83—84°) (Am. 20, 425; Bl. [3] 21, 90).
 3) Oxyderivat (aus 3,5,6-Tribrom-4-Oxy-1,2-Dimethylbenzol). Sm. 178—180° (A. 302, 163).
 4) Oxyderivat (aus 2,5,6-Tribrom-4-Oxy-1,3-Dimethylbenzol). Sm. 173—174° (A. 302, 164).
 5) Verbindung (aus Pseudophenylessigsäure). Sm. 84—86° (B. 29, 107).
- C₈H₇O₂J** 1) 2-Jodphenylessigsäure. Sm. 95—96° (110°). Ag (Am. 4, 101; B. 27, 3233). — II, 1317.
 2) 4-Jodphenylessigsäure. Sm. 135°. Ba + H₂O, Ag (B. 11, 56; Am. 2, 253). — II, 1317.
 3) 6-Jod-1-Methylbenzol-3-Carbonsäure. Sm. 214—215°. Ba, Ag (B. 23, 1635; 28, 87). — II, 1337.
 4) 2-Jod-1-Methylbenzol-4-Carbonsäure. Sm. 205—206° (B. 26, 1734). — II, 1347.
 5) 3-Jod-1-Methylbenzol-4-Carbonsäure. Sm. 127° (B. 26, 1737). — II, 1347.
 6) Aldehyd d. 3-Jod-4-Oxybenzylmethyläther-1-Carbonsäure. Sm. 107 bis 108° (J. pr. [2] 57, 206, 495; [2] 58, 142).
 7) Methylester d. 2-Jodbenzol-1-Carbonsäure. Sd. 167°₃₅ (B. 26, 1744). — II, 1226.
 8) Methylester d. 3-Jodbenzol-1-Carbonsäure. Sm. 54—55°; Sd. 149 bis 150°₁₈ (Ph. Ch. 24, 245).
 9) Methylester d. 4-Jodbenzol-1-Carbonsäure. Sm. 114° (A. 207, 333; B. 16, 111). — II, 1227.
- C₈H₇O₂F** 1) 3-Fluor-1-Methylbenzol-4-Carbonsäure. Sm. 160—161° (G. 12, 93). — II, 1345.
 2) Methylester d. 3-Fluorbenzol-1-Carbonsäure. Sd. 192—194° (G. 12, 90). — II, 1216.
- C₈H₇O₃N** C 58,2 — H 4,2 — O 29,1 — N 8,5 — M. G. 165.
 1) α-Nitromethylphenylketon (α-Nitroacetophenon). Sm. 108° (B. 32, 601).
 2) α-Isonitroacetophenon. Na (B. 32, 603, 623).
 3) Methyl-2-Nitrophenylketon. Fl. (B. 3, 886; 15, 2084; 18, 2238; A. 221, 325). — III, 122.
 4) Methyl-3-Nitrophenylketon. Sm. 80—81° (75—76°) (B. 3, 886; 10, 1714; 18, 2238; 29, 3034; A. 221, 334; G. 24 [1] 438). — III, 123.
 5) Methyl-4-Nitrophenylketon. Sm. 80—81° (A. 212, 159; 221, 335; B. 22, 203). — III, 123.
 6) 2-Acetylamido-1,4-Benzochinon. Sm. 142° (B. 31, 2400, 2404).
 7) 3,4-Methylenäther d. anti-3,4-Dioxybenzaloxim. Sm. 110—112° (104°) (B. 24, 3656; G. 26 [1] 11; Ph. Ch. 13, 526). — III, 104.
 8) 3,4-Methylenäther d. syn-3,4-Dioxybenzaloxim. Sm. 146° (Ph. Ch. 13, 526). — III, 104.
 9) N-Benzoat d. Formhydroxamsäure. Sm. 76,5—77,5° (Am. 20, 31).
 10) Phenylloxaminsäure + H₂O (Oxanilsäure). Sm. 149—150° (wasserfrei). NH₄, Na + 3H₂O, K + H₂O, Ca, Ba + H₂O, Pb + H₂O, Cu + H₂O, Ag, C₆H₇N (A. 68, 19; 184, 265; Z. 1868, 158; B. 21, 1374; 22, 747; 23, 1820; 30, 2794; Ph. Ch. 3, 287; Am. 8, 353). — II, 407.
 11) isom. Phenylloxaminsäure. Sm. noch nicht bei 210° (A. 270, 295). — II, 407.
 12) 4-Formylamidobenzol-1-Carbonsäure. Sm. 268° u. Zers. (B. 23, 3633). — II, 1272.

- C₈H₇O₃N** 13) **anti- α -Oximido- α -Phenylelessigsäure.** Sm. 127° u. Zers. (B. 24, 42; Ph. Ch. 10, 12). — II, 1598.
- 14) **syn- α -Oximido- α -Phenylelessigsäure.** Sm. 145° u. Zers. K + H₂O, Ba + 1½ H₂O, Ag (B. 16, 1619; 24, 43; Ph. Ch. 10, 12). — II, 1599.
- 15) **2-Amidobenzol-1-Ketocarbonsäure** (Isatinsäure; 2-Amidobenzoyl-ameisensäure). K, Ba, Ag (B. 12, 353; J. pr. [1] 24, 13, 435). — II, 1601.
- 16) **3-Amidobenzol-1-Ketocarbonsäure.** Sm. 270—280° u. Zers. Ba, Ag, HCl (B. 12, 1946). — II, 1624.
- 17) **2-Oxybenzylidenamidoameisensäure.** Ba + 3 H₂O (B. 31, 1600).
- 18) **1-Oximidomethylbenzol-2-Carbonsäure** (Oxim d. Phtalaldehydsäure). Ca, Ag (A. 239, 85). — II, 1626.
- 19) **1-Oximidomethylbenzol-3-Carbonsäure.** Sm. 165° u. Zers. (B. 24, 2424). — II, 1627.
- 20) **1-Oximidomethylbenzol-4-Carbonsäure.** Sm. 208—210° (B. 24, 2424). — II, 1627.
- 21) **1,5-Anhydro-2,4-Dimethylpyrrol-3,5-Dicarbonsäure.** Zers. oberh. 300°. Mg, Ag (B. 21, 2876). — IV, 93.
- 22) **2-Acetylpyridin-3-Carbonsäure.** Sm. 127° (B. 26, 1510). — IV, 156.
- 23) **Aldehyd d. 4-Nitrophenylelessigsäure.** Sm. 85—86° (B. 19, 2647). — III, 52.
- 24) **Aldehyd d. 4-Nitro-1-Methylbenzol-3-Carbonsäure.** Sm. 61° (B. 31, 391).
- 25) **Aldehyd d. p-Nitro-1-Methylbenzol-3-Carbonsäure.** Fl. (B. 17, 1473). — III, 53.
- 26) **Phenylester d. Oxaminsäure.** Sm. 132° (B. 13, 507). — II, 666.
- 27) **Monamid d. Benzol-1,2-Dicarbonsäure.** Sm. 148—149°. NH₄, K, Ba, Pb, Ag (J. 1847/48, 589; A. 215, 196; Am. 3, 29; B. 19, 1402; Ph. Ch. 3, 379). — II, 1795.
- 28) **Monamid d. Benzol-1,4-Dicarbonsäure.** Sm. 214° (B. 18, 1498). — II, 1832.
- 29) **Amid d. 3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure.** Sm. 166° (R. 16, 48).
- 30) **Acetat d. 4-Nitroso-1-Oxybenzol.** Sm. 107° (A. 277, 95). — II, 678.
- 31) **Verbindung** (aus Komenaminsäureäthylester). Sm. 261° (J. pr. [2] 27, 270). — IV, 158.
- 32) **Verbindung** (aus β -Styrolnitrosit (B. 29, 360).
C 43,4 — H 3,2 — O 21,7 — N 31,7 — M. G. 221.
- C₈H₇O₃N₅** 1) **Methyläther d. 5-[p-Nitro-4-Oxyphenyl]-1,2,3,4-Tetrazol + H₂O.** Sm. 203°. Ba + 3 H₂O (A. 298, 113). — IV, 1272.
- 2) **Methyläther d. p-Nitrobenzenyloxytetrazotsäure.** Sm. 118° (A. 298, 65). — IV, 1297.
- C₈H₇O₃Cl** 1) **Chlormethyl-3,4-Dioxyphenylketon + H₂O.** Sm. 173°. + NH₃ + ½ H₂O (J. r. 25, 154, 276). — III, 138.
- 2) **4-Chlorphenyloxyessigsäure.** Sm. 112—113° (Bl. [3] 21, 70).
- 3) **Oxyessig-4-Chlorphenyläthersäure.** Sm. 151—152° (Am. 9, 216; G. 28 [1] 239). — II, 670.
- 4) **6-Chlor-3-Oxy-1-Methylbenzol-4-Carbonsäure.** Sm. 203—204° (B. 26, 1851). — II, 1550.
- 5) **5-Chlor-2-Oxybenzoldimethyläther-1-Carbonsäure.** Sm. 81—82°. Ba + 2 H₂O (G. 28 [1] 211).
- 6) **6-Chlor-3-Oxybenzoldimethyläther-1-Carbonsäure.** Sm. 160—161° (G. 28 [1] 213).
- 7) **2-Chlor-4-Oxybenzoldimethyläther-1-Carbonsäure.** Sm. 208°. Ag (B. 24, 712). — II, 1535.
- 8) **3-Chlor-4-Oxybenzoldimethyläther-1-Carbonsäure.** Sm. 214—215° (213°). Ba + 3½ H₂O, Ag (B. 17, 2529; 30, 1478). — II, 1535.
- 9) **isom. p-3-Chlor-4-Oxybenzoldimethyläther-1-Carbonsäure.** Sm. 180° (176°) (Berz. J. 23, 421; A. 56, 312). — II, 1535.
- 10) **Aldehyd d. p-Chlor-3,4-Dioxybenzol-3-Methyläther-1-Carbonsäure.** Sm. 158—160° (G. 28 [1] 235).
- 11) **Methylester d. 3-Chlor-2-Oxybenzol-1-Carbonsäure.** Sm. 83°; Sd. 259—260° u. Zers. (J. pr. [2] 36, 23). — II, 1503.
- 12) **Methylester d. 5-Chlor-2-Oxybenzol-1-Carbonsäure.** Sm. 48°; Sd. 249° u. Zers. (B. 11, 1227; J. pr. [2] 36, 21). — II, 1504.

- $C_8H_7O_3Cl$ 13) **Methylester d. 3-Chlor-4-Oxybenzol-1-Carbonsäure.** Sm. 106—107° (B. 30, 1474).
 14) **Monacetat d. p-Chlor-1,4-Dioxybenzol.** Sm. 62° (J. 1886, 1671). — II, 942.
- $C_8H_7O_3Cl_3$ 1) **2,4-Dimethyläther d. 3,5,6-Trichlor-1,2,4-Trioxymethyläther.** Sm. 110° (B. 27, 553). — II, 1017.
- $C_8H_7O_3Cl_3$ 1) **Methylester d. $\alpha\alpha\gamma\gamma\gamma$ -Pentachlor- δ -Keto- β -Methyl- β -Penten- α -Carbonsäure (Methylester d. γ -Dichloracetyl- $\alpha\alpha\gamma$ -Trichlor- β -Methylcrotonsäure).** Sm. 113° (B. 26, 320).
- $C_8H_7O_3Br$ 1) **Brommethyl-3,4-Dioxyphenylketon + H₂O.** Sm. 167° (J. r. 25, 159). — III, 138.
 2) **α -Oxy- α -[4-Bromphenyl]essigsäure.** Sm. 117—118° (B. 25, 3467; Bl. [3] 21, 68). — II, 1554.
 3) **Oxyessig-2-Bromphenyläthersäure.** Sm. 142,5—143° (B. 27, 2800).
 4) **Oxyessig-4-Bromphenyläthersäure.** Sm. 153—154°. Na + 2H₂O, Ba + 1½ H₂O (J. pr. [2] 20, 295). — II, 673.
 5) **6-Brom-3-Oxy-1-Methylbenzol-4-Carbonsäure.** Sm. 211° (B. 26, 1851). — II, 1550.
 6) **5-Brom-2-Oxybenzylmethyläther-1-Carbonsäure.** Sm. 119°. Mg + 5H₂O, Ca + 4H₂O, Ba + 3H₂O, Ag + H₂O (G. 16, 409). — II, 1505.
 7) **3-Brom-4-Oxybenzylmethyläther-1-Carbonsäure.** Sm. 218—218,5° (213—214°). Na + 2H₂O, Mg + 5H₂O, Ca + 4H₂O, Ba + 4H₂O, Zn + 3H₂O, Pb + 3H₂O, Cu + 2½ H₂O, Ag (Berz. J. 23, 422; G. 11, 406; 14, 235; A. 56, 312; B. 7, 1013; 17, 2531; J. pr. [2] 51, 432). — II, 1536.
 8) **isom. p-Brom-4-Oxybenzylmethyläther-1-Carbonsäure.** Sm. 211,5 bis 212° (G. 11, 411). — II, 1536.
 9) **Aldehyd d. p-Brom-3,4-Dioxybenzol-3-Methyläther-1-Carbonsäure (Bromvanillin).** Sm. 160—161° (B. 7, 615; Bl. 17, 2). — III, 101.
 10) **Methylester d. 5-Brom-2-Oxybenzol-1-Carbonsäure.** Sm. 61°; Sd. 265—266° (B. 2, 276; G. 16, 405). — II, 1504.
 11) **Methylester d. 3-Brom-4-Oxybenzol-1-Carbonsäure.** Sm. 107; Sd. 163—166°₁₆ (B. 29, 2360).
- $C_8H_7O_3J$ 1) **Methyl-p-Jod-2,4-Dioxyphenylketon.** Sm. 158—159° (M. 17, 323).
 2) **α -Oxy- α -[4-Jodphenyl]essigsäure.** Sm. 135° (B. 24, 997). — II, 1554.
 3) **6-Jod-3-Oxy-1-Methylbenzol-4-Carbonsäure.** Sm. 227° (B. 26, 1851). — II, 1550.
 4) **3-Jod-4-Oxybenzylmethyläther-1-Carbonsäure.** Sm. 234,5°. Na + 2H₂O, Ca + 3H₂O, Ba + 3H₂O, Pb, Ag (A. 117, 54; 146, 302; B. 17, 2533). — II, 1537.
 5) **isom. p-Jod-4-Oxybenzylmethyläther-1-Carbonsäure** (A. 117, 54). — II, 1537.
 6) **3-Jodoso-1-Methylbenzol-4-Carbonsäure.** Na, Ag (B. 26, 1737). — II, 1347.
 7) **Aldehyd d. p-Jod-3,4-Dioxybenzol-3-Methyläther-1-Carbonsäure (Jodvanillin).** Sm. 174° (Bl. 17, 2). — III, 101.
 8) **Methylester d. 3-Jod-4-Oxybenzol-1-Carbonsäure.** Sm. 155—156° (B. 30, 1475).
- $C_8H_7O_3F$ 1) **3-Fluor-4-Oxybenzylmethyläther-1-Carbonsäure.** Sm. 204° (G. 12, 93). — II, 1535.
- $C_8H_7O_4N$ C 53,0 — H 3,9 — O 35,4 — N 7,7 — M. G. 181.
 1) **Methylenäther d. p-Nitro-3,4-Dioxy-1-Methylbenzol (Nitropiperilmethan).** Sm. 83° (G. 25 [2] 209).
 2) **1,2-Aethylenäther d. 4-Nitro-1,2-Dioxybenzol.** Sm. 121° (A. 280, 206; Bl. [3] 19, 509). — II, 911.
 3) **Oxymethyl-4-Nitrophenylketon.** Sm. 121° (B. 22, 204). — III, 133.
 4) **Methyl-3-Nitro-4-Oxyphenylketon.** Sm. 130,5° (B. 25, 3523). — III, 134.
 5) **2-Acetylamido-p-Oxy-1,4-Benzochinon.** Sm. 170°; subl. (B. 22, 1657). — II, 948.
 6) **2-Nitrophenylessigsäure.** Sm. 141° (137—138°). Ba + 2H₂O (B. 3, 648; 16, 2066; 17, 507; 30, 1041, 1043; Soc. 37, 93; R. 16, 37). — II, 1317.
 7) **3-Nitrophenylessigsäure.** Sm. 117° (120°). Ag (B. 16, 2064; 17, 506). — II, 1318.

- $C_8H_5O_4N$ 8) 4-Nitrophenylessigsäure. Sm. 152°. Na + 2H₂O, Ba + 7H₂O, Zn + 2H₂O, Ag (B. 2, 209; 12, 1765; 13, 574; 14, 2341; 15, 834; Soc. 37, 92; R. 16, 37). — II, 1318.
- 9) 4-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 179°. K + H₂O, Ca + 2H₂O, Ba + 2H₂O (B. 16, 1958; 17, 162). — II, 1333.
- 10) 5-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 152°. Ba + 5H₂O (B. 17, 162). — II, 1333.
- 11) 6-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 145°. Ca + 2H₂O, Ba + 2H₂O (A. 168, 250; B. 16, 1958). — II, 1333.
- 12) 2-Nitro-1-Methylbenzol-3-Carbonsäure. Sm. 182°. Ba (B. 14, 2354). — II, 1337.
- 13) 4-Nitro-1-Methylbenzol-3-Carbonsäure. Sm. 219° (217°). Ca + 4H₂O, Ba + 2H₂O (B. 14, 2353; 31, 392). — II, 1337.
- 14) 5-Nitro-1-Methylbenzol-3-Carbonsäure. Sm. 167°. Ba + 4H₂O (B. 18, 360). — II, 1338.
- 15) 6-Nitro-1-Methylbenzol-3-Carbonsäure. Sm. 211° (214°). NH₄ + 2H₂O, Mg + 7H₂O, Ca + 2H₂O, Ba + 4H₂O (A. 144, 168; 221, 161; Am. 3, 424). — II, 1337.
- 16) 2-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 189—190°. Ca + 3H₂O, Ba + 4H₂O, PbOH, Cu + 7H₂O (A. 63, 297; 168, 251; 172, 309; B. 11, 706; Z. 1869, 104; Am. 10, 483). — II, 1347.
- 17) 3-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 164—165° (161°). Na + 6H₂O, K + 6H₂O, Ca, Ba + 4H₂O, Cu + H₂O, Ag (B. 21, 1993; A. 266, 210; Am. 10, 476). — II, 1348.
- 18) isom. 2-Nitro-1-Methylbenzol-2-Carbonsäure (unbek. Constitution). Sm. 217—218° (Z. 1869, 105); Ba (A. 172, 316, 317; B. 6, 937; 7, 1357). — II, 1348.
- 19) 2-Oxy-1-Oximidomethylbenzol-3-Carbonsäure. Sm. 193° (B. 16, 2182). — II, 1772.
- 20) 4-Oxy-1-Oximidomethylbenzol-3-Carbonsäure. Sm. 179° (B. 16, 2182). — II, 1772.
- 21) 6-Amido-3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure. Sm. 203° (B. 28, 1386). — II, 1746.
- 22) 3-Amidobenzol-1,2-Dicarbonsäure. HCl, (HCl, SnCl₂ + 2H₂O) (A. 208, 245; J. r. 10, 200; B. 19, 166). — II, 1823.
- 23) 4-Amidobenzol-1,2-Dicarbonsäure (A. 208, 236; J. r. 10, 199). — II, 1823.
- 24) 4-Amidobenzol-1,3-Dicarbonsäure. Sm. oberh. 300° (B. 25, 2795). — II, 1829.
- 25) 5-Amidobenzol-1,3-Dicarbonsäure + 2H₂O. Sm. oberh. 300°. Salze meist bek. (A. 153, 289; J. pr. [2] 25, 491). — II, 1830.
- 26) 2-Amidobenzol-1,4-Dicarbonsäure (A. 121, 91; B. 10, 145). — II, 1839.
- 27) Benzoylhydroxylamin-2-Carbonsäure (Hydroxylphtalamidsäure). NH₃, Na, K, Pb, Hydroxylaminsalz (A. 205, 307; G. 24 [2] 469). — II, 1815.
- 28) Apophyllensäure + H₂O. Sm. 241—242° (wasserfrei). Ba, Ag, Ag + AgNO₃, (2HCl, PtCl₄ + H₂O) (A. 50, 24; 86, 197; 210, 85; 234, 118; B. 13, 1635; 29, 2190). — IV, 165.
- 29) 2-Methylpyridin-3,5-Dicarbonsäure + H₂O. Sm. 245—250°. Pb + 2H₂O, HCl + 1½ H₂O (A. 241, 9; Ph. Ch. 3, 391). — IV, 166.
- 30) 2-Methylpyridin-4,6-Dicarbonsäure (Uvitoninsäure). Sm. 274° u. Zers. NH₄, Ca + 6H₂O, Ba + 3H₂O, Cu + 3½ (4) H₂O, Cu + (CuOH)₂ + 9H₂O, Ag₂ + H₂O (A. 188, 332; 208, 138; 237, 191; B. 13, 2032, 2048; 14, 67; 17, 144). — IV, 166.
- 31) 3-Methylpyridin-5,6-Dicarbonsäure. Sm. 223° (B. 21, 834; 23, 688). — IV, 167.
- 32) 4-Methylpyridin-2,3-Dicarbonsäure (Methylchinolinsäure). Sm. 186° u. Zers. K + 3H₂O, Ag₂ + H₂O (B. 12, 983; 13, 912; 14, 103, 645; 31, 801; R. 2, 15). — IV, 167.
- 33) Methylpyridindicarbonsäure? Ca, Ag₂ (B. 12, 1507). — IV, 167.
- 34) Aldehyd d. 5-Nitro-4-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 141° (B. 11, 788). — III, 88.
- 35) Aldehyd d. 5-Nitro-6-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 152°. + NaHSO₃ (B. 11, 789). — III, 89.

- C₈H₇O₄N** 36) Aldehyd d. 3-Nitro-2-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 102° (B. 22, 2110). — III, 70.
 37) Aldehyd d. 5-Nitro-2-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 89—90° (82°) (B. 15, 2027; 17, 1382; A. 145, 305). — III, 70.
 38) Aldehyd d. 2-Nitro-3-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 107° (102°) (B. 15, 2054, 3052; 22, 2350; 28, 1385). — III, 80.
 39) Aldehyd d. 4-Nitro-3-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 62—63° (B. 18, 2572; 22, 2359). — III, 80.
 40) Aldehyd d. 5-Nitro-3-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 104° (97°) (B. 18, 2572; 22, 2354). — III, 80.
 41) Aldehyd d. 6-Nitro-3-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 82—83° (B. 15, 2055, 3052). — III, 80.
 42) Aldehyd d. 3-Nitro-4-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 83,5° (72°) (A. 243, 370; B. 29, 157). — III, 83.
 43) Methylester d. 2-Nitrobenzol-1-Carbonsäure. Sm. 183°₂₃ (169°₁₉) (R. 17, 98, 100; Ph. Ch. 24, 245).
 44) Methylester d. 3-Nitrobenzol-1-Carbonsäure. Sm. 70° (78,5°); Sd. 279° (A. 72, 275; B. 27, 1934; R. 17, 96, 100). — II, 1232.
 45) Methylester d. 4-Nitrobenzol-1-Carbonsäure. Sm. 96° (A. 128, 263). — II, 1236.
 46) Monomethylester d. Pyridin-3,4-Dicarbonsäure. Sm. 152—154° (M. 10, 157; 11, 137; Ph. Ch. 5, 417). — IV, 164.
 47) 2-Nitrophenylester d. Essigsäure. Sm. 40—41°; Sd. 253° u. Zers. (B. 18, 1934). — II, 680.
 48) 4-Nitrophenylester d. Essigsäure. Sm. 81—82° (B. 25, 3336). — II, 683.
 49) 4-Nitrosophenylmethylester d. Kohlensäure. Sm. 137° (B. 17, 400). — II, 678.
 50) Formiat d. 2-Nitrobenzylalkohol. Fl. (B. 25, 2966). — II, 1058.
C₈H₇O₄N₃ C 45,9 — H 3,3 — O 30,6 — N 20,1 — M. G. 209.
 1) 2-Nitro-4-Amido-1-[β]Nitroäthenylbenzol (A. 229, 247). — II, 585.
 2) 3-Nitrobenzoylharnstoff (B. 8, 222). — II, 1234.
 3) Pyrrolalloxan (Pyrrolmesoxylharnstoff). Ag₂ (B. 19, 106, 1709). — IV, 83.
 4) α-Nitrophenylazomethan-3-Carbonsäure (B. 18, 961). — IV, 1460.
 5) Amid d. 2-Nitrobenzol-1,4-Dicarbonsäure (A. 121, 90). — II, 1838.
 6) Diamid d. Pyridin-2,3,4-Tricarbonsäure. NH₄ (M. 18, 240).
C₈H₇O₄N₃ C 40,5 — H 2,9 — O 27,0 — N 29,5 — M. G. 237.
 1) Nitril d. αα-Diisonitramidophenylessigsäure. Ba (B. 28, 1797; A. 300, 127).
C₈H₇O₄Cl 1) Chlormethyl-2-Trioxyphenylketon (Gallochloracetophenon). Sm. 167 bis 168° (J. r. 25, 122). — III, 139.
 2) Chlordehydracetsäure. Sm. 93° (B. 9, 1101). — II, 1757.
 3) Säure (aus 1,2,2,6-Tetrachlor-3,4-Diketo-1,5-Dimethyl-1,2,3,4-Tetrahydrobenzol). Sm. 185°. Ag (A. 296, 215).
C₈H₇O₄Cl₃ 1) 2,2-Dimethyläther d. 3,5,6-Trichlor-2,2,4-Trioxyl-1-Keto-1,2-Dihydrobenzol. Sm. 159—160°. Ba + 2H₂O (B. 27, 558). — III, 112.
C₈H₇O₄Br 1) Bromdehydracetsäure. Sm. 136—137° (B. 9, 1101; 25, 320; Soc. 51, 490; A. 273, 202). — II, 1757.
 2) Bromisodehydracetsäure. Sm. 162—163° (B. 26, 754).
 3) p-Brom-3,4-Dioxybenzol-3-Methyläther-1-Carbonsäure + H₂O. Sm. 192—193° (B. 11, 138). — II, 1744.
 4) Methylester d. 5-Brom-3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 201—202° (A. 293, 183).
C₈H₇O₅N C 48,7 — H 3,5 — O 40,6 — N 7,1 — M. G. 197.
 1) Methyl-2-Nitro-2,4-Dioxyphenylketon. Sm. 142° (J. pr. [2] 23, 151). — III, 136.
 2) α-Oxy-α-[2-Nitrophenyl]essigsäure. Sm. 140° (B. 20, 2203; 22, 208; Ph. Ch. 3, 185). — II, 1554.
 3) α-Oxy-α-[3-Nitrophenyl]essigsäure. Sm. 119—120°. NH₄, Ag (B. 18, 1181; 20, 2203; J. pr. [2] 31, 395). — II, 1554.
 4) α-Oxy-α-[4-Nitrophenyl]essigsäure. Sm. 126° (B. 22, 205, 208; Ph. Ch. 3, 185). — II, 1555.

$C_8H_5O_3N$

- 5) Oxyessig-2-Nitrophenyläthersäure. Sm. 156,5°. Na + H₂O, Ba + H₂O, Cu + 2½ H₂O (*J. pr.* [2] 20, 283; [2] 29, 148; [2] 55, 123; *G.* 21 [2] 403). — II, 680.
- 6) Oxyessig-4-Nitrophenyläthersäure. Sm. 183°. Na + 3 H₂O, Ba + 10 H₂O, Cu + 10 H₂O (*J. pr.* [2] 20, 290; [2] 55, 114; *G.* 21 [2] 403; *M.* 19, 151). — II, 683.
- 7) 5-Nitro-1-Oxymethylbenzol-2-Carbonsäure. Sm. 129°. Ag (*B.* 18, 3451). — II, 1559.
- 8) 2-Nitro-4-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 172° u. Zers. (*B.* 18, 254). — II, 1547.
- 9) 5-Nitro-6-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 86—87°. Ca + 4 H₂O, Ba + 4 H₂O (*Am.* 4, 186). — II, 1549.
- 10) 6-Nitro-2-Oxy-1-Methylbenzol-4-Carbonsäure. Sm. 187—188°. Ba + 7 H₂O (*Z.* 1869, 105). — II, 1549.
- 11) 5-Nitro-2-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 148—149° (*A.* 150, 6; 173, 41). — II, 1509.
- 12) 2-Nitro-3-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 251° u. Zers. Ag (*B.* 22, 2352). — II, 1520.
- 13) 4-Nitro-3-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 208° (*B.* 22, 2363). — II, 1520.
- 14) 5-Nitro-3-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 233° (*B.* 22, 2355). — II, 1521.
- 15) 6-Nitro-3-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 132—133° (*B.* 22, 2354). — II, 1521.
- 16) 3-Nitro-4-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 186—187°. Na + H₂O, K + H₂O, Ca + 4 H₂O, Sr + 4 H₂O, Ba, Pb, Ag (*Berz. J.* 23, 416; *A.* 41, 71; 108, 243; 163, 6; 173, 53; *B.* 10, 1255). — II, 1538.
- 17) 5-Amido-2-Oxybenzol-1,3-Dicarbonsäure + H₂O (*B.* 26, 1852). — II, 1936.
- 18) 5-Amido-2-Oxybenzol-1,4-Dicarbonsäure (*B.* 26, 1851). — II, 1938.
- 19) α-Oxy-3-Pyridylmethan-αα-Dicarbonsäure (m-Pyridyltartronsäure). Fl. 2 CuOH + 2 H₂O, Ag₂ (*Bl.* 48, 228). — IV, 174.
- 20) 6-Oxy-4-Methylpyridin-2,3-Dicarbonsäure. Sm. 252—253° u. Zers. (*B.* 31, 803).
- 21) 4-Oxy-2-Methylpyridin-2,6-Dicarbonsäure (Methylammonchelidonsäure). HCl (*M.* 6, 293). — IV, 173.
- 22) 6-Oxypyridindimethyläther-2,3-Dicarbonsäure. Sm. 140° u. Zers. AgH (*B.* 18, 2398). — IV, 173.
- 23) Methylester d. 3-Nitro-4-Oxybenzol-1-Carbonsäure. Sm. 75—76° (70—71°) (*B.* 30, 991; *C.* 1898 [2] 526).
C 42,6 — H 3,1 — O 35,6 — N 18,6 — M. G. 225.

 $C_8H_5O_3N_2$

- 1) 2-Nitrophenylharnstoff-3-Carbonsäure (*B.* 5, 193; 15, 1880). — II, 1262.
- 2) 4-Nitrophenylharnstoff-3-Carbonsäure (*B.* 5, 193; 15, 1880). — II, 1262.
- 3) 5-Nitrophenylharnstoff-3-Carbonsäure. Ba + 5 H₂O (*B.* 17, 2184). — II, 1262.
- 4) 6-Nitrophenylharnstoff-3-Carbonsäure. Zers. bei 220°. Ba (*B.* 5, 193; 15, 1880; *A.* 291, 324). — II, 1262.
- 5) 2-Nitrophenylharnstoff-4-Carbonsäure. Sm. 221° u. Zers. Ba + 3 H₂O (*A.* 291, 333).
- 6) Amid d. 3,5-Dinitro-1-Methylbenzol-4-Carbonsäure. Sm. 255 bis 257° (*A.* 266, 226). — II, 1349.
- 7) 2,3-Dinitrophenylamid d. Essigsäure. Sm. 186° (*G.* 19, 230). — II, 365.
- 8) 2,4-Dinitrophenylamid d. Essigsäure. Sm. 120° (*Z.* 1871, 202; *B.* 30, 1910). — II, 365.
- 9) 2,5-Dinitrophenylamid d. Essigsäure. Sm. 121° (*G.* 19, 232). — II, 365.
- 10) 2,6-Dinitrophenylamid d. Essigsäure. Sm. 197° (*B.* 10, 1695). — II, 365.
- 11) 3,4-Dinitrophenylamid d. Essigsäure. Sm. 144° (*G.* 19, 233). — II, 365.

- $C_6H_7O_2Cl$ 1) 3-Aethyläther d. 6-Chlor-2,3,5-Trioxy-1,4-Benzochinon. Sm. 168 bis 170° (*J. pr.* [2] 43, 265). — III, 354.
- $C_6H_7O_2Br$ 1) Aethylester d. Bromkomensäure. Sm. 140—141° (*J. pr.* [2] 26, 471). — I, 780.
- $C_6H_7O_2N$ C 45,1 — H 3,3 — O 45,1 — N 6,5 — M. G. 213.
1) ?-Nitro-3,4-Dioxybenzol-3-Methyläther-1-Carbonsäure. Zers. bei 210° (ohne Sm.) (*B.* 9, 944; 11, 133; *Ph. Ch.* 5, 395). — II, 1745.
2) 6-Nitro-3,4-Dioxybenzol-4-Methyläther-1-Carbonsäure. Sm. 172 bis 173° (*B.* 11, 133). — II, 1745.
- $C_6H_7O_2N_3$ C 39,8 — H 2,9 — O 39,8 — N 17,4 — M. G. 241.
1) ?-Trinitro-1,2-Dimethylbenzol. Sm. 178° (*B.* 19, 2519 Anm.). — II, 99.
2) 2,4,6-Trinitro-1,3-Dimethylbenzol. Sm. 182° (177°) (*A.* 113, 156; 144, 276; 289, 159; *Soc.* 45, 416; *B.* 17, 2424). — II, 100.
3) 2,3,6-Trinitro-1,4-Dimethylbenzol. Sm. 139—140° (137°) (*A.* 136, 309; *J.* 1885, 773; *B.* 19, 145). — II, 101.
4) Methylester d. 2,4-Dinitrophenylamidoameisensäure. Sm. 127° (*R.* 10, 136). — II, 373.
5) Methylester d. 3,5-Dinitro-2-Amidobenzol-1-Carbonsäure. Sm. 165° (*A.* 173, 46). — II, 1286.
6) Methylester d. 3,5-Dinitro-4-Amidobenzol-1-Carbonsäure. Sm. 144° (*A.* 163, 11). — II, 1287.
7) 4-Nitrobenzylester d. Nitramidoameisensäure. Sm. 140° u. ger. Zers. NH_4 , K, Hg, Ag (*A.* 302, 260).
8) Acetat d. ?-Dinitro-?-Amido-1-Oxybenzol. Sm. 193° (*A.* 239, 366). — II, 733.
9) Amid d. Oxyessig-2,4-Dinitrophenyläthersäure. Sm. 182—184° (*G.* 22 [1] 213). — II, 685.
- $C_6H_7O_2N_5$ C 35,7 — H 2,6 — O 35,7 — N 26,0 — M. G. 269.
1) s-Aethyliden-2,4,6-Trinitrophenylhydrazin. Sm. 119—120° (*G.* 24, [1] 575). — IV, 746.
- $C_6H_7O_2N_7$ C 32,3 — H 2,4 — O 32,3 — N 33,0 — M. G. 297.
1) Urinilsäure. K_2 , Ca_3 , Sr_3 , Ba_3 , $Cd + 3H_2O$, $Cu + 4H_2O$, Ag_3 , Ag_3 (*Z.* 1869, 79). — I, 1341.
- $C_6H_7O_2Sb$ 1) Hydroxyantimonylgallussäuremethylester. Chlorid (*C.* 1898 [2] 599).
 $C_6H_7O_2N$ C 41,9 — H 3,1 — O 48,9 — N 6,1 — M. G. 229.
1) Aethylester d. Nitrokomensäure. Sm. 147°. Na, K, Ba, Ag (*J. pr.* [2] 23, 439; [2] 24, 279). — I, 780.
- $C_6H_7O_2N_3$ C 37,3 — H 2,7 — O 43,6 — N 16,3 — M. G. 257.
1) Trinitro-2-Oxy-1-Aethylbenzol (*A.* 102, 168).
2) Aethyläther d. 2,4,6-Trinitro-1-Oxybenzol. Sm. 78,5°. + $NaOC_2H_5$ (*A.* 141, 80; 174, 257; *B.* 8, 666; 12, 1277; *Am.* 20, 450). — II, 692.
3) Methylester d. 3,5-Dinitro-2-Oxyphenylamidoameisensäure. Sm. 179°. NH_4 (*J. pr.* [2] 48, 444). — II, 733.
- $C_6H_7O_2N_5$ C 33,7 — H 2,4 — O 39,3 — N 24,6 — M. G. 285.
1) 2,3,5-Trinitro-4-Methylnitrosamido-1-Methylbenzol. Sm. 108—109° (*B.* 30, 839).
2) 2,4,6-Trinitrophenylhydrazid d. Essigsäure. Sm. 210° (223°) (*G.* 24 [1] 572; *J. pr.* [2] 50, 273). — IV, 664.
- $C_6H_7O_2N_7$ C 35,1 — H 2,6 — O 46,9 — N 15,4 — M. G. 273.
1) Dimethyläther d. ?-Trinitro-1,2-Dioxybenzol. Sm. 144—145° (*B.* 9, 940; 11, 131). — II, 912.
2) Dimethyläther d. 2,4,6-Trinitro-1,3-Dioxybenzol. Sm. 123—124° (*B.* 11, 1042). — II, 926.
3) Dimethyläther d. ?-Trinitro-1,4-Dioxybenzol. Sm. 100—101° (*B.* 11, 1038). — II, 947.
- $C_6H_7O_2N_9$ C 31,9 — H 2,3 — O 42,6 — N 23,2 — M. G. 301.
1) ?-Trinitro-1-Aethylnitroamidobenzol. Sm. 96° (*R.* 2, 111). — II, 333.
2) ?-Trinitro-3-Methylnitroamido-1-Methylbenzol. Sm. 102° (*R.* 3, 414). — II, 476.
3) 2,3,5-Trinitro-4-Methylnitramido-1-Methylbenzol. Sm. 156,5 bis 157° (*B.* 30, 837).
- $C_6H_7O_2N_3$ C 33,2 — H 2,4 — O 49,8 — N 14,5 — M. G. 289.
1) Methyläther d. 2,4,6-Trinitro-3-Nitroamido-1-Oxybenzol. Sm. 99° (*R.* 8, 276). — II, 736.

- $C_5H_7O_9N_3$ 2) Dimethyläther d. 2,4,6-Trinitro-1,3,5-Trioxybenzol. Sm. 77—78°. Na (*Am.* 15, 628). — II, 1021.
C 26,6 — H 1,9 — O 43,3 — N 27,1 — M. G. 361.
- $C_5H_7O_{10}N_7$ 1) 2,4,6-Trinitro-1,3-Di[Methylnitramido]benzol. Zers. bei 205° (*R.* 6, 251; 7, 3; 8, 280). — IV, 570.
- $C_6H_7NCl_2$ 1) 2-Methylphenylimidodichlormethan. Sd. 214—215° (*B.* 12, 1349; *A.* 270, 314). — II, 1330.
2) 4-Methylphenylimidodichlormethan. Sd. 225—226° (*A.* 270, 321). — II, 1342.
- $C_6H_7NBr_2$ 3) 2,5-Dichlorbenzylidenmethylamin. Sm. 52° (*B.* 29, 876; *A.* 296, 71).
1) $\beta\beta$ -Dibrom- β -Amido- α -Phenyläthan. Sm. bei 200° u. Zers. (*B.* 14, 1797). — II, 1314.
- C_6H_7NS 1) Rhodanmethylbenzol. Sm. 41° (36—38°); Sd. 230—235° (256°) u. ger. Zers. (*B.* 2, 637; 5, 589). — II, 1052.
2) 2-Methylphenylrhodanid. Sd. 243—246°_{765,5} (*B.* 23, 771). — II, 820.
3) 2-Methylphenylsenfö. Sd. 237° (239°) (*B.* 6, 445; 15, 986, 1413; 16, 2017). — II, 464.
4) 3-Methylphenylsenfö. Sd. 244°_{792,3} (*B.* 8, 719). — II, 479.
5) 4-Methylphenylsenfö. Sm. 26°; Sd. 237° (242—243°) (*B.* 1, 173; 15, 986, 1413; *A.* 207, 160; *Am.* 16, 375). — II, 497.
6) Benzylsenfö. Sd. 243° (*B.* 1, 201). — II, 527.
7) 1-Methylbenzthiazol. Sd. 238°. (2HCl, PtCl₄) (*B.* 13, 21, 1236; 19, 1072). — II, 797.
8) 5-Methylbenzthiazol. Sd. 255°. (2HCl, PtCl₄) (*B.* 14, 492). — II, 820.
9) Nitril d. 1-Merkaptomethylbenzol-2-Carbonsäure (Thiophtalimidin). Sm. 62°. HCl, (2HCl, PtCl₄), HJ (*B.* 23, 2480; 31, 2646). — II, 1560.
10) Verbindung (aus d. Verb. $C_6H_7NS_2$). Sm. 202°. (2HCl, PtCl₄), HNO₃ (*B.* 21, 65; 31, 3166). — II, 796.
- $C_6H_7NS_2$ 1) 3-Thiocarbonyl-3,4-Dihydro-2,4-Benzthiazin (Thiocumothiazon). Sm. 166°. K, Na (*B.* 27, 2430). — IV, 219.
2) Methyläther d. 1-Merkaptobenzthiazol. Sm. 52°. (2HCl, PtCl₄) (*B.* 20, 1791). — II, 798.
3) Methyläther d. 2-Merkaptophenylsenfö. Sd. 270° (*B.* 20, 1795). — II, 798.
4) Verbindung (aus Dimethylamidobenzol u. Schwefel). Sm. 88—89°; Sd. 335°₇₃₇. (2HCl, PtCl₄) (*B.* 21, 64; 31, 3165). — II, 796.
- C_6H_7NSe 1) Selencyanbenzyl. Sm. 71,5° (*A.* 179, 15). — II, 1056.
2) 2-Cyanphenylmethylselenmerkaptan. Fl. (2HCl, PtCl₄), 2HBr, (HJ, J), Pikrat (*B.* 24, 2564). — II, 1061.
- $C_6H_7N_2Cl$ 1) 5-Chlor-1-Methylbenzimidazol. (2HCl, HgCl₂) (*B.* 31, 2985).
 $C_6H_7N_2Cl_3$ 1) α -[$\beta\beta\beta$ -Trichloräthyliden]- β -Phenylhydrazin (*B.* 16, 664). — IV, 747.
 $C_6H_7N_2Br$ 1) 6-Brom-2-Methylbenzimidazol. Sm. 206° (*B.* 7, 348). — IV, 877.
2) 6-Brom-4-Methylbenzimidazol? Sm. 187°. HCl, (2HCl, HgCl₂), (2HCl, PtCl₄), HNO₃, H₂SO₄ + H₂O, H₂Cr₂O₇, Pikrat (*B.* 17, 776). — IV, 875.
- $C_6H_7N_3S$ 1) 5-Phenylamido-1,2,3-Thiodiazol. Sm. 172,5° u. Zers. HgCl (*B.* 29, 2591). — IV, 1103.
2) 2-Phenylimido-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 173°. HCl (*B.* 27, 617). — IV, 1103.
3) 3-Thiocarbonyl-1-Phenyl-2,3-Dihydro-1,2,4-Triazol. Sm. 189°. Ba, Ag (*G.* 28 [2] 550).
4) 1-Imidoamidomethylbenzthiazol. Sm. 150° u. Zers. (2HCl, PtCl₄), (HCl, AuCl₃) (*B.* 20, 2252). — II, 798.
5) Cyanamid d. Phenylamidothioameisensäure. Na (*B.* 19, 450). — II, 399.
- $C_6H_7N_3S_2$ 1) Thiuret. HBr, HJ + CH₄O, HJ + C₂H₆O (*A.* 275, 42). — II, 401.
2) 3,5-Dithiocarbonyl-4-Phenyltetrahydro-1,2,4-Triazol (Phenyldithiourazol). Sm. 215° (219°) (*B.* 27, 1774; 28, 955).
- $C_6H_7N_3S_3$ 1) 5-Hydrosulfamin-2-Thiocarbonyl-3-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 136° u. Zers. (*B.* 29, 2133). — IV, 684.
- $C_6H_7N_4Br$ 1) β -Brom-3-Imido-1-Phenyl-2,3-Dihydro-1,2,4-Triazol. Sm. 196° (*G.* 29 [1] 30).
- $C_6H_7N_5S$ 1) Amid d. 1-Phenyl-1,2,3,5-Tetrazol-4-Thiocarbonsäure. Sm. 168 bis 169° (*B.* 25, 178). — IV, 1239.
- $C_6H_7ClBr_2$ 1) β -Chlor- $\alpha\beta$ -Dibromäthylbenzol. Sm. 32°; Sd. 165°₂₈ (*A.* 296, 272).

- $C_8H_7ClBr_2$ 2) 2-Chlor-2-Dibrom-1,4-Dimethylbenzol. Sm. 93° (*J. pr.* [2] 39, 404). — II, 65.
- $C_8H_7Cl_2Br$ 1) 4,5-Dichlor-3-Brom-1,2-Dimethylbenzol. Sm. 90° (*J. pr.* [2] 43, 259). — II, 64.
2) Dichlorbrom-1,4-Dimethylbenzol. Sm. 96° (*J. pr.* [2] 39, 406). — II, 65.
- C_8H_7ON 1) Retinindol = $(C_8H_7ON)_x$ oder C_8H_7ON (*B.* 12, 1313). — IV, 218.
2) Verbindung (aus Isonitraminphenylpropionsäure) = $(C_8H_7ON)_x$ (*B.* 28, 2303).
- $C_8H_7ON_2$ C 64,8 — H 5,4 — O 10,8 — N 18,9 — M. G. 148.
1) 1-Amido-2-Keto-2,3-Dihydroindol. HCl (*A.* 140, 37; *B.* 11, 1228). — II, 1321.
2) 6-Amido-2-Keto-2,3-Dihydroindol. Sm. 200° u. Zers. (*B.* 14, 832). — II, 1321.
3) 2-Nitroso-1,3-Dihydroisoindol. Sm. 96—97° (*B.* 26, 527, 2213; 28, 607). — IV, 187.
4) 2-Keto-5-Methyl-2,3-Dihydrobenzimidazol (Toluylenharnstoff). Sm. 290° (oberh. 300°) (*B.* 19, 2652; 20, 2125; 23, 1048; *J. pr.* [2] 41, 324). — IV, 613.
5) 2-Keto-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. bei 180° (*J. pr.* [2] 51, 126). — IV, 631.
6) 2-Keto-1,2,3,4-Tetrahydro-1,4-Benzdiazin + H_2O . Sm. 93—94° (130° wasserfrei) (*B.* 19, 8). — IV, 877.
7) 3-Imido-3,4-Dihydro-2,4-Benzoxazin. Sm. 160°. (2HCl, $PtCl_4 + H_2O$), (HCl, $AuCl_3$) (*B.* 22, 1669). — IV, 874.
8) Benzylidenhydrazid d. Ameisensäure (Benzylidenformylhydrazin). Sm. 134° (*J. pr.* [2] 51, 181). — III, 39.
9) Nitril d. 2-Amido-1-Oxymethylbenzol-4-Carbonsäure. Sm. 102 bis 103° (*B.* 27, 2168). — II, 1562.
10) Dinitril d. δ -Keto- β -Methyl- β -Penten- $\alpha\epsilon$ -Dicarbonsäure. subl. bei 200° (*A. ch.* [6] 18, 518). — I, 1223.
11) Nitril d. 2-Keto-4,6-Dimethyl-1,2-Dihydropyridin-3-Carbonsäure. Sm. 288—289° (*C.* 1899 [1] 289).
12) Verbindung (aus Diacetonitril). Zers. oberh. 230° (*J. pr.* [2] 39, 239). — I, 1455.
13) Verbindung (aus d. Base $C_8H_7N_3$ aus Diacetonitril). Zers. oberh. 260° (*J. pr.* [2] 52, 89). — IV, 1151.
- $C_8H_7ON_4$ C 54,5 — H 4,5 — O 9,1 — N 31,8 — M. G. 176.
1) 4-Amido-3-Oxy-1-Phenyl-1,2,5-Triazol. Sm. 181° u. Zers. (*A.* 295, 158). — IV, 1234.
2) Methyläther d. 5-[4-Oxyphenyl]-1,2,3,4-Tetrazol (Anisenyltetrazotsäure). Sm. 228°. NH_4 , K, Ba (*A.* 298, 108). — IV, 1272.
3) Phenyläthenyloxytetrazotsäure. Sm. 135°. NH_4 , Cu + 3 H_2O , Ag, Anilinsalz, Phenylhydrazinsalz (*A.* 298, 80). — IV, 1269.
4) 4-Methylbenzenyloxytetrazotsäure + H_2O . Sm. 172° u. Zers. Na + 1½ H_2O , K, Ca + 3 H_2O , Ba + 3 H_2O , Co + 2 H_2O , Cu, Ag (*A.* 298, 67). — IV, 1272.
5) Methyläther d. Benzenyloxytetrazotsäure. Sm. 40° (*A.* 298, 64). — IV, 1267.
6) 5-Acetylamido-1,2,3-Benztriazol. Sm. 241° (*B.* 30, 987). — IV, 1258.
7) 6-Acetylamido-1,2,3-Benztriazol. Sm. 248° (*B.* 26, 2957). — IV, 1258.
- $C_8H_7ON_6$ C 47,1 — H 3,9 — O 7,8 — N 41,2 — M. G. 204.
1) 3-Diazo-4-Amido-1-Phenyl-1,2,5-Triazol. Pikrat (*A.* 295, 150). — IV, 1314.
2) 4-Oximidoamidomethyl-1-Phenyl-1,2,3,5-Tetrazol. Sm. 176—177,5° u. Zers. (*B.* 22, 1755). — IV, 1239.
- $C_8H_7OCl_2$ 1) Methyläther d. 2-Oxy-1-Dichlormethylbenzol. Sd. 231° (*Soc.* 53, 404). — II, 738.
2) Äthyläther d. 2,4-Dichlor-1-Oxybenzol. Sd. 236—237° (*A. Spl.* 7, 183; *A.* 23, 60). — II, 670.
- $C_8H_7OBr_2$ 1) 2-Brom-2-Oxy-1-Bromäthylbenzol (*M.* 1, 175). — II, 757.
2) 2-Oxy-1,4-Di[Brommethyl]benzol. Sm. 74° (*Bl.* 27, 140; 41, 288; *A.* 301, 220 Anm.). — II, 759.

- $C_6H_4OBr_2$ 3) *p*-Dibrom-4-Oxy-1,3-Dimethylbenzol. Sm. 73° (*B.* 9, 950; 11, 25). — II, 758.
 4) *p*-Dibrom-4-Oxy-1,3-Dimethylbenzol. Sm. 62,5° (*Soc.* 63, 110). — II, 759.
 5) 3,5-Dibrom-2-Oxy-1,4-Dimethylbenzol. Sm. 79° (*A.* 302, 114).
 6) 3,6-Dibrom-2-Oxy-1,4-Dimethylbenzol. Sm. 90–91° (*B.* 29, 2344).
 7) Äethyläther d. 2,4-Dibrom-1-Oxybenzol (*J.* 1870, 739; *B.* 2, 715). — II, 673.
 8) Äethyläther d. 3,5-Dibrom-1-Oxybenzol. Sd. 268° (*J. pr.* [2] 24, 483). — II, 674.
- $C_6H_4OBr_2$,
 $C_6H_4OJ_2$,
 C_6H_4OS 1) Verbindung (aus d. Keton C_6H_4O). Sm. 138° (*A.* 215, 51). — I, 1012.
 1) Äethyläther d. 2,4-Dijod-1-Oxybenzol. Sm. 51° (*B.* 29, 2597).
 1) Methyläther d. polym. Thio-2-Oxybenzaldehyd = $(C_6H_4OS)_x$. Sm. 85–88° (*B.* 24, 1447). — III, 71.
 2) Methyläther d. polym. β -Thio-3-Oxybenzaldehyd = $(C_6H_4OS)_x$. Sm. 95–97° (*A.* 277, 347). — III, 80.
 3) Methyläther d. polym. Thio-4-Oxybenzaldehyd = $(C_6H_4OS)_x$. Sm. 90–92° (*B.* 24, 1444). — III, 84.
 4) Methylester d. Benzolthiolcarbonsäure. Sd. 231–232° (*B.* 20, 2922). — II, 1290.
- $C_6H_4O_2N_2$ 5) Acetat d. Mercaptobenzol. Sd. 228–230° (*A.* 176, 177). — II, 785.
 C 58,5 — H 4,9 — O 19,5 — N 17,1 — M. G. 164.
 1) 4,5-Dinitroso-1,3-Dimethylbenzol. Sm. 108–109° (*J. pr.* [2] 53, 342).
 2) 2,5-Dinitroso-1,4-Dimethylbenzol. Sm. bei 250° (*A.* 255, 176). — II, 79.
 3) 1,2-Di[Oximidomethyl]benzol. Sm. 245° (*B.* 20, 509). — III, 92.
 4) 1,3-Di[Oximidomethyl]benzol. Sm. 180° (*B.* 20, 2005). — III, 92.
 5) 1,4-Di[Oximidomethyl]benzol. Sm. 200° (*B.* 16, 2995). — III, 93.
 6) anti- $\alpha\beta$ -Dioximido- α -Phenyläthan (Antiphenylamphiglyoxim). Sm. 168° (162°). Ag (*B.* 16, 2186; 22, 419; 23, 3503; 24, 3501). — III, 131.
 7) anti- $\alpha\beta$ -Dioximido- α -Phenyläthan (Phenylantiglyoxim). Sm. 180°. HCl (*B.* 24, 3502). — III, 131.
 8) Benzoylharnstoff. Sm. 215° (208°) (*A.* 92, 404; *Z.* 1868, 305). — II, 1171.
 9) 1,3-Di[Formylamido]benzol. Sm. 155° (*B.* 15, 2447). — IV, 574.
 10) 1,4-Di[Formylamido]benzol. Sm. 203,5–204° (205–207°). Na_2 (*B.* 11, 828; *Soc.* 67, 831). — IV, 588.
 11) $\alpha\beta$ -Diformyl- α -Phenylhydrazin. Sm. 126° (*B.* 28, 944). — IV, 663.
 12) Phenylhydrazonessigsäure. Sm. 137° u. Zers. (143–145°). Pb (*A.* 227, 353; *J. pr.* [2] 49, 335; *B.* 28, 1232; 29, 2163; *M.* 17, 631). — IV, 699.
 13) Phenylhydrazimethylencarbonsäure. Sm. 118–120°. N_2H_4 (*J. pr.* [2] 44, 566). — II, 1598.
 14) α , 2-Anhydro-2,4-Diamidophenoxylessigsäure. Sm. 225° (*B.* 30, 2106).
 15) Nitril d. 6-Oxy-2-Keto-1,4-Dimethyl-1,2-Dihydropyridin-3-Carbonsäure. Sm. 285°. ($Cu + 4NH_3 + 4H_2O$), Ag (*C.* 1896 [1] 602; 1897 [1] 368).
 16) Nitril d. 6-Oxy-2-Keto-4,5-Dimethyl-2,5-Dihydropyridin-3-Carbonsäure. Sm. 270–272°. NH_3 , Na, Ba, Ag (*C.* 1896 [1] 603).
 17) Amid d. Phenylloxaminsäure. Sm. 224° (*A.* 73, 184; 184, 271; *B.* 14, 741). — II, 409.
 18) Amid d. 2-Formylamidobenzol-1-Carbonsäure. Sm. 123° (*J. pr.* [2] 31, 125; [2] 43, 213). — II, 1249.
 19) Diamid d. Benzol-1,2-Dicarbonsäure. Sm. 219–220° u. Zers. (*B.* 19, 1399; *R.* 11, 100; *A.* 236, 188). — II, 1807.
 20) Diamid d. Benzol-1,3-Dicarbonsäure. Sm. 265° (oberh. 270°) (*J. pr.* [2] 22, 352; *B.* 17, 1431). — II, 1826.
 21) Diamid d. Benzol-1,4-Dicarbonsäure (*A.* 121, 90). — II, 1832.
 22) Methylnitrosamid d. Benzolcarbonsäure. Sd. 196–197° (*B.* 28, 855 Anm.).
 23) Phenylnitrosamid d. Essigsäure. Sm. 50,5–51° (*B.* 9, 464; 27, 915 Anm.; 30, 366). — II, 362.
 24) 4-Oxybenzylidenhydrazid d. Ameisensäure. Sm. 243° (*J. pr.* [2] 41, 181). — III, 86.

- $C_8H_5O_2N_2$ 25) Verbindung (aus 1,2,3,4-Tetrahydro-2,3-Benzdiazin) (B. 26, 2215). — IV, 852.
- $C_8H_5O_2N_4$ 26) Verbindung (aus Acetessigsäureäthylester). Sm. 243° (A. 279, 242).
C 50,0 — H 4,2 — O 16,6 — N 29,2 — M. G. 192.
- 1) 5-Nitro-2,4-Dimethyl-1-Diazobenzolimid. Sm. 75° (B. 25, 3342). — IV, 1151.
- 2) p-Nitro-5-Amido-2-Methylbenzimidazol. Sm. 295°. (2 HCl, PtCl₄) (B. 7, 1532; 20, 331). — IV, 1149.
- 3) 6 [oder 5]-Nitro-4 [oder 7]-Amido-2-Methylbenzimidazol (B. 30, 544). — IV, 1149.
- 4) Hexahydrobenzo-5,5'-Diketo-3,4-Dipyrazol. Sm. 256—257° (B. 27, 472; J. pr. [2] 51, 64). — IV, 1270.
- 5) 1,4-Dinitroso-1,2,3,4-Tetrahydro-1,4-Benzdiazin. Sm. 186° u. Zers. (A. 287, 226). — IV, 557.
- 6) Phenyläthyndioxytetrazotsäure. K, Ag, Phenylacetamidinsalz (A. 263, 93; 298, 79). — IV, 1270.
- 7) Phenyläthyndioxytetrazotsäure (Phenylglykolenyloxytetrazotsäure). Sm. 143° u. Zers. Ba, Ag (A. 298, 88). — IV, 1270.
- 8) 4-Methylbenzenyldioxytetrazotsäure. NH₄, K + H₂O, Pyridinsalz, p-Tolenylamidinsalz (A. 297, 349). — IV, 1272.
- $C_8H_5O_2Cl_2$ 1) 4,5-Dichlor-3,6-Dioxy-1,2-Dimethylbenzol. Sm. 163—164° (J. pr. [2] 43, 585). — II, 967.
- 2) 2,6-Dichlor-4,5-Dioxy-1,3-Dimethylbenzol. Sm. 149° (A. 296, 204).
- 3) 3,6-Dichlor-2,5-Dioxy-1,4-Dimethylbenzol. Sm. 173—175° (A. 151, 171; J. pr. [2] 23, 431). — II, 969.
- 4) 2,6-Dichlor-3,5-Dioxy-1,4-Dimethylbenzol. Sm. 142° (A. 203, 292). — II, 968.
- 5) Dimethyläther d. 4,5-Dichlor-1,2-Dioxybenzol. Sm. 85,5—86,5° (G. 28 [1] 232).
- 6) Dimethyläther d. ?-Dichlor-1,3-Dioxybenzol. Fl. Zers. bei 140° (B. 11, 1040). — II, 920.
- 7) Dimethyläther d. 2,6-Dichlor-1,4-Dioxybenzol. Sm. 131° (126°) (B. 11, 1035; G. 22 [2] 59). — II, 942.
- $C_8H_5O_2Br_2$ 1) 2,6-Dibrom-3,5-Dioxy-1,4-Dimethylbenzol. Sm. 155° (A. 203, 296). — II, 968.
- 2) Monomethyläther d. ?-Dibrom-3,5-Dioxy-1-Methylbenzol. Sm. 146° (B. 14, 2002). — II, 963.
- 3) 1-Methyläther d. 3,5-Dibrom-2-Oxy-1-Oxymethylbenzol. Fl. (A. 302, 148).
- 4) Dimethyläther d. ?-Dibrom-1,2-Dioxybenzol. Sm. 83—84° (92°) (A. 108, 61; B. 11, 137; C. 1898 [1] 1023; Bl. [3] 21, 90). — II, 910.
- 5) isom. p-Dimethyläther d. ?-Dibrom-1,2-Dioxybenzol. Sm. 92—93° (B. 14, 2018). — II, 911.
- 6) Dimethyläther d. ?-Dibrom-1,3-Dioxybenzol. Sm. 141° (137—138°) (B. 11, 1041; 13, 2365). — II, 920.
- 7) Dimethyläther d. 2,5-Dibrom-1,4-Dioxybenzol. Sm. 142° (B. 11, 1036). — II, 944.
- 8) ?-Brom-1-Brommethyl-?-Dihydrobenzol-4-Carbonsäure. Sm. 135° u. Zers. (B. 26, 331; A. 280, 124). — II, 1131.
- 9) ?-Dibrom-1-Methylen-?-Tetrahydrobenzol-4-Carbonsäure. Sm. 135° u. Zers. (B. 26, 331; A. 280, 124).
- 10) Anhydrid d. 3,6-Dibrom-trans-Hexahydrobenzol-1,2-Dicarbon-säure. Sm. 157° (A. 269, 198). — II, 1731.
- $C_8H_5O_2Br_4$ 1) Tetrabromtetrahydro-R-Heptencarbonsäure. Sm. 176—178° u. Zers. (174—175°) (A. 280, 125; B. 31, 2249). — II, 1130.
- 2) Tetrabromtetrahydro-R-Heptencarbonsäure. Sm. 194° u. Zers. (B. 31, 2248).
- $C_8H_5O_2J_2$ 1) Dimethyläther d. p-Dijod-1,2-Dioxybenzol. Sm. 125° (J. pr. [2] 53, 252).
- $C_8H_5O_2S$ 1) Sulfophenyläthylen. Fl. (A. 143, 209). — II, 109.
- 2) Merkaptoessigphenyläthersäure. Sm. 61—62° (43,5°). Na, K, Mg + 3H₂O, Ca, Ba, Zn + 2H₂O, Cd + H₂O, Pb, Mn + 5H₂O, Cu, Ag + H₂O (Bl. 23, 441; B. 12, 1639 Anm.). — II, 785.
- 3) 1-Oxymethylbenzol-2-Thiolcarbonsäure? Sm. 127° (A. 247, 299). — II, 1560.

- $C_6H_5O_2S$ 4) **l-Acetat d. 4-Merkapto-1-Oxybenzol.** Sd. 275—280°. Pb (*J. pr.* [2] 41, 195). — II, 950.
- $C_6H_5O_2Hg$ 1) **Formiat d. Quecksilber-3-Methylphenyloxydhydrat.** Sm. 106° (*B.* 28, 590). — IV, 1710.
- 2) **Acetat d. Quecksilberphenyloxydhydrat.** Sm. 148—149° (*A.* 154, 117; *J. pr.* [2] 1, 179, 186; *B.* 31, 2154; 32, 759). — IV, 1704.
C 53,3 — H 4,4 — O 26,7 — N 15,5 — M. G. 180.
- $C_6H_5O_2N$ 1) **3-Nitrophenylimidomethyläther.** Sm. 45°; Sd. 172—173°₂₁ (*Am.* 13, 518). — II, 359.
- 2) **α -Oximido- α -[3-Nitrophenyl]äthan.** Sm. 131—132° (*B.* 15, 3063). — III, 131.
- 3) **N-Methyl-syn-2-Nitrobenzaldoxim.** Sm. 92° (*B.* 26, 2102; 30, 1900). — III, 47.
- 4) **N-Methyl-syn-3-Nitrobenzaldoxim.** Sm. 117°. + NaJ (*B.* 23, 2171; 24, 2809). — III, 48.
- 5) **N-Methyl-syn-4-Nitrobenzaldoxim.** Sm. 205° (*B.* 24, 2552). — III, 49.
- 6) **3,4-Methylenäther d. 6-Amido-3,4-Dioxybenzaldoxim.** Sm. 175,5° (*B.* 24, 625). — III, 104.
- 7) **Methyläther d. anti-2-Nitrobenzaldoxim.** Sm. 58° (*B.* 14, 2337; 15, 3058; 26, 2103; 30, 1900). — III, 46.
- 8) **Methyläther d. syn-2-Nitrobenzaldoxim.** Fl. (*B.* 26, 2103). — III, 47.
- 9) **Methyläther d. anti-3-Nitrobenzaldoxim.** Sm. 63—63,5° (*B.* 15, 3061). — III, 47.
- 10) **Methyläther d. syn-3-Nitrobenzaldoxim.** Sm. 72° (*B.* 23, 2172; 24, 2809). — III, 48.
- 11) **Methyläther d. anti-4-Nitrobenzaldoxim.** Sm. 101° (*B.* 24, 2548). — III, 49.
- 12) **Methyläther d. syn-4-Nitrobenzaldoxim.** Sm. 67—68° (*B.* 24, 2553). — III, 49.
- 13) **3,4-Methylenäther d. 3,4-Dioxybenzenyl-1-Amidoxim.** Sm. 151° (143°) (*B.* 24, 3657; *G.* 24 [2] 138). — II, 1743.
- 14) **α -Styrolnitrosit = $(C_6H_5O_2N_2)_2$.** Sm. 158° u. Zers. (*B.* 28, 1328; 29, 356).
- 15) **β -Styrolnitrosit.** Sm. 96° (*B.* 28, 1329; 29, 356).
- 16) **Methylpyrrylmesoxylamid.** Sm. 160—170° u. Zers. (*B.* 19, 1712). — IV, 83.
- 17) **1-Amidooximidomethylbenzol-3-Carbonsäure.** Sm. 198° u. Zers. (*B.* 19, 1495; 20, 528). — II, 1229.
- 18) **1-Amidooximidomethylbenzol-4-Carbonsäure.** Sm. oberh. 330° (*B.* 18, 2486; 19, 1491). — II, 1229.
- 19) **2-Methylnitrosoamidobenzol-1-Carbonsäure.** Sm. 128° (*J. pr.* [2] 47, 400; [2] 55, 126). — II, 1247.
- 20) **Phenylnitrosoamidoessigsäure.** Sm. 105° u. Zers. Phenylhydrazinsalz (*B.* 11, 1132; 32, 249). — II, 428.
- 21) **Phenylharnstoff-2-Carbonsäure (2-Uramidobenzol-1-Carbonsäure)** (*J. pr.* [2] 5, 371; *B.* 11, 1730). — II, 1251.
- 22) **Phenylharnstoff-3-Carbonsäure + H_2O (Uramidobenzol-3-Carbonsäure).** Sm. 269—270° u. Zers. $NH_4 + H_2O$, K, Ca + 4 H_2O , Ba + 2 H_2O , Ag (*A.* 153, 84; 291, 321; *Z.* 1866, 35; 1867, 535; 1868, 389, 650; *B.* 2, 47; 15, 2117, 2122; 18, 2415; *H.* 7, 96, 113; 17, 292). — II, 1261.
- 23) **Phenylharnstoff-4-Carbonsäure.** Sm. noch nicht bei 270°. NH_4 , Ba, Ag (*J. pr.* [2] 5, 369; *A.* 291, 329). — II, 1272.
- 24) **α -Pyridinursäure (2-Pyridoyleamidoessigsäure).** Sm. 164—165° u. Zers. Ba + 2 H_2O , Ag (*H.* 18, 120; *B.* 27, 2908). — IV, 142.
- 25) **Phenylester d. Allophansäure** (*J.* 1875, 451). — II, 664.
- 26) **Amid d. 2-Nitrophenylessigsäure.** Sm. 109—110° (*G.* 20, 596). — II, 1318.
- 27) **Amid d. 4-Nitrophenylessigsäure.** Sm. 197—198° (190—192°) (*B.* 14, 2342; *G.* 20, 595; *R.* 16, 254). — II, 1319.
- 28) **Amid d. 4-Nitro-1-Methylbenzol-2-Carbonsäure.** Sm. 173° (*B.* 31, 2880).
- 29) **Amid d. 6-Nitro-1-Methylbenzol-3-Carbonsäure.** Sm. 151° (*A.* 144, 175). — II, 1338.
- 30) **Amid d. 2-Nitro-1-Methylbenzol-4-Carbonsäure.** Sm. 165—166° (*G.* 22 [2] 392). — II, 1348.

- C₈H₈O₃N₂** 31) Amid d. 3-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 152—153° (B. 21, 1996; 22, 2430). — II, 1348.
 32) Amid d. α-[2-Furanyl]äthen-ββ-Dicarbonsäure (Furalmalonamid). Sm. 200° (B. 28, 2255; siehe auch B. 21, 1082). — III, 718.
 33) Diamid d. 4-Oxybenzol-1,3-Dicarbonsäure. Sm. 250° (B. 11, 380). — II, 1937.
 34) Oxyamid d. Phenylloxaminsäure (s-Oxyphenyldiamid d. Oxalsäure). Sm. 159° (A. 288, 317).
 35) 4-Oxyphenylamid d. Oxaminsäure. subl. bei 266° u. Zers. (B. 31, 332).
 36) Phenylamid d. Nitroessigsäure. Sm. 138—139° (B. 29, 1796).
 37) 2-Nitrophenylamid d. Essigsäure. Sm. 92—93° (78°) (B. 9, 775; 19, 336; J. 1875, 344; A. 209, 352). — II, 365.
 38) 3-Nitrophenylamid d. Essigsäure. Sm. 154—156°. 2 + HCl, HBr. 2 + HBr, 2 + HBr + Br₂, 2 + HBr + Br₄, 2 + HBr + Br₆ (A. 185, 183; J. pr. [2] 52, 230; G. 24 [1] 446; Am. 17, 612; 18, 87; 19, 682; B. 19, 336; 31, 661; Soc. 53, 778). — II, 365.
 39) 4-Nitrophenylamid d. Essigsäure. Sm. 207° (Z. 1871, 202 Anm.; J. 1875, 344; 1877, 684; A. 197, 83; B. 5, 920; 9, 775; 17, 262; 19, 336; J. pr. [2] 52, 233). — II, 365.
 40) 2-Nitrobenzylamid d. Ameisensäure. Sm. 88—90° (B. 23, 2813). — II, 523.
 41) 3-Nitrophenylmethylamid d. Ameisensäure. Sm. 70—71° (Am. 13, 517). — II, 359.
 42) 3-Amidophenylmonamid d. Oxalsäure (3-Amidophenylloxaminsäure). Sm. 225° u. Zers. HCl, K, Ag (B. 7, 1261; A. 293, 385). — IV, 577.
 43) Phenylmonohydrazid d. Oxalsäure. Sm. 169—170°. Na (J. [2] 33, 458). — IV, 700.
- C₈H₈O₃N₂** C 46,2 — H 3,8 — O 23,1 — N 26,9 — M. G. 208.
 1) 2-Nitrobenzylidenamidoharnstoff. Sm. 256° u. Zers. (A. 283, 25). — III, 40.
 2) 3-Nitrobenzylidenamidoharnstoff. Sm. 246° (A. 283, 25). — III, 40.
 3) 4-Nitrobenzylidenamidoharnstoff + 2H₂O. Sm. 221° (wasserfrei) (A. 282, 26). — III, 40.
 4) Methyläther d. 4-Nitro-1-[Imidooxymethyl]azobenzol. Sm. 128—129° (B. 28, 2078). — IV, 1453.
 5) Phenylglykolenyldioxytetrazotsäure. K, Ba, Ag, Anilinsalz, Phenylglykolenylamidinsalz (A. 297, 371). — IV, 1270.
 6) Azophenylmethazonsäure. Sm. 164° u. Zers. Na₂ + 2H₂O, Ba + H₂O (B. 10, 141). — IV, 1375.
 7) Äthylester d. Hypoxanthinameisensäure. Sm. 185—190° (H. 16, 3). — III, 968.
- C₈H₈O₃S** 1) 2,5-Dimethylthiophen-3-Ketocarbonsäure. Ag (B. 20, 1750). — III, 759.
 2) Äthylester d. Thiophen-2-Ketocarbonsäure (Ä. d. Thiänylglyoxylsäure). Sd. 264—265° u. Zers. (B. 19, 2119). — III, 758.
- C₈H₈O₃S₂** 1) 2,5-Dimethylthiophen-3-Sulfonsäure (B. 29, 2563). — III, 746.
- C₈H₈O₃Hg** 1) Verbindung (aus d. Verb. C₈H₈O₃Hg) (Bl. [3] 11, 269).
- C₈H₈O₄N₂** C 49,0 — H 4,1 — O 32,6 — N 14,3 — M. G. 196.
 1) 2,4-Dinitro-1,2-Dimethylbenzol. Sm. 71° (B. 19, 2519 Anm.). — II, 99.
 2) 2,4-Dinitro-1,3-Dimethylbenzol. Sm. 82° (B. 17, 2423). — II, 100.
 3) 2,5-Dinitro-1,3-Dimethylbenzol. Sm. 132° (B. 29, 313).
 4) 4,6-Dinitro-1,3-Dimethylbenzol. Sm. 93° (A. 144, 274; 148, 5; B. 17, 2423; Bl. [3] 17, 181). — II, 100.
 5) 2,3-Dinitro-1,4-Dimethylbenzol. Sm. 93° (A. 136, 308; 147, 17, 18; J. 1880, 370; B. 14, 1146; 15, 2303; 19, 144). — II, 101.
 6) 2,5-Dinitro-1,4-Dimethylbenzol. Sm. 147—148° (A. 228, 250). — II, 101.
 7) 2,6-Dinitro-1,4-Dimethylbenzol. Sm. 123,5° (A. 136, 307; 147, 17; B. 14, 1146; 15, 2302; 19, 144). — II, 101.
 8) 2-Nitro-4-Acetylamido-1-Oxybenzol. Sm. 157—158° (B. 27, 197). — II, 732.
 9) 3-Nitro-4-Acetylamido-1-Oxybenzol (B. 27, 195; 31, 2403). — II, 731.
 10) 3,5-Dioxy-1,2-Di[Oximidomethyl]benzol. Sm. 209° (B. 24, 3652). — III, 109.

- $C_8H_6O_4N_2$ 11) 4,4'-Bi[5-Keto-3-Methyl-4,5-Dihydroisoxazol]. Zers. bei 190° (B. 19, 1849; 22, 162; A. 236, 298). — III, 717.
- 12) Methyläther d. 2-Nitro-3-Oxybenzaloxim. Sm. 170° (B. 22, 2350). — III, 81.
- 13) Methyläther d. 4-Nitro-3-Oxybenzaloxim. Sm. 93° (B. 22, 2362). — III, 81.
- 14) Methyläther d. 5-Nitro-3-Oxybenzaloxim. Sm. 148° (B. 22, 2355). — III, 81.
- 15) Methyläther d. 6-Nitro-3-Oxybenzaloxim. Sm. 152° (B. 22, 2353). — III, 81.
- 16) 1,3-Phthalhydroxamsäure. Sm. 192° u. Zers. (A. 281, 177). — II, 1827.
- 17) 1,4-Phthalhydroxamsäure. Sm. 232° u. Zers. $Na_2 + 2H_2O$, K, Ba (A. 281, 178). — II, 1833.
- 18) 3-Nitro-2,5-Diacetylpyrrol. Sm. 149° (B. 19, 1078). — IV, 101.
- 19) 2-Nitrophenylamidoessigsäure. Sm. $192-193^\circ$ u. Zers. (B. 19, 7). — II, 428.
- 20) α -Amido- α -[3-Nitrophenyl]essigsäure. Sm. 172° u. Zers. Cu (B. 18, 1179). — II, 1327.
- 21) 2-Nitro-4-Amidophenylessigsäure. Sm. $184-186^\circ$ (B. 14, 824). — II, 1326.
- 22) 3-Nitro-4-Amidophenylessigsäure. Sm. $143,5-144,5^\circ$ (B. 15, 836). — II, 1327.
- 23) 2-Nitro-1-Amidomethylbenzol-4-Carbonsäure. Sm. 243° u. Zers. HCl (B. 27, 2166). — II, 1353.
- 24) 5-Nitro-2-Methylamidobenzol-1-Carbonsäure. Sm. 259° u. Zers. (J. pr. [2] 43, 472). — II, 1282.
- 25) 4-Nitro-3-Methylamidobenzol-1-Carbonsäure. Zers. bei 268° (J. pr. [2] 43, 466). — II, 1284.
- 26) 3-Nitro-4-Methylamidobenzol-1-Carbonsäure. Sm. 295° u. Zers. Ag (J. pr. [2] 43, 458). — II, 1285.
- 27) 5-Nitro-2-Amido-1-Methylbenzol-4-Carbonsäure. Sm. 220° u. Zers. Ba (A. 266, 232). — II, 1353.
- 28) 6-Nitro-2-Amido-1-Methylbenzol-4-Carbonsäure. Sm. 214° . $Na + \frac{3}{4}H_2O$, Mg + $5H_2O$, Ca, Ba + $4H_2O$ (A. 266, 235). — II, 1353.
- 29) 6-Nitro-3-Amido-1-Methylbenzol-4-Carbonsäure. Sm. $235-236^\circ$ (245°) u. Zers. K + H_2O (G. 18, 303; J. pr. [2] 40, 27). — II, 1353.
- 30) 5-Harnstoff-2-Oxybenzol-1-Carbonsäure (B. 2, 47). — II, 1513.
- 31) 2-Diamidobenzol-1,3-Dicarbonsäure. Sm. noch nicht bei 300° (J. pr. [2] 38, 316). — II, 1830.
- 32) 2,5-Diamidobenzol-1,4-Dicarbonsäure. $2HCl$ (B. 19, 430; 21, 1765). — II, 1839.
- 33) 2-Aethyl-1,4-Diazin-3,6-Dicarbonsäure + $2H_2O$? Sm. 117° u. Zers. (J. pr. [2] 47, 478; [2] 51, 471). — IV, 837.
- 34) 2,5-Dimethyl-1,4-Diazin-3,6-Dicarbonsäure + $2H_2O$. Sm. 200 bis 201° (wasserfrei). $(NH_4)_2$, K, Ba + $3H_2O$, Ag_2 (B. 15, 1053; 27, 1142; 28, 1516). — IV, 836.
- 35) Säure (aus Nitrophthalimidin) (A. 247, 305). — II, 1558.
- 36) Methylester d. 2-Nitrophenylamidoameisensäure. Sm. 53° (Am. 19, 312, 326).
- 37) Methylester d. 3-Nitrophenylamidoameisensäure. Sm. $147-149^\circ$ (Am. 19, 325).
- 38) Methylester d. 4-Nitrophenylamidoameisensäure. Sm. 176° (Am. 16, 370).
- 39) Methylester d. 4-Nitro-2-Amidobenzol-1-Carbonsäure. Sm. 157° (Am. 20, 221).
- 40) Methylester d. 5-Nitro-3-Amidobenzol-1-Carbonsäure. Sm. 160° (B. 28, 596).
- 41) 1,2-Phenylenester d. Amidoameisensäure. Sm. 178° (A. 244, 45). — II, 910.
- 42) 1,3-Phenylenester d. Amidoameisensäure. Sm. 194° (A. 244, 45). — II, 918.
- 43) 1,4-Phenylenester d. Amidoameisensäure. Sm. 236° (A. 244, 45). — II, 941.

- C₈H₅O₄N₂** 44) 3-Oxyphenylester d. Allophansäure. Sm. 120° u. Zers. (B. 22, 1579). — II, 918.
 45) 4-Nitrobenzylester d. Amidoameisensäure. Sm. 154° (A. 302, 259).
 46) Amid d. Oxyessig-4-Nitrophenyläthersäure. Sm. 158—160° (C. 1898 [1] 1252).
 47) Amid d. 6-Nitro-2-Oxybenzolmethyläther-1-Carbonsäure. Sm. 195° (R. 2, 217). — II, 1509.
 48) Diimid d. n-Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure. Zers. bei 320° (B. 28, 885).
 49) Diimid d. h-Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure. Zers. bei 320° (B. 28, 888).
 50) Nitril d. Diacetyltraubensäure. Sm. 97—98° (M. 15, 482).
 51) Nitril d. inact. $\alpha\beta$ -Diacetoxylbernsteinsäure (N. d. Diacetylmeso-weinsäure). Sm. 75—77° (M. 15, 475).
- C₈H₅O₄N₄** C 42,9 — H 3,5 — O 28,6 — N 25,0 — M. G. 224.
 1) α -Aethyliden- β -2,4-Dinitrophenylhydrazin. Sm. 147° (G. 24 [1] 565). — IV, 745.
 2) α -Nitro- α -[3-Nitrophenyl]azoäthan (B. 9, 391). — IV, 1374.
- C₈H₅O₄N₆** C 38,1 — H 3,2 — O 25,4 — N 33,3 — M. G. 252.
 1) ?-Dinitrobenzylidenamidoguanidin. Sm. 248—249° (B. 31, 479).
- C₈H₅O₄Cl₄** 1) 2,5-Dimethyläther d. 3,6-Dichlor-1,2,4,5-Tetraoxybenzol. Sm. 195 bis 196° (J. pr. [2] 40, 374). — II, 1032.
 2) isom. 2,5-Dimethyläther d. 3,6-Dichlor-1,2,4,5-Tetraoxybenzol. Sm. 156° (J. pr. [2] 40, 374). — II, 1032.
 3) Dimethylester d. $\beta\gamma$ -Dichlor- $\alpha\gamma$ -Butadien- $\alpha\delta$ -Dicarbonsäure? (D. d. α -Dichlormukonsäure). Sm. 156° (A. 256, 8). — I, 731.
 4) Monoäthylester d. β -Dichlormukonsäure. Sm. 109—110° (Soc. 57, 931). — I, 731.
- C₈H₅O₄Br₂** 1) ?-Dibrom-1,2,3,4-Tetrahydrobenzol-2,3-Dicarbonsäure. Sm. 185° (A. 258, 194). — II, 1733.
 2) 2,3-Dibrom-1,2,3,4-Tetrahydrobenzol-2,5-Dicarbonsäure (A. 245, 156). — II, 1833.
 3) 3,4-Dibrom-1,2,3,4-Tetrahydrobenzol-2,5-Dicarbonsäure (A. 258, 20). — II, 1834.
- C₈H₅O₄Br₄** 1) Verbindung (aus Xanthogallol). Sm. 105° (A. 245, 339). — II, 1014.
- C₈H₅O₄S** 1) Phenylsulfonessigsäure. Sm. 111,5—112,5°. Ca + 2 $\frac{1}{2}$ H₂O, Ba + 2H₂O, Pb + 2H₂O, Cu + 2H₂O, Ag (Bl. 23, 446; B. 14, 834; 19, 3138; J. pr. [2] 30, 339; [2] 36, 429; J. 1885, 1598). — II, 785.
 2) Methylphenylketon-4[P]-Sulfonsäure. Pb (B. 19, 2626). — III, 129.
 3) Dimethylester d. Thiophen-2,3-Dicarbonsäure. Sm. 59,5° (aus Alkohol); Sm. 39° (aus Aether) (B. 20, 2587; A. 267, 160). — III, 759.
 4) Dimethylester d. Thiophen-2,4-Dicarbonsäure. Sm. 120—121° (B. 20, 2023). — III, 759.
 5) Dimethylester d. Thiophen-2,5-Dicarbonsäure. Sm. 145—145,5° (B. 18, 567, 3026; 19, 192). — III, 760.
- C₈H₅O₄S₂** 1) 1,3-Phenylenäthylendisulfon (J. pr. [2] 36, 450). — II, 935.
- C₈H₅O₅N₂** C 45,3 — H 3,8 — O 37,7 — N 13,2 — M. G. 212.
 1) ?-Dinitro-2-Oxy-1-Aethylbenzol. Ba (M. 1, 182). — II, 757.
 2) 4,6-Dinitro-3-Oxy-1,2-Dimethylbenzol. Sm. 82° (B. 21, 3159). — II, 758.
 3) 3,5-Dinitro-4-Oxy-1,2-Dimethylbenzol. Sm. 126—127° (B. 21, 3158). — II, 758.
 4) 3,5-Dinitro-2-Oxy-1,4-Dimethylbenzol. Sm. 121° (B. 19, 2321). — II, 760.
 5) Methyläther d. 3,5-Dinitro-4-Oxy-1-Methylbenzol. Sm. 122° (B. 14, 900; A. 217, 170; Am. 19, 535). — II, 752.
 6) Aethyläther d. 2,4-Dinitro-1-Oxybenzol. Sm. 86—87° (A. 74, 315; 156, 214; B. 6, 564; 7, 371; 8, 666; 12, 764). — II, 684.
 7) Aethyläther d. 2,5-Dinitro-1-Oxybenzol. Sm. 85° (J. pr. [2] 21, 335). — II, 686.
 8) Aethyläther d. 2,6-Dinitro-1-Oxybenzol. Sm. 57—58° (A. 174, 273; B. 7, 371). — II, 686.
 9) Aethyläther d. 3,5-Dinitro-1-Oxybenzol. Sm. 90° (R. 13, 153).
 10) 2-Nitro-4-Amidophenoxylessigsäure. Sm. 196° (B. 30, 2106).
 11) 5-Nitro-6-Oxy-2,4-Dimethylpyridin-3-Carbonsäure + H₂O. Sm. 260° (Soc. 73, 234).

- $C_8H_5O_3N_2$ 12) Verbindung (aus Asparaginsäure). Ag (*J.* 1876, 777). — I, 1211.
 $C_8H_5O_3N_4$ C 40,0 — H 3,3 — O 33,3 — N 23,3 — M. G. 240.
- 1) 2,4-Dinitro-1-Aethylnitrosamidobenzol. Sm. 51,5—52,5° (*B.* 31, 2531).
 - 2) 3,5-Dinitro-2-Methylnitrosamido-1-Methylbenzol. Sm. 94—95° (*B.* 31, 2534).
 - 3) 3,5-Dinitro-4-Methylnitrosamido-1-Methylbenzol. Sm. 125° (*B.* 18, 1488; 28, 3044; 31, 2535). — II, 484.
 - 4) *p*-Dinitro-4-Methylnitrosamido-1-Methylbenzol. Sm. 123—124° (*B.* 30, 840).
 - 5) *p*-Dinitro-4-Methylnitrosamido-1-Methylbenzol. Sm. 128—128,5° (*B.* 30, 840).
 - 6) Sarkosinmesoharnsäure. NH_4 , Ag (*B.* 17, 524). — I, 1341.
 - 7) 2,4-Dinitrophenylhydrazid d. Essigsäure. Sm. 197—198° (193—194°) (*J. pr.* [2] 50, 262; *G.* 24 [1] 561). — IV, 664.
- $C_8H_5O_5S$ 1) Phenylmethan- α -Carbonsäure- α -Sulfonsäure (Phenylsulfoessigsäure). K, Ca, Ba, Zn, Pb, Cu (*J.* 1880, 856; *A.* 298, 83). — II, 1328.
- 2) 1-Methylbenzol-2-Carbonsäure-6-Sulfonsäure. Ba (*B.* 16, 1959). — II, 1335.
 - 3) 1-Methylbenzol-3-Carbonsäure-5-Sulfonsäure (*B.* 14, 2356). — II, 1339.
 - 4) 1-Methylbenzol-3-Carbonsäure-6-Sulfonsäure (*B.* 14, 2356). — II, 1339.
 - 5) 1-Methylbenzol-4-Carbonsäure-2-Sulfonsäure + 2H₂O. Zers. bei 185 bis 190°. K + 2(3)H₂O, K₂ + 1½H₂O, Mg + 3(7)H₂O, Ba + 3(4)H₂O, Pb + 1(3)H₂O, Ag₂ + H₂O (*B.* 6, 480; 12, 616; *J. pr.* [2] 8, 172; *A.* 220, 18; *Am.* 2, 411; 8, 264). — II, 1354.
 - 6) 1-Methylbenzol-4-Carbonsäure-3-Sulfonsäure + 3H₂O. Sm. 181 bis 182° (158°) wasserfrei. NH_4 , (NH₄)₂ + 2½H₂O, K, K₂ + xH₂O, CaH + 4H₂O, Ca + H₂O, BaH + 4H₂O, Ba, Ag₂ + 1½H₂O (*A.* 172, 328; *Am.* 13, 258; *B.* 25, 1741). — II, 1354.
 - 7) Aldehyd d. 3-Oxybenzylmethyläther-1-Carbonsäure-4-Sulfonsäure. Na + 4H₂O, K + H₂O (*A.* 294, 381).
 - 8) 1-Methylester d. Benzol-1-Carbonsäure-2-Sulfonsäure. K, Ba + 3½H₂O, Ag (*Am.* 11, 342; 20, 261). — II, 1295.
 - 9) 4-Carboxylphenylester d. Methansulfonsäure. Sm. 224° (*J. pr.* [2] 48, 252). — II, 1527.
- $C_8H_5O_6N_2$ C 42,1 — H 3,5 — O 42,1 — N 12,3 — M. G. 228.
- 1) 3-Methyläther d. 2,4-Dinitro-3,5-Dioxy-1-Methylbenzol. Sm. 142 bis 143° u. Zers. (*M.* 18, 186).
 - 2) Dimethyläther d. 4,5-Dinitro-1,2-Dioxybenzol. Sm. 131—132° (128,2—128,3°) (*A.* 108, 60; *B.* 9, 939; *M.* 12, 491; 15, 233; *J. pr.* [2] 53, 252; *Bl.* [3] 15, 646; [3] 17, 816). — II, 912.
 - 3) Dimethyläther d. *p*-Dinitro-1,2-Dioxybenzol. Sm. 127—128° (*J. pr.* [2] 53, 252).
 - 4) Dimethyläther d. 2,4-Dinitro-1,3-Dioxybenzol. Sm. 167°. + C₂H₅O (*Am.* 13, 179). — II, 925.
 - 5) Dimethyläther d. 4,6-Dinitro-1,3-Dioxybenzol. Sm. 67° (*B.* 11, 1042). — II, 925.
 - 6) Dimethyläther d. 2,3-Dinitro-1,4-Dioxybenzol. Sm. 177° (*B.* 11, 1037; 23, 1216). — II, 946.
 - 7) Dimethyläther d. 2,5-Dinitro-1,4-Dioxybenzol. Sm. 202° (169 bis 170°) (*B.* 11, 1037; 23, 1216). — II, 946.
 - 8) Monäthyläther d. 4,6-Dinitro-1,3-Dioxybenzol. Sm. 75° (*B.* 12, 32). — II, 925.
 - 9) Monäthyläther d. 2,5-Dinitro-1,4-Dioxybenzol. Sm. 71° (*M.* 2, 370). — II, 946.
- $C_8H_5O_6N_4$ 10) 2,5-Dioxyphthal-1,4-Dihydroxamsäure + 2H₂O. Zers. bei 260° (*B.* 22, 1279). — II, 2003.
 C 37,5 — H 3,1 — O 37,5 — N 21,9 — M. G. 256.
- 1) 2,4,6-Trinitro-1-Aethylamidobenzol. Sm. 84° (*R.* 2, 107). — II, 333.
 - 2) 2,4,6-Trinitro-1-Dimethylamidobenzol. Sm. 138° (*R.* 2, 105). — II, 331.
 - 3) isom. *p*-Trinitro-1-Dimethylamidobenzol. Sm. 154° (*R.* 6, 253). — II, 331.

- $C_8H_5O_6N_4$ 4) isom. *p*-Trinitro-1-Dimethylamidobenzol. Sm. 196° (*R.* 6, 253). — II, 331.
 5) 2,3,5-Trinitro-4-Methylamido-1-Methylbenzol. Sm. 129,5—130° (*B.* 30, 838).
 6) 3,5-Dinitro-2-Methylnitroamido-1-Methylbenzol. Sm. 119—120° (*R.* 3, 396). — II, 457.
 7) 3,5-Dinitro-4-Methylnitroamido-1-Methylbenzol. Sm. 138—139° (*B.* 18, 1488; 20, 2269; 29, 1015; 30, 842; *R.* 3, 404). — II, 484.
 8) 2,4,6-Trinitro-5-Amido-1,3-Dimethylbenzol. Sm. 206° (*B.* 28, 2047).
 9) *p*-Trinitro-*p*-Amido-*p*-Dimethylbenzol. Sm. 115° (*B.* 5, 880). — II, 548.
 10) Methyläther d. 4,6-Dinitro-2-Methylnitrosamido-1-Oxybenzol. Sm. 135° (*Bl.* [3] 6, 417; 24 [2] 904). — II, 733.
- $C_8H_5O_6Cl_4$ 1) 1,3-Dichlor-*R*-Tetramethylen-1,3-Di[Chloroxymethylcarbonsäure]. Sm. 182,5—183,5° (*B.* 29, 2278).
 2) Methylester d. $\alpha\beta$ -Di[Dichloracetoxy]propionsäure. Sd. 207°₂₀ (*Soc.* 73, 188).
- $C_8H_5O_6Br_2$ 1) Monäthylester d. $\alpha\delta$ -Dibrom- $\beta\gamma$ -Diketobutan- $\alpha\delta$ -Dicarbonsäure (M. d. Dibromketipinsäure). Zers. oberh. 70° (*A.* 249, 193). — I, 816.
- $C_8H_5O_6Br_4$ 1) 1,3-Dibrom-*R*-Tetramethylen-1,3-Di[Bromoxymethylcarbonsäure]. Sm. 165—170° u. Zers. (*B.* 29, 2278).
- $C_8H_5O_6S$ 1) 4-Oxybenzoldimethyläther-1-Carbonsäure-2-Sulfonsäure + 2½ H₂O. Sm. 104°. K + H₂O, Mg, Ca + 4H₂O, Ca + 1½ H₂O, Ba + 4H₂O, Pb + 4H₂O (*Am.* 15, 335; 20, 289). — II, 1542.
 2) 4-Oxybenzoldimethyläther-1-Carbonsäure-3-Sulfonsäure + H₂O. Ba + H₂O, Pb + H₂O (*A.* 103, 340). — II, 1542.
 3) 4-Acetyl-3-Oxyphenylschwefelsäure? (Resacetophenonschwefelsäure). K (*B.* 27, 2733). — II, 137.
- $C_8H_5O_7N_2$ C 39,3 — H 3,3 — O 45,9 — N 11,5 — M. G. 244.
 1) Monäthyläther d. *p*-Dinitro-1,2,4-Trioxybenzol. Sm. 143° u. Zers. K₂ (*A.* 215, 155; *B.* 11, 1449). — II, 947.
 2) Monäthyläther d. *p*-Dinitro-1,2,4-Trioxybenzol. Sm. 210° (*B.* 24, 3829). — II, 1018.
- $C_8H_5O_7N_4$ C 35,3 — H 2,9 — O 41,2 — N 20,6 — M. G. 272.
 1) Methyläther d. 4,6-Dinitro-2-Methylnitroamido-1-Oxybenzol. Sm. 118—119° (*Bl.* [3] 6, 419). — II, 735.
 2) Äthyläther d. *p*-Trinitro-4-Amido-1-Oxybenzol (*J. pr.* [2] 29, 283). — II, 735.
- $C_8H_5O_8N_2$ C 36,9 — H 3,1 — O 49,2 — N 10,8 — M. G. 260.
 1) α -Azinbernsteinsäure. Ba₂ (*B.* 18, 1299; *J. pr.* [2] 39, 53). — I, 1497.
 2) β -Azinbernsteinsäure. Sm. 245° u. Zers. Ba₂ (*J. pr.* [2] 39, 56). — I, 1497.
 3) Diacetoximidobernsteinsäure. Sm. 150° u. Zers. (*B.* 24, 1226). — I, 662.
 4) Säure (aus d. Verb. C₁₂H₁₄O₈N₂Na₂) (*B.* 31, 193).
- $C_8H_5O_8N_6$ C 30,4 — H 2,5 — O 40,5 — N 26,6 — M. G. 316.
 1) 2,4,6-Trinitro-3-Methylamido-1-Methylnitramidobenzol. Sm. 192° (*R.* 8, 279). — IV, 570.
- $C_8H_5O_8S_2$ 1) 1-Methylbenzol-2-Carbonsäure-4,6-Disulfonsäure. Ba (*B.* 16, 1960). — II, 1335.
 2) 1-Methylbenzol-4-Carbonsäure-2,6-Disulfonsäure. Ba + 5H₂O (*B.* 20, 982). — II, 1355.
- C_8H_5NCl 1) α -Chlor- α -Phenylimidoäthan (Acetanilidchlorid). Sm. 50° (*A.* 184, 88). — II, 362.
 2) β -Chlor- α -Phenylimidoäthan (β -Chloräthylidenphenylamin). Sm. 86 bis 87° (*M.* 8, 187). — II, 443.
 3) α -Chlor- β -[2-Amidophenyl]äthen. Sm. 55,5—56,5°. HCl, (2HCl, PtCl₄) (*B.* 17, 1071; 26, 2970; 26 [2] 677). — II, 584.
 4) α -Chlor- α -Methylimidomethylbenzol (Methylbenzamidimidchlorid). Sd. 124°₆₀ u. ger. Zers. (*B.* 28, 2367).
- $C_8H_5NCl_3$ 1) 2,4,6-Trichlor-1-Dimethylamidobenzol. Sm. 32°; Sd. 257°. HCl, (2HCl, PtCl₄) (*B.* 5, 879). — II, 328.
- $C_8H_5N_2Cl_2$ 1) Verbindung (aus Acetanilid). Sm. 116,5—117° (*Am.* 9, 217). — II, 362.
- $C_8H_5N_2Br_4$ 1) Apoharmintetrabromid (*B.* 22, 641). — III, 887.

- $C_6H_5N_2J_4$ 1) 1,4-Di[Dijodamidomethyl benzol (Tetrahydrojodid d. Benzol-1,4-Dicarbonylsäurenitril) (B. 25, 2543). — II, 1833.
- $C_6H_5N_2S$ 1) 3-Methyl-1,2-Phenylenthioharnstoff. Sm. noch nicht bei 326° (A. 228, 244). — IV, 600.
 2) 4-Methyl-1,3-Phenylenthioharnstoff. Sm. 149° (B. 8, 293). — IV, 603.
 3) 2-Thiocarbonyl-5-Methyl-2,3-Dihydrobenzimidazol (Toluylenenthioharnstoff). Sm. 284° (B. 20, 231; A. 221, 10). — IV, 614.
 4) 3,5-Dimethylbenzthiodiazol. Sm. 37° (A. 277, 234). — IV, 1551.
 5) 2-Thiocarbonyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 210—212° (J. pr. [2] 51, 128). — IV, 633.
 6) 3-Amido-2,4-Benzthiazin (Benzylen- ψ -Thioharnstoff). Sm. 137—138° (2 HCl, PtCl₄), Pikrat (B. 25, 3029; 28, 1030, 1032; 29, 1300 Anm.). — II, 1062; IV, 878.
 7) 4-Methyl-1,3,4-Benzthiodiazin (Methylphenylthiocarbizin). Sm. 123° (HCl, (2 HCl, PtCl₄), Pikrat (A. 212, 330; B. 27, 864). — IV, 682.
- $C_6H_5N_2S_2$ 1) 5-Merkapto-3-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 112° (B. 28, 2639). — IV, 745.
 2) Amid d. Benzol-1,3-Dithiocarbonylsäure. Sm. 199—200° u. Zers. (B. 17, 1429). — II, 1830.
 3) Amid d. Benzol-1,4-Dithiocarbonylsäure. Sm. 263° (B. 17, 1430). — II, 1839.
- $C_6H_5N_2Cl$ 1) 4-Chlor-7-Amido-5-Methylindazol. Sm. 195°. HCl, H₂SO₄ (B. 29, 306). — IV, 1151.
- $C_6H_5N_4S$ 1) Phenylthioharnstoffcyanid. HNO₃. — II, 449.
 2) Methyläther d. 5-Merkapto-1-Phenyl-1,2,3,4-Tetrazol. Sm. 84° (B. 28, 79). — IV, 1233.
- $C_6H_5N_4S_2$ 1) Verbindung (aus Persulfocycansäure). Sm. 137—140° (G. 20, 179). — I, 1284.
- C_6H_5ClBr 1) 4-Chlor-5-Brom-1,2-Dimethylbenzol. Sm. 75° (J. pr. [2] 43, 257). — II, 64.
 2) 4-Chlor-2-Brom-1,3-Dimethylbenzol. Sm. 68; Sd. 244° (Am. 20, 799).
 3) 2-Chlorbrom-1,4-Dimethylbenzol. Sm. 66° (J. pr. [2] 39, 403). — II, 65.
- $C_6H_5Cl_2J_2$ 1) $\alpha\beta$ -Dichloräthylphenyljodoniumjodid. Sm. 108° u. Zers. (B. 28, 2114).
 $C_6H_5Cl_2J$ 1) $\alpha\beta$ -Dichloräthylphenyljodoniumchlorid. Sm. 180° u. Zers. 2 + PtCl₄ (B. 28, 2110).
- C_6H_5ON C 71,1 — H 6,7 — O 11,8 — N 10,4 — M. G. 135.
 1) 3-Methyläther d. 1,4-Anhydro-4-Amido-3-Oxy-1-Oxymethylbenzol. Sm. 205° (C. 1898 [2] 159).
 2) 2-Nitroso-1,3-Dimethylbenzol. Sm. 144—145° (B. 31, 560).
 3) 4-Nitroso-1,3-Dimethylbenzol. Sm. 47,5° (B. 31, 560).
 4) Amidomethylphenylketon. HCl, (2 HCl, PtCl₄), (HCl, AuCl₃), H₂SO₄, Pikrat (B. 21, 1271, 2687; 28, 254; 30, 1127; G. 23 [2] 349; 25 [2] 494). — III, 125.
 5) Methyl-2-Amidophenylketon. Sd. 242—252°. HCl, (HCl, SnCl₄), (2 HCl, PtCl₄), H₂SO₄ (B. 15, 2085, 2153; 16, 73; 17, 964; A. 221, 326). — III, 123.
 6) Methyl-3-Amidophenylketon. Sm. 92—93°. HCl (B. 10, 1714, 2009; 11, 932; G. 24 [1] 439). — III, 124.
 7) Methyl-4-Amidophenylketon. Sm. 106; Sd. 293—295°. HCl, (2 HCl, PtCl₄), H₂SO₄, Oxalat (A. 212, 162; B. 18, 2688; Bl. [3] 11, 320). — III, 124.
 8) 2-Oxy-1-Methylimidomethylbenzol (Methyl-2-Oxybenzylidenamin). Sd. 229° (B. 21, 1553). — III, 72.
 9) Phenylimidomethyläther. Sd. 196—197° (Am. 12, 498; 13, 528). — II, 358.
 10) Benzimidomethyläther. Sd. 206°. (2 HCl, PtCl₄), Pikrat (Am. 17, 397; 18, 491; 20, 68).
 11) α -Oximido- α -Phenyläthan (Methylphenylketoxim). Sm. 59° (B. 15, 2781; 20, 2581; 21, 2448; 23, 3495). — III, 130.
 12) β -Oximido- α -Phenyläthan (Oxim d. Phenylelessigsäurealdehyd). Sd. 97 bis 99° (B. 25, 1917). — III, 52.
 13) 2-Methylbenzaldoxim. Sm. 48—49° (B. 25, 1922). — III, 52.
 14) anti-4-Methylbenzaldoxim. Sm. 79—80° (Ph. Ch. 13, 523). — III, 53.
 15) syn-4-Methylbenzaldoxim. Sm. 108—110° (Ph. Ch. 13, 523). — III, 53.

- C₅H₅ON**
- 16) **N-Methyl-anti-Benzaldoxim.** Sm. 45—49°. HBr (Soc. 69, 183). — III, 42.
 - 17) **N-Methyl-syn-Benzaldoxim.** Sm. 82—83°. + NaJ, HCl (Soc. 69, 185; B. 24, 2812). — III, 43.
 - 18) **O-Methyläther d. anti-Benzaldoxim.** Sd. 190—192° (B. 16, 826). — III, 42.
 - 19) **N-Benzylformaldoxim.** Sm. 116° (J. pr. [2] 56, 74).
 - 20) **2-Propionylpyridin.** Sd. 205°. + HgCl₂ (B. 24, 2530). — IV, 183.
 - 21) **3-Propionylpyridin.** Sd. 230—232°. + HgCl₂ (B. 24, 2539). — IV, 184.
 - 22) **5-Acetyl-2-Methylpyridin** (Pikolylmethylketon). Sd. 232—233°. (2HCl, PtCl₄) (B. 25, 2988; 28, 1764).
 - 23) **3,4-Dihydro-1,4-Benzoxazin** (Phenmorpholin). Sd. 268°. HCl (B. 22, 2096; 32, 732). — II, 705.
 - 24) **Aldehyd d. 1-Amidomethylbenzol-3-Carbonsäure** (B. 28, 602). — III, 53.
 - 25) **Aldehyd d. 1-Amidomethylbenzol-4-Carbonsäure** (B. 28, 605). — III, 53.
 - 26) **Amid d. 1-Methylbenzol-2-Carbonsäure.** Sm. 138° (139°) (B. 6, 420; A. 288, 136). — II, 1329.
 - 27) **Amid d. 1-Methylbenzol-4-Carbonsäure.** Sm. 158—159° (156°) (Z. 1866, 489; B. 9, 82; 12, 615; R. 6, 78; A. 244, 51; J. pr. [2] 52, 432). — II, 1340.
 - 28) **Amid d. Phenylelessigsäure.** Sm. 154—155°; Sd. 281—284° (A. 113, 68; 184, 318; B. 13, 741; J. pr. [2] 7, 100; [2] 52, 431; R. 5, 252; G. 20, 173, 593). — II, 1311.
 - 29) **Amid d. Pseudophenylelessigsäure.** Sm. 141° (B. 29, 109; 30, 634).
 - 30) **Amid d. α-Isophenylelessigsäure.** Sm. 129° (B. 30, 635; 31, 2243).
 - 31) **Amid d. β-Isophenylelessigsäure.** Sm. 98° (101—102°) (B. 27, 2828; 31, 403). — II, 1356.
 - 32) **Amid d. R-Heptencarbonsäure.** Sm. 90° (94—96°) (B. 27, 2828; 31, 2243, 2249). — II, 1356.
 - 33) **Amid d. R-Hepten-2-Carbonsäure.** Sm. 125,5° (A. 280, 123; B. 31, 2243). — II, 1356.
 - 34) **Methylamid d. Benzolcarbonsäure.** Sm. 78° (R. 4, 388). — II, 1159.
 - 35) **Phenylamid d. Essigsäure** (Acetanilid). Sm. 115—116° (112°); Sd. 303,8°₇₆₀. HCl, (2 + HCl + J₂), (HCl, PtCl₂), HBr, (2 + HBr + J₂), 2 + HJ, (2 + HJ + J₂), (2 + HJ + J₄), Pikrat, Na, + CH₃ONa, + C₂H₅ONa, Ag, + Al₂Cl₆, (2 + HCl, CuCl), (2 + HBr, CuBr). Lit. bedeutend. — II, 361.
 - 36) **Methylphenylamid d. Ameisensäure.** Sm. 12,5°; Sd. 243—244° (253°₇₁₆) (B. 16, 1652; 20, 2273; 21, 1108; Soc. 67, 830). — II, 359.
 - 37) **2-Methylphenylamid d. Ameisensäure.** Sm. 62° (57—59°); Sd. 288°. Ag (B. 10, 1129; 15, 2446; A. 270, 310; Am. 13, 526; Soc. 67, 830). — II, 460.
 - 38) **3-Methylphenylamid d. Ameisensäure.** Sd. 278°₇₃₄ u. Zers. (B. 20, 1892). — II, 478.
 - 39) **4-Methylphenylamid d. Ameisensäure.** Sm. 53°. Na + H₂O, Hg, Ag, HgCl, (2 + HBr, 2CuBr) (A. 209, 372; B. 15, 2446, 2451; 24, 2080; Am. 13, 527; 16, 386; 18, 545; 20, 79; Soc. 67, 830). — II, 490.
 - 40) **Benzylamid d. Ameisensäure.** Sm. 49° (R. 13, 415).
 - 41) **Base** (aus d. Base C₈H₁₁O₂N aus Furfurbutylennitrit). Sm. 142°; Sd. 300 bis 310°. (2HCl, PtCl₄) (B. 17, 857). — III, 693.
 - 42) **Verbindung** (aus 3-Acetacetylpyridyl). Sd. 210—220°. (HCl, AuCl₃) (M. 18, 683).
- C₅H₅ON₃** C 58,9 — H 5,5 — O 9,8 — N 25,8 — M. G. 163.
- 1) **Benzylidenamidoharnstoff.** Sm. 214° u. Zers. (A. 270, 34; B. 27, 32, 56; J. pr. [2] 52, 466). — III, 40.
 - 2) **Nitrosodihydroapoharmin.** Sm. 134—135°; subl. bei 100° (B. 22, 642). — III, 887.
 - 3) **Rubamidid.** Explodiert bei 60—65° (A. 297, 362). — IV, 1151.
 - 4) **4-Keto-3-Aethyl-3,4-Dihydro-1,2,3-Benztriazin.** Sm. 70° (J. pr. [2] 37, 438). — IV, 1553.

- $C_6H_5ON_3$ 5) Säure (aus p-Tolenyloxytetrazotsäure). Sm. 154° u. Zers. $Ca + 3H_2O$, $Ag + 2H_2O$ (A. 298, 73). — IV, 1151.
- 6) Amid d. Phenylhydrazonessigsäure. Sm. 178°. HCl (J. pr. [2] 49, 334). — IV, 700.
- 7) Amid d. 4-Methyldiazobenzol-N-Carbonsäure. Sm. 142° (Soc. 73, 369). — IV, 1452.
- 8) Methylamid d. Diazobenzol-N-Carbonsäure (Methylamidocarbonylazobenzol). Sm. 86° (B. 30, 650). — IV, 1452.
C 50,3 — H 4,7 — O 8,4 — N 36,6 — M. G. 191.
- $C_6H_5ON_3$ 1) Methyläther d. 5-[p-Amido-4-Oxyphenyl]-1,2,3,4-Tetrazol + H_2O . Sm. 223°. $K + H_2O$, $HCl + H_2O$ (A. 298, 115). — IV, 1272.
- 2) Methyläther d. p-Amidobenzenyloxytetrazotsäure. Sm. 110°. HCl (A. 298, 66). — IV, 1267.
- 3) 6-Ureido-1-Methyl-1,2,3-Benzotriazol. Sm. noch nicht bei 300° (B. 30, 2853). — IV, 1259.
- C_6H_5OCl 1) Methyläther d. 5-Chlor-2-Oxy-1-Methylbenzol. Sd. 212,6—214,6°_{788,4} (G. 28 [1] 211, 227).
- 2) Methyläther d. 4-Chlor-3-Oxy-1-Methylbenzol. Sd. 185° (A. 151, 115). — II, 744.
- 3) Methyläther d. 6-Chlor-3-Oxy-1-Methylbenzol. Sd. 215,5—217,5°₇₅₉ (G. 28 [1] 213).
- 4) Methyläther d. 3-Chlor-4-Oxy-1-Methylbenzol. Sd. 213—215° (215 bis 218°_{780,8}) (B. 17, 2529; G. 28 [1] 217, 228). — II, 750.
- 5) Methyläther d. 4-Oxy-1-Chlormethylbenzol. Fl. (A. 98, 191). — II, 750.
- 6) Aethyläther d. 2-Chlor-1-Oxybenzol. Sd. 208—208,5° (A. 176, 39). — II, 669.
- 7) Aethyläther d. 4-Chlor-1-Oxybenzol. Sm. 21°; Sd. 210—212° (212 bis 215°) (B. 2, 711; A. 176, 31; C. 1895 [1] 834; G. 28 [1] 226). — II, 669.
- 8) β-Chloräthyläther d. Oxybenzol. Sm. 30° (25°); Sd. 221°₇₃₄ (Bl. 40, 323; C. 1895 [1] 825; Soc. 69, 165). — II, 652.
- C_6H_5OBr 1) p-Brom-4-Oxy-1,3-Dimethylbenzol. Fl. (B. 11, 25). — II, 758.
- 2) 5-Brom-2-Oxy-1,4-Dimethylbenzol. Sm. 87° (B. 11, 27; A. 302, 113). — II, 759.
- 3) Methyläther d. 3-Brom-4-Oxy-1-Methylbenzol. Sd. 225—227° (B. 17, 2531). — II, 751.
- 4) Aethyläther d. 2-Brom-1-Oxybenzol. Sd. 218° (222—226°) (B. 27, 261; 30, 479). — II, 672.
- 5) Aethyläther d. 4-Brom-1-Oxybenzol. Sd. 233° (J. 1870, 548; B. 27, 258). — II, 672.
- 6) β-Bromäthyläther d. Oxybenzol. Sm. 39° (32°); Sd. 240—250° u. Zers. (J. pr. [2] 24, 241; C. 1895 [1] 824; Soc. 69, 165).
- C_6H_5OJ 1) Methyläther d. 3-Jod-4-Oxy-1-Methylbenzol. Sd. 237—238° (B. 17, 2533). — II, 751.
- 2) Aethyläther d. 2-Jod-1-Oxybenzol. Sd. 245°_{735,5} (B. 29, 2596).
- 3) Aethyläther d. 4-Jod-1-Oxybenzol. Sm. 29°; Sd. 249—250°₇₂₉ (B. 29, 2596).
- C_6H_5OF 1) Aethyläther d. 4-Fluor-1-Oxybenzol. Sd. 197° (C. 1898 [1] 1224).
C 63,6 — H 5,9 — O 21,2 — N 9,3 — M. G. 151.
- $C_6H_5O_2N$ 1) α-Nitroäthylbenzol (α-Nitrophenyläthan). Sd. bei 135°₂₅. Na, K, Cu (J. r. 25, 516, 524).
- 2) 2-Nitro-1-Aethylbenzol. Sd. 227—228° (A. 156, 206). — II, 98.
- 3) 3-Nitro-1-Aethylbenzol. Sd. 242—243°₇₈₆ (Bl. [3] 11, 211).
- 4) 4-Nitro-1-Aethylbenzol. Sd. 245—246° (A. 156, 206). — II, 98.
- 5) 3-Nitro-1,2-Dimethylbenzol. Sd. 250°₇₃₉ (B. 18, 2670). — II, 99.
- 6) 4-Nitro-1,2-Dimethylbenzol. Sm. 29°; Sd. 258° u. ger. Zers. (B. 17, 160). — II, 99.
- 7) 2-Nitro-1,3-Dimethylbenzol. Sd. 225°₇₄₄ (B. 17, 2430; G. 27 [1] 297). — II, 100.
- 8) 4-Nitro-1,3-Dimethylbenzol. Sd. 237—239° (Z. 1870, 418; B. 13, 1558; Am. 3, 424; Ph. Ch. 1, 661). — II, 100.
- 9) 5-Nitro-1,3-Dimethylbenzol. Sm. 74—75° (71°); Sd. 273°₇₃₉ (A. 207, 94; B. 15, 1021; 18, 360, 2678). — II, 100.

- $C_8H_7O_2N$ 10) **2-Nitro-1,4-Dimethylbenzol**. *Sd.* 238,5—239°₇₃₉ (*A.* 176, 56; *B.* 18, 2680; 27, 1930). — *II*, 101.
- 11) **1-Methyl-3-Nitromethylbenzol**. *Fl.* (*B.* 23, 3165). — *II*, 100.
- 12) **5-Nitroso-2-Oxy-1,4-Dimethylbenzol**. *Sm.* 165° (*G.* 12, 162; *B.* 18, 568; 20, 978; *A.* 255, 174). — *II*, 759.
- 13) **Aethyläther d. 4-Nitroso-1-Oxybenzol**. *Sm.* 30° (*A.* 277, 88). — *II*, 678.
- 14) **1,2-Aethylenäther d. 4-Amido-1,2-Dioxybenzol**. *Sd.* 162°. *HCl*, (2*HCl*, *PtCl₄*), *Pikrat* (*Bl.* [3] 19, 510).
- 15) **2-Acetylamido-1-Oxybenzol**. *Sm.* 201° (202,5—203,5°) (*B.* 9, 1524; 11, 232; 30, 3070; *A.* 226, 69; *Soc.* 69, 1323). — *II*, 705.
- 16) **3-Acetylamido-1-Oxybenzol**. *Sm.* 148—149° (*Am.* 15, 41). — *II*, 715.
- 17) **4-Acetylamido-1-Oxybenzol**. *Sm.* 166° (*B.* 11, 232; 26, 178). — *II*, 719.
- 18) **Methyl-5-Amido-2-Oxyphenylketon**. *Sm.* 110° (*B.* 29, 3035).
- 19) **α -Oximido- β -Oxy- α -Phenyläthan**. *Sm.* bei 70° (*B.* 16, 1623). — *II*, 1064.
- 20) **α -Oximido- α -[2-Oxyphenyl]äthan**. *Sm.* 112° (*Soc.* 75, 69).
- 21) **Methyläther d. 4-Oximido-1-Keto-2-Methyl-1,4-Dihydrobenzol**. *Sm.* bei 70° (*Am.* 20, 768).
- 22) **Methyläther d. 4-Oximido-1-Keto-3-Methyl-1,4-Dihydrobenzol**. *Sm.* 69° (*Am.* 20, 774).
- 23) **2-Oxy-3-Methylbensaldoxim**. *Sm.* 99° (*B.* 24, 3668). — *III*, 89.
- 24) **4-Oxy-3-Methylbensaldoxim**. *Sm.* 143,5° (*B.* 24, 3672). — *III*, 89.
- 25) **6-Oxy-3-Methylbensaldoxim**. *Sm.* 105° (*B.* 24, 3658). — *III*, 88.
- 26) **2-Methyläther d. 2-Oxybensaldoxim**. *Sm.* 92° (*B.* 23, 2740; 28, 2017). — *III*, 76.
- 27) **4-Methyläther d. anti-4-Oxybensaldoxim**. *Sm.* 64° (61°). $Na + 2H_2O$ (*B.* 16, 2993; 20, 2407; 22, 2790; 23, 1687; 28, 2014, 2017; 29, 748, 2906). — *III*, 86.
- 28) **4-Methyläther d. syn-4-Oxybensaldoxim**. *Sm.* 133° (130,5°). *HCl* (*B.* 23, 1688, 2165; 28, 2019; 29, 2906). — *III*, 87.
- 29) **Oxim d. Oxyessigphenyläthersäurealdehyd (α -Phenyläther d. β -Oximido- α -Oxyäthan)**. *Sm.* 95° (*M.* 15, 745).
- 30) **Hipparin (aus Hippursäure)**. *Sm.* 45,7° (*A.* 127, 163). — *II*, 1189.
- 31) **anti-Methylbenzhydroxamsäure**. *Sm.* 64—65° (*A.* 175, 342; 182, 226; 281, 199; *B.* 29, 1146, 1153). — *II*, 1197.
- 32) **syn-Methylbenzhydroxamsäure**. *Sm.* 44° (*B.* 29, 1148, 1157).
- 33) **isom. Methylbenzhydroxamsäure**. *Sm.* 101°. *HCl* (*A.* 281, 200; *B.* 29, 1150). — *II*, 1197.
- 34) **3-Methylbenzhydroxamsäure**. *Sm.* 119—120° (*A.* 281, 174). — *II*, 1336.
- 35) **4-Methylbenzhydroxamsäure**. *Sm.* 148° u. *Zers.* (*A.* 281, 176). — *II*, 1342.
- 36) **Methyläther d. Benzhydroxamsäure**. *Sm.* 62° (*A.* 252, 225; 281, 186). — *II*, 1196.
- 37) **2,5-Diacetylpyrrol**. *Sm.* 161—162°. *Ag* (*B.* 17, 2953; 18, 882, 1467, 1828; 19, 1957). — *IV*, 101.
- 38) **Benzylamidoameisensäure**. *Sm.* 99° (*B.* 14, 1970). — *II*, 525.
- 39) **Phenylamidoessigsäure (Phenylglycin)**. *Sm.* 126—127°. $Ca + 2H_2O$, *Cu* (*Z.* 1866, 16; *B.* 8, 1156; 10, 2046; 22, 1799; 31, 384; *M.* 10, 251; *Ph. Ch.* 10, 639; *G.* 17, 234; *H.* 23, 28; *J. pr.* [2] 57, 198). — *II*, 427.
- 40) **α -Amido- α -Phenylessigsäure**. *Sm.* 256°. $Mg + \frac{1}{2}H_2O$, *Ag*, *HCl*, *HNO₃*, *H₂SO₄*, *H₃PO₄*, *Oxalat* (*B.* 11, 2002; 13, 383; 14, 1323, 1969; *A.* 227, 344; *Ph. Ch.* 3, 189; *H.* 8, 66). — *II*, 1323.
- 41) **2-Amidophenylessigsäure** (*A.* 140, 29; *B.* 11, 583). — *II*, 1320.
- 42) **3-Amidophenylessigsäure**. *Sm.* 148—149° (*B.* 16, 2065; 28, 1919). — *II*, 1322.
- 43) **4-Amidophenylessigsäure**. *Sm.* 199—200° u. *Zers.* *H₂SO₄*, *Cu* (*B.* 2, 209; 14, 2342; 28, 1917; *Soc.* 37, 92). — *II*, 1322.
- 44) **2-Methylamidobenzol-1-Carbonsäure**. *Sm.* 179°. *Cu* (*J. pr.* [2] 43, 449; [2] 47, 400; [2] 55, 124). — *II*, 1247.
- 45) **3-Methylamidobenzol-1-Carbonsäure**. *HCl* (*B.* 8, 326). — *II*, 1258.
- 46) **1-Amidomethylbenzol-3-Carbonsäure**. *Sm.* 215—218°. (2*HCl*, *PtCl₄*) (*B.* 24, 2419). — *II*, 1339.
- 47) **1-Amidomethylbenzol-4-Carbonsäure**. *HCl*, (2*HCl*, *PtCl₄*) (*B.* 23, 1060). — *II*, 1352.

- C₉H₉O₂N** 48) **4-Amido-1-Methylbenzol-2-Carbonsäure.** Sm. 196° (B. 16, 1959). — II, 1334.
- 49) **5-Amido-1-Methylbenzol-2-Carbonsäure.** Sm. 153° (165° u. Zers.) (B. 17, 164; 18, 3449). — II, 1334.
- 50) **6-Amido-1-Methylbenzol-2-Carbonsäure.** Sm. 191° (B. 16, 1959). — II, 1334.
- 51) **2-Amido-1-Methylbenzol-3-Carbonsäure.** Sm. 132° (B. 14, 2354). — II, 1338.
- 52) **4-Amido-1-Methylbenzol-3-Carbonsäure.** Sm. 172°. HCl (B. 14, 2354; J. pr. [2] 33, 62). — II, 1338.
- 53) **6-Amido-1-Methylbenzol-3-Carbonsäure.** Sm. 167°. HCl, HNO₃, H₂SO₄ + 2H₂O, Ba + 10H₂O (A. 144, 177). — II, 1339.
- 54) **2-Amido-1-Methylbenzol-4-Carbonsäure.** Sm. 164—165°. Ba + 1½H₂O, Pb, Cu, Ag, HCl, (2HCl, PtCl₄) (Z. 1869, 104; A. 109, 17; B. 27, 2163). — II, 1351.
- 55) **3-Amido-1-Methylbenzol-4-Carbonsäure.** Sm. 177° u. Zers. Ca + 2H₂O, Ba + 4H₂O, Cu (B. 21, 1997; J. pr. [2] 40, 15; Am. 10, 479). — II, 1351.
- 56) **2,4-Dimethylpyridin-3-Carbonsäure** (β-Lutidincarbonsäure). HCl, (2HCl, PtCl₄ + 2H₂O) (B. 18, 2022). — IV, 148.
- 57) **2,4-Dimethylpyridin-6-Carbonsäure.** Sm. 153°. (2HCl, PtCl₄ + 4C₂H₅O) (A. 237, 149). — IV, 149.
- 58) **2,6-Dimethylpyridin-3-Carbonsäure.** Sm. 160°. Ag, HCl, (2HCl, PtCl₄ + 2H₂O) (B. 19, 1308). — IV, 149.
- 59) **3,5-Dimethylpyridin-2-Carbonsäure.** Sm. 150—151°. (2HCl, PtCl₄ + C₂H₅O) (B. 23, 687). — IV, 149.
- 60) **2-Dimethylpyridin-2-Carbonsäure** (Lutidincarbonsäure). HCl + H₂O, (2HCl, PtCl₄) (G. 14, 449). — IV, 149.
- 61) **Aethylbetain d. Pyridin-2-Carbonsäure.** Sm. 54—55°. (2HCl, PtCl₄) (M. 15, 170). — IV, 142.
- 62) **Aethylbetain d. Pyridin-3-Carbonsäure.** Sm. 84—86°. (2HCl, PtCl₄) (M. 16, 51). — IV, 144.
- 63) **Methylester d. Phenylamidoameisensäure.** Sm. 47° (B. 18, 978; 21, 3155; 29, 1158; Am. 19, 324). — II, 371.
- 64) **Methylester d. 2-Amidobenzol-1-Carbonsäure.** Fl. (J. pr. [2] 36, 374). — II, 1245.
- 65) **Methylester d. 3-Amidobenzol-1-Carbonsäure.** Fl. (J. 1850, 419; A. ch. [3] 53, 322). — II, 1257.
- 66) **Aethylester d. Pyridin-2-Carbonsäure.** Sm. 243° (241°). HCl, (2HCl, PtCl₄) (B. 27, 1785; M. 15, 165). — IV, 142.
- 67) **Aethylester d. Pyridin-3-Carbonsäure.** Sd. 218° (224°). HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HNO₃ (A. 196, 164; B. 27, 1787; M. 16, 46; C. 1898 [1] 677). — IV, 144.
- 68) **Phenylester d. Amidoessigsäure** (J. pr. [2] 4, 380). — II, 662.
- 69) **2-Methylphenylester d. Amidoameisensäure.** Sm. 125° (J. pr. [2] 1, 410). — II, 755.
- 70) **Benzylester d. Amidoameisensäure.** Sm. 86° (J. 1871, 732; B. 3, 518; 4, 412; A. 302, 258, 272). — II, 1051.
- 71) **Amid d. α-Oxyphenylessigsäure.** Sm. 131—132° (Z. 1868, 710; B. 14, 1967; 24, 4083; J. pr. [2] 31, 385; A. 297, 377). — II, 1552.
- 72) **Amid d. 4-Oxyphenylessigsäure.** Sm. 175° (B. 22, 2141). — II, 1544.
- 73) **Amid d. Oxyessigphenyläthersäure.** Sm. 161,5° (J. pr. [2] 20, 277). — II, 664.
- 74) **Amid d. 4-Oxy-1-Methylbenzol-3-Carbonsäure.** Sm. 176° (177 bis 178°) (A. 245, 44; B. 24, 3659). — II, 1547.
- 75) **Amid d. 2-Oxybenzylmethylläther-1-Carbonsäure.** Sm. 128—129° (Bl. 13, 26; B. 28, 158; 31, 3274). — II, 1499.
- 76) **Amid d. 4-Oxybenzylmethylläther-1-Carbonsäure.** Sm. 162—163°; Sd. 295°. Ag (A. 70, 47; 244, 63; B. 2, 666; 23, 105). — II, 1529.
- 77) **Phenylamid d. Oxyessigsäure.** Sm. 97° (108°?) (Bl. 30, 104; J. 1882, 362; B. 12, 285; 26 [2] 606; A. 279, 49). — II, 402.
- C₉H₉O₂N₂** 78) **Base** (aus 4-Oxybenzylphthalimidin). (2HCl, PtCl₄) (B. 23, 345). — II, 1558.
C 53,6 — H 5,0 — O 17,9 — N 23,5 — M. G. 179.
- 1) **Oximidobenzylharnstoff.** Sm. 115° (B. 19, 1486). — II, 1204.

- C₈H₉O₂N₃**
- 2) Benzoylamidoharnstoff. Sm. 225° (B. 31, 381).
 - 3) 3-Amidobenzoylharnstoff. HCl + H₂O, (2HCl, PtCl₄) (B. 8, 222). — II, 1260.
 - 4) Phenylbiuret (B. 10, 1744). — II, 382.
 - 5) α-Phenylhydrazo-α-Nitroäthan (Azonitroäthylphenyl). Sm. 141–142° (136–137°) u. Zers. Na + 6H₂O, Na₂ + 7H₂O, K₂ + 4H₂O, Pb + PbO + 2½ H₂O, Zn + 3H₂O (B. 8, 751, 1073; 27, 156; 31, 2629). — IV, 1374.
 - 6) Aethyliden-3-Nitrophenylhydrazin. Sm. 98° (B. 22, 2813). — IV, 746.
 - 7) γ-Semicarbazon-α-Furanylpropen (Furfurakroleinsemicarbazid). Sm. 215–219° (B. 31, 285).
 - 8) Acetat d. 3-Amidooximidomethylpyridin (A. d. Nikotenyamidoxim). Sm. 143° (B. 24, 3441). — IV, 145.
 - 9) Phenylguanidin-3-Carbonsäure + H₂O. HCl, (2HCl, PtCl₄) (B. 1, 192; 3, 703; 7, 575; 8, 323). — II, 1269.
 - 10) Amid d. Phenylnitrosamidoessigsäure. Sm. 145° (A. 301, 73).
 - 11) Amid d. 2-Methylnitrosamidobenzol-1-Carbonsäure. Sm. 149° (J. pr. [2] 37, 441; [2] 43, 449). — II, 1247.
 - 12) Amid d. Phenylharnstoff-3-Carbonsäure (A. 153, 96). — II, 1261.
 - 13) Amidphenylhydrazid d. Oxalsäure (Phenylhydrazid d. Oxaminsäure). Sm. 230–233° u. Zers. (A. 295, 168 Anm.; J. pr. [2] 48, 79). — IV, 700.
- C₈H₉O₂N₅**
- 1) Propionylguanin. Sm. noch nicht bei 260° (H. 17, 491). — III, 966.
 - 2) 2-Nitrobenzylidenamidoguanidin. Sm. 185°. HNO₃ (A. 302, 304).
 - 3) 3-Nitrobenzylidenamidoguanidin. Sm. 210° u. Zers. HNO₃ (A. 302, 305).
 - 4) 4-Nitrobenzylidenamidoguanidin + H₂O. Sm. 198° (206°). HNO₃ (B. 30, 448; A. 302, 305).
- C₈H₉O₂N₇**
- C 40,8 — H 3,8 — O 13,6 — N 41,7 — M. G. 235.
- C₈H₉O₂Cl**
- 1) Azolimidokaffein (B. 27, 3690). — III, 960.
 - 1) 6-Chlor-2,4-Dioxy-1,3-Dimethylbenzol. Sm. 106° (B. 23, 3117). — II, 967.
 - 2) 3-Chlor-2,5-Dioxy-1,4-Dimethylbenzol. Sm. 147° (A. 151, 166; J. pr. [2] 23, 431). — II, 969.
 - 3) Dimethyläther d. 4-Chlor-1,2-Dioxybenzol. Sd. 242,4°_{763,2} (G. 28 [1] 232).
 - 4) Dimethyläther d. p-Chlor-1,3-Dioxybenzol. Sm. 118° (B. 11, 1039). — II, 920.
- C₈H₉O₂Br**
- 1) 4-Brom-1-[αβ-Dioxyäthyl]benzol. Sm. 102° (B. 24, 1335). — II, 1098.
 - 2) 6-Brom-2,4-Dioxy-1,3-Dimethylbenzol. Sm. 126° (B. 23, 3116). — II, 967.
 - 3) Dimethyläther d. 4-Brom-1,2-Dioxybenzol. Sd. 254,5–256° (Bl. [3] 15, 338, 649; [3] 17, 114; G. 26 [2] 230).
 - 4) Dimethyläther d. p-Brom-1,4-Dioxybenzol. Sd. 262–263° (B. 23, 3250). — II, 943.
 - 5) Bromdihydroisophenylelessigsäure. Sm. 127° (B. 30, 636).
- C₈H₉O₂J**
- 1) p-Jod-3,5-Dioxy-1,4-Dimethylbenzol. Sm. 93° (A. 203, 298). — II, 968.
- C₈H₉O₂P**
- 1) Anhydro-4-Aethylphenylphosphinsäure (Phosphinoäthylbenzol). Sm. 68° (A. 293, 319). — IV, 1674.
- C₈H₉O₃N**
- C 57,5 — H 5,4 — O 28,7 — N 8,4 — M. G. 167.
- 1) p-Nitro-2-Oxy-1-Aethylbenzol. Sd. 212–215°. Ba + H₂O (M. 1, 178). — II, 757.
 - 2) 5-Nitro-4-Oxy-1,3-Dimethylbenzol. Sm. 72°. K + 3H₂O (A. 182, 33; 296, 199; Soc. 63, 105). — II, 759.
 - 3) 6-Nitro-4-Oxy-1,3-Dimethylbenzol. Sm. 95°. K + 2H₂O (B. 18, 616, 1136). — II, 760.
 - 4) 5-Nitro-2-Oxy-1,4-Dimethylbenzol. Sm. 115° (122°) (G. 12, 162; B. 18, 570). — II, 760.
 - 5) 6-Nitro-2-Oxy-1,4-Dimethylbenzol. Sm. 91° (89°). K + H₂O, Ba + H₂O (G. 12, 162; B. 19, 2320). — II, 760.
 - 6) p-Nitro-2-Oxy-1,4-Dimethylbenzol. Sd. 236° u. Zers. Ba (G. 12, 162). — II, 760.
 - 7) Methyläther d. 2-Nitro-1-Oxymethylbenzol. Sd. 130–132°₁₈ (A. 305, 108).
 - 8) Methyläther d. 3-Nitro-2-Oxy-1-Methylbenzol. Fl. (B. 14, 568). — II, 739.

- C₈H₅O₃N**
- 9) Methyläther d. 4-Nitro-3-Oxy-1-Methylbenzol. Sm. 51—52° (B. 31, 398).
 - 10) Methyläther d. 6-Nitro-3-Oxy-1-Methylbenzol. Sm. 55° (B. 31, 394).
 - 11) Methyläther d. 2-Nitro-4-Oxy-1-Methylbenzol. Sm. 17°; Sd. 266 bis 267° (B. 15, 300, 1071; 24, 4140; A. 215, 88). — II, 751.
 - 12) Methyläther d. 3-Nitro-4-Oxy-1-Methylbenzol. Sd. 274° u. Zers. (B. 7, 1273). — II, 752.
 - 13) Aethyläther d. 2-Nitro-1-Oxybenzol. Sd. 267—268°₇₅₇ (J. pr. [2] 12, 207; [2] 21, 343; R. 13, 124). — II, 679.
 - 14) Aethyläther d. 3-Nitro-1-Oxybenzol. Sm. 34°; Sd. 264° u. ger. Zers. (284°) (B. 11, 2101; J. pr. [2] 32, 71). — II, 681.
 - 15) Aethyläther d. 4-Nitro-1-Oxybenzol. Sm. 60° (57—58°); Sd. 283°₇₆₈ (A. 110, 166; J. 1858, 412; B. 14, 37, 2637; 15, 1002; J. pr. [2] 21, 331; Am. 1, 271; R. 13, 130). — II, 682.
 - 16) p-Nitroso-3,5-Dioxy-1,4-Dimethylbenzol (A. 203, 299). — II, 969.
 - 17) Monomethyläther d. 2-Nitroso-3,5-Dioxy-1-Methylbenzol. Sm. 119—120° (M. 18, 177).
 - 18) 3-Monäthyläther d. 4-Nitroso-1,3-Dioxybenzol. Zers. bei 210°. Na (B. 12, 31; M. 1, 896; 12, 371; 19, 548). — II, 923.
 - 19) 1-Aethyläther d. p-Nitroso-1,3-Dioxybenzol. Sm. 133,5° K (M. 19, 539).
 - 20) 1-Aethyläther d. isom. p-Nitroso-1,3-Dioxybenzol. Sm. 102°. Na, Ag (M. 19, 544).
 - 21) 2-Formylamido-3,5-Dioxy-1-Methylbenzol. Sm. 195—198°. Zers. bei 208° (M. 19, 514).
 - 22) 2-Acetylamido-1,4-Dioxybenzol. Sm. 100° (B. 31, 2400).
 - 23) 1-Methyläther d. 1-Oximido-6-Oxy-4-Keto-2-Methyl-1,4-Dihydrobenzol. Sm. 117° (M. 18, 187).
 - 24) Dimethyläther d. 4-Oximido-2-Oxy-1-Keto-1,4-Dihydrobenzol. Sm. 105—106° (M. 18, 478).
 - 25) 2-Aethyläther d. 4-Oximido-2-Oxy-1-Keto-1,4-Dihydrobenzol (M. 18, 479).
 - 26) Methyl-p-Amido-2,4-Dioxyphenylketon. HCl (J. pr. [2] 23, 537). — III, 136.
 - 27) α-Oximido-α-[2,4-Dioxyphenyl]äthan. Sm. 198—200° u. Zers. (202°) (M. 15, 243; J. pr. [2] 53, 42). — III, 135.
 - 28) isom. α-Oximido-α-[2,4-Dioxyphenyl]äthan. Sm. 223—225° u. Zers. (J. pr. [2] 53, 42).
 - 29) α-Oximido-α-[2,5-Dioxyphenyl]äthan. Sm. 149—150° (Soc. 67, 998). — III, 137.
 - 30) 2-Methyläther d. 2,4-Dioxybenzaldoxim. Sm. 171° (B. 24, 3653). — III, 97.
 - 31) 3-Methyläther d. 3,4-Dioxybenzaldoxim (Vanillinaldoxim). Sm. 117° (121—122°) (B. 16, 1787; 18, 1664; 24, 3654). — III, 104.
 - 32) 5-Dimethylamido-2-Oxy-1,4-Benzochinon (B. 23, 906). — III, 347.
 - 33) 4-Methoxybenzhydroxamsäure. Sm. 156—157°. K (A. 175, 284; 182, 218). — II, 1532.
 - 34) 2-Oxyphenylamidoessigsäure + H₂O (J. pr. [2] 29, 289). — II, 712.
 - 35) 4-Oxyphenylamidoessigsäure. Sm. 200°. Na (J. pr. [2] 29, 291; C. 1897 [1] 834). — II, 721.
 - 36) 5-Amido-1-Oxymethylbenzol-2-Carbonsäure. Cu (B. 18, 3452). — II, 1559.
 - 37) 5-Amido-2-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. oberh. 300° u. Zers. (B. 23, 3476). — II, 1546.
 - 38) 6-Amido-3-Oxy-1-Methylbenzol-4-Carbonsäure. Sm. 265° (B. 23, 3478; 26, 1851). — II, 1550.
 - 39) 3-Amido-4-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 204—205° u. Zers. Ca, Ag, HCl, (2HCl, PCl₅), HJ, HNO₃, H₂SO₄ (A. 92, 327; 109, 21; 117, 54; G. 12, 93; 14, 247; B. 30, 1476). — II, 1540.
 - 40) Oxyessig-2-Amidophenyläthersäure. K, Pb (J. pr. [2] 29, 180; siehe auch das Anhydrid C₈H₅O₃N). — II, 712.
 - 41) Oxyessig-4-Amidophenyläthersäure + H₂O. Sm. oberh. 312°. NH₄, HCl (B. 30, 347; J. pr. [2] 20, 293; [2] 55, 118). — II, 721.
 - 42) α-Oxy-β-[2-Pyridyl]propionsäure. Sm. 124—125°. (Cu, CuO), Ag, (2HCl, PCl₅), (HCl, AuCl₃), HBr (A. 265, 212). — IV, 154.

- $C_8H_5O_3N$ 43) α -Oxy- α -[3-Pyridyl]propionsäure. 2 + $PtCl_4$ + $AuCl$, (Bl. 48, 227). — IV, 155.
- 44) β -Oxy- β -[2-Pyridyl]propionsäure. Sm. 86°. (Cu, CuO), HCl, (2HCl, $PtCl_4$) (A. 265, 231). — IV, 154.
- 45) p -Oxy- p -Aethylpyridin- p -Carbonsäure + $\frac{1}{2} H_2O$ (J. pr. [2] 29, 380). — IV, 155.
- 46) 6-Oxypyridinäthyläther-3-Carbonsäure. Sm. 183° (B. 28, 122). — IV, 153.
- 47) 2-Keto-4,6-Dimethyl-1,2-Dihydropyridin-5-Carbonsäure (Pseudolutidostyrlcarbonsäure). Sm. bei 304°. Ag_2 (A. 261, 206; Soc. 71, 306). — IV, 155.
- 48) 2-Keto-4-Methyl-1,2-Dihydropyridin-6-Methylcarbonsäure (Isolutidostyrlcarbonsäure). Sm. 190—191°. Ag_2 (A. 226, 310; Soc. 59, 174; 71, 310). — IV, 155.
- 49) β -Lakton d. γ -Cyan- $\beta\delta$ -Dioxy- δ -Methyl- β -Penten- ϵ -Carbonsäure (Oxyhydrocyanmesitenlakton). Sm. 65° (A. 266, 345). — I, 1481.
- 50) Methylester d. 3-Amido-2-Oxybenzol-1-Carbonsäure. Sm. 89—90° (C. 1897 [2] 672).
- 51) Methylester d. 5-Amido-2-Oxybenzol-1-Carbonsäure. Sm. 96° (B. 27, 1934; C. 1897 [2] 672). — II, 1512.
- 52) Methylester d. 4-Amido-3-Oxybenzol-1-Carbonsäure. Sm. 120° (C. 1897 [2] 672; 1898 [2] 526).
- 53) Methylester d. 6-Amido-3-Oxybenzol-1-Carbonsäure. Sm. 153° (B. 27, 1933; C. 1897 [2] 672). — II, 1521.
- 54) Methylester d. 3-Amido-4-Oxybenzol-1-Carbonsäure. Sm. 110 bis 111° (142°) (B. 30, 992; C. 1897 [2] 672; 1898 [2] 526, 527).
- 55) Methylester d. Pyrrol-2-Carbonsäure-5-Ketocarbonsäure. Sm. 113° (B. 17, 1156). — IV, 88.
- 56) 2-Methoxylphenylester d. Amidoameisensäure. Sm. 127° (A. 244, 44). — II, 910.
- 57) Acetat d. 2-[α -Oximidoäthyl]furan. Sm. 96°; Sd. 135°₁₀ (C. 1898 [1] 327).
- 58) Amid d. Dehydracetsäure. Sm. 208,5° (196—200°) (B. 9, 1100; Soc. 63, 128). — II, 1756.
- $C_8H_4O_5N_2$ 59) Verbindung (aus Dehydracetsäure). Sm. 196—200° (Soc. 63, 128).
C 49,2 — H 4,6 — O 24,6 — N 21,5 — M. G. 195.
- 1) 2-Nitro-1-Aethylnitrosamidobenzol. Sm. 30° (J. pr. [2] 41, 163). — II, 332.
- 2) 3-Nitro-1-Aethylnitrosamidobenzol. Sm. 41—42° (47°) (B. 19, 546; Soc. 51, 441). — II, 332.
- 3) 4-Nitro-1-Aethylnitrosamidobenzol. Sm. 119,5° (Soc. 49, 61; B. 31, 2531; 32, 72). — II, 332.
- 4) 4-Nitro-2-Methylnitrosamido-1-Methylbenzol. Sm. 95° (A. 304, 101).
- 5) 5-Nitro-2-Methylnitrosamido-1-Methylbenzol. Sm. 65° (B. 25, 3132). — II, 457.
- 6) 6[p]-Nitro-3-Methylnitrosamido-1-Methylbenzol. Sm. 73—74° (B. 31, 2534).
- 7) 2-Nitro-4-Methylnitrosamido-1-Methylbenzol. Sm. 55° (B. 28, 3040).
- 8) Methyläther d. 4-Nitro-2-Methylnitrosamido-1-Oxybenzol. Sm. 138° (A. 255, 181). — II, 731.
- 9) 2-Nitro-4-Acetylamido-1-Amidobenzol. Sm. 189° (B. 17, 148; 19, 339; 30, 980). — IV, 588.
- 10) 2-Nitrobenzylharnstoff. Sm. 150° (B. 24, 3092). — II, 525.
- 11) 4-Nitrobenzylharnstoff. Sm. 196—197° (B. 23, 339). — II, 525.
- 12) 2-Nitro-4-Methylbenzenylamidoxim. Sm. 161°. HCl (B. 22, 2431). — II, 1348.
- 13) 2-Oxybenzenyluramidoxim. Sm. 148° u. Zers. (B. 22, 2789). — II, 1502.
- 14) β -Nitro- β -Phenylhydrazon- α -Oxyäthan. Sm. 104° (A. 256, 34). — IV, 1375.
- 15) Methyläther d. 4-Nitro-2-Methyldiazobenzol. Sm. 94° (B. 28, 241). — IV, 1530.
- 16) Aethyläther d. 4-Nitrodiazobenzol. Sm. 24° (B. 28, 240). — IV, 1525.
- 17) 4-Amidophenylharnstoff-3-Carbonsäure. HCl, Ag (B. 5, 195; 15, 1881). — II, 1262.

- $C_9H_7O_3N_3$ 18) **6-Amidophenylharnstoff-3-Carbonsäure.** Sm. noch nicht bei 270°. Ag (*B.* 5, 195; 15, 1881; *A.* 291, 326). — II, 1262.
- 19) **2-Amidophenylharnstoff-4-Carbonsäure.** Sm. noch nicht bei 270° (*A.* 291, 334).
- 20) **Methylamid d. 5-Nitro-2-Amidobenzol-1-Carbonsäure.** Sm. 230 bis 231° (*J. pr.* [2] 53, 215).
- 21) **Phenylhydrazid d. Oxalhydroxamsäure.** Sm. 178—180° u. Zers. (*A.* 295, 167). — IV, 700.
- 22) **2-Nitrophenylhydrazid d. Essigsäure.** Sm. 140—141° (*B.* 22, 2804). — IV, 664.
- 23) **3-Nitrophenylhydrazid d. Essigsäure.** Sm. 145° (*B.* 22, 2810). — IV, 664.
- 24) **4-Nitrophenylhydrazid d. Essigsäure.** Sm. 205° (*B.* 26, 1316). — IV, 664.
- $C_9H_7O_3Cl_3$ 1) **Aethylester d. $\alpha\alpha\alpha$ -Trichlor- δ -Keto- β -Penten- γ -Carbonsäure** (Ac. d. Trichloracetyläthylidenessigsäure). Fl. (*A.* 218, 175). — I, 620.
- $C_9H_7O_4N$ C 52,4 — H 4,9 — O 35,0 — N 7,6 — M. G. 183.
- 1) **Dimethyläther d. 3-Nitro-1,2-Dioxybenzol.** Sm. 64—65° (*C.* 1898 [1] 616, 1024).
- 2) **Dimethyläther d. 4-Nitro-1,2-Dioxybenzol.** Sm. 95—96° (*A.* 108, 61; *B.* 9, 939; 11, 131; *M.* 15, 230; *Bl.* [3] 15, 647; *C.* 1898 [1] 1024). — II, 911.
- 3) **Dimethyläther d. 2-Nitro-1,4-Dioxybenzol.** Sm. 71,5° (*B.* 11, 1037; *A.* 207, 253; *J. pr.* [2] 48, 183). — II, 945.
- 4) **1-Aethyläther d. 4-Nitro-1,3-Dioxybenzol.** Sm. 79° (*M.* 1, 897). — II, 924.
- 5) **3-Aethyläther d. 4-Nitro-1,3-Dioxybenzol.** Sm. 131° (*M.* 1, 895). — II, 924.
- 6) **Monäthyläther d. 2-Nitro-1,4-Dioxybenzol.** Sm. 83° (*M.* 2, 370). — II, 946.
- 7) **α -Oximido- α -[β -Trioxyphenyl]äthan** (Oxim d. Gallacetophenon). Sm. 162 bis 163° (*Soc.* 67, 997). — III, 139.
- 8) **Dehydracetsäureoxim.** Sm. 171—173° u. Zers. (*B.* 17, 2087; *Soc.* 51, 493). — II, 1756.
- 9) **1-Aethylpyrrol- β -Dicarbonsäure.** Ag₂ (*B.* 10, 1865). — IV, 91.
- 10) **2,4-Dimethylpyrrol-3,5-Dicarbonsäure.** Zers. bei 260° (*A.* 236, 317; *G.* 22 [2] 15). — IV, 92.
- 11) **2,5-Dimethylpyrrol-3,4-Dicarbonsäure.** Sm. 250—251°. NH₄, (NH₄)₂, Ba, Cu + 3H₂O (*B.* 18, 302, 1559; *G.* 22 [2] 16). — IV, 91.
- 12) **Aethylkomenaminsäure + 2H₂O.** Sm. 210° u. Zers. Pb + 2H₂O (*J. pr.* [2] 32, 178). — IV, 158.
- 13) **Biliverdinsäure.** Sm. 110—111°. NH₄, Ca + H₂O, Cd, Ag₂ + H₂O (*B.* 30, 1831; *H.* 26, 226).
- 14) **zweibas. Hämatinsäure.** Sm. 112—113°. Ca + H₂O, Ag₂ (*B.* 29, 823; 30, 107; 32, 679).
- 15) **Dimethylester d. Pyrrol- β -Dicarbonsäure.** Sm. 132° (*B.* 19, 1960). — IV, 90.
- 16) **Aethylester d. Komenaminsäure + H₂O.** Sm. 205°. HCl + H₂O, Ba + 2H₂O (*J.* 1855, 495; *J. pr.* [2] 24, 284; [2] 27, 270). — IV, 158.
- 17) **Aethylester d. 2,6-Dioxypyridin-3-Carbonsäure.** Sm. 179°. Na (*G.* 27 [2] 406; *B.* 31, 1245).
- 18) **Aethylester d. 4,6-Dioxypyridin-3-Carbonsäure.** Sm. 213° u. Zers. Ba + 6H₂O (*B.* 31, 1685).
- 19) **Aethylester d. 2,6-Dioxypyridin-4-Carbonsäure** (Ac. d. Citrazinsäure) (*B.* 17, 2691). — I, 1406.
- 20) **Aethylester d. 6-Oxy-2-Keto-1,2-Dihydropyridin-5-Carbonsäure.** Sm. 183°. NH₄, Na, Ag (*J. pr.* [2] 58, 419).
- $C_9H_7O_4N_3$ C 45,5 — H 4,3 — O 30,3 — N 19,9 — M. G. 211.
- 1) **2,4-Dinitro-1-Aethylamidobenzol.** Sm. 113—114° (*R.* 2, 104; *J. pr.* [2] 39, 199; *B.* 18, 1997; 31, 2531). — II, 333.
- 2) **4-Nitro-1-Aethylnitramidobenzol.** Sm. 90° (*B.* 30, 1254). — IV, 1530.
- 3) **3,5-Dinitro-4-Amido-1-Aethylbenzol.** Sm. 134—135° (*B.* 17, 769). — II, 537.

- C₉H₇O₄N₃**
- 4) 3,5-Dinitro-2-Methylamido-1-Methylbenzol. Sm. 128° (126,5—127,5°) (B. 30, 1255; 31, 2534).
 - 5) 3,5-Dinitro-4-Methylamido-1-Methylbenzol. Sm. 128—128,5° (129 bis 130°) (B. 30, 1258; 31, 2535).
 - 6) p-Dinitro-4-Methylamido-1-Methylbenzol. Sm. 158,5—159,5° (B. 30, 839).
 - 7) p-Dinitro-4-Methylamido-1-Methylbenzol. Sm. 184,5—185,5° (B. 28, 3041; 30, 840).
 - 8) 2,4-Dinitro-1-Dimethylamidobenzol. Sm. 87°. HCl, (2HCl, PtCl₄) (B. 8, 621; 10, 763, 995; 15, 1234; 19, 2124; 29, 1053; 30, 2851; R. 2, 40; 8, 249; J. 1881, 458). — II, 330.
 - 9) isom. Dinitro-1-Dimethylamidobenzol. Sm. 176° (R. 6, 253; B. 29, 1053). — II, 330.
 - 10) isom. Dinitro-1-Dimethylamidobenzol. Sm. 112° (R. 6, 253; 8, 253). — II, 330.
 - 11) 2-Nitro-1-Methylnitramidomethylbenzol. Sm. 87° (R. 14, 245). — IV, 1533.
 - 12) 4-Nitro-1-Methylnitramidomethylbenzol. Sm. 70—71° (R. 14, 246; B. 31, 181). — IV, 1533.
 - 13) 5-Nitro-2-Methylnitramido-1-Methylbenzol. Sm. 70,5° (B. 30, 1255). — IV, 1532.
 - 14) 2-Nitro-4-Methylnitramido-1-Methylbenzol. Sm. 82—83° (B. 30, 836).
 - 15) 3-Nitro-4-Methylnitramido-1-Methylbenzol. Sm. 106—107° (105 bis 105,5°) (B. 30, 835, 1258). — IV, 1533.
 - 16) 3,5-Dinitro-4-Methylamido-1-Methylbenzol. Sm. 129° (B. 10, 1584; 18, 1487; 29, 1016). — II, 484.
 - 17) 4,6-Dinitro-2-Amido-1,3-Dimethylbenzol. Sm. 177° (B. 24, 568). — II, 542.
 - 18) 2,5-Dinitro-4-Amido-1,3-Dimethylbenzol. Sm. 115° (B. 29, 313).
 - 19) 2,6-Dinitro-4-Amido-1,3-Dimethylbenzol (G. 27 [1] 296).
 - 20) 3,5-Dinitro-2-Amido-1,4-Dimethylbenzol. Sm. 202—203° (B. 19, 145). — II, 546.
 - 21) p-Dinitro-p-Amido-p-Dimethylbenzol (unbekannter Constit.). Sm. 191 bis 192° (A. 113, 166; 133, 45; 144, 277; 147, 24). — II, 547.
 - 22) Dinitroamidodimethylbenzol (unbek. Const.). Sm. 105° (B. 5, 879). — II, 548.
 - 23) O-Methyläther d. 4-Nitrobenzylnitramin. Sm. 115—116° u. Zers. (B. 31, 182). — IV, 1533.
 - 24) Methyläther d. 4-Nitrobenzylisonitramin. Sm. 145—146° (B. 31, 183).
 - 25) Methyläther d. 4-Nitrobenzylnitrosohydroxylamin. Sm. 26° (B. 31, 183).
 - 26) Methyläther d. 5-Nitro-1-Methyl-2-Diazobenzolsäure. Sm. 110° (B. 30, 1256). — IV, 1533.
 - 27) Methyläther d. 3-Nitro-1-Methyl-4-Diazobenzolsäure. Fl. (B. 30, 1258). — IV, 1533.
 - 28) Aethyläther d. 4-Nitro-1-Diazobenzolsäure. Sm. 83° (B. 30, 1254). — IV, 1530.
- C₉H₇O₄N₃** C 40,2 — H 3,8 — O 26,7 — N 29,3 — M. G. 239.
- 1) Nitrokaffein (A. 46, 229; 73, 57; Z. 1867, 616). — III, 960.
- C₉H₇O₄N** C 48,2 — H 4,5 — O 40,2 — N 7,0 — M. G. 199.
- 1) Monäthyläther d. p-Nitro-1,2,3-Trioxybenzol. Sm. 139° (wasserfrei) (M. 2, 215). — II, 1015.
- C₉H₇O₅N₃** C 42,3 — H 4,0 — O 35,2 — N 18,5 — M. G. 227.
- 1) 4,6-Dinitro-3-Dimethylamido-1-Oxybenzol. Sm. 195°. NH₄, K, Ba + 1½ H₂O, Ag (M. 6, 808). — II, 735.
 - 2) Methyläther d. 4,6-Dinitro-2-Methylamido-1-Oxybenzol. Sm. 168° (B. 24 [2] 904). — II, 733.
 - 3) Aethyläther d. 2,6-Dinitro-4-Amido-1-Oxybenzol. Sm. 145° (G. 19, 221). — II, 735.
 - 4) Allokaffein (Methylapokaffein). Sm. 196—198° (203°) (A. 215, 275; 228, 169; B. 30, 3011; 31, 2159). — III, 962.
 - 5) Aethylapotheofomin. Sm. 137—138° (C. 1897 [1] 284; 1897 [2] 1047). — III, 955.

- $C_8H_7O_3N_3$ 6) isom. Aethylapothoeobromin? (A. 215, 307). — III, 956.
7) 1,2,4-Triacetyl-3,5-Diketotetrahydro-1,2,4-Triazol (Triacetylurazol). Sm. 138° (C. 1898 [1] 39).
- $C_8H_7O_3N_3$ C 37,6 — H 3,5 — O 31,4 — N 27,5 — M. G. 255.
- $C_8H_7O_3Cl_3$ 1) Methyl-3,5-Dinitro-2-Oxyphenylguanidin (B. 15, 451). — II, 734.
- $C_8H_7O_3Cl_3$ 1) Chloralglykosan. Sm. 225° (Bl. [3] 15, 632).
2) Aethylester d. Äpfelsäurechloralid. Sm. 45–46° (A. 193, 45). — I, 934.
- $C_8H_7O_3P$ 1) 2-Methylphenylphosphinsäure-4-Carbonsäure. Sm. 262°. Pb + H₂O, Ag₃ (B. 20, 1724; 21, 1493). — IV, 1675.
2) 2-Methylphenylphosphinsäure-5-Carbonsäure. Sm. 278° (B. 21, 1496). — IV, 1676.
3) 3-Methylphenylphosphinsäure-5-Carbonsäure. Sm. 220°. Ag₃ (B. 20, 1725; 21, 1493). — IV, 1676.
- $C_8H_7O_3As$ 1) Methylester d. Phenylarsin-4-Carbonsäure (A. 208, 12). — IV, 1693.
- $C_8H_7O_3N_5$ C 35,4 — H 3,3 — O 35,4 — N 25,8 — M. G. 271.
1) 2,4,6-Trinitro-1,3-Di[Methylamido]benzol. Sm. 235° u. Zers. (R. 7, 5). — IV, 570.
2) *s*-Aethyl-2,4,6-Trinitrophenylhydrazin. Sm. 200° u. Zers. (A. 199, 299). — IV, 658.
- $C_8H_7O_3N_5$ C 33,4 — H 3,1 — O 39,0 — N 24,4 — M. G. 287.
1) Aethyläther d. 2,4,6-Trinitro-3-Oxyphenylhydrazin. Sm. 173° (G. 25 [2] 500).
2) Uramilsäure. Ag₄ (A. 26, 314). — I, 1375.
- $C_8H_7O_3Cl_3$ 1) Dimethylester d. Trichloracetylweinsäure. Sm. 79–80° (Soc. 73, 186).
- $C_8H_7O_3P$ 1) Dehydracetsäurephosphat. Sm. 205° u. Zers. (B. 25, 346). — II, 1756.
- $C_8H_7NCl_2$ 1) 2,4-Dichlor-1-Dimethylamidobenzol. Sd. 234°. (2 HCl, PtCl₄) (J. pr. [2] 16, 462; B. 5, 879). — II, 328.
2) 4,6-Dichlor-2-Amido-1,3-Dimethylbenzol. Sm. 85°. (2 HCl, PtCl₄) (J. pr. [2] 42, 119). — II, 542.
3) *p*-Dichlor-5-Amido-1,3-Dimethylbenzol. Sm. 72°; Sd. 265–266° (B. 29, 312).
- $C_8H_7NBr_2$ 1) 4,5-Dibrom-3-Amido-1,2-Dimethylbenzol. Sm. 103° (B. 18, 2562). — II, 540.
2) *p*-Dibrom-4-Amido-1,3-Dimethylbenzol (B. 3, 226). — II, 543.
3) 3,5-Dibrom-2-Amido-1,4-Dimethylbenzol. Sm. 65° (B. 19, 142). — II, 546.
4) 3,6-Dibrom-2-Amido-1,4-Dimethylbenzol. Sm. 91–92° (B. 29, 2344).
5) 3,5-Dibrom-2,4,6-Trimethylpyridin. Sm. 81°; Sd. 262–263°, HCl, (2 HCl, PtCl₄ + 2 H₂O), H₂Cr₂O₇, Pikrat (B. 20, 1345). — IV, 136.
- $C_8H_7NJ_2$ 1) $\beta\beta$ -Dijod- β -Amido- α -Phenyläthan (B. 25, 2543). — II, 1314.
2) 2-Methylphenyldijodamidomethan. Sm. 98° u. Zers. (B. 25, 2540). — II, 1330.
3) 3-Methylphenyldijodamidomethan (B. 25, 2540). — II, 1336.
4) 4-Methylphenyldijodamidomethan. Sm. 115–120° (B. 25, 2539). — II, 1342.
- C_8H_7NS 1) Amid d. Phenylthioessigsäure. Sm. 97,5–98° (A. 184, 293; B. 8, 821; II, 503–504). — II, 1327.
2) Amid d. 1-Methylbenzol-2-Thiocarbonsäure. Sm. 88° (B. 24, 786). — II, 1335.
3) Amid d. 1-Methylbenzol-4-Thiocarbonsäure. Sm. 168° (B. 8, 441; 24, 787). — II, 1353.
4) Phenylamid d. Thioessigsäure. Sm. 75° (B. 10, 2134; II, 339, 1595; 19, 1071). — II, 368.
5) 2-Methylphenylamid d. Thioameisensäure. Sm. 94–96° (B. 18, 2293; A. 270, 813). — II, 460.
6) 4-Methylphenylamid d. Thioameisensäure. Sm. 173,5° (175–176°) (B. 18, 2295; Am. 16, 376). — II, 490.
- $C_8H_7NS_2$ 1) Benzylamidodithioameisensäure. Benzylaminsalz Sm. 119° u. Zers. (B. 24, 2725). — II, 527.
2) 2-Methylphenylamidodithioameisensäure. Ni (B. 24, 3027). — II, 464.
3) 3-Methylphenylamidodithioameisensäure. Ni (B. 24, 3027). — II, 479.

- $C_6H_5NS_2$ 4) 4-Methylphenylamidodithioameisensäure. NH_4 , Ba, Ni (B. 24, 3026). — II, 496.
5) Methylester d. Phenylamidodithioameisensäure. Sm. 93,5° (87–88°) (B. 15, 342; 24, 3025). — II, 386.
- $C_6H_5N_2Cl$ 1) 2,5-Dimethylphenyldiazobenzolchlorid. 3 + HCl (B. 30, 1155). — IV, 1533.
- $C_6H_5N_2Br$ 1) Aethyliden-4-Bromphenylhydrazin. Sm. 83° (87°) (A. 248, 95; Am. 21, 31). — IV, 746.
- $C_6H_5N_2J$ 1) Aethyliden-4-Jodphenylhydrazin. Sm. 107° (A. 248, 99). — IV, 746.
- $C_6H_5N_2Br_2$ 1) Brommethylat d. 5-Brom-1-Methyl-1,2,3-Benzotriazol. Sm. 206° (A. 249, 366). — IV, 1143.
- $C_6H_5N_2S$ 1) 5-Dimethylamidobenzthiodiazol. Sm. 78° (A. 251, 30). — IV, 1548.
- $C_6H_5N_2S_2$ 1) Amid d. α -Phenyldithioallophansäure (α -Phenyldithiobiuret). Sm. 184°. HCl, HNO_3 (A. 154, 44; 275, 34; B. 4, 52; 25, 756). — II, 399.
- $C_6H_5Cl_2P$ 1) 4-Aethylphenyldichlorphosphin. Sd. 250–252° (A. 293, 314). — IV, 1674.
2) 2,4-Dimethylphenyldichlorphosphin. Sd. 256–258° (A. 212, 236; B. 20, 1720). — IV, 1675.
3) 2,5-Dimethylphenyldichlorphosphin. Sd. 253–254° (B. 21, 1494). — IV, 1675.
- $C_6H_5Cl_3P$ 1) 4-Aethylphenylphosphortetrachlorid. Sm. 51° (A. 293, 315). — IV, 1674.
2) 2,5-Dimethylphenylphosphortetrachlorid. Sm. 60° (B. 21, 1494). — IV, 1675.
- $C_6H_5ON_2$ C 64,0 — H 6,7 — O 10,7 — N 18,6 — M. G. 150.
1) Aethylnitrosamidobenzol. Fl. (B. 7, 128). — II, 332.
2) 4-Nitroso-1-Aethylamidobenzol. Sm. 78°. HCl, Oxalat, Pikrat, 3 + $AgNO_3$ (B. 19, 2993; A. 286, 156). — II, 332.
3) 4-Nitroso-1-Dimethylamidobenzol. Sm. 85°. HCl, (2HCl + 2ClJ), H_2SO_4 , Oxalat, Ferrocyanat + $2\frac{1}{2}H_2O$, + $AgNO_3$, 2 + 3J, 3 + 2J (B. 7, 963; 8, 620; 12, 523, 1823; 19, 2010; 26, 1314; 31, 1145; M. 4, 506; Soc. 39, 37; Am. 10, 294). — II, 329.
4) 2-Methylnitrosamido-1-Methylbenzol (B. 11, 2278).
5) 4-Methylnitrosamido-1-Methylbenzol. Sm. 52–53° (54°) (B. 10, 1584; 24, 2081). — II, 484.
6) 5-Nitroso-2-Methylamido-1-Methylbenzol. Sm. 151°. HCl + H_2O (A. 243, 308). — II, 457.
7) 5-Nitroso-2-Amido-1,4-Dimethylbenzol. Sm. 169° (A. 255, 174). — II, 546.
8) 3-Amido-1-Acetylamidobenzol. Sm. 70–100° u. Zers. HCl (B. 15, 3020; A. 293, 380; Soc. 67, 928). — IV, 574.
9) 4-Amido-1-Acetylamidobenzol. Sm. 162–162,5°. HCl, (2HCl, $PtCl_4$), H_2SO_4 (B. 17, 343; 27, 398; A. 293, 372). — IV, 588.
10) α -Methylphenylharnstoff. Sm. 150,5–151,5° (149–150°) (Soc. 67, 561; B. 30, 650).
11) α -Methylphenylharnstoff. Sm. 82° (B. 17, 2095; Soc. 73, 626). — II, 377.
12) 2-Methylphenylharnstoff. Sm. 185° (B. 13, 1089; Soc. 73, 626). — II, 463.
13) 3-Methylphenylharnstoff. Sm. 142° (B. 12, 1450; 14, 1090). — II, 478.
14) 4-Methylphenylharnstoff. Sm. 180° (172°) (A. 126, 157; B. 8, 519; 12, 1450; Soc. 73, 626). — II, 494.
15) Benzylharnstoff. Sm. 147–147,5° (149°) (B. 4, 412; 5, 91; 9, 81; Soc. 73, 626). — II, 525.
16) β -Imido- β -Amido- α -Oxy- α -Phenyläthan (Oxyphenylacetamidin). Sm. 110°. HCl, HNO_3 (J. pr. [2] 28, 191; [2] 31, 387; A. 297, 371). — II, 1552; IV, 850.
17) Methyläther d. α -Imido- α -Amido- α -[4-Oxyphenyl]methan (Anisamidin). HCl + H_2O , (2HCl, $PtCl_4$), HNO_3 , Sulfat (B. 23, 107; A. 297, 384). — IV, 849.
18) β -Amido- α -Oximido- α -Phenyläthan. Sm. 140° (B. 30, 1127).
19) β -Amido- β -Oximido- α -Phenyläthan. Sm. 67°. HCl (B. 18, 1068). — II, 1314.

- $C_8H_9ON_2$ 20) α -Oximido- α -[2-Amidophenyl]äthan. Sm. 109° (B. 24, 2374; 29, 1262). — III, 132.
- 21) α -Oximido- α -[4-Amidophenyl]äthan. Sm. 147—148° (B. 20, 512). — III, 132.
- 22) Methyläther d. 2-Amidobenzaldoxim. Fl. HCl (B. 14, 2339). — III, 51.
- 23) 2-Methylbenzenylamidoxim. Sm. 149,5° (B. 22, 2438). — II, 1330.
- 24) 4-Methylbenzenylamidoxim. Sm. 145—146°. Na, HCl, HBr (B. 19, 1488; 28, 2230). — II, 1343.
- 25) Aethenylphenylamidoxim (Phenylamidoisonitrosoäthan). Sm. 121°. HCl, (2HCl, PtCl₄) (B. 17, 2753; 22, 2408). — II, 448.
- 26) Methyläther d. Benzenylamidoxim. Sm. 57°; Sd. oberh. 230° (B. 17, 1689; 18, 1056; A. 281, 279). — II, 1200.
- 27) 2-[α -Oximidopropyl]pyridin. Sm. 106° (B. 24, 2531). — IV, 184.
- 28) 3-[α -Oximidopropyl]pyridin. Sm. 115° (B. 24, 2541). — IV, 184.
- 29) 2-Methyl-5-[α -Oximidoäthyl]pyridin. Sm. 182° (B. 25, 2989). — IV, 184.
- 30) Amid d. Phenylamidoessigsäure (A. d. Anilidoessigsäure). Sm. 133° (B. 8, 1157; 22, 1809; A. 301, 72). — II, 428.
- 31) Amid d. α -Amido- α -Phenylessigsäure. HCl (B. 14, 1968). — II, 1323.
- 32) Amid d. 4-Amidophenylessigsäure. Sm. 153—154° (G. 20, 598). — II, 1322.
- 33) Amid d. 2-Methylamidobenzol-1-Carbonsäure. Sm. 159—160° (J. pr. [2] 36, 152). — II, 1247.
- 34) Amid d. 4-Amido-1-Methylbenzol-3-Carbonsäure. Sm. 178° (J. pr. [2] 33, 66). — II, 1338.
- 35) Amid d. 6-Amido-1-Methylbenzol-3-Carbonsäure + H₂O. Sm. 115° (wasserfrei) (A. 144, 181). — II, 1339.
- 36) Amid d. 3-Amido-1-Methylbenzol-4-Carbonsäure. Sm. 146—147°. HCl + H₂O (J. pr. [2] 40, 10). — II, 1351.
- 37) Methylamid d. 2-Amidobenzol-1-Carbonsäure. Sm. 79—80° (J. pr. [2] 36, 150). — II, 1246.
- 38) s-Acetylphenylhydrazin (Phenylhydrazid d. Essigsäure). Sm. 127,5 bis 128° (128—130°) (A. 190, 130; Am. 14, 498; 20, 677; B. 19, 1202; 27, 1522; 28, 945; 29, 1994; 31, 662, 2630). — IV, 663.
- 39) uns-Acetylphenylhydrazin. Sm. 125—126° (B. 27, 1695, 2964). — IV, 664.
- 40) s-Formyl-2-Methylphenylhydrazin. Sm. 119° (121°) (Soc. 57, 54; 67, 830; B. 25, 1078). — IV, 801.
- 41) s-Formyl-4-Methylphenylhydrazin. Sm. 164° (B. 27, 1697; Soc. 55, 248). — IV, 805.
- 42) β -Formyl- α -Methyl- α -Phenylhydrazin (uns-Methylphenylhydrazid d. Ameisensäure). Sm. 50—51°; Sd. 185°₁₁ (B. 27, 697). — IV, 663.
- $C_8H_9ON_4$ C 53,9 — H 5,6 — O 9,0 — N 31,5 — M. G. 178.
- 1) 2-Oxybenzylidenamidoguanidin. Sm. 100—102°. HCl, HNO₃, Acetat (B. 31, 945, 2353; A. 302, 302). — IV, 1223.
- 2) 4-Oxybenzylidenamidoguanidin + H₂O. Sm. 204°. HNO₃ (A. 302, 304).
- C_8H_9OS 1) 4-Methyläther d. 4-Oxy-1-Merkaptomethylbenzol. Fl. Ag (B. 24, 1446). — II, 1110.
- 2) 1-Aethyläther d. 3-Merkapto-1-Oxybenzol. Sd. 238—239° (B. 23, 3394). — II, 934.
- 3) 1-Aethyläther d. 4-Merkapto-1-Oxybenzol. Sd. 232,5°. HgCl (B. 25, 1838). — II, 950.
- 4) isom. 1-Aethyläther d. 4-Merkapto-1-Oxybenzol? Sm. 40—41°; Sd. 275—277° (J. pr. [2] 41, 195). — II, 950.
- 5) 4-Aethyläther d. 4-Merkapto-1-Oxybenzol. Sm. 40—41°; Sd. 282 bis 287° (J. pr. [2] 41, 194). — II, 950.
- 6) p-Acetyl-3-Methyl-1,4-Penthiophen. Sd. 233—235° (B. 19, 3272). — III, 765.
- 7) 2[oder 3]-Isobutyrylthiophen. Sd. 232° (B. 19, 675). — III, 765.
- 8) p-Acetyl-2-Aethylthiophen. Sd. 248—258° (B. 18, 3021; 19, 660). — III, 765.
- 9) p-Acetyl-3-Aethylthiophen. Sd. 227° (A. 267, 152). — III, 765.
- 10) p-Acetyl-2,4-Dimethylthiophen. Sd. 226—228° (B. 20, 2019). — III, 765.

- $C_8H_{10}OS$ 11) 3-Acetyl-2,5-Dimethylthiophen. Sd. 223—224° (B. 18, 2301). — III, 764.
- $C_8H_{10}O_2N_2$ C 57,8 — H 6,0 — O 19,3 — N 16,9 — M. G. 166.
- 1) 2-Nitro-1-Aethylamidobenzol. Fl. (J. pr. [2] 41, 163). — II, 332.
 - 2) 3-Nitro-1-Aethylamidobenzol. Sm. 59—60° (B. 19, 546). — II, 332.
 - 3) 4-Nitro-1-Aethylamidobenzol. Sm. 95—95,5° (B. 18, 31; 17, 267; 19, 149). — II, 332.
 - 4) 3-Nitro-4-Amido-1-Aethylbenzol. Sm. 45—47° (43—44°) (B. 17, 770; Bl. [3] 11, 211). — II, 537.
 - 5) 2-Nitro-1-Dimethylamidobenzol. Fl. (2HCl, PtCl₄) (M. 19, 635).
 - 6) 3-Nitro-1-Dimethylamidobenzol. Sm. 60—61°; Sd. 280—285° u. Zers. HCl, H₂SO₄, Pikrat (B. 19, 198, 1944; 27, 1932; 30, 2931). — II, 330.
 - 7) 4-Nitro-1-Dimethylamidobenzol. Sm. 162—163° (B. 8, 620; 10, 761; 12, 529; 14, 2176; 15, 1234; 27, 379). — II, 330.
 - 8) Methylnitramidomethylbenzol (Benzylmethylnitramin). Sm. 22,2°; Sd. 174—175°₁₅ (R. 14, 242). — IV, 1532.
 - 9) 2-Nitro-1-Methylamidomethylbenzol (2-Nitrobenzylmethylamin). Fl. HCl (B. 24, 3094). — II, 515.
 - 10) 4-Nitro-1-Methylamidomethylbenzol (4-Nitrobenzylmethylamin). Fl. HCl, (2HCl, PtCl₄), Oxalat (B. 30, 62).
 - 11) 2-Nitro-4-Amidomethyl-1-Methylbenzol. HCl, (2HCl, PtCl₄), Pikrat (B. 28, 2989).
 - 12) 2-Methylnitramido-1-Methylbenzol. Fl. (B. 30, 1259). — IV, 1532.
 - 13) 4-Methylnitramido-1-Methylbenzol. Sm. 74,5—75,5° (B. 30, 835).
 - 14) 3-Nitro-2-Methylamido-1-Methylbenzol. Sm. 48° (B. 30, 1259; A. 304, 103).
 - 15) 4-Nitro-2-Methylamido-1-Methylbenzol. Sm. 107,5°. HCl, Pikrat (A. 304, 99).
 - 16) 5-Nitro-2-Methylamido-1-Methylbenzol. Sm. 137° (A. 243, 309; B. 25, 3132; 30, 1259). — II, 457.
 - 17) 6[2]-Nitro-3-Methylamido-1-Methylbenzol. Sm. 92—93° (B. 31, 2535).
 - 18) 2-Nitro-4-Methylamido-1-Methylbenzol. Sm. 57° (45°) (B. 28, 3040; Bl. [3] 21, 19).
 - 19) 3-Nitro-4-Methylamido-1-Methylbenzol. Sm. 84—85° (B. 18, 1487). — II, 484.
 - 20) 4-Nitro-3-Amido-1,2-Dimethylbenzol. Sm. 64—65° (B. 24, 567). — II, 540.
 - 21) 6-Nitro-3-Amido-1,2-Dimethylbenzol. Sm. 114° (B. 24, 567). — II, 540.
 - 22) 3-[oder 5]-Nitro-4-Amido-1,2-Dimethylbenzol. Sm. 80° (B. 24, 567). — II, 541.
 - 23) 6-Nitro-4-Amido-1,2-Dimethylbenzol. Sm. 136—137° (B. 24, 567). — II, 541.
 - 24) 4-Nitro-2-Amido-1,3-Dimethylbenzol. Sm. 81—82° (B. 24, 568). — II, 542.
 - 25) 2-Nitro-4-Amido-1,3-Dimethylbenzol. Sm. 78° (B. 17, 2425, 2428). — II, 543.
 - 26) 5-Nitro-4-Amido-1,3-Dimethylbenzol. Sm. 76° (69°) (A. 207, 94; B. 9, 1297; 18, 2677; 29, 304). — II, 543.
 - 27) 6-Nitro-4-Amido-1,3-Dimethylbenzol. Sm. 123°. HCl, H₂SO₄, Oxalat (A. 147, 18; B. 17, 265). — II, 543.
 - 28) 4-Nitro-5-Amido-1,3-Dimethylbenzol. Sm. 54° (B. 18, 2679). — II, 546.
 - 29) 5-Nitro-2-Amido-1,4-Dimethylbenzol. Sm. 142° (B. 18, 2667). — II, 546.
 - 30) 6-Nitro-2-Amido-1,4-Dimethylbenzol. Sm. 96°. HCl (A. 147, 22). — II, 546.
 - 31) 2-Aethylnitrosamido-1-Oxybenzol. Sm. 121,5° (J. pr. [2] 21, 361). — II, 704.
 - 32) 6-Nitroso-3-Dimethylamido-1-Oxybenzol. Sm. 169°. HCl (B. 25, 1059). — II, 730.
 - 33) Methyläther d. 2-Methylnitrosamido-1-Oxybenzol. Fl. (A. 255, 177). — II, 703.
 - 34) Methyläther d. 4-Nitroso-2-Methylamido-1-Oxybenzol. Sm. 110° HCl, (2HCl, PtCl₄) (A. 255, 178). — II, 730.

- $C_9H_9O_2N_2$ 35) **1,4-Dioximido-2,5-Dimethyl-1,4-Dihydrobenzol**. Sm. 254° (A. 255, 175; B. 20, 978). — III, 363.
- 36) **α -Oxy- α -Phenyläthenylamidoxim**. Sm. 158–159°. Na, HCl (B. 17, 126; 18, 1074). — II, 1553.
- 37) **2-Oxy-3-Methylbenzenylamidoxim**. Sm. 126,5° (B. 24, 3670). — II, 1546.
- 38) **4-Oxy-3-Methylbenzenylamidoxim**. Sm. 152° u. Zers. HCl (B. 24, 3673). — II, 1549.
- 39) **6-Oxy-3-Methylbenzenylamidoxim**. Sm. 123–124° (B. 24, 3662). — II, 1547.
- 40) **2-Methyläther d. 2-Oxybenzenylamidoxim**. Sm. 123° (B. 22, 2801). — II, 1502.
- 41) **4-Methyläther d. 4-Oxybenzenylamidoxim**. Sm. 122–123°. HCl (B. 22, 2791). — II, 1531.
- 42) **α -Oxy- α -Methyl- β -Phenylharnstoff**. Sm. 93–94° (B. 26, 2384). — II, 453.
- 43) **2-Oxybenzylharnstoff**. Sm. 170° (B. 23, 2745). — II, 743.
- 44) **2-Oxymethylphenylharnstoff**. Sm. 180° u. Zers. (B. 22, 1668). — II, 1062.
- 45) **Methyläther d. 2-Oxyphenylharnstoff**. Sm. 146,5° (A. 207, 244). — II, 709.
- 46) **Benzyläther d. Oxyharnstoff**. Sm. 138° (Am. 20, 49; A. 257, 207). — II, 532.
- 47) **Methyläther d. Benzylhydroxynitrosamin**. Fl. (B. 31, 585 Anm.).
- 48) **Methyläther d. 2-Methyl-1-Diazobenzolsäure**. Fl. (B. 30, 1260). — IV, 1532.
- 49) **Aethyläther d. 4-Oxydiazobenzol**. Salze siehe (B. 28, 2051, 2056, 2060; J. pr. [2] 22, 461). — IV, 1545.
- 50) **α -Amido- α -[3-Amidophenyl]essigsäure**. Sm. 214° u. Zers. (B. 18, 1181). — II, 1326.
- 51) **3,4-Diamidophenylessigsäure + H₂O** (B. 15, 1997). — II, 1326.
- 52) **2,3-Diamido-1-Methylbenzol-4-Carbonsäure**. Sm. 192°. Ba (A. 266, 216; B. 22, 1984). — II, 1352.
- 53) **2,5-Diamido-1-Methylbenzol-4-Carbonsäure**. Sm. 240° u. Zers. (A. 266, 218). — II, 1352.
- 54) **2,6-Diamido-1-Methylbenzol-4-Carbonsäure**. Sm. 212°. Ba, H₂SO₄ + 3H₂O (A. 266, 221; 274, 357). — II, 1352.
- 55) **α -Phenylhydrazidoessigsäure**. Sm. 167° Na (B. 28, 1225). — IV, 738.
- 56) **β -Phenylhydrazidoessigsäure**. Sm. 157° (153°) u. Zers. (B. 24, 1521; 28, 1233; M. 17, 631; A. 227, 354; 262, 288). — IV, 738.
- 57) **Methylester d. β -Phenylhydrazidoameisensäure**. Sm. 115–117° (A. 263, 281). — IV, 737.
- 58) **Aethylester d. 3-Pyridylamidoameisensäure**. Sm. 86–87° (B. 31, 2494).
- 59) **Nitril d. 1,3-Dioxyhexahydrobenzol-1,3-Dicarbonsäure**. Fl. (A. 278, 49). — II, 1990.
- 60) **Nitril d. 1,4-Dioxyhexahydrobenzol-1,4-Dicarbonsäure**. Sm. 180° u. Zers. (B. 22, 2176). — I, 1481.
- 61) **Nitril d. β -Oxy- γ -Cyan- δ -Keto- β -Methylpentan- α -Carbonsäure**. Sm. 179–180°; Zers. bei 182–184° (J. pr. [2] 1, 141; A. 266, 338). — I, 1481.
- 62) **Dimolec. Nitril d. Propan- $\beta\gamma$ -Oxyd- α -Carbonsäure?** (Epicyanhydrin?). Sm. 162° (J. pr. [2] 1, 82). — I, 1474.
- 63) **Dipropionylidicyanid**. Sm. 58°; Sd. 227–228°₇₄₀ (B. 13, 2121; R. 3, 390; M. 14, 120). — I, 1474.
- $C_9H_9O_2N_4$ C 49,5 — H 5,1 — O 16,5 — N 28,9 — M. G. 194.
- 1) **1,3-Di[Methylnitrosamido]benzol**. Sm. 109–110° (A. 286, 168). — IV, 570.
- 2) **1,3-Di[Oximidoamidomethyl]benzol + xH₂O** (Isophtalendiamidoxim). Sm. 193° u. Zers. (B. 22, 2976). — II, 1827.
- 3) **α -Nitroso- α -Methylphenylamidoharnstoff**. Sm. 77° u. Zers. (A. 190, 165). — IV, 673.
- 4) **1,2-Phenylendiarnstoff**. Sm. 290° (B. 16, 592). — IV, 560.
- 5) **1,3-Phenylendiarnstoff**. Sm. oberh. 300° (B. 8, 1180). — IV, 575.
- 6) **1,4-Phenylendiarnstoff** (A. 221, 14). — IV, 591.

- $C_8H_{10}O_2N_4$ 7) 2,6-Diketo-3-Methyl-7-Aethylpurin. Sm. 282—283° Ag (C. 1898 [2] 1192).
 8) 2,6-Diketo-1,3,7-Trimethylpurin + H_2O (Kaffein; Trimethylxanthin; Methyltheobromin; Thein). Sm. 234—235°. Salze meist bek. Lit. bedeutend. — III, 957.
 9) 6,8-Diketo-1,7,9-Trimethylpurin. Sm. 229—230° (235—236° cor.) (B. 30, 1852, 2219; 32, 474). — IV, 1254.
 10) 2,8-Diketo-3,7,9-Trimethylpurin. Sm. 247° (254° cor.) (HCl, $AuCl_3$) (B. 30, 1853; 32, 474). — IV, 1254.
 11) 5,5'-Diketo-3,3'-Dimethyl-4,5,4',5'-Tetrahydro-4,4'-Bipyrazol. Zers. bei 250° (J. pr. [2] 50, 519). — IV, 1263.
 12) Anhydrid d. Dioximidotropinonoxim. Sm. 185—186°. HCl (B. 30, 2705).
 13) Aethylenamid d. Cyanessigsäure. Sm. 190—191,5° (B. 25 [2] 326; 26 [2] 92). — I, 1243.
 14) Dihydrazid d. Benzol-1,3-Dicarbonsäure. Sm. 220°. 2HCl, (2HCl, $PtCl_4$) (J. pr. [2] 54, 74).
 15) Dihydrazid d. Benzol-1,4-Dicarbonsäure. Sm. oberh. 300°. 2HCl (J. pr. [2] 54, 81).
 16) Ammoniumverbind. d. 1,4-Diketo-1,2,3,4-Tetrahydro-2,3-Benzodiazin + $4H_2O$ (J. pr. [2] 51, 385).
 17) Verbindung (aus Cyananilin). Sm. 148° (B. 22, 1937). — II, 453.
 $C_8H_{10}O_2N_6$ C 43,2 — H 4,5 — O 14,4 — N 37,8 — M. G. 222.
 $C_8H_{10}O_4Br_2$ 1) 1,4-Disemicarbazon-1,4-Dihydrobenzol. Sm. bei 243° (A. 302, 329).
 1) 1,3-Dibrom-6-Methyl-1,2,3,4-Tetrahydrobenzol-3-Carbonsäure. Sm. 153° u. Zers. (A. 280, 152; B. 26, 331; 31, 2246). — II, 1131.
 2) Dibromtetrahydroisophenylelessigsäure. Sm. 164° (B. 30, 636; 31, 2246, 2248).
 $C_8H_{10}O_4Br_4$ 1) Furfurbutylenoxydtetrabromid (B. 17, 854). — III, 693.
 2) Hydrotropilidentetrabromidcarbonsäure. Sm. 196—197° u. Zers. (B. 30, 720).
 $C_8H_{10}O_4S$ 1) Aethylphenylsulfon. Sm. 42°; Sd. oberh. 300° (J. pr. [2] 17, 457; B. 13, 1274; 18, 161; 19, 1230; A. 284, 303). — II, 781.
 2) Methyl-2-Methylphenylsulfon. Fl. (J. pr. [2] 54, 524).
 3) Methyl-4-Methylphenylsulfon. Sm. 86—87° (B. 18, 161; J. pr. [2] 40, 511; A. 284, 304). — II, 823.
 4) 2-Propylthiophen-2-Carbonsäure. Sm. 57° (B. 20, 1743). — III, 757.
 5) 2,3,4-Trimethylthiophen-5-Carbonsäure. Sm. 207—208° (A. 244, 60). — III, 757.
 6) 1,2-Dimethylbenzol-4-Sulfinsäure. Sm. 83° (B. 10, 1011). — II, 111.
 7) 1,3-Dimethylbenzol-4-Sulfinsäure. Sm. bei 50° (B. 10, 1011). — II, 111.
 8) 1,4-Dimethylbenzol-2-Sulfinsäure. Sm. 84—85° (B. 11, 22). — II, 111.
 9) isom. Dimethylbenzolsulfinsäure (unbek. Constit.). $Ca + 3H_2O$, $Ba + 2H_2O$ (A. 146, 233). — II, 111.
 10) Aethylester d. Benzolsulfinsäure. Fl. (B. 18, 2495; 20, 2276; 26, 309, 430; J. pr. [2] 47, 167). — II, 109.
 $C_8H_{10}O_4S_2$ 1) Aethylester d. Benzolthiolsulfonsäure. Fl. (B. 13, 1283; 15, 127). — II, 162.
 $C_8H_{10}O_4Hg$ 1) 2-Aethoxylphenylquecksilberoxydhydrat. Acetat (B. 27, 262).
 $C_8H_{10}O_4N_2$ C 52,7 — H 5,5 — O 26,4 — N 15,4 — M. G. 182.
 1) Methyläther d. 6-Nitro-3-Amido-4-Oxy-1-Methylbenzol. Sm. 132° (B. 22, 790). — II, 755.
 2) Aethyläther d. 4-Nitro-2-Amido-1-Oxybenzol. Sm. 96—97°. HCl (J. pr. [2] 21, 327; B. 32, 164). — II, 731.
 3) Aethyläther d. 5-Nitro-2-Amido-1-Oxybenzol. Sm. 90° (B. 32, 164).
 4) Aethyläther d. 3-Nitro-4-Amido-1-Oxybenzol. Sm. 113° (B. 29, 2597). — II, 732.
 5) β -Amidoäthyläther d. 2-Nitro-1-Oxybenzol. Sm. 72—73° (J. pr. [2] 24, 247). — II, 680.
 6) β -Amidoäthyläther d. 4-Nitro-1-Oxybenzol. Sm. 108—109° (J. pr. [2] 24, 254). — II, 683.
 7) 3-Methoxyl-4-Oxybenzenylamidoxim. Sm. unterhalb 100° (B. 24, 3655). — II, 1741.

- C₈H₁₀O₃N₂** 8) **2,4,5-Triketo-1-Aethyl-3-Allyltetrahydroimidazol** (Aethylallylparabansäure). Sm. 66° (B. 31, 138).
 9) **3 [oder 5]-Nitro-2-Keto-1,4,6-Trimethyl-1,2-Dihydropyridin**. Sm. 161° (B. 17, 1032). — IV, 129.
 10) **Oxyessig-4-Hydrazidophenyläthersäure + H₂O**. Sm. 146° (B. 30, 548). — IV, 815.
 11) **5-Amido-6-Oxy-2,4-Dimethylpyridin-3-Carbonsäure + 2H₂O**. Sm. 275°. HCl + 2H₂O (Soc. 73, 234). — IV, 835.
 12) **Aethylester d. δ-Cyan-δ-Imido-β-Ketobutan-γ-Carbonsäure**. Sm. 122° (B. 31, 2942).
 13) **Imid d. γ-Acetylamido-β-Buten-α,β-Dicarbonsäure**. Sm. 233—234° (C. 1897 [1] 283).
 14) **Verbindung** (Aethylester einer Säure C₈H₈O₃N₂). Sm. 93° (J. pr. [2] 47, 391). — I, 1454.
- C₈H₁₀O₃N₄** C 45,7 — H 4,8 — O 22,7 — N 26,7 — M. G. 210.
 1) **2,6,8-Triketo-1,3,7-Trimethylpurin** (Oxykaffein; Trimethylharnsäure). Sm. bei 345—350°. Na + 3H₂O, Ba + 3H₂O, Ag (B. 14, 640; 30, 567; 31, 3267; 32, 465; A. 215, 268; 221, 337; Am. 17, 411). — III, 961.
 2) **2,6,8-Triketo-1,3,9-Trimethylpurin**. Sm. 315—320° u. Zers. Na + 2H₂O (B. 28, 2478; 31, 3267; 32, 466). — IV, 1256.
 3) **2,6,8-Triketo-1,7,9-Trimethylpurin**. Sm. 348° u. Zers. (B. 31, 3267; 32, 256, 466).
 4) **2,6,8-Triketo-3,7,9-Trimethylpurin** (α-Trimethylharnsäure). Sm. 345° u. Zers. (B. 17, 1782; 28, 2481, 2494). — I, 1337.
 5) **Methyläther d. 4-Nitro-1-Methyloxamidodiazobenzol**. Sm. 142° (B. 30, 2285). — IV, 1583.
- C₈H₁₀O₃Cl₂** 1) **Anhydrid d. γδ-Dichlorhexan-γδ-Dicarbonsäure**. Fl. (J. pr. [2] 52, 340).
C₈H₁₀O₃S 1) **1-Aethylbenzol-2-Sulfonsäure**. Na, Ba + H₂O (B. 22, 2671; C. 1895 [1] 1020). — II, 141.
 2) **1-Aethylbenzol-3-Sulfonsäure**. Ba + 2H₂O (B. 22, 2673). — II, 141.
 3) **1-Aethylbenzol-4-Sulfonsäure**. Na + ½ H₂O, K + ½ H₂O, Ca, Ba + H₂O, Cd + H₂O, Cu + 4½ H₂O (B. 7, 1116; 22, 2663; C. 1895 [1] 1020). — II, 141.
 4) **1,2-Dimethylbenzol-3-Sulfonsäure**. Na + H₂O (B. 18, 1760; 27 [2] 591). — II, 142.
 5) **1,2-Dimethylbenzol-4-Sulfonsäure + 2H₂O**. Na + 5H₂O, Ba + H₂O (B. 10, 1011; 11, 22; 19, 2137; 27 [2] 591; G. 27 [2] 469). — II, 142.
 6) **1,3-Dimethylbenzol-2-Sulfonsäure**. K, Ba (B. 11, 20). — II, 143.
 7) **1,3-Dimethylbenzol-4-Sulfonsäure + 2H₂O**. Na, Ba, Zn + 9H₂O, Cu + 6H₂O (B. 10, 1015; 11, 18; A. 184, 188). — II, 143.
 8) **1,4-Dimethylbenzol-2-Sulfonsäure + 2H₂O**. Na + H₂O, K, Ba (B. 10, 1009; 11, 22; A. 136, 305; Soc. 57, 978). — II, 146.
 9) **4-Methylphenylmethan-α-Sulfonsäure**. Ba + 2H₂O (G. 27 [2] 469).
 10) **Aethylester d. Benzolsulfonsäure**. Sd. 156°₁₅ (B. 9, 1638; 19, 1225; 25, 2258; A. 223, 237). — II, 113.
 11) **Phenylester d. Aethansulfonsäure**. Sm. 34—35°; Sd. 287—288° (J. pr. [2] 48, 249). — II, 661.
 12) **4-Methylphenylester d. Methansulfonsäure**. Sm. 44,5—46°; Sd. 295° u. Zers. (J. pr. [2] 48, 251). — II, 749.
 13) **Oxyäthylphenylsulfon**. Fl. (J. pr. [2] 30, 189). — II, 751.
- C₈H₁₀O₃S₂** 1) **1-Merkaptobenzoläthyläther-4-Sulfonsäure**. Na, K, Ba (B. 17, 2077; C. 1895 [2] 495). — II, 839.
- C₈H₁₀O₃Hg** 1) **4-Aethoxylphenylquecksilberoxyhydrat**. Acetat, Propionat, Butyrat (B. 27, 259).
- C₈H₁₀O₄N₂** C 48,5 — H 5,0 — O 32,3 — N 14,1 — M. G. 198.
 1) **Nitrit d. Furfurbutylen**. Sm. 94° (B. 17, 853). — III, 693.
 2) **2-Isopropylimidazol-4,5-Dicarbonsäure** (A. ch. [6] 24, 538). — IV, 549.
 3) **Aethylester d. 2,4-Diketo-1-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin-6-Carbonsäure** (Ac. d. Methylurazilcarbonsäure). Sm. 139,5° (J. pr. [2] 56, 490).
 4) **Aethylester d. α-Acetoximido-β-Cyanpropionsäure**. Sm. 146° (J. pr. [2] 47, 381). — I, 1222.
- C₈H₁₀O₄Cl₂** 1) **Di-[β-Chloräthylester] d. Fumarsäure**. Sm. 71° (A. 280, 200).

- $C_6H_{10}O_4Br_2$ 1) 2,3 - Dibromhexahydrobenzol - 1,2 - Dicarbonsäure. Sm. 224° (B. 30, 504).
 2) 3,4 [oder 3,5] - Dibrom-trans-Hexahydrobenzol-1,2-Dicarbonsäure. Sm. 189—190° (A. 269, 200). — II, 1731.
 3) 3,6 - Dibrom-trans-Hexahydrobenzol-1,2-Dicarbonsäure + 2 H₂O. Sm. 200° (215° wasserfrei) (A. 258, 193; 269, 197). — II, 1731.
 4) 1,2-Dibromhexahydrobenzol-1,4-Dicarbonsäure (B. 19, 1807; A. 245, 163). — II, 1835.
 5) 1,4-Dibrom-cis-Hexahydrobenzol-1,4-Dicarbonsäure (A. 245, 177). — II, 1836.
 6) 1,4-Dibrom-trans-Hexahydrobenzol-1,4-Dicarbonsäure. (A. 245, 175). — II, 1836.
 7) 2,5 [p]-Dibromhexahydrobenzol-1,4-Dicarbonsäure (A. 245, 150). — II, 1835.
 8) 2,5 [oder 3,6] - Dibrom-cis-trans-Hexahydrobenzol-1,4-Dicarbonsäure (A. 258, 16). — II, 1835.
 9) Dimethylester d. cis-1,2-Dibrom-R-Tetramethylen-1,2-Dicarbonsäure. Sm. 88—89° (Soc. 65, 967).
 10) Diäthylester d. Dibromfumarsäure. Sm. 67—68° (J. pr. [2] 46, 229; [2] 52, 329). — I, 701.
 11) Diäthylester d. Dibrommaleinsäure. Sd. 162—164°₂₀ (Am. 9, 449; J. pr. [2] 46, 299; [2] 52, 329; M. 14, 499). — I, 705.
- $C_6H_{10}O_4Br_4$ 1) Dimethylester d. $\alpha\beta\gamma\delta$ -Tetrabrombutan- $\alpha\delta$ -Dicarbonsäure (D. d. Tetrabromadipinsäure). Sm. 74° (A. 256, 27). — I, 671.
- $C_6H_{10}O_4J_2$ 1) Diäthylester d. Dijodfumarsäure. Sm. 88,5° (B. 26, 846).
- $C_6H_{10}O_4S$ 1) 2-Oxy-1-Aethylbenzol-5-Sulfonsäure. Ba (M. 1, 179; B. 22, 2673). — II, 845.
 2) 3-Oxy-1-Aethylbenzol-2-Sulfonsäure. Ba (B. 22, 2674). — II, 845.
 3) 4-Oxy-1-Aethylbenzol-3-Sulfonsäure. Fl. K, Ba (A. 156, 254; H. 4, 313; B. 22, 2665). — II, 845.
 4) 4-Oxy-1,2-Dimethylbenzol-2-Sulfonsäure. Na, Ba (B. 11, 28). — II, 846.
 5) 4-Oxy-1,3-Dimethylbenzol-2-Sulfonsäure. Na + 4 H₂O, K, Ba (A. 195, 283; B. 11, 25). — II, 846.
 6) 4-Oxy-1,3-Dimethylbenzol-5-Sulfonsäure. K, Ba + H₂O, Pb + 2 H₂O (A. 230, 336). — II, 846.
 7) 4-Oxy-1,3-Dimethylbenzol-2-Sulfonsäure. Na, K, Ba (A. 195, 283; B. 11, 25). — II, 846.
 8) 4-Oxy-1,3-Dimethylbenzol-2-Sulfonsäure. Ba + H₂O (Soc. 63, 110). — II, 759.
 9) 2-Oxy-1,4-Dimethylbenzol-2-Sulfonsäure. Na + 5 H₂O, Ba (B. 11, 27). — II, 846.
 10) isom. Oxydimethylbenzolsulfonsäure (Bl. 27, 311). — II, 846.
 11) 2-Oxybenzoläthyläther-1-Sulfonsäure. Na + H₂O, K, Ba + 4 H₂O (Z. 1867, 200; 1869, 470; B. 27 [2] 591). — II, 831.
 12) 3-Oxybenzoläthyläther-1-Sulfonsäure. K + H₂O, Ca + 3 H₂O, Ba + 4 H₂O, Pb + 2½ H₂O, Anilinsalz (B. 23, 3392). — II, 832.
 13) 4-Oxybenzoläthyläther-1-Sulfonsäure. Na, K, Ba + 4 H₂O, Anilinsalz (Z. 1867, 200; 1869, 470; B. 25, 1837; 26 [2] 607; 27 [2] 591). — II, 832.
 14) 2-Oxy-1-Methylbenzolsäuremethyläther-4-Sulfonsäure. Sm. 212°. Na + 5½ H₂O, K + ½ H₂O, Mg + 5½ H₂O, Ca + 9 H₂O, Ba + 1(2) H₂O, Pb + 6 H₂O, Zn + 6½ H₂O, Cu + 6 H₂O (Am. 19, 568; A. 172, 217; 174, 345). — II, 841.
 15) 4-Oxy-1-Methylbenzolsäuremethyläther-2-Sulfonsäure. Na + 1½ H₂O, K + H₂O, Mg + 5 H₂O, Ca + 4 H₂O, Ba + 3 H₂O, Zn + 6 H₂O (A. 221, 354; Am. 15, 321). — II, 844.
 16) 4-Oxy-1-Methylbenzolsäuremethyläther-3-Sulfonsäure. Sm. 92—95°. Ca, Ba, Pb + 3 H₂O (Am. 15, 311). — II, 844.
 17) Diäthylester d. Thiocarbonylmalonsäure. Sm. 177—178° (B. 21, 349). — I, 900.
- $C_6H_{10}O_4S_2$ 1) 2 [oder 3] - Isobutyrylthiophen-2-Sulfonsäure. Ba, Pb (B. 19, 2627). — III, 765.

- $C_8H_{10}O_5N_4$ C 39,7 — H 4,1 — O 33,1 — N 23,1 — M. G. 242.
 1) Aethyläther d. *p*-Dinitro-*p*-Diamido-1-Oxybenzol. Sm. 245° (B. 11, 1449; A. 215, 154). — II, 947.
 2) Methylester d. Theobromursäure. Sm. 195—196° (B. 30, 2608).
 3) $\alpha\alpha\gamma$ -Triamid- $\beta\gamma$ -Imid d. Propan- $\alpha\alpha\beta\gamma\gamma$ -Pentacarbonsäure. Sm. 212° (Soc. 75, 247).
- $C_8H_{10}O_5Br_2$ 1) Diäthylester d. $\beta\beta$ -Dibrom- α -Ketoäthan- $\alpha\beta$ -Dicarbonsäure (D. d. Dibromoxaleessigsäure). Sd. 165—168°₁₀ (B. 22, 2912). — I, 762.
- $C_8H_{10}O_5S$ 1) 3,4-Dioxy-1-Methylbenzolmonomethyläther-*p*-Sulfonsäure. Fl. K, Ba, Pb (A. 151, 109; B. 14, 2026). — II, 959.
 2) 1,2-Dioxybenzoldimethyläther-4-Sulfonsäure + 2H₂O. Zers. bei 100°. Ba + 3H₂O, Pb + 3H₂O (G. 26 [2] 232).
- $C_8H_{10}O_5S_2$ 1) Aethylphenylsulfon-4-Sulfonsäure (C. 1895 [2] 495).
 $C_8H_{10}O_6N_2$ C 41,7 — H 4,3 — O 41,7 — N 12,2 — M. G. 230.
 1) Säure (aus bernsteins. Hydroxylamin). Sm. 82—83°. NH₄, Ca, Ba, Ag₂, Ag₂ + AgNO₃ + H₂O (C. 1897 [2] 339, 659).
 2) Diäthylester d. 1,2,3,6-Dioxidiazin-4,5-Dicarbonsäure. Sd. 159°₁₀. + 2NaOH, + 2NH₃ + 2H₂O (A. 222, 48; B. 25, 717; 28, 1216, 2684; 30, 155). — I, 493.
- $C_8H_{10}O_6Cl_2$ 1) Methylester d. $\alpha\beta$ -Di[Chloracetoxy]propionsäure. Sm. 43—44°; Sd. 197°₁₅ (Soc. 73, 191).
- $C_8H_{10}O_6S_2$ 1) 1,2-Dimethylbenzol-4,6-Disulfonsäure. K₂ + H₂O, Ba + 3H₂O, Pb + 3H₂O (J. pr. [2] 46, 155). — II, 142.
 2) 1,3-Dimethylbenzol-2,4-Disulfonsäure. (NH₄)₂, Na + 3H₂O, K₂ + 2H₂O, Pb + 3H₂O, Cu (J. pr. [2] 46, 152; B. 23, 3113). — II, 143.
 3) 1,3-Dimethylbenzol-2,6-Disulfonsäure (J. pr. [2] 46, 154). — II, 143.
 4) 1,3-Dimethylbenzol-4,6-Disulfonsäure (B. 27 [2] 889).
 5) 1,4-Dimethylbenzol-2,6-Disulfonsäure. Ca + 4H₂O, Mg + 7H₂O, Ba + 3H₂O, Pb + 3H₂O, Ag + H₂O (J. pr. [2] 46, 156; Am. 13, 372). — II, 146.
 6) Phenylsulfonäthylätherschwefelsäure. Ba + 3½H₂O (J. pr. [2] 30, 193). — II, 782.
- $C_8H_{10}O_7N_2$ C 31,8 — H 3,3 — O 37,1 — N 27,8 — M. G. 302.
 1) Hydroxonsäure. (NH₄)₂, Na₂, K₂, Mg + 4H₂O, Ba + 4H₂O, Pb + 1½H₂O, Ag₂ + 3H₂O (J. r. 11, 56). — I, 1359.
- $C_8H_{10}O_7S_2$ 1) 1-Oxybenzoläthyläther-*p*-Disulfonsäure. K₂ + H₂O, Ba + 2(3)H₂O (A. 189, 25). — II, 833.
- $C_8H_{10}O_8S_2$ 1) 1,4-Dioxybenzoldimethyläther-*p*-Disulfonsäure. (NH₄)₂, K₂, Ba, Zn (B. 13, 1673). — II, 952.
- $C_8H_{10}NCl$ 1) β -Chloräthylamidobenzol. (HCl. Sm. 158°) (J. pr. [2] 31, 175). — II, 332.
 2) 3-Chlor-1-Aethylamidobenzol. Sd. 243—244°₇₆₀ (B. 31, 2531).
 3) 4-Chlor-1-Aethylamidobenzol. Fl. (A. 74, 143). — II, 332.
 4) 2-Chlor-1-Dimethylamidobenzol. Sd. 206—207°. (2HCl, PtCl₄) (B. 5, 879; 20, 149; M. 19, 638). — II, 328.
 5) 3-Chlor-1-Dimethylamidobenzol. Sd. 231—233°. HCl, (2HCl, PtCl₄), HBr, Oxalat (B. 16, 32; 19, 1948; Bl. [3] 21, 24). — II, 328.
 6) 4-Chlor-1-Dimethylamidobenzol. Sm. 35,5°; Sd. 230—231°. (2HCl, PtCl₄) (B. 20, 150). — II, 328.
 7) 4-Chlor-2-Methylamido-1-Methylbenzol. Sd. 248,5—249,5°₇₆₀ (B. 31, 2532).
 8) 5-Chlor-4-Amido-1,2-Dimethylbenzol. Sm. 88° (J. pr. [2] 46, 34). — II, 541.
 9) *p*-Chlor-2-Amido-1,3-Dimethylbenzol. Sm. 89° (Z. 1870, 419). — II, 542.
 10) 4-Chlor-5-Amido-1,3-Dimethylbenzol. Fest. Sd. 251° (B. 29, 311).
 11) 5-Chlor-2-Amido-1,4-Dimethylbenzol. Sm. 92—93°. HCl + 2H₂O, HNO₃, H₂SO₄ + 2H₂O, Oxalat (A. 176, 55; B. 29, 307 Anm.). — II, 546.
 12) 2-Chlormethyl-1-Amidomethylbenzol (2-Chlormethylbenzylamin). HCl (B. 21, 581). — II, 541.
 13) Chlormethylat d. 2-Aethenylpyridin. 2 + PtCl₄ (A. 301, 126).
- $C_8H_{10}NBr$ 1) *p*-Brom- β -Phenyläthylamin. Sd. 252—254°. HCl (B. 18, 2740). — II, 538.
 2) 4-Brom-1-Aethylamidobenzol (A. 74, 145). — II, 332.

- C₈H₁₀NBr** 3) 3-Brom-1-Dimethylamidobenzol. Sm. 11°; Sd. 259° (B. 12, 1818). — II, 328.
 4) 4-Brom-1-Dimethylamidobenzol. Sm. 55°; Sd. 247°₇₇. (HCl + ClJ). (HJ + J₁) (B. 8, 715; 10, 763; 11, 700; 12, 1816, 1820; 31, 1144, 1146; Am. 19, 332). — II, 328.
 5) 5-Brom-2-Amido-1,3-Dimethylbenzol. Sm. 96—97° (B. 3, 225; J. pr. [2] 53, 552). — II, 542.
 6) 5-Brom-4-Amido-1,3-Dimethylbenzol. Sm. 45° (J. pr. [2] 53, 552).
 7) 2-Methyl-5-[α -Bromäthyl]pyridin. Fl. Pikrat (B. 25, 2986). — IV, 135.
- C₈H₁₀NJ** 1) 4-Jod-1-Dimethylamidobenzol. Sm. 79°. (2HCl, PtCl₄) (B. 10, 757, 765; 31, 1142). — II, 329.
 2) 5-Jod-4-Amido-1,3-Dimethylbenzol. Sm. 65°. HCl (B. 28, 2799).
- C₈H₁₀N₂Cl** 1) 4,5-Dichlor-3,6-Diamido-1,2-Dimethylbenzol. Sm. 176° (J. pr. [2] 43, 583). — IV, 641.
 2) 4,6-Dichlor-2,5-Diamido-1,3-Dimethylbenzol. Sm. 176°. HCl, (2HCl, PtCl₄) (J. pr. [2] 42, 122). — IV, 642.
- C₈H₁₀N₂S** 1) sym-Methylphenylthioharnstoff. Sm. 113° (B. 17, 3038). — II, 391.
 2) uns-Methylphenylthioharnstoff. Sm. 107° (B. 17, 2094, 3036). — II, 391.
 3) 2-Methylphenylthioharnstoff. Sm. 155° (160—161°) (B. 13, 136; Soc. 67, 1043). — II, 465.
 4) 3-Methylphenylthioharnstoff. Sm. 110—111° (B. 8, 719; Soc. 63, 328; 67, 559). — II, 479.
 5) 4-Methylphenylthioharnstoff. Sm. 188° (182°) (Bl. 26, 126; B. 13, 136; 15, 1311). — II, 497.
 6) Benzylthioharnstoff. Sm. 161—162° (101°) (B. 9, 81; 24, 2727; Soc. 59, 552). — II, 527.
- C₈H₁₀N₂S₂** 1) Methyläther d. 2-Merkaptophenylthioharnstoff. Sm. 168° (B. 20, 1795). — II, 798.
 2) Benzyläther d. Amidoimidomethylmerkaptan. Sm. 88°. HCl, (HCl, HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), H₂SO₄, Pikrat, + HgCl₂ (B. 12, 575; Soc. 57, 285). — II, 1053.
 3) 2-Methylphenylhydrazidodithioameisensäure. 2-Methylphenylhydrazinsalz (B. 24, 4200). — IV, 802.
 4) 4-Methylphenylhydrazidodithioameisensäure. 4-Methylphenylhydrazinsalz (B. 24, 4194). — IV, 805.
 5) Methylester d. Phenylimidoamidothioameisensäure. Sm. 71°. (2HCl, PtCl₄), HJ, HNO₃, Acetat, Pikrat (B. 25, 49). — II, 390.
 6) Methylester d. β -Phenylhydrazidodithioameisensäure (M. d. Phenylsulfocarbazinsäure). Sm. 135° (B. 28, 2646). — IV, 677.
- C₈H₁₀N₂Se** 1) Benzylselenharnstoff. Sm. 70° u. Zers. (J. 1877, 351). — II, 529.
- C₈H₁₀N₄S** 1) Guanylphenylthioharnstoff. Sm. 175—176°. HCl, H₂SO₄, Pikrat (B. 13, 1581; 14, 2639). — II, 394.
 2) Verbindung (aus Cyanphenylhydrazin). Sm. 197° u. Zers. (B. 26, 2397). — IV, 743.
- C₈H₁₀N₄S₂** 1) 1,3-Phenylendithioharnstoff. Sm. 215° (A. 221, 11; B. 20, 230). — IV, 576.
 2) 1,4-Phenylendithioharnstoff. Sm. 218° (A. 221, 11; B. 20, 230). — IV, 592.
- C₈H₁₀Cl₂Sn** 1) Zinnäthylphenyldichlorid. Sm. 45° (A. 159, 258). — IV, 1713.
- C₈H₁₁ON** C 70,1 — H 8,0 — O 11,7 — N 10,2 — M. G. 137.
 1) 4-Oxy-1-[β -Amidoäthyl]benzol. HCl (A. 133, 214; 152, 101). — II, 757.
 2) 4-Amido-1-[α -Oxyäthyl]benzol. Sm. 93°; Sd. 190°₁₈. (2HCl, PtCl₄) (Bl. [3] 11, 321). — II, 1063.
 3) 2-Aethylamido-1-Oxybenzol. Sm. 107,5°. HCl, (2HCl, PtCl₄), HBr (J. pr. [2] 21, 356; [2] 42, 449; B. 31, 495). — II, 703.
 4) β -Phenylamido- α -Oxyäthan (Phenyl- β -Amidoäthylalkohol). Sm. 286°. (2HCl, PtCl₄) (A. 173, 127; B. 6, 131; 22, 2092; J. pr. [2] 44, 17). — II, 426.
 5) 2-Dimethylamido-1-Oxybenzol. Sm. 45°. HCl (B. 13, 249). — II, 703.
 6) 3-Dimethylamido-1-Oxybenzol. Sm. 85°; Sd. 206°₁₀₀ (B. 27, 3301; 29, 502; J. pr. [2] 54, 221).

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- 7) 5-Amido-4-Oxy-1,3-Dimethylbenzol. Sm. 133—134° (A. 206, 199).
- 8) 6-Amido-4-Oxy-1,3-Dimethylbenzol. Sm. 161°. HCl (B. 16, 1137). — II, 760.
- 9) 5-Amido-2-Oxy-1,4-Dimethylbenzol. Sm. 202° u. Zers. (238° u. Zers.). HCl (B. 18, 570; 20, 979; 27, 1930). — II, 760.
- 10) Benzylamidooxymethan. Sm. 43° (B. 28 [2] 852).
- 11) Methyläther d. 2-Amido-1-Oxymethylbenzol. Sd. 123—124°₈₀ (A. 305, 109).
- 12) Methyläther d. 2-Oxy-1-Amidomethylbenzol. Sd. 224°₃₄. HCl, (2HCl, PtCl₄) (B. 23, 2742). — II, 742.
- 13) Methyläther d. 4-Oxy-1-Amidomethylbenzol. Sd. 220—223° (234 bis 235°₃₄). HCl, (HCl, HgCl₂ + H₂O), (2HCl, PtCl₄) (A. 117, 240; 241, 332; B. 20, 2407). — II, 754.
- 14) Methyläther d. 2-Methylamido-1-Oxybenzol. Sd. 218—220°. (2HCl, PtCl₄) (A. 207, 247; B. 32, 732). — II, 703.
- 15) Methyläther d. 3-Amido-2-Oxy-1-Methylbenzol. Sd. 223° (B. 14, 570). — II, 741.
- 16) Methyläther d. 5-Amido-2-Oxy-1-Methylbenzol. Sm. 52—53° (B. 14, 571). — II, 741.
- 17) Methyläther d. 2-Amido-4-Oxy-1-Methylbenzol. Sm. 47°; Sd. 253° (B. 15, 1072; 24, 4140; A. 215, 89). — II, 752.
- 18) isom. Methyläther d. 2-Amido-4-Oxy-1-Methylbenzol. Sm. 111° (B. 22, 791). — II, 752.
- 19) Methyläther d. 3-Amido-4-Oxy-1-Methylbenzol. Sm. 51,5° (36—38°); Sd. 235°. HCl + H₂O (B. 14, 573; 22, 349). — II, 753.
- 20) Aethyläther d. 2-Amido-1-Oxybenzol. Sd. 228° (229°₃₄) (J. pr. [2] 12, 208; [2] 21, 344; [2] 29, 288). — II, 702.
- 21) Aethyläther d. 3-Amido-1-Oxybenzol. Sd. 180—205°₁₀₀. HCl, (HCl, SnCl₄), HBr, H₂SO₄ + 1½ H₂O (J. pr. [2] 32, 73; B. 16, 28). — II, 714.
- 22) Aethyläther d. 4-Amido-1-Oxybenzol. Sd. 244°. HCl (Am. 1, 272; B. 17, 884; 22, 1782; 27, 3358). — II, 716.
- 23) Phenyläther d. β-Amido-α-Oxyäthan. Sd. 228—229°. HCl, (2HCl, PtCl₄), Pikrat (B. 22, 3256; 24, 189; 30, 1268). — II, 652.
- 24) Dimethylphenylaminooxyd. Sm. 152—153° (B. 32, 346).
- 25) 2,4-Dimethylphenylhydroxylamin. Sm. 66° (B. 31, 559).
- 26) 2,5-Dimethylphenylhydroxylamin. Sm. 88—89° (Bl. [3] 11, 1042).
- 27) 2,6-Dimethylphenylhydroxylamin. Sm. 98° (B. 31, 560).
- 28) 1-Acetyl-3-Aethylpyrrol. Sd. 220—230° (B. 19, 2193). — IV, 71.
- 29) p-Acetyl-2-Aethylpyrrol. Sm. 47°; Sd. 249—250°. Ag (B. 19, 2193). — IV, 100.
- 30) 3-Acetyl-2,4-Dimethylpyrrol. Sm. 139—140° (G. 24 [1] 549). — IV, 99.
- 31) 1-Acetyl-2,5-Dimethylpyrrol? Fl. (B. 13, 79). — IV, 72.
- 32) 5-Acetyl-2,4-Dimethylpyrrol. Sm. 122—123°. (HCl, AuCl₃) (B. 21, 2867, 2875). — IV, 99.
- 33) 3-Acetyl-2,5-Dimethylpyrrol. Sm. 94,5°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (G. 22 [1] 446; 23 [1] 465; 24 [1] 436; B. 26 [2] 411; 27 [2] 405). — IV, 99.
- 34) 2-[α-Oxypropyl]pyridin. Sd. 213—216°. (2HCl, PtCl₄) (B. 24, 2533). — IV, 133.
- 35) 2-[β-Oxypropyl]pyridin. Sm. 36—37° (32°); Sd. 252—253° (123—125°₃₀). (2HCl, PtCl₄), Pikrat (B. 22, 2588; 23, 2710; 28, 1763; A. 301, 143). — IV, 133.
- 36) 2-[γ-Oxypropyl]pyridin. Sd. 128—131°₁₇. (2HCl, PtCl₄), (HCl, AuCl₃) (B. 23, 2714; 24, 1673). — IV, 133.
- 37) 2-Methyl-5-[α-Oxyäthyl]pyridin. Krystalle. Sd. 240°. Pikrat (B. 25, 2987). — IV, 135.
- 38) Methyläther d. 4-Oxy-2,6-Dimethylpyridin. Sd. 203°. (2HCl, PtCl₄) (B. 22, 81). — IV, 130.
- 39) 2-Keto-1,4,6-Trimethyl-1,2-Dihydropyridin (Methylpseudolutidostyryl). Sm. 90—92°; Sd. 292°. HCl + ½ H₂O, (2HCl, PtCl₄ + 2H₂O), HJ (B. 17, 1026, 2906). — IV, 128.
- 40) 4-Keto-1,2,6-Trimethyl-1,4-Dihydropyridin + 3H₂O. Sm. 110°. (2HCl, PtCl₄) (B. 20, 159; 22, 80). — IV, 130.
- 41) Mydin. Pikrat (J. 1889, 2029). — III, 889.

- $C_8H_{11}ON$ 42) Amid d. 1-Methyl-2-Dihydrobenzol-2-Carbonsäure. Sm. 155—156° (B. 24, 178). — II, 1131.
- 43) Verbindung (aus Pyridinptomain). Sm. 250—260° u. Zers. HCl, (2HCl, $PtCl_4$) (C. 1898 [1] 781).
- $C_8H_{11}ON_3$ C 58,2 — H 6,7 — O 9,7 — N 25,4 — M. G. 165.
- 1) 4-Nitroso-1,3-DiMethylamido-benzol. Sm. 171° (A. 286, 174). — IV, 570.
- 2) 4-Nitroso-3-Dimethylamido-1-Amidobenzol? H_2SO_4 (A. 286, 170). — IV, 570.
- 3) 4-Methylnitrosamido-2-Amido-1-Methylbenzol. Sm. 83°. Pikrat (B. 31, 2928).
- 4) Methylphenylamidoharnstoff. Sm. 133° (A. 190, 164). — IV, 673.
- 5) α -Phenylamido- α -Methylharnstoff. Sm. 147° (G. 29 [1] 28).
- 6) β -Phenylamido- α -Methylharnstoff. Sm. 154—155° (B. 30, 649). — IV, 673.
- 7) 2-Methylphenylamidoharnstoff. Sm. 159—160° (B. 21, 1221). — IV, 802.
- 8) 4-Methylphenylamidoharnstoff. Sm. 187—188° (157—158°) (Soc. 73, 368; B. 21, 1222). — IV, 805.
- 9) 2-Amido-4-Methylphenylharnstoff (oder 5-2-Derivat) (A. 148, 159). — IV, 603.
- 10) β -Nitroso- $\alpha\beta$ -Dimethyl- α -Phenylhydrazin. Sd. 115—125° (B. 27, 699). — IV, 658.
- 11) α -Acetyl-2-Amidophenylhydrazin. Sm. 162° (B. 22, 2808). — IV, 1126.
- 12) α -Acetyl-4-Amidophenylhydrazin. Sm. 146° (B. 26, 1320). — IV, 1126.
- 13) 6-Acetylamido-2,4-Dimethyl-1,3-Diazin + 2H₂O (Acetylkyanmethin). Sm. 185° (B. 17, 174; 22, 1600). — IV, 1128.
- 14) Amid d. α -Phenylhydrazidoessigsäure. Sm. 140° (150°) (B. 29, 622; A. 301, 70).
- 15) Hydrazid d. Phenylamidoessigsäure. Sm. 126,5° (J. pr. [2] 52, 448). C 49,7 — H 5,7 — O 8,2 — N 36,3 — M. G. 193.
- $C_8H_{11}ON_5$ 1) α -Oximido- $\alpha\beta$ -Diamido- β -Phenylhydrazonathan (Oxalenphenylhydrazidamidoxim). Sm. 174° (A. 295, 137). — IV, 1312.
- $C_8H_{11}OCl_5$ 1) $\alpha\alpha\alpha\gamma$ -Pentachlor- β -Ketooktan. Sd. 174° (Bl. [3] 13, 121; C. 1897 [1] 282).
- $C_8H_{11}O_2N$ C 62,7 — H 7,2 — O 20,9 — N 9,2 — M. G. 153.
- 1) 2- oder 6-Amido-4,6- oder 2,4-Dioxy-1,3-Dimethylbenzol. HCl (M. 19, 247).
- 2) 3-Methyläther d. 2-Amido-3,5-Dioxy-1-Methylbenzol. HCl (M. 18, 181).
- 3) Dimethyläther d. 4-Amido-1,2-Dioxybenzol. Sm. 82° (85—86°). HCl, (2HCl, $PtCl_4$) (M. 15, 231; B. 29, 2689; Bl. [3] 15, 338, 647). — II, 922.
- 4) Dimethyläther d. 4-Amido-1,3-Dioxybenzol. Sm. 39—40°. HCl (B. 22, 2378). — II, 928.
- 5) Dimethyläther d. 2-Amido-1,4-Dioxybenzol. Sm. 81°; Sd. 270° u. Zers. HCl (A. 207, 254; B. 14, 71; 17, 2119; G. 11, 355). — II, 947.
- 6) 1-Aethyläther d. 4-Amido-1,3-Dioxybenzol. Sm. 148° (B. 20, 1135). — II, 928.
- 7) 3-Aethyläther d. 4-Amido-1,3-Dioxybenzol. HCl (M. 19, 550).
- 8) 1-Aethyläther d. 2-Amido-1,3-Dioxybenzol. HCl (M. 19, 541).
- 9) 1-Aethyläther d. isom. 2-Amido-1,3-Dioxybenzol. HCl (M. 19, 545).
- 10) Monäthyläther d. 2-Amido-1,4-Dioxybenzol. HCl (M. 2, 370). — II, 947.
- 11) β -Oxyäthyläther d. 2-Amido-1-Oxybenzol. Sm. 89—90° (J. pr. [2] 24, 252; [2] 27, 216). — II, 702.
- 12) 4-Methyläther d. 4-Oxybenzylhydroxylamin. Sm. 76°. HCl (J. pr. [2] 56, 80).
- 13) Oxim d. 3-Acetyl-2,5-Dimethylfuran. Sm. 78° (B. 27 [2] 405; G. 24 [1] 435). — III, 727.
- 14) Acetat d. 2-Oximido-1-Methyl-2,3-Dihydro-R-Penten. Sm. 73°; Sd. 123° (C. 1898 [1] 327).
- 15) 2-Oxy-4-Keto-3,3,6-Trimethyl-3,4-Dihydropyridin. Sm. 140° (B. 31, 1343).
- 16) α -Cyan- δ -Methyl- β -Penten- α -Carbonsäure. Sm. 53°. Ca + 2 $\frac{1}{2}$ H₂O (M. 18, 723).

- C₈H₁₁O₂N** 17) **2,6-Dimethyl-1,4-Dihydropyridin-3-Carbonsäure.** HCl, (2HCl, PtCl₄ + 2H₂O) (*G.* 25 [2] 75). — IV, 86.
- 18) **Aethylester d. δ -Cyan- α -Buten- δ -Carbonsäure** (Ae. d. α -Cyanallylessigsäure). Sd. 223° (*J.* 1889, 638). — I, 1221.
- 19) **Base** (aus Furfurbutylennitrit). Sd. 215—220°. HCl + H₂O, (2HCl, PtCl₄) (*B.* 17, 854). — III, 693.
- C₈H₁₁O₂N₃** C 53,0 — H 6,1 — O 17,7 — N 23,2 — M. G. 181.
- 1) **2-Nitro-1,4-Di[Amidomethyl]benzol.** 2HCl + 1½ H₂O, (2HCl, PtCl₄), Pikrat (*B.* 28, 2993). — IV, 643.
- 2) **4-Methylnitramido-2-Amido-1-Methylbenzol.** Sm. 83,5° (*B.* 31, 2927).
- 3) **p-Nitro-4,6-Diamido-1,3-Dimethylbenzol.** Sm. 212—213°. HCl, 2HCl, (2HCl, PtCl₄ + 3H₂O), H₂SO₄ + 2H₂O (*A.* 113, 160; 148, 6). — IV, 642.
- 4) **4-Nitro-2-Amido-1-Dimethylamidobenzol.** Sm. 63° (*B.* 21, 2308). — IV, 555.
- 5) **Verbindung** (aus Succinimidin u. Acetessigsäureäthylester) (*B.* 18, 2848). — I, 1165.
- C₈H₁₁O₂N₅** C 45,9 — H 5,3 — O 15,3 — N 33,5 — M. G. 209.
- 1) **8-Amido-2,6-Diketo-1,3,7-Trimethylpurin** (Amidokaffeïn). Sm. oberh. 360° (*A.* 215, 265; *B.* 30, 2586; 32, 483). — III, 960.
- C₈H₁₁O₂Br** 1) **p-Bromtetrahydro-R-Hepten-p-Carbonsäure.** Sm. 150—151° (*B.* 31, 2246).
- C₈H₁₁O₂Br₃** 1) **p-Tribrom-R-Heptamethylen-p-Carbonsäure.** Sm. 199° u. Zers. (*B.* 31, 2247).
- 2) **Lakton d. α ζ -Tribrom- β -Oxyheptan- δ -Carbonsäure.** Fl. (*B.* 15, 628; *A.* 216, 76). — I, 575.
- C₈H₁₁O₂J** 1) **δ -Jod- α ζ -Heptadien- δ -Carbonsäure** (Joddiallylessigsäure) (*J. pr.* [2] 34, 498). — I, 533.
- C₈H₁₁O₂P** 1) **4-Aethylphenylphosphinige Säure.** Sm. 63—64°. NH₄, Ba + H₂O, Cu, Phenylhydrazinsalz (*A.* 293, 315). — IV, 1674.
- 2) **2,4-Dimethylphenylphosphinige Säure.** Sm. 100° (*A.* 212, 237; 293, 313). — IV, 1675.
- 3) **Methyl-4-Methylphenylphosphinsäure.** Sm. 120°. Ag (*B.* 31, 1046). — IV, 1670.
- 4) **Aethylester d. Phenylphosphinigen Säure.** Fl. (*B.* 10, 817). — IV, 1649.
- C₈H₁₁O₂N** C 56,8 — H 6,5 — O 28,4 — N 8,3 — M. G. 169.
- 1) **1-Aethyläther d. 2-Amido-1,3,5-Trioxylbenzol.** HCl + H₂O (*M.* 17, 477; 18, 376).
- 2) **α -Acetylamido- γ -Keto- β -Aethanoyl- α -Butan.** Sm. 62° (*A.* 297, 66).
- 3) **1-Acetyl-4,5-Diketo-3-Methylhexahydropyridin** (Acetylguvacin). Sm. 189—190°. — IV, 61.
- 4) **Methylester d. α -Cyan- β -Ketopentan- α -Carbonsäure** (M. d. Butyrylcyanessigsäure). Sm. 0°; Sd. 135,3°₂₅ (*Bl.* [3] 11, 1034).
- 5) **Methylester d. δ -Cyan- γ -Keto- β -Methylbutan- β -Carbonsäure.** Sd. 228—235° (*B.* 32, 137).
- 6) **Methylester d. δ -Cyan- γ -Keto- β -Methylbutan- δ -Carbonsäure** (M. d. Isobutyrylcyanessigsäure). Sm. 36—37°; Sd. 139°₄₈ (*Bl.* [3] 13, 1034).
- 7) **Aethylester d. α -Cyan- β -Ketobutan- α -Carbonsäure** (Ae. d. Propionylcyanessigsäure). Sd. 155—165°₈₀. Ca + 2H₂O (*B.* 21 [2] 354). — I, 1223.
- 8) **Aethylester d. γ -Cyan- β -Ketobutan- γ -Carbonsäure** (Ae. d. Acetylmethylcyanessigsäure). Sd. 90—92°₂₀ (*Bl.* 41, 331; *A. ch.* [6] 18, 481). — I, 1224.
- 9) **Aethylester d. δ -Cyan- β -Ketobutan- δ -Carbonsäure.** Sd. 160—171°₂, (*C.* 1895 [2] 918).
- 10) **Propylester d. α -Cyan- β -Ketopropan- α -Carbonsäure** (P. d. Acetylcyanessigsäure). Sm. 35—36°; Sd. 133°₂₅ (*Bl.* [3] 13, 1034).
- 11) **Aethylester d. 2-Keto-5-Methyl-2,3-Dihydropyrrol-4-Carbonsäure.** Sm. 133—134°; Sd. 195°₁₂ (*A.* 260, 144). — I, 1215.
- 12) **Aethylester d. 3,5-Dimethylisoxazol-4-Carbonsäure.** Sd. 218—220° (*A.* 277, 173). — IV, 87.
- 13) **Aethylester d. 2-Furanylmethylamidoessigsäure** (Furylurethan). Sd. 240° (*B.* 23, 3208). — IV, 70.

- C₈H₁₁O₃N** 14) 1-Nitril d. 1-Oxyhexahydrobenzol-1,3-Dicarbonsäure. Sm. 130 bis 140° (B. 22, 2186). — II, 1917.
15) Verbindung (aus Chloressigsäurephenylamid). Sm. 115° (Bl. 22, 3). — II, 363.
- C₈H₁₁O₃N₃** C 48,7 — H 5,6 — O 24,4 — N 21,3 — M. G. 197.
1) α -Acetylamido- $\alpha\beta$ -Di[Acetylimido]methan (Triacetylgyoxylimidin). Sm. 224° (B. 17, 172). — I, 1159.
2) Dioximidotropinon (Diisonitrosotropinon). Zers. bei 197°. HCl, Br, Ag, Ag₂ (B. 30, 2698).
3) Aethylester d. α -Cyanacetylhydrazonpropionsäure. Sm. 144° (B. 27, 688).
- C₈H₁₁O₃Br** 1) Anhydrid d. δ -Brom- β -Methylpentan- $\beta\delta$ -Dicarbonsäure (A. d. Bromtrimethylglutarsäure). Sm. 114° (B. 23, 306). — I, 684.
- C₈H₁₁O₃Br₃** 1) Inn. Anhydrid d. $\alpha\beta\gamma$ -Tetrabrom- δ -Oxyheptan- δ -Carbonsäure (J. r. 17, 75).
2) Aethylester d. β -Tribrom- β -Ketopentan- γ -Carbonsäure (Ac. d. Tribromäthylacetylessigsäure). Fl. (A. 219, 103). — I, 604.
- C₈H₁₁O₃P** 1) 4-Aethylphenylphosphinsäure. Sm. 164°. NH₄, K, Ba + 3H₂O, Cu + H₂O, Ag, (A. 293, 317). — IV, 1674.
2) 2,4-Dimethylphenylphosphinsäure. Sm. 194°. Ba + H₂O, Cd + H₂O, Ni + H₂O, Ag₂ (B. 20, 1721). — IV, 1675.
3) 2,5-Dimethylphenylphosphinsäure. Sm. 179–180°. K, Ba (A. 212, 238; B. 21, 1494). — IV, 1675.
4) 3,5-Dimethylphenylphosphinsäure. Sm. 161° (B. 20, 1723). — IV, 1675.
5) α -Oxyäthylphenylphosphinsäure. Sm. 104°. Ba + 2H₂O (A. 293, 221). — IV, 1654.
6) 4-Aethoxylphenylphosphinige Säure. Sm. 115° (A. 293, 258). — IV, 1650.
7) Säure (aus Phenylelessigsäure). Sm. 135–136°. Ca + 2H₂O, Ba + 2H₂O, Ag₂ (J. 1884, 468). — II, 1315.
8) Dimethylester d. Phenylphosphinsäure. Sd. 247° (A. 181, 325). — IV, 1651.
9) Monoäthylester d. Phenylphosphinsäure. Fl. Ag (A. 181, 333). — IV, 1651.
- C₈H₁₁O₃B** 1) 2-Aethoxylphenylborsäure. Sm. 171° (B. 27, 262). — IV, 1700.
2) 4-Aethoxylphenylborsäure. Sm. 159° (B. 27, 260). — IV, 1700.
- C₈H₁₁O₄N** C 51,9 — H 5,9 — O 34,6 — N 7,6 — M. G. 185.
1) Dimethylester d. δ -Amido- $\alpha\gamma$ -Butadien- $\alpha\gamma$ -Dicarbonsäure (Dimethylester d. α -Amidomethylenglutakonsäure). Sm. 140–141° (A. 273, 176). — I, 1216.
2) Dimethylester d. β -Cyanpropan- $\alpha\beta$ -Dicarbonsäure. Sd. 195°₆₀ (A. ch. [6] 27, 253, 269). — I, 1225.
3) Aethylester d. 5-Keto-2-Aethyl-2,5-Dihydroisoxazol-4-Carbonsäure. Sm. 46° (A. 297, 84).
4) Diäthylester d. Cyanmethandicarbonsäure (D. d. Cyanmalonsäure). Sd. 120–130°₂₅. NH₄, Na, Ca + 2½H₂O, Ba + 4H₂O, Pb + H₂O, Fe. + 2 Molec. Phenylhydrazin (A. ch. [6] 16, 419; J. pr. [2] 49, 337; Bl. [3] 15, 131). — I, 1224.
5) Aethylester d. Succinimidoessigsäure. Sm. 66,5°; Sd. 290°. Na (J. 1887, 1605; J. pr. [2] 52, 439). — I, 1381.
6) Imid d. 1,3-Dioxyhexahydrobenzol-1,3-Dicarbonsäure. Sm. 272 bis 273° u. Zers. (A. 278, 50). — II, 1990.
7) Verbindung (aus β -Isonitrobernsteinsäureäthylester). Sd. 160°₆₀ (G. 18, 466).
- C₈H₁₁O₄N₃** C 45,1 — H 5,2 — O 30,0 — N 19,7 — M. G. 213.
1) Diacetat d. 2,5-Dioximidotetrahydropyrrol (D. d. Succinenimido-dioxim). Sm. 170–171° (B. 22, 2966). — I, 1486.
- C₈H₁₁O₄Cl** 1) Diäthylester d. Chlorfumarsäure. Sd. 250° u. ger. Zers. (A. 156, 178; 191, 80; Soc. 53, 701). — I, 700.
2) Diäthylester d. Chlormaleinsäure. Sd. 235° u. ger. Zers. (Soc. 53, 708; Bl. [3] 13, 848). — I, 703.
3) Diäthylester d. Mucocoxylchorsäure. Fl. (Am. 9, 163). — I, 706.

- $C_6H_{11}O_4Br$ 1) 1-Brom-eis-Hexahydrobenzol-1,4-Dicarbonsäure. Sm. 205° (A. 245, 182). — II, 1835.
2) 1-Brom-trans-Hexahydrobenzol-1,4-Dicarbonsäure (A. 245, 179). — II, 1834.
3) 2-Bromhexahydrobenzol-1,4-Dicarbonsäure. Ba + 3½ H₂O (A. 245, 165; 258, 34). — II, 1835.
4) αγ-Lakton d. β-Brom-γ-Oxy-γ-Methylpentan-αβ-Dicarbonsäure (Methyläthylbromparakonsäure). Sm. 160—161°. Ca (A. 282, 314).
5) Dimethylester d. β-Brom-β-Buten-αδ-Dicarbonsäure (D. d. Bromdihydromukonsäure). Sm. 80° (A. 256, 18). — I, 714.
6) Diäthylester d. Bromfumarsäure. Fl. (Am. 9, 152). — I, 700.
7) Diäthylester d. Brommaleinsäure. Sd. 256° (B. 12, 2284). — I, 705.
- $C_6H_{11}O_4J$ 1) 2-[oder 3-]Jodhexahydrobenzol-1,4-Dicarbonsäure (A. 258, 42). — II, 1836.
- $C_6H_{11}O_4P$ 1) 4-Aethoxylphenylphosphinsäure. Sm. 165°. Ag₂ (A. 293, 258). — IV, 1653.
- $C_6H_{11}O_5N$ C 47,7 — H 5,5 — O 39,8 — N 7,0 — M. G. 229.
- $C_6H_{11}O_5N_2$ 1) Monamid d. trans-R-Trimethylen-1,2,3-Tricarbonsäuredimethylester. Sm. 185° (A. 284, 223).
C 41,9 — H 4,8 — O 34,9 — N 18,3 — M. G. 229.
- $C_6H_{11}O_5Cl$ 1) Diäthylester d. β-Chlor-α-Ketoäthan-αβ-Dicarbonsäure (D. d. Chloroxalessigsäure). Sd. 160—170°₁₂₀ (G. 22 [2] 38). — I, 762.
- $C_6H_{11}O_5Br$ 1) Brommalophtalsäure + ½ H₂O. Zers. bei 180° (A. 166, 353). — I, 770.
2) Diäthylester d. β-Brom-α-Ketoäthan-αβ-Dicarbonsäure (D. d. Bromoxalessigsäure oder d. α-Brom-β-Oxyfumarsäure). Sd. 144—146°₁₃ (B. 22, 2914; A. 276, 219). — I, 762.
- $C_6H_{11}O_5P$ 1) Diphenylketon + Phosphorsäure. Sm. 88—90° (B. 31, 1300).
- $C_6H_{11}O_6N$ C 44,2 — H 5,1 — O 44,2 — N 6,4 — M. G. 217.
- 1) Aethylester d. Oxaloxaminsäure. Sm. 67° (J. pr. [2] 9, 295). — I, 1364.
- $C_6H_{11}O_6Cl_3$ 1) Chloralose. Sm. 187° (185°) (B. 22, 1050; Bl. [3] 9, 17; [3] 11, 37, 125, 303). — I, 1049.
2) Parachloralose. Sm. 227° (230°) (B. 22, 1050; Bl. [3] 9, 17; [3] 11, 40, 303). — I, 1049.
3) β-Galaktochloral. Sm. 202° (C. 1896 [2] 83).
4) Lävulochloral. Sm. 228° (C. 1896 [2] 83).
- $C_6H_{11}O_7Cl_3$ 1) Urochloralsäure (Trichloräthylglykuronsäure). Sm. 142°. Na, K, Ba (Bl. 23, 486; B. 8, 662; 14, 2291; 15, 1020; 25, 2570; H. 6, 485; A. 290, 158). — I, 935.
- $C_6H_{11}NS$ 1) 4-Dimethylamido-1-Merkaptobenzol. Sm. 28,5°; Sd. 259—260° u. Zers. Pb (J. pr. [2] 41, 208; B. 18, 1575). — II, 799.
2) Methyläther d. 2-Amido-1-Merkaptomethylbenzol. Sd. 277—278°₇₅₁ (B. 29, 164).
3) Methyläther d. 3-Amido-1-Merkaptomethylbenzol. Fl. HCl (B. 30, 1071).
- $C_6H_{11}N_2Cl$ 1) 4-Chlor-2,5-Diamido-1,3-Dimethylbenzol. Sd. 280—281° (B. 29, 313). — IV, 642.
2) 4-Chlor-2-Amido-1-Dimethylamidobenzol. Sd. 266,5—267,5°₇₅₁. Pikrat (B. 31, 2984).
- $C_6H_{11}N_2Br$ 1) p-Brom-4,6-Diamido-1,3-Dimethylbenzol (Z. 1865, 555). — IV, 642.
2) Farbstoff (aus 4-Amido-1-Dimethylamidobenzol). Sm. 146° (B. 12, 1803, 2071). — IV, 582.
- $C_6H_{11}N_2S$ 1) α-Methylamido-β-Phenylthioharnstoff. Sm. 143°. HCl (A. 253, 11; B. 29, 2921). — II, 402.
2) Methylphenylamidothioharnstoff. Sm. 187° (B. 27, 863). — IV, 678.
3) anti-β-Phenylamido-α-Methylthioharnstoff. Sm. 90—91° (88—89°) (B. 25, 3107; Soc. 57, 261). — IV, 678.
4) syn-β-Phenylamido-α-Methylthioharnstoff. Sm. 163—164° (B. 25, 3108). — IV, 678.
5) 4-Methylphenylamidothioharnstoff. Sm. 150° (G. 28 [2] 560).
6) Allylcyanamid d. Allylamidothioameisensäure. Sm. 52,4° (B. 23, 1663). — I, 1443.

- $C_8H_{11}N_3S_2$ 1) 3,5-Dithiocarbonyl-1,2-Diallyltetrahydro-1,2,4-Triazol. Fl. (2HCl, $PtCl_4$) (*J. pr.* [2] 44, 505). — I, 1325.
- $C_8H_{11}ON_2$ C 63,2 — H 7,9 — O 10,5 — N 18,4 — M. G. 152.
- 1) 2-[β -Amidoäthyl]amido-1-Oxybenzol. Sm. 154°; Sd. 280—285°. 2HCl, 2HJ + H_2O , H_2SO_4 , Pikrat (*B.* 27, 930). — II, 704.
- 2) 4-Amido-2-Dimethylamido-1-Oxybenzol. 2HCl (*B.* 27, 1932).
- 3) Methyläther d. 2-Methylamido-5-Amido-1-Oxybenzol. Sm. 67—68° (*A.* 255, 182). — II, 722.
- 4) Methyläther d. 3-Amido-4-Oxy-1-Amidomethylbenzol. Fl. (2HCl, $PtCl_4$) (*B.* 20, 2412). — II, 755.
- 5) Methyläther d. 3,6-Diamido-4-Oxy-1-Methylbenzol. Sm. 166° u. Zers. 2HCl (*B.* 22, 791). — II, 755.
- 6) Äthyläther d. 3,4-Diamido-1-Oxybenzol. Sm. 71—72°; Sd. 294 bis 296°. H_2SO_4 , Oxalat. — II, 723.
- 7) β -Amidoäthyläther d. 2-Amido-1-Oxybenzol. HCl (*J. pr.* [2] 24, 248). — II, 702.
- 8) s-[β -Oxyäthyl]phenylhydrazin. Sd. 180—187°₁₀. (*G.* 17, 240; *M.* 15, 669). — IV, 660.
- 9) Methyläther d. 6-Oxy-3-Methylphenylhydrazin. Sm. 45° (*B.* 22, 351). — IV, 816.
- 10) Äthyläther d. 4-Oxyphenylhydrazin. Sm. 74° (*B.* 25, 1663, 1845). — IV, 815.
- 11) 6-Oxy-4-Methyl-2-Propyl-1,3-Diazin. Sm. 143° (PINNER, Imidoäther 227). — IV, 828.
- 12) 6-Oxy-4-Methyl-2-Isopropyl-1,3-Diazin. Sm. 173° (PINNER, Imidoäther 229). — IV, 828.
- 13) 6-Oxy-4,5-Dimethyl-2-Äthyl-1,3-Diazin. Sm. 165° (PINNER, Imidoäther 225). — IV, 827.
- 14) 6-Oxy-2,5-Dimethyl-4-Äthyl-1,3-Diazin. Sm. 167,5° (*J. pr.* [2] 42, 17). — IV, 827.
- 15) 6-Oxy-2,4-Dimethyl-5-Äthyl-1,3-Diazin. Sm. 138° (PINNER, Imidoäther 220). — IV, 827.
- 16) 4-Keto-2,6-Dimethyl-1-Äthyl-1,4-Dihydro-1,3-Diazin. Sm. 55°; Sd. 258°. HBr (PINNER, Imidoäther 218). — IV, 823.
- 17) 1-Cyanacetylhexahydropyridin. Sm. 88—89°. — IV, 12.
- 18) Nitril d. γ -Acetylimidopentan- β -Carbonsäure (Acetyldipropionitril). Fl. (*J. pr.* [2] 47, 111, 112). — I, 1475.
- $C_8H_9OCl_2$ 1) Verbindung (aus Essigsäurealdehyd). Sd. 100—105°₁₀. (*A. ch.* [5] 25, 220). — I, 916.
- $C_8H_9OCl_3$ 1) Acetonchloroformäther. Sd. 156° (*B.* 20, 539). — I, 979.
- $C_8H_{12}OBr_2$ 1) 3,4-Dibrom-5-Keto-1,3-Dimethylhexahydrobenzol. Fl. (*A.* 281, 120).
- 2) Methyl-2,3-Dibromhexahydrophenylketon (Granataldibromid). Sm. 100° (*B.* 26, 2749). — IV, 53.
- $C_8H_{12}O_2N_2$ C 57,1 — H 7,1 — O 19,0 — N 16,7 — M. G. 168.
- 1) Dimethyläther d. 4,5-Diamido-1,2-Dioxybenzol. Sm. 131—132°. 2HCl (*M.* 15, 234; *Bl.* [3] 17, 817). — II, 912.
- 2) Dimethyläther d. 2,3-Diamido-1,4-Dioxybenzol. HCl (*B.* 13, 1676; 23, 1216). — II, 948.
- 3) 5-Acetylamido-4-Methyl-3-Äthylisoxazol. Sm. 161° (*Bl.* [3] 5, 775; *B.* 24 [2] 553). — IV, 528.
- 4) 1-Acetyl-5-Keto-3,4,4-Trimethyl-4,5-Dihydropyrazol. Sm. 168° (*J. pr.* [2] 50, 230; [2] 52, 44). — IV, 526.
- 5) 6-Oxy-4-Methyl-2-[α -Oxyisopropyl]-1,3-Diazin. Sm. 98° (PINNER, Imidoäther 234). — IV, 828.
- 6) Äthylester d. 3,5-Dimethylpyrazol-4-Carbonsäure + 2 H_2O . Sm. 60° (96° wasserfrei) (*A.* 279, 239). — IV, 545.
- 7) Amid d. cis-1,2,3,4-Tetrahydrobenzol-1,4-Dicarbonsäure (*A.* 251, 307). — II, 1733.
- 8) s-Diallylamid d. Oxalsäure. Sm. 154°; Sd. 274° u. Zers. (*B.* 13, 513). — I, 1366.
- 9) Methoxydhydrat d. Pyridin-3-Carbonsäuremethyamid. Jodid, Nitrat (*C.* 1898 [1] 677).
- 10) Nitril d. $\beta\delta$ -Dioxy- γ -Methylpentan- $\beta\delta$ -Dicarbonsäure. Sm. 124 bis 125° u. ger. Zers. (*B.* 28, 2940).

- $C_8H_{12}O_2N_4$ C 49,0 — H 6,1 — O 16,3 — N 28,6 — M. G. 196.
 1) Phenylhydrazin + Dioximidoäthan. Sm. 110° (B. 21, 183). — IV, 756.
 2) Isopropylidenhydrazid d. 3-Keto-2,3,4,5-Tetrahydro-1,2-Diazin-5-Carbonsäure. Sm. oberh. 250° (J. pr. [2] 51, 146). — IV, 540.
- $C_8H_{12}O_2N_6$ C 42,8 — H 5,4 — O 14,3 — N 37,5 — M. G. 224.
 1) 8-Hydrazido-2,6-Diketo-1,3,7-Trimethylpurin (Hydrazidokaffeïn) Zers. bei 240° (B. 27, 3090). — III, 960.
 2) Nitril d. α -Dinitrosohydrazoisobuttersäure (A. 290, 23).
 3) Azid d. Hexan- α -Dicarbonsäure. Sm. bei 25° (B. 29, 1166).
- $C_8H_{12}O_2Cl_2$ 1) Aethylester d. β -Dichlor- β -Penten- γ -Carbonsäure? Sd. 135—140°₃₅ (Soc. 51, 841). — I, 619.
 2) Dichlorhexenylester d. Essigsäure. Sd. 122—123°₂₀ (M. 5, 574). — I, 412.
 3) Chlorid d. Hexan- α -Dicarbonsäure. Sd. 162—163°₁₅ (C. 1896 [2] 1091).
- $C_8H_{12}O_2Br_2$ 1) 1,2-Dibrom-R-Heptamethylen-1-Carbonsäure. Sm. 135° (B. 31, 2008).
- $C_8H_{12}O_2S$ 1) Diäthylester d. Aethansulfid- $\alpha\beta$ -Dicarbonsäure. Fl. (B. 28, 1634).
- $C_8H_{12}O_3N_2$ C 52,2 — H 6,5 — O 26,1 — N 25,2 — M. G. 184.
 1) 2,4,6-Triketo-1,3-Diäthylhexahydro-1,3-Diazin (Diäthylbarbitursäure; Malonyldiäthylharnstoff). Sm. 52—53° (B. 30, 1815).
 2) 2,4,6-Triketo-5,5-Diäthylhexahydro-1,3-Diazin (Diäthylbarbitursäure). Sm. 182° (B. 15, 2849). — I, 1387.
 3) 5-Keto-3-Methyl-4,5-Dihydropyrazol-1-[Isopropyl- α -Carbonsäure]. Sm. 263° (A. 290, 20). — IV, 512.
 4) Aethylester d. 5-Keto-1,4-Dimethyl-4,5-Dihydropyrazol-4-Carbonsäure. Sm. 88—89° (B. 27, 1661; 29, 1018). — IV, 540.
 5) Aethylester d. 5-Keto-3-Methyl-4,5-Dihydropyrazol-4-Methylcarbonsäure. Sm. 166° (J. pr. [2] 50, 517). — IV, 546.
 6) Aethylester d. 2-Keto-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin-5-Carbonsäure (Aethylester d. Formuramidocrotonsäure). Sm. 260—261° (G. 23 [1] 391).
 7) β -Amidoäthylmonamid d. Aethindicarbonsäuremonäthylester. Sm. 161° (B. 24, 1848). — I, 1393.
- $C_8H_{12}O_3N_4$ C 45,3 — H 5,7 — O 22,6 — N 26,4 — M. G. 212.
 1) 5-Amidoformylamido-2,4-Diketo-1,3,6-Trimethyl-1,2,3,4-Tetrahydro-1,3-Diazin (Trimethylhydroxyxanthin). Zers. bei 300° (A. 244, 17). — I, 1351.
 2) Kaffeindicarbonsäure. Sm. bei 160° u. Zers. Ca, Zn, Cd, Hg + 2HgCl₂, Mn, Cu (B. 30, 220; M. 4, 370).
- $C_8H_{12}O_3Cl_2$ 1) Aethylester d. ?-Dichlor- β -Ketopentan- γ -Carbonsäure (Ac. d. Dichloräthylacetessigsäure). Sd. 220—225° (A. 234, 188). — I, 604.
- $C_8H_{12}O_3Br_2$ 1) Anhydrid d. α -Brombuttersäure. Sd. 148—152°₁₀ (B. 27, 2950).
 2) Anhydrid d. α -Bromisobuttersäure. Sm. 63—65°; Sd. 135—140°₃₅ (B. 27, 2951).
 3) Aethylester d. ?-Dibrom- β -Ketopentan- γ -Carbonsäure (Ac. d. Dibromäthylacetyllessigsäure). Fl. (A. 219, 102). — I, 604.
 4) Aethylester d. ?-Dibrom- γ -Ketopentan- β -Carbonsäure (Ac. d. Dibrom- α -Propionylpropionsäure). Fl. (A. 231, 208). — I, 605.
- $C_8H_{12}O_3Br_4$ 1) $\alpha\beta\gamma\eta$ -Tetrabrom- δ -Oxyheptan- δ -Carbonsäure. Fl. (A. 185, 189; J. r. 17, 75). — I, 575.
- $C_8H_{12}O_4N_2$ C 48,0 — H 6,0 — O 32,0 — N 14,0 — M. G. 200.
 1) Tetracetylhydrazin. Sm. 86° (C. 1898 [1] 39).
 2) 4-Aethoxyl-2-Aethyl-1,2,6-Oxdiazin-3-Carbonsäure. Sm. 109° (B. 26, 1006). — IV, 537.
 3) Aethylester d. α -Carbamido- γ -Keto- α -Buten- β -Carbonsäure. Sm. 191—192° (A. 297, 33).
 4) Aethylester d. ?-Nitro-?-Tetrahydropyridin-1-Carbonsäure. Sm. 51,5° (B. 16, 644). — IV, 13.
 5) Diäthylester d. Azinmethylen dicarbonsäure? Sd. 42°₁₂ (J. pr. [2] 44, 564). — I, 1494.
 6) Diacetat d. $\beta\gamma$ -Dioximidobutan. Sm. 111° (A. 288, 27).
 7) Verbindung + H₂O (aus Biliverdinsäure) (H. 26, 333).
- $C_8H_{12}O_4N_4$ C 42,1 — H 5,2 — O 28,1 — N 24,6 — M. G. 228.
 1) 1,3,7-Trimethylpseudoharnsäure + H₂O. Sm. 195° u. Zers. (B. 30, 566).
- $C_8H_{12}O_4Cl_2$ 1) $\gamma\delta$ -Dichlorhexan- $\gamma\delta$ -Dicarbonsäure. Fl. (J. pr. [2] 52, 341).

- $C_8H_{12}O_4Cl_2$ 2) Diäthylester d. $\alpha\beta$ -Dichlorbernsteinsäure. Sm. 61,7—62° (57°) (A. 280, 214; C. 1898 [2] 663).
3) Diäthylester d. Isodichlorbernsteinsäure. Fl. (A. 280, 221).
4) Di[β -Chloräthylester] d. Bernsteinsäure. Sd. 204—205° (A. 280, 180).
- $C_8H_{12}O_4Br_2$ 1) $\alpha\gamma$ -Dibromhexan- $\alpha\zeta$ -Dicarbonsäure (Dibromkorksäure). Sm. 172—173° (B. 15, 149; 18, 814). — I, 681.
2) $\alpha\beta$ -Dibrom- $\beta\gamma$ -Dimethylbutan- $\alpha\gamma$ -Dicarbonsäure. Sm. 169° u. Zers. (Soc. 71, 1184).
3) Dimethylester d. $\alpha\beta$ -Dibrombutan- $\alpha\delta$ -Dicarbonsäure (D. d. $\alpha\beta$ -Dibromadipinsäure). Sm. 84—85° (A. 256, 22). — I, 670.
4) Dimethylester d. $\beta\gamma$ -Dibrombutan- $\alpha\delta$ -Dicarbonsäure (D. d. $\beta\gamma$ -Dibromadipinsäure). Sm. 78° (A. 256, 20). — I, 670.
5) Diäthylester d. $\alpha\beta$ -Dibromäthan- $\alpha\alpha$ -Dicarbonsäure. Sd. 130—140° (Soc. 73, 342; B. 13, 1671; C. 1898 [2] 1169). — I, 660.
6) Diäthylester d. $\alpha\beta$ -Dibrombernsteinsäure. Sm. 58° (68°) (B. 11, 495; 12, 2281; 14, 1820; 15, 1845, 1847; 21, 1733; A. Spl. 1, 358). — I, 659.
7) Diacetat d. $\gamma\delta$ -Dibrom- $\alpha\beta$ -Dioxybutan. Sm. 133—134° (B. 26 [2] 931).
8) Diacetat d. isom. $\gamma\delta$ -Dibrom- $\alpha\beta$ -Dioxybutan. Sm. 96° (B. 26 [2] 315, 931).
- $C_8H_{12}O_4S$ 1) Thiaceessigsäure-Acetessigsäureäthylester. Sd. 155°₁₃ (A. 261, 42). — I, 899.
2) Dimethylester d. Tetrahydrothiophen-2,5-Dicarbonsäure. Fl. (B. 19, 3277). — III, 760.
- $C_8H_{12}O_5N_2$ C 44,4 — H 5,5 — O 37,0 — N 13,0 — M. G. 216.
- $C_8H_{12}O_5N_4$ 1) Nitrosocincholoiponsäure. Sm. 161—163°. Ba (M. 9, 793). — III, 843.
C 39,3 — H 4,9 — O 32,8 — N 23,0 — M. G. 244.
- 1) Verbindung (aus Isoacetonitril). Sm. 163°; Sd. 168°₂₄ (A. 149, 315). — I, 1269.
- $C_8H_{12}O_5Br_2$ 1) Diäthylester d. $\alpha\beta$ -Dibrom- β -Oxypropionkohlsäure. Sd. 156 bis 157°₁₃ (A. 276, 216).
- $C_8H_{12}O_5N_2$ C 41,4 — H 5,2 — O 41,4 — N 12,0 — M. G. 232.
1) meso-Diacetyldiamidobernsteinsäure. Zers. bei 235° (B. 26, 1985).
2) isom. Diacetyldiamidobernsteinsäure. Zers. bei 235° (B. 26, 1988).
3) Dimethylester d. Oxalyldi[amidoessigsäure]. Sm. 138—140° (B. 30, 581).
4) Monäthylester d. Oxalyldi[amidoessigsäure]. Sm. 164—165° (B. 30, 583).
5) Diäthylester d. $\alpha\beta$ -Dioximidoäthan- $\alpha\beta$ -Dicarbonsäure. Sm. 162° (B. 30, 154).
6) Diäthylester d. Oxalyldi[amidoameisensäure]. Sm. 170° (B. 27, 1250).
7) Diamid d. n-Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure. Sm. 181° u. Zers. (B. 28, 884).
8) Diamid d. h-Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure. Sm. 169° u. Zers. (B. 28, 887).
- $C_8H_{12}O_7N_2$ C 38,7 — H 4,8 — O 45,1 — N 11,3 — M. G. 248.
1) Dimethylester d. Dinitrosodilaktylsäure (Bl. [3] 11, 298).
- $C_8H_{12}O_8Si$ 1) Kieselessigsäureanhydrid. Sm. 110°; Sd. 148°₅₋₆ (A. 145, 174). — I, 463.
- $C_8H_{12}O_{10}N_2$ C 32,4 — H 4,0 — O 54,0 — N 9,5 — M. G. 296.
1) Diäthylester d. Nitroweinsäure. Sm. 45—46° (B. 3, 533). — I, 796.
- $C_8H_{12}NCl$ 1) Chlormethylat d. 3-Aethylpyridin. + 2HgCl₂, 2 + PtCl₄ (J. pr. [2] 45, 42). — IV, 132.
2) Chloräthylat d. Thierölpikolin. + AuCl₃ (A. 94, 363). — IV, 126.
3) Chlorisopropylat d. Pyridin. 2 + PtCl₄ (C. 1896 [1] 928). — IV, 110.
- $C_8H_{12}NBr$ 1) 3-Bromtropidin. Fl. (HCl, AuCl₃) (B. 23, 2878). — IV, 74.
- $C_8H_{12}NJ$ 1) Jodmethylat d. 3-Aethylpyridin. + CdJ₂ (J. pr. [2] 45, 42). — IV, 132.
2) Jodäthylat d. Thierölpikolin. Sm. unterh. 100° (A. 94, 361; J. 1876, 782). — IV, 126.
3) Jodpropylat d. Pyridin. Sm. 52—53° (C. 1896 [1] 554). — IV, 110.
4) Jodisopropylat d. Pyridin. Sm. 114—115° (C. 1896 [1] 554). — IV, 110.
- $C_8H_{14}NJ_3$ 1) Verbindung (aus Aldehydcollidin). Sm. 92—93° (B. 14, 232). — IV, 135.
- $C_8H_{12}N_2S$ 1) 2-Amido-5-Dimethylamido-1-Merkaptobenzol. Fl. Zn (A. 251, 23). — II, 800.

- C₈H₁₂N₂S** 2) Nitril d. Dipropylsulfid- $\gamma\gamma'$ -Dicarbonsäure (N. d. γ -Thiodibuttersäure).
Sd. über 300° (B. 23, 2493). — I, 1471.
- C₈H₁₂N₂Br** 1) Bromkyanmethäthin. Sm. 155° u. Zers. (J. pr. [2] 31, 114). — IV, 1131.
- C₈H₁₂N₂S** 1) 2-Allylimido-5-Thiocarbonyl-1-Allyltetrahydro-1,3,4-Triazol. Sm.
147°. HCl + 3H₂O, (2HCl, PtCl₄) (B. 26, 2879; 27, 1775).
- C₈H₁₃ON** C 69,1 — H 9,3 — O 11,5 — N 10,1 — M. G. 139.
- 1) Pelletierin. Sd. 195° (Bl. 32, 464, 466; 36, 256). — IV, 53.
- 2) Tropinon (N-Methyltropinon). Sm. 41—42°; Sd. 224—225° (113°₂₅). HCl,
(2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 29, 396, 490, 946; 30, 2681,
2711 Anm.; 31, 2666; G. 26 [2] 161). — III, 791.
- 3) Oxytropidin. (2HCl, PtCl₄) (B. 25, 3124). — III, 791.
- 4) Oxytetraldin (J. 1857, 388; 1858, 347; A. Spl. 6, 10). — I, 918.
- 5) 5-Acetylamido-4-Methyl-2,3-Dihydro-R-Penten. Sd. 164—165°.
(2HCl, PtCl₄) (Soc. 57, 238). — I, 1147.
- 6) 5-[α -Oximidoäthyl]-4-Methyl-2,3-Dihydro-R-Penten. Sm. 85° (Soc.
57, 237). — I, 1032.
- 7) 1-Oximido-3,5-Dimethyl-1,2,3,4-Tetrahydrobenzol. Sm. 76° (72 bis
74°); Sd. 140—141°₁₀. HCl (B. 18, 2582; A. 281, 113). — III, 111.
- 8) Oxim d. Keton C₈H₁₂O (aus Holztheeröl). Sm. 102° (C. 1898 [2] 1232).
- 9) Hydroxypropylat d. Pyridin. Salze, siehe diese (C. 1896 [1] 927).
— IV, 110.
- 10) Hydroxyisopropylat d. Pyridin. Salze, siehe diese (C. 1896 [1] 928).
- 11) Base (aus Lupanin). HCl, (2HCl, PtCl₄), HBr (C. 1895 [2] 162).
- 12) Aldehyd d. ?-Cyanhexan- α -Carbonsäure (Cyanönanthol). Sd. 177°
(A. ch. [6] 16, 170). — I, 956.
- 13) Nitril d. δ -Keto- γ -Methylhexan- γ -Carbonsäure (N. d. Methyläthyl-
propionylessigsäure). Sd. 195° (Bl. 51, 173; [3] 1, 550). — I, 1475.
- 14) Suberonhydrocyanid. Fl. (A. 211, 118). — I, 1010.
- 15) Amid d. 2,3,4,5-R-Hepten-6-Carbonsäure (A. d. Suberencarbonsäure).
Sm. 125—126° (130—131°) (A. 280, 139; B. 31, 2007, 2506; 32, 706). —
II, 1130.
- 16) Amid d. 1-Aethyl-2,3-Dihydro-R-Penten-3-Carbonsäure. Sm. 158°
(A. 280, 131). — II, 1130.
- 17) Amid d. isom. 1-Aethyl-2,3-Dihydro-R-Penten-3-Carbonsäure. Sm.
185° (A. 280, 135). — II, 1130.
- 18) Amid d. 2-Methyl-1,2,3,4-Tetrahydrobenzol-5-Carbonsäure. Sm.
148° (A. 280, 165). — II, 1131.
- 19) Amid d. $\alpha\gamma$ -Heptadien- δ -Carbonsäure (A. d. Diallylessigsäure). Sm.
82,5°; Sd. 265° (B. 29, 2006).
- 20) Verbindung (aus Aethylidenoxyacetat) (A. 245, 102).
- 21) Verbindung (aus Aldolammoniak). Sd. 155—160°₂₀ (Bl. 31, 433). —
I, 964.
- C₈H₁₃ON₂** C 57,5 — H 7,8 — O 9,6 — N 25,1 — M. G. 167.
- 1) 1-Semicarbazon-5-Methyl-1,2,3,4-Tetrahydrobenzol. Sm. 199—201°
u. Zers. (A. 304, 23).
- C₈H₁₃OCl** 1) Chlorid d. Heptanaphtencarbonsäure. Sd. 193—195° (B. 24, 2713).
— I, 520.
- C₈H₁₃O₂N** C 61,9 — H 8,4 — O 20,7 — N 9,0 — M. G. 155.
- 1) Dimethylphenyloxyammoniumoxydhydrat. Chlorid, 2 Chlorid +
PtCl₄, Chlorid + AuCl₃, Ferrocyanid, Pikrat (B. 32, 349).
- 2) Oseïn (Scopolin; Oxytropin; Pseudotropin). Sm. 110°; Sd. 241—243°.
HCl + H₂O, (2HCl, PtCl₄ + H₂O), (HCl, AuCl₃ + $\frac{1}{2}$ H₂O), HBr, HJ, H₂SO₄,
mandelsaures Salz (B. 17, 151, 153, 384; 25, 3073; 26, 1401; A. 261,
100; 271, 114; 276, 345; C. 1896 [1] 1199; 1898 [1] 1195). — III, 797.
- 3) Methylester d. 1-Methyl-1,2,3,4-Tetrahydropyridin-3-Carbonsäure
(Arekolin). Sd. 209°. (2HCl, PtCl₄), (HCl, AuCl₃), HBr. — IV, 60.
- 4) Aethylester d. α -Cyanvaleriansäure. Sd. 221—222° (J. 1889, 638). —
I, 1220.
- 5) Aethylester d. α -Cyanisovaleriansäure. Sd. 214° (J. 1889, 638). —
I, 1220.
- 6) Nitril d. γ -Acetoxypentan- γ -Carbonsäure. Sd. 212°₇₀₂ (C. 1899
[1] 195).
- 7) Nitril d. γ -Acetoxyl- β -Methylbutan- γ -Carbonsäure. Sd. 212°₇₀₄ (C.
1899 [1] 195).

- C₉H₁₃O₂N** 8) Nitril d. δ -Acetoxyl- β -Methylbutan- δ -Carbonsäure. *Sd.* 204°₇₆₀ (*C.* 1898 [2] 662).
 9) Imid d. $\beta\beta$ -Dimethylbutan- $\alpha\gamma$ -Dicarbonsäure. *Sm.* 126°. *Ag* (*Soc.* 75, 64).
 10) Imid d. $\beta\gamma$ -Dimethylbutan- $\beta\gamma$ -Dicarbonsäure (I. d. Tetramethylbernsteinsäure). *Sm.* 187° (*B.* 23, 3623). — *I.* 1387.
 11) Propylimid d. Propan- $\alpha\beta$ -Dicarbonsäure. *Sd.* 233—234° (*B.* 30, 3040).
 12) Isobutylimid d. Aethan- $\alpha\beta$ -Dicarbonsäure. *Sm.* 28°; *Sd.* 247—248° (*C.* 1895 [2] 86).
 13) sec. Butylimid d. Aethan- $\alpha\beta$ -Dicarbonsäure. *Sd.* 339—340°₇₅₈ (*C.* 1895 [2] 86).
 14) Verbindung (aus Aldehydammoniak u. Natriumacetessigsäureäthylester). *Na* (*J. pr.* [2] 35, 457). — *I.* 918.
- C₈H₁₃O₂Cl** 1) 1-Chlor-R-Heptamethylen-1-Carbonsäure. *Sm.* 42—44° (*A.* 211, 119; *B.* 31, 2007). — *I.* 520.
 2) Aethylester d. β -Chlor- α -Penten- γ -Carbonsäure (Aethylester d. β -Chlor- α -Aethyltetrakrylsäure). *Sd.* 182—183° (184—185°) (*A.* 234, 185; 249, 313). — *I.* 516.
 3) Aethylester d. β -Chlor- β -Penten- γ -Carbonsäure (Aethylester d. β -Chlor- α -Aethylcrotonsäure). *Fl.* (*Soc.* 49, 53). — *I.* 516.
 4) Propylester d. γ -Chlor- β -Buten- β -Carbonsäure (Propylester d. β -Chlor- α -Methylmethakrylsäure). *Sd.* 189—190° (*A.* 249, 308). — *I.* 514.
 5) Isobutylester d. β -Chlorisocrotonsäure. *Sd.* 187° (*A.* 256, 204). — *I.* 510.
 6) Chlorhexenylester d. Essigsäure. *Sd.* 203—207° (*J. pr.* [2] 30, 394). — *I.* 412.
- C₈H₁₃O₂Br** 1) 1-Brom-R-Heptamethylen-1-Carbonsäure. *Sm.* 94° (89—91°) (*A.* 280, 149; *B.* 31, 2008, 2505). — *II.* 1128.
 2) 1-Brom-1-Methylhexahydrobenzol-3-Carbonsäure. *Sm.* 142° (*C.* 1898 [1] 499).
 3) 3-Brom-1-Methylhexahydrobenzol-3-Carbonsäure. *Sm.* 118° (*C.* 1898 [1] 498).
 4) 4-Brom-1-Methylhexahydrobenzol-4-Carbonsäure. *Sm.* 71—72° (*A.* 280, 161). — *II.* 1128.
 5) Lakton d. ζ -Brom- β -Oxyheptan- δ -Carbonsäure. *Fl.* (*B.* 15, 628; 29, 1998; *A.* 216, 73). — *I.* 575.
- C₈H₁₃O₂Br₃** 1) Verbindung (aus d. ζ -Keto- β -Methyl- β -Hepten). *Sm.* 98—99° (*B.* 26, 2723; 28, 2115).
- C₈H₁₃O₃N** C 56,1 — H 7,6 — O 28,1 — N 8,2 — M. G. 171.
 1) Nor-d-Ecgonin. *HCl* (*B.* 26, 1484). — *III.* 863.
 2) Nor-1-Ecgonin (Cocayloxyessigsäure). *Sm.* 233°. *HCl* + *H₂O*, (*HCl*, *AuCl₃* + 2 *H₂O*) (*B.* 21, 3031). — *III.* 862.
 3) 5-Keto-1-Aethyl-2-Methyltetrahydropyrrol-2-Carbonsäure. *Sm.* 123° (*B.* 23, 709). — *I.* 1216.
 4) 5-Keto-2,4,4-Trimethyltetrahydropyrrol-2-Carbonsäure + *H₂O*? (Mesitylsäure). *Sm.* 174°. *Ag* (*A.* 148, 354; *B.* 14, 1074; 15, 580; *M.* 13, 605). — *I.* 1008.
 5) Säure (aus d. Bromphenylhydrazinverb. d. Säure C₈H₁₂O₅ aus Camphersäure). *Sm.* 189—190° (*C.* 1897 [1] 1125).
 6) $\beta\delta$ -Lakton d. δ -Oxy- β -Methylpentan- $\beta\delta$ -Dicarbonsäure- δ -Amid. *Sm.* 134—135° (*A.* 292, 230).
 7) $\gamma\epsilon$ -Lakton d. γ -Oxy- β -Methylpentan- $\gamma\epsilon$ -Dicarbonsäure- γ -Amid. *Sm.* 148,5° (*A.* 288, 190).
 8) Aethylester d. β -Acetylamidopropen- α -Carbonsäure (Ac. d. β -Acetylamidocrotonsäure). *Sm.* 63°; *Sd.* 231—232° (*A.* 226, 309; *G.* 14, 491; *Bl.* [3] 13, 72). — *I.* 1206.
- C₈H₁₃O₂N₃** C 48,2 — H 6,5 — O 24,1 — N 21,2 — M. G. 199.
 1) 5-Amido-2,4,6-Triketo-1,3-Diäthylhexahydro-1,3-Diazin (1,3-Diäthyluramil). *Sm.* 200° u. *Zers.* (*B.* 30, 1821).
 2) Acetylcecaffin. *Sm.* 106—107° (*A.* 215, 299; *J.* 1882, 366). — *III.* 963.
 3) Verbindung (aus Natriumacetessigaldehyd). *Sm.* 174° (*B.* 24, 139). — *I.* 970.

- $C_8H_{13}O_3Cl$ 1) Aethylester d. γ -Chlor- β -Ketopentan- γ -Carbonsäure (Ae. d. Aethylacetylchloroessigsäure). *Sd.* 192,5° (*A.* 186, 241; 234, 187; *B.* 16, 1218). — *I*, 604.
2) Aethylester d. δ -Chlor- γ -Keto- β -Methylbutan- β -Carbonsäure (Ae. d. γ -Chlordimethylacetessigsäure). *Sd.* 210—215° u. ger. Zers. (*B.* 25, 730). — *I*, 606.
- $C_8H_{13}O_3Cl_3$ 1) Diglycerinacetotrichlorhydrin. *Sd.* 190°₂₀ (*A.* 140, 245). — *I*, 314.
2) $\beta\beta\beta$ -Trichlor- α -Oxyisobutterisobutyläthersäure. *Fl.* K (*J. pr.* [2] 41, 525). — *I*, 564.
3) Aldehyd d. $\epsilon\epsilon\epsilon$ -Trichlor- $\beta\beta$ -Dioxyheptan- γ -Carbonsäure (Butyrylchloralaldol). *Fl.* (*B.* 25, 798). — *I*, 967.
- $C_8H_{13}O_3Br$ 1) Aethylester d. γ -Brom- β -Ketopentan- γ -Carbonsäure (Ae. d. Aethylacetbromessigsäure). *Sd.* 110°₂₂ (*A.* 219, 102; 266, 94). — *I*, 604.
2) Aethylester d. ϵ -Brom- β -Ketopentan- γ -Carbonsäure (Ae. d. Bromäthylacetessigsäure). *Fl.* (*Soc.* 51, 833). — *I*, 804.
3) Aethylester d. β -Brom- γ -Ketopentan- β -Carbonsäure (Ae. d. α -Propionyl- α -Brompropionsäure). *Fl.* (*A.* 231, 207). — *I*, 605.
- $C_8H_{13}O_4N$ C 51,3 — H 7,0 — O 34,2 — N 7,5 — M. G. 187.
1) Cincholoiponsäure + H_2O . *Sm.* 125—127° (221—222° wasserfrei). *Pb*, *HCl* (*M.* 9, 786; 10, 44, 58, 70; 16, 175; 17, 365; *B.* 28, 15, 1986, 3150; 30, 1327, 1332). — *III*, 842.
2) l-Cincholoiponsäure. *Sm.* 246° u. Zers. *HCl* (*B.* 30, 1333).
3) l-Methylhexahydropyridin-2,5-Dicarbonsäure? (Tropinsäure). *Sm.* 248° u. Zers. (253°). *Ca*, *Ba*, *Pb*, *Zn*, *Cu*, *Ag*, + $2H_2O$, *HCl* + H_2O , (*HCl*, *AuCl_3*), ($2HCl$, *PtCl_4*) (*A.* 216, 348; *B.* 15, 292; 23, 2519; 24, 607, 2587; 28, 2277; 29, 1217; 31, 1548). — *III*, 793.
4) i-Tropinsäure. *Ba*, *CuOH*, (*HCl*, *AuCl_3*) (*B.* 24, 613). — *III*, 793.
5) l-Methylhexahydropyridin-3,4-Dicarbonsäure. *HCl* (*B.* 29, 2192). — *IV*, 47.
6) Aethylester d. α -Nitroso- β -Ketopentan- α -Carbonsäure (Ae. d. Butyrylnitrosoessigsäure). *Fl.* (*B.* 20, 1328). — *I*, 602.
7) Aethylester d. δ -Imido- δ -Oxy- β -Ketopropanmethyläther- α -Carbonsäure. ($2HCl$, *Sm.* 122° u. Zers.) (*A. ch.* [6] 23, 166). — *I*, 1222.
8) Diäthylester d. β -Amidoäthen- $\alpha\alpha$ -Dicarbonsäure. *Sm.* 66° (67°) (*Soc.* 59, 747; 63, 878; 67, 1012; *A.* 297, 77). — *I*, 1215.
9) Diäthylester d. Amidofumarsäure. *Sd.* 142—143°₂₀ (*Bl.* [3] 11, 482).
10) Diäthylester d. Amidomaleinsäure. *Sd.* 144—145°₂₅ (*Bl.* [3] 13, 850).
11) isom. Diäthylester d. Amidomaleinsäure. *Sm.* 100° (*B.* 14, 151). — *I*, 1214.
- $C_8H_{13}O_4N_3$ C 44,6 — H 6,0 — O 29,8 — N 19,5 — M. G. 215.
1) Diacetylkreatin. *Sm.* 165° (*A.* 284, 50).
2) Oxim d. Oxyhydrocyanmesitenlaktone + $3H_2O$. Zers. bei 179—180° (*A.* 266, 355). — *I*, 1481.
3) Semioxamazon d. Acetessigsäureäthylester. *Sm.* 125—127° (*B.* 30, 593).
4) Triamid d. β -Ketopentan- $\gamma\delta\epsilon$ -Tricarbonsäure. *Sm.* 248° u. Zers. (*Soc.* 73, 728).
- $C_8H_{13}O_4Cl$ 1) β -Chlorhexan- $\alpha\zeta$ -Dicarbonsäure (Chlorkorksäure). *Fl.* (*M.* 1, 510). — *I*, 681.
2) Aethylester d. α -Chlor- γ -Oxy- β -Ketopropanäthyläther- α -Carbonsäure? *Sd.* 162°₅₅. *Na* (*A.* 269, 16). — *I*, 663.
3) Diäthylester d. Chlorbernsteinsäure. *Sd.* 122°₁₅ (*B.* 23, 3757). — *I*, 658.
4) Diäthylester d. d-Chlorbernsteinsäure. *Sd.* 131°₁₈ (*B.* 28, 1290; *C.* 1898 [2] 917).
5) Aethylester- β -Chloräthylester d. Bernsteinsäure. *Sd.* 170—172°₃₀ (*A.* 280, 180).
- $C_8H_{13}O_4Br$ 1) β -Bromhexan- $\alpha\zeta$ -Dicarbonsäure (Bromkorksäure). *Sm.* 102—103° (100 bis 101°) (*A.* 155, 251; *B.* 15, 148; 18, 813). — *I*, 681.
2) Diäthylester d. Brombernsteinsäure. *Sd.* 225—226° u. Zers. (*J. r.* 9, 277; *A.* 242, 157). — *I*, 658.
3) Diäthylester d. d-Brombernsteinsäure. *Sd.* 143°₂₈₋₃₀ (*B.* 28, 1291; 31, 1418).
4) Diäthylester d. Brommethylmalonsäure. *Sd.* 115—118°₁₅ (*B.* 26, 2356).

- C₈H₁₃O₃N** C 47,3 — H 6,4 — O 39,4 — N 6,9 — M. G. 203.
 1) Diacetat d. β -Nitroso- $\alpha\gamma$ -Dioxy- β -Methylpropan. Sm. 53°; Sd. oberh. 140° (B. 31, 225).
 2) Diäthylester d. anti-Oximidobernsteinsäure. Fl. (A. 229, 80; G. 20, 169). — I, 661.
 3) Diäthylester d. Oxaminessigsäure. Sd. 197—198°₁₂ (B. 30, 583).
- C₈H₁₃O₅Cl** 1) Diäthylester d. 1- β -Chlor- α -Oxyäthan- $\alpha\beta$ -Dicarbonsäure (D. d. 1-Chlor-Äpfelsäure). Sd. 162—165°₁₅ (B. 28, 1292; C. 1898 [2] 917).
- C₈H₁₃O₅Br** 1) Diäthylester d. 1- β -Brom- α -Oxyäthan- $\alpha\beta$ -Dicarbonsäure (D. d. 1-Brom-Äpfelsäure). Sd. 165—168°₁₂₋₁₅ (B. 28, 1292).
- C₈H₁₃O₆N** C 43,8 — H 5,9 — O 43,8 — N 6,4 — M. G. 219.
 1) Diacetat d. β -Nitro- $\alpha\gamma$ -Dioxy- β -Methylpropan. Sm. 27—28°; Sd. 158°₂₀ (B. 31, 224).
- C₈H₁₃O₆N₂** C 38,9 — H 5,2 — O 38,9 — N 17,0 — M. G. 247.
 1) Disuccinimidohydroxamsäure. Sm. 171° (B. 24, 3434). — I, 1486.
- C₈H₁₃O₇N** C 40,8 — H 5,5 — O 47,6 — N 6,0 — M. G. 235.
 1) Nitrat d. α -Oxyäthan- $\alpha\beta$ -Dicarbonsäurediäthylester (Diäthylester d. Nitroäpfelsäure). Fl. (B. 3, 533). — I, 743.
- C₈H₁₃NCl₂** 1) Dichlordiallyl-äthylamin. Sd. über 200° u. Zers. (A. 142, 82). — I, 1143.
- C₈H₁₃NBr₂** 1) Dibromdiallyl-äthylamin. Fl. (A. ch. [3] 56, 129). — I, 1143.
 2) Tropicindibromid. Sm. 66—67,5° (B. 23, 2893). — III, 789.
- C₈H₁₃N₂Cl** 1) β -Chlor-2-Aethyl-1-Propylimidazol. Sd. 236°. (2HCl, PtCl₄), HJ (A. 214, 313; B. 13, 516). — IV, 525.
 2) Chlormethylat d. 2,3,5-Trimethyl-1,4-Diazin. + 6HgCl₂ + 2H₂O, 2 + PtCl₄, + AuCl₃ (J. pr. [2] 53, 508). — IV, 825.
- C₈H₁₃N₂J** 1) α -Glykosinjodäthylat (Bl. 44, 103). — I, 1047.
 2) Jodmethylat d. 2,3,5-Trimethyl-1,4-Diazin. Sm. 231° u. Zers. (J. pr. [2] 53, 507). — IV, 825.
- C₈H₁₃N₃S** 1) Allylcyanamid d. Propylamidothioameisensäure. Sm. 50,5° (B. 23, 1662). — I, 1443.
 2) Propylcyanamid d. Allylamidothioameisensäure. Sm. 57,3° (B. 23, 1663). — I, 1443.
- C₈H₁₃SP** 1) Diäthylthiophenphosphin. Sd. 225° (B. 25, 1517). — IV, 1682.
- C₈H₁₄ON₂** C 62,3 — H 9,1 — O 10,4 — N 18,2 — M. G. 154.
 1) Nitrosogranatanin. Sm. 148° (B. 27, 2852). — IV, 52.
 2) 5-Methyl-1,2,3,4-Tetrahydro-1-Phenylharnstoff. Sm. 176° (A. 281, 103). — IV, 51.
 3) Oxim d. Tropinon. Sm. 112° (115—116°). HCl (B. 29, 399, 491, 947; G. 26 [2] 162). — III, 791.
- C₈H₁₄ON₄** C 52,7 — H 7,7 — O 8,8 — N 30,8 — M. G. 182.
 1) Aethyläther d. 2,3,4,5-Tetraamido-1-Oxybenzol. 2HCl (J. pr. [2] 29, 285). — II, 726.
 2) Methylkaffeidin. Sm. 86—88°. (2HCl, PtCl₄ + 4H₂O). — III, 964.
 3) Verbindung (aus Glyoxal u. Aethylendiamin). Sm. 145—146°. (2HCl, PtCl₄) (M. 19, 625).
- C₈H₁₄OBr₂** 1) $\beta\epsilon$ -Dibrom- ζ -Keto- β -Methylheptan (Bl. [3] 17, 189).
 2) β -Dibrom-5-Oxy-1,3-Dimethylhexahydrobenzol. Sm. 148° (A. 289, 144).
 3) Bromderivat d. α -Diisobutylaldehyd. + NaHSO₃ (M. 2, 619). — I, 961.
- C₈H₁₄OBr₄** 1) $\alpha\beta\zeta\eta$ -Tetrabrom- δ -Oxy- δ -Methylheptan (Methyldiallylcarbinoltetrabromid) (A. 185, 173; J. pr. [2] 23, 272).
- C₈H₁₄O₂N₂** C 56,4 — H 8,2 — O 18,8 — N 16,5 — M. G. 170.
 1) 1,4-Diacetylhexahydro-1,4-Diazin (Diäthylendiacetyldiamin). Sm. 138,5° (134°); Sd. über 310° u. Zers. (B. 24, 3241; 30, 1585). — I, 1238.
 2) 3,5-Dioximido-1,1-Dimethylhexahydrobenzol + 2H₂O. Sm. 176° (A. 294, 316).
 3) Nitrosogranatolin + H₂O. Sm. 72—73° (125° wasserfrei) (B. 27, 2856). — IV, 52.
 4) Amid d. 5-Keto-1-Aethyl-2-Methyltetrahydropyrrol-2-Carbonsäure. Sm. 183° (B. 23, 710). — I, 1395.
 5) Amid d. 5-Keto-2,4,4-Trimethyltetrahydropyrrol-2-Carbonsäure (A. d. Mesitylsäure). Sm. 222° (B. 15, 577). — I, 1099.
 6) Amid d. δ -Methyl- α -Penten- $\alpha\beta$ -Dicarbonsäure (A. d. Isobutylfumar-säure). Sm. 250—252° u. Zers. (A. ch. [5] 20, 493). — I, 1392.

- $C_8H_{11}O_2N_2$ 7) Di[Aethylamid] d. Fumarsäure. Sm. 182—183° (B. 14, 170). — I, 1389.
 8) Acetylamid d. Hexahydropyridin-1-Carbonsäure (Acetylpyridylcarbamid). Sm. 107,5—109° (Soc. 73, 366).
 9) Verbindung (aus α -Hydrazoisobuttersäure). Sm. noch nicht bei 250° (A. 290, 28).
- $C_8H_{11}O_2N_4$ C 48,5 — H 7,1 — O 16,1 — N 28,3 — M. G. 198.
 1) Acetylentetramethylharnstoff (Tetramethylglykoloril). Sm. 217° (R. 7, 248). — I, 1315.
 2) Tetramethylureidin. Sm. 165—167° (B. 30, 3013). — IV, 1256.
 3) Desoxykaffein + H_2O . Sm. 118° (147—148° wasserfrei); Sd. 245—248°₁₅₋₁₆. HCl, Pikrat, + 2 HgCl₂ (B. 32, 75).
- $C_8H_{11}O_2Cl_2$ 1) Dichlorisopropylester d. Isovaleriansäure. Sd. 245°₃₇ (A. 138, 298). — I, 428.
 2) Isobutylester d. $\alpha\beta$ -Dichlorisobuttersäure. Sd. 229° (Bl. [3] 15, 21).
 3) Verbindung (aus β -Chlorvinyläthyläther) = $(C_4H_7OCl)_2 + H_2O$ (J. 1886, 1173).
- $C_8H_{11}O_2Br_2$ 1) $\alpha\beta$ -Dibrom- ϵ -Methylhexan- α -Carbonsäure. Sm. 58—59° (A. 283, 285).
 2) Dibromhexylester d. Essigsäure (J. r. 21, 433). — I, 410.
 3) Dibromdimethylpropylcarbinolester d. Essigsäure (A. 185, 155).
- $C_8H_{11}O_2S_2$ 1) Diäthylester d. Dithiolbernsteinsäure. Sd. 269—271° u. ger. Zers. (J. pr. [2] 31, 469). — I, 899.
- $C_8H_{11}O_2S_4$ 1) Propyldioxysulfocarbonat. Fl. Zers. bei 150° (G. 17, 80). — I, 885.
 2) Aethylenester d. Oxydithioameisenäthyläthersäure (Aethylenester d. Aethylxanthogensäure). Sm. 42° (J. pr. [2] 15, 55). — I, 885.
- $C_8H_{11}O_3N_2$ C 51,6 — H 7,5 — O 25,8 — N 15,1 — M. G. 186.
 1) Nitrotropein. HCl, (2HCl, PtCl₄), HJ, Pikrat (B. 15, 1025). — III, 787.
- $C_8H_{11}O_3Cl_2$ 1) β -Dichlor- δ -Oxyheptan- δ -Carbonsäure. Fl. (J. r. 17, 73). — I, 575.
 2) Propylester d. Dichloroxyessigpropyläthersäure. Sd. 107°₁₀ (A. 254, 21). — I, 552.
- $C_8H_{11}O_4N_2$ C 47,5 — H 6,9 — O 31,7 — N 13,8 — M. G. 202.
 1) Dinitrookten. Fl. (J. 1864, 517; A. ch. [3] 44, 77). — I, 212.
 2) α -Azoisobuttersäure. $K_2 + H_2O$ (A. 290, 37).
 3) 4-Oximido-1-Oxy-2, 6-Dimethylhexahydropyridin-2-Carbonsäure. Sm. 209° u. Zers. (B. 31, 684).
 4) Aethylester d. β -Oxyacetylhydrazonpropan- α -Carbonsäure. Sm. 112° (J. pr. [2] 51, 369).
 5) Diäthylester d. Aethylendi[amidoameisensäure]. Sm. 220° u. Zers. (J. pr. [2] 52, 453).
- $C_8H_{11}O_4N_4$ C 41,7 — H 6,1 — O 27,8 — N 24,4 — M. G. 230.
 1) ϵ -Di[Acetylamidoacetyl]hydrazin. Sm. 250° u. Zers. (J. pr. [2] 52, 443).
 2) Diacetat d. $\alpha\delta$ -Diamido- $\alpha\delta$ -Dioximidobutan (D. d. Succinendiamidoxim). Sm. 167—168° (B. 22, 2961). — I, 1486.
 3) Amid d. n-Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure. Zers. bei 280—310° (B. 28, 883).
 4) Amid d. β -Methylpropan- $\alpha\alpha\beta\gamma$ -Tetracarbonsäure. Sm. 270° u. Zers. (Soc. 75, 246).
 5) Amid d. Säure $C_8H_{10}O_3$ (aus Itakonsäure). Sm. 250° u. Zers. (J. pr. [2] 45, 60). — I, 1408.
- $C_8H_{11}O_4S$ 1) α -Thiodibuttersäure. Sm. 105°. Ba (J. pr. [2] 33, 102). — I, 896.
 2) γ -Thiodibuttersäure. Sm. 99° (B. 23, 2943). — I, 896.
 3) Thiodiisobuttersäure + H_2O . Ba + H_2O (J. pr. [2] 33, 106). — I, 896.
 4) Aethylester d. β -Aethylsulfonisocrotonsäure. Fl. (A. 259, 356). — I, 898.
 5) Diäthylester d. Thiodiglykolsäure. Sd. 267—268° (A. 140, 226; 146, 155; Z. 1865, 78). — I, 893.
- $C_8H_{11}O_4S_2$ 1) γ -Dithiodibuttersäure. Sm. 108—109° (B. 23, 2490). — I, 896.
 2) Dithioisobuttersäure (J. pr. [2] 33, 110). — I, 896.
 3) Diäthylester d. Dithioglykolsäure. Sd. 280° u. Zers. (B. 14, 411; G. 22 [1] 425). — I, 892.
 4) Aethylenester d. Aethylthiolkohlsäure. Fl. (J. pr. [2] 15, 52). — I, 882.
- $C_8H_{11}O_5N_2$ C 44,0 — H 6,4 — O 36,7 — N 12,8 — M. G. 218.
 1) Citramethan (B. 5, 1101).
 2) Proteinsäure (B. 28 [2] 785).

- $C_8H_{14}O_6N_2$ C 41,0 — H 6,0 — O 41,0 — N 12,0 — M. G. 234.
1) Diäthylester d. Carboxylmethylen[amidoameisensäure]. Sm. 156° (B. 27, 1249).
- $C_8H_{14}O_6N_4$ C 36,7 — H 5,3 — O 36,7 — N 21,3 — M. G. 262.
1) Dinitroso- α -Hydrazoisobuttersäure (A. 300, 66).
2) Diäthylester d. $\alpha\beta$ -Diamido- $\alpha\beta$ -Dioximidoäthandikohlensäure (l. d. Oxalendiamidoximidkohlensäure). Sm. 168° (B. 22, 2952). — I, 1486.
3) Di[Propylnitroamid] d. Oxalsäure. Sm. 44° (R. 17, 271).
- $C_8H_{14}O_6S$ 1) α -Sulfondibuttersäure. Sm. 152° (B. 17, 2824; J. pr. [2] 33, 104). — I, 896.
2) γ -Sulfondibuttersäure. Ag₂ (B. 25, 3041). — I, 896.
3) α -Sulfondiisobuttersäure. Sm. 182–188° u. Zers. Ba + 3H₂O (B. 17, 2824; J. pr. [2] 33, 108). — I, 897.
4) Diäthylester d. Sulfondiessigsäure. Fl. Na₂ (B. 17, 2821). — I, 893.
- $C_8H_{14}O_8N_4$ C 32,6 — H 4,8 — O 43,6 — N 19,0 — M. G. 294.
1) Dimethylester d. Tetramethylen- $\alpha\delta$ -[Nitroamidoameisensäure]. Sm. 61–62° (R. 9, 95). — I, 1256.
2) Diäthylester d. Äthylendi- $\alpha\beta$ -[Nitroamidoameisensäure]. Sm. 83–84° (R. 7, 260). — I, 1255.
- $C_8H_{14}O_8N_6$ C 29,8 — H 4,3 — O 39,8 — N 26,1 — M. G. 322.
1) Verbindung (aus Glyoxal u. Hydrazinsulfat) (J. pr. [2] 39, 51). — I, 965.
- $C_8H_{14}O_{10}S$ 1) Stärkeschwefelsäure (A. 55, 13). — I, 1087.
- $C_8H_{14}O_{11}S_2$ 1) Erythritschwefelsäure. Ca₃ + 6H₂O, Ba₃ + 6H₂O, Pb₃ + 12H₂O (A. 117, 329). — I, 335.
- $C_8H_{14}NCl$ 1) Chlordihydrotropidin. (2HCl, PtCl₄), (HCl, AuCl₃) (C. 1898 [2] 666).
2) Nitril d. α -Chlorheptan- α -Carbonsäure. Sd. 217°₇₅₃ (C. 1898 [2] 662).
- $C_8H_{14}NBr$ 1) 1-[4-Bromphenyl]hexahydropyridin. Sm. 75°. HBr (B. 24, 2100). — IV, 8.
2) Tropidinhydrobromid. 2 isom. Verb. HBr (B. 23, 2890). — III, 789.
3) Bromdihydrotropidin. HCl, (HCl, HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), HBr (C. 1898 [2] 666).
- $C_8H_{14}NJ$ 1) Joddihydrotropidin. HCl, (HCl, HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), HJ (A. 217, 123; C. 1898 [2] 665).
- $C_8H_{14}N_2S$ 1) 5-Methyl-1,2,3,4-Tetrahydro-1-Phenylthioharnstoff. Sm. 122° (A. 281, 103).
2) 2-Allylamido-6-Methyl-4,5-Dihydro-1,3-Thiazin (u-Allylbutylenpseudothioharnstoff). Fl. Pikrat (B. 29, 1430).
- $C_8H_{14}N_2S_4$ 1) Bisdithiocarbamat d. trans-2,5-Dimethylhexahydro-1,4-Diazin. Sm. 205° (B. 30, 1982). — IV, 483.
- $C_8H_{14}N_4S_2$ 1) Allylformamidindisulfid + H₂O. (2HCl, PtCl₄ + 2H₂O), H₂SO₄ + H₂O, + 4HgCl₂, Pikrat (J. pr. [2] 44, 502). — I, 1325.
2) Dipropylenpseudohydrazodicarbonthioamid. Sm. 196–197°. 2HCl, (2HCl, PtCl₄) (B. 29, 862).
3) Allylamid d. α -Hydrazindi[Thiocarbonsäure] (B. 26, 2878).
- $C_8H_{15}ON$ C 68,1 — H 10,6 — O 11,3 — N 9,9 — M. G. 141.
1) β -Oxyäthylallylamin. Sd. 197° (B. 14, 1879). — I, 1172.
2) α -Isoamyläther d. α -Imido- $\alpha\beta$ -Dioxypropan (Laktimidoisoamyläther). HCl. Sm. 69° u. Zers. (B. 23, 2947). — I, 1490.
3) ζ -Oximido- β -Methyl- β -Hepten. Sd. 116°₁₅ (B. 28, 2124; Bl. [3] 17, 177).
4) ζ -Oximido- β -Methyl- γ -Hepten. Sd. 122°₂₈ (108–110°₁₅) (B. 28, 2124).
5) β -Oximido- ζ -Methyl- γ -Hepten. Sd. 225–230° (B. 27 [2] 121).
6) Oximido-R-Oktomethylen (Azelaonoxim). Fl. (B. 31, 1961).
7) 4-Oximido-1-Äthylhexahydrobenzol. Sm. 117,5–118,5° (C. 1896 [2] 1114).
8) 2-Oximido-1,3-Dimethylhexahydrobenzol. Sm. 114–115° (118 bis 119°) (B. 27 [2] 594; 30, 1543; Soc. 67, 351; Ann. 18, 694; 20, 789).
9) isom. 2-Oximido-1,3-Dimethylhexahydrobenzol. Sm. 63–67° (B. 30, 1543).
10) 5-Oximido-1,3-Dimethylhexahydrobenzol. Sm. 73° (A. 297, 165).
11) Acetylamidohexahydrobenzol. Sm. 104° (A. 278, 104).
12) γ -[1-Piperidyl]- $\alpha\beta$ -Propanoxyd (α -Epipiperidinhydrin). Sd. 198° (M. 15, 119). — IV, 19.
13) 5-Oxymethyl-1,6-Dimethyl-1,2,3,4-Tetrahydropyridin. Sd. 190 bis 200°₇₁₀. HCl, (HCl, 6HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (A. 294, 136; 301, 122; B. 26, 1401). — IV, 50.

- C₈H₁₅ON** 14) 1-[β -Ketopropyl]hexahydropyridin (Piperidoacetone). Sd. 195—197°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HBr (B. 28, 1250, 2220; C. 1899 [1] 117). — IV, 22.
- 15) 2-Keto-3-Propylhexahydropyridin (β -Propylpiperidon). Sm. 59°; Sd. 274° (B. 23, 3699). — I, 1205.
- 16) 4-Keto-2,2,6-Trimethylhexahydropyridin (Vinylidiacetonamin). Sm. 27°; Sd. 199—200° (A. 178, 326; 189, 214; 191, 122; B. 17, 1793; 29, 522). — I, 982.
- 17) Hygrin. Sd. 111—113°. HCl, HJ, HNO₃, Pikrat (B. 22, 675; 24, 407; 28, 578). — III, 877.
- 18) Granatolin. Sm. 134°. (HCl, AuCl₃) (B. 27, 2855). — IV, 52.
- 19) Oxygranatamin. Sm. 146°. HCl, (2HCl, PtCl₄) (B. 29, 483; G. 26 [2] 144). — IV, 52.
- 20) Isopelletierin. H₂SO₄ (B. 36, 256). — IV, 53.
- 21) Oxyconicein. Sd. 210—220°. HCl, (HCl, AuCl₃) (B. 18, 125). — IV, 37.
- 22) Tropin (N-Methyltropolin). Sm. 63° (61,2°); Sd. 229°. HCl, (HCl, 6HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (A. 128, 279; 131, 147; 133, 87; 206, 294; 208, 214; 216, 329; 217, 74, 114; B. 12, 944; 13, 608; 14, 227, 944, 1829; 15, 287; 24, 1107, 1629; 25, 3073; 29, 944; 30, 2679). — III, 785.
- 23) α -Tropin. Fl. (HCl, 6HgCl₂), (HCl, AuCl₃) (B. 26, 1063). — III, 786.
- 24) β -Tropin. (2HCl, PtCl₄) (A. 271, 121). — III, 786.
- 25) Metatropin. Sd. 237—239°. HCl (A. 217, 127). — III, 786.
- 26) Paratropin. Sd. 200—203°. (HCl, 6HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃) (B. 24, 1626). — IV, 54.
- 27) Pseudotropin. Sm. 108° (106°); Sd. 241—243°. HCl, (2HCl, PtCl₄ + 4H₂O), (HCl, AuCl₃), H₂SO₄, Pikrat, Atropas. Salz, Opian. Salz (A. 206, 304; 271, 210; B. 13, 1552; 17, 151; 24, 2338; 25, 928; 29, 936, 2231). — III, 795.
- 28) Oxyhydrotropidin. (2HCl, PtCl₄) (B. 25, 3124). — III, 790.
- 29) Anhydrohomoconiinsäure. Sm. 84—85° (B. 19, 503). — IV, 34.
- 30) Amid d. 1-Methylhexahydrobenzol-2-Carbonsäure. Sm. 180—181° (J. pr. [2] 49, 70; J. r. 25, 636). — II, 1127.
- 31) Amid d. 1-Methylhexahydrobenzol-3-Carbonsäure. Sm. 155—156° (J. pr. [2] 49, 75; J. r. 25, 641). — II, 1127.
- 32) Amid d. 1-Methylhexahydrobenzol-4-Carbonsäure. Sm. 220—221° (J. pr. [2] 49, 80; J. r. 25, 646). — II, 1128.
- 33) Amid d. flüssigen 1-Methylhexahydrobenzol-4-Carbonsäure. Sm. 176—178° (A. 280, 157). — II, 1128.
- 34) Amid d. R-Heptamethylen-1-Carbonsäure. Sm. 194—195° (A. 280, 146; B. 30, 633; 31, 2008, 2244, 2505). — I, 1128.
- 35) Amid d. Heptanaphtencarbonsäure. Sm. 133°; Sd. bei 250° u. Zers. (B. 24, 2713). — I, 1250.
- 36) Amid d. α -Oktonaphtensäure. Sm. 128—129° (J. pr. [2] 49, 85; J. r. 25, 650).
- 37) Nitril d. α -Oxyheptan- α -Carbonsäure (Nitril d. α -Oxycaprylsäure). Fl. (A. 177, 106). — I, 1472.
- 38) Base (aus d-Lupatin). HCl, (2HCl, PtCl₄ + 1 $\frac{1}{2}$ H₂O), (HCl, AuCl₃), HBr, (HBr, Br), Pikrat (C. 1897 [1] 1233; 1897 [2] 314; G. 27 [2] 192).
- 39) Base (aus Hydrotropin). (HCl, 6HgCl₂), (HCl, AuCl₃) (B. 26, 1062). — IV, 29.
- C₈H₁₅ON₂** C 56,8 — H 8,9 — O 9,5 — N 24,8 — M. G. 169.
- 1) Semicarbazon-R-Heptamethylen (S. d. Suberon). Sm. 163—164° (A. 289, 346; B. 31, 2508).
- 2) 2-Semicarbazon-1-Methylhexahydrobenzol. Sm. 193—194° u. Zers. (B. 30, 1542).
- 3) d-3-Semicarbazon-1-Methylhexahydrobenzol. Sm. 180° (178°) (B. 30, 24, 1533; A. 289, 339).
- 4) i-3-Semicarbazon-1-Methylhexahydrobenzol. Sm. 191—192° (A. 295, 182).
- 5) 4-Semicarbazon-1-Methylhexahydrobenzol. Sm. 199° (A. 295, 186).
- 6) 2-Semicarbazon-1,3-Dimethyl-R-Pentamethylen. Sm. 190—191° (B. 30, 1542).

- C₈H₁₅ON₃** 7) isom. 2-Semicarbazon-1,3-Dimethyl-R-Pentamethylen. Sm. 184 bis 185° u. Zers. (B. 30, 1542).
- 8) 2-Imido-5-Keto-4-Butyl-3-Methyltetrahydroimidazol (Methylamido- α -Caprocyamidin) (Bl. 40, 307). — I, 1203.
- C₈H₁₅OCl** 1) β -Chlor- ζ -Keto- β -Methylheptan. Sd. 112—113°₁₀ (Bl. [3] 17, 179).
- 2) Chlorid d. Caprylsäure. Sd. 83°₁₈ (B. 23, 2384). — I, 460.
- 3) Chlorid d. β -Methylhexan- δ -Carbonsäure. Sd. 165—172° (Bl. [3] 13, 184).
- C₈H₁₅OBr** 1) β -Brom- ζ -Keto- β -Methylheptan. Fl. (Bl. [3] 17, 179).
- C₈H₁₅OJ** 1) Verbindung (aus d. Keton C₈H₁₄O). Fl. (A. 188, 139). — I, 1010.
- C₈H₁₅O₂N** C 61,1 — H 9,6 — O 20,4 — N 8,9 — M. G. 157.
- 1) Nitrookten. Fl. (J. r. 26, 383).
- 2) Nitrookten (A. ch. [3] 44, 77). — I, 212.
- 3) Nitroderivat (aus Hexahydrocumol). Sd. 218—220° (J. r. 22, 15). — II, 15.
- 4) γ -Oximido- β -Ketooktan. Sm. 59° (55—56°) (R. 10, 214; G. 28 [2] 281; J. pr. [2] 58, 401). — I, 1002.
- 5) β -Oximido- γ -Ketooktan. Fl. (G. 28 [2] 274; J. pr. [2] 58, 397).
- 6) δ -Oximido- γ -Ketooktan. Fl. (G. 28 [2] 274; J. pr. [2] 58, 397).
- 7) ζ -Oximido- ϵ -Keto- β -Methylheptan. Fl. (B. 15, 2789; 22, 2123; G. 28 [2] 275; J. pr. [2] 58, 397). — I, 1033.
- 8) ϵ -Oximido- ζ -Keto- β -Methylheptan. Fl. (B. 30, 1518).
- 9) Dioxidihydrotropidin. Sm. 105° (HCl, AuCl₃) (B. 26, 2008; 28, 2279). — III, 792.
- 10) Bellatropin. (2HCl, PtCl₄), (HCl, AuCl₃) (A. 277, 297). — III, 785.
- 11) Oxytropin. (2HCl, PtCl₄ + 2H₂O) (B. 25, 3124). — III, 787.
- 12) Hexahydrophenylamidoessigsäure. HCl (B. 29, 1594).
- 13) 1-Amidomethylhexahydrobenzol-4-Carbonsäure. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (B. 29, 1593).
- 14) α -[Hexahydro-1-Pyridyl] propionsäure + 3H₂O. Sm. 205—206,5°. (HCl, AuCl₃) (B. 9, 41; 31, 2841). — IV, 20.
- 15) Lakton d. ϵ -Amido- β -Oxy- β -Methylpentan- γ -Methylcarbonsäure. (2HCl, PtCl₄) (B. 29, 2620).
- 16) Methylester d. Stachydrin. Fl. (HCl, AuCl₃) (B. 29, 2067). — III, 934.
- 17) Methylester d. 1-Methylhexahydropyridin-3-Carbonsäure. (2HCl, PtCl₄) (B. 25, 2771). — IV, 44.
- 18) Aethylester d. Hexahydropyridin-1-Carbonsäure. Sd. 211° (B. 15, 425). — IV, 13.
- 19) Aethylester d. Hexahydropyridin-2-Carbonsäure (Ae. d. Pipecolinsäure). Sd. 216—217°₁₀₀ (B. 29, 390). — IV, 45.
- 20) Aethylester d. β -Amido- β -Penten- γ -Carbonsäure. Sm. 59,5° (J. 1863, 324; Z. 1871, 247; A. 257, 346). — I, 1208.
- 21) Imid d. Isobuttersäure (Diisobutyramid). Sm. 174° (B. 15, 982). — I, 1246.
- 22) Amid d. Oxy-R-Heptan-1-Carbonsäure (A. d. Suberylglykolsäure). Sm. 130° (B. 30, 1949).
- 23) Verbindung (aus Aldolammoniak). Sd. 170—180°₃₀ (Bl. 31, 433).
- 24) Verbindung (aus α -Propionylpropionsäureäthylester). Fl. (A. 231, 201). — I, 605.
- C₈H₁₅O₂N₃** C 51,9 — H 8,1 — O 17,3 — N 22,7 — M. G. 185.
- 1) Mononitril d. α -Hydrazoisobuttersäure. Sm. 100° (A. 290, 21).
- 2) Amid d. 5-Oximido-1-Aethyl-2-Methyltetrahydropyrrol-2-Carbonsäure. Sm. bei 160° u. Zers. (B. 23, 712). — I, 1487.
- C₈H₁₅O₂Cl** 1) Aethylester d. δ -Chlorpentan- α -Carbonsäure (Ae. d. δ -Chlorcapronsäure). Sd. 217—221° (M. 15, 31).
- 2) Aethylester d. γ -Chlorpentan- γ -Carbonsäure (Ae. d. α -Chlor-Diäthyl-essigsäure) (B. 6, 1175). — I, 476.
- 3) Aethylester d. β -Chlor- β -Methylbutan- δ -Carbonsäure (Ae. d. γ -Chlorisocapronsäure). Sd. 88°₁₂ (115—125°₁₀) (B. 19, 514; G. 28 [2] 291). — I, 476.
- 4) Isobutylester d. 1- α -Chlorbuttersäure. Sd. 182° (Bl. [3] 15, 494).
- 5) Isobutylester d. α -Chlorisobuttersäure. Sd. 183° (Bl. [3] 15, 17).
- 6) β -Methylbutylester d. α -Chlorpropionsäure. Sd. 192—195°_{121,7} (Bl. [3] 15, 290).

- $C_8H_{15}O_2Cl$ 7) α -Chloräthylpropylcarbinolester d. Essigsäure. Sd. 188—190° (Bl. 41, 363). — I, 410.
- $C_8H_{15}O_2Cl_3$ 1) Aethyläther-sec. Butyläther d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan. Sd. 208—215° (G. 26 [2] 473).
2) Aethylisobutyläther d. $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthan. Sd. 229, 3°₇₅₂ (G. 26 [2] 469).
- $C_8H_{15}O_2Br$ 1) δ -Brom- β -Methylhexan- γ -Carbonsäure (γ -Bromisooktylsäure). Fl. (A. 255, 105). — I, 487.
2) ϵ -Brom- β -Methylhexan- γ -Carbonsäure. Fl. (A. 283, 286).
3) Aethylester d. α -Brom-norm. Capronsäure. Sd. 205—210° (B. 17, 2218). — I, 486.
4) Aethylester d. β -Brom- β -Methylbutan- γ -Carbonsäure. Fl. (C. 1896 [2] 728; Soc. 69, 1484).
5) Aethylester d. γ -Brom- β -Methylbutan- γ -Carbonsäure. Sd. 130°₁₀₉ (C. 1896 [2] 702; Soc. 69, 1478).
6) Aethylester d. δ -Brom- β -Methylbutan- δ -Carbonsäure. Sd. 202 bis 204°₇₅₉ (A. 292, 238; C. 1898 [1] 107; Soc. 73, 49; 75, 168).
7) Isobutylester d. α -Brombuttersäure. Sd. 205° (Bl. [3] 15, 495).
8) Isoamylester d. α -Brompropionsäure. Sd. 210—220° (A. 280, 252). C 55.5 — H 8.7 — O 27.7 — N 8.1 — M. G. 173.
1) δ -Oximidoheptan- α -Carbonsäure. Fl. (B. 28, 1465).
2) δ -Oximido- $\beta\beta$ -Dimethylpentan- α -Carbonsäure (A. 299, 178).
3) δ -Oximido- $\gamma\gamma$ -Dimethylpentan- α -Carbonsäure. Sm. 97—98° (Soc. 73, 845).
4) Aethylester d. Oxytetrinaminsäure. Sm. 68—69° (A. ch. [5] 20, 480).
5) Aethylester d. Diäthyloxaminsäure. Sd. 260° (250—254°) (J. 1861, 495; B. 3, 776; A. 214, 268). — I, 1363.
6) Aethylester d. β -Oximidopentan- γ -Carbonsäure. Fl. (B. 16, 2997). — I, 496.
7) Monamid d. Hexan- $\alpha\zeta$ -Dicarbonsäure (Suberaminsäure). Sm. 170° (125—127°) (Z. 1865, 300; C. 1896 [2] 1091). — I, 1387.
8) Nitril d. Trioxyessigtriäthyläthersäure. Sd. 159—161, 5° (A. 229, 179). — I, 1480.
C 47.7 — H 7.5 — O 23.9 — N 20.9 — M. G. 201.
- $C_8H_{15}O_2N_3$ 1) γ -Semicarbazon- $\beta\beta$ -Dimethylbutan- α -Carbonsäure. Sm. 190° (B. 30, 597).
- $C_8H_{15}O_2Cl$ 1) Monacetat d. α -Chlor- $\beta\epsilon$ -Dioxyhexan? Sd. 172—176°₅₀ (J. r. 19, 507). — I, 414.
- $C_8H_{15}O_2N$ C 50.8 — H 7.9 — O 33.9 — N 7.4 — M. G. 189.
1) Nitrocaprylsäure. Ag (A. 104, 291). — I, 498.
2) Diäthylester d. α -Amidoäthan- $\alpha\beta$ -Dicarbonsäure (D. d. l-Asparaginsäure). HCl (B. 18, 1294). — I, 1211.
3) Diäthylester d. inact. Asparaginsäure. Sd. 150—154°₃₅ (G. 17, 226). — I, 1212.
4) Verbindung (Amid aus Dilaktylsäurediäthylester) (A. 148, 233). — I, 557. C 46.8 — H 7.3 — O 39.0 — N 6.8 — M. G. 205.
1) Nitrat d. l- α -Oxybuttersäureisobutylester. Fl. (Bl. [3] 15, 495).
2) Ammoniakverb. d. α -Ketoäthan- $\alpha\beta$ -Dicarbonsäurediäthylester. Sm. 83° (B. 28, 789). C 43.4 — H 6.8 — O 43.4 — N 6.3 — M. G. 221.
1) Acetylglykosamin. Zers. bei 190° (B. 31, 2198). C 38.5 — H 6.0 — O 38.5 — N 16.9 — M. G. 249.
1) p-Trinitro- $\beta\zeta$ -Dimethylhexan. Sm. 91° (Soc. 73, 932).
2) Vicin. 4 + 11 HCl, 3 + 4 H₂SO₄ (B. 9, 301; 29, 894, 2108, 2653; J. pr. [2] 2, 336; [2] 7, 374; [2] 24, 202; [2] 29, 359; [2] 59, 480). — III, 251. C 40.5 — H 6.3 — O 47.2 — N 5.9 — M. G. 237.
1) Nitril d. α -Galaoktonsäure. Sm. 144—150° u. Zers. (A. 288, 148). C 32.3 — H 5.0 — O 48.5 — N 14.1 — M. G. 297.
1) Nitrooxyleucin. — IV, 1631.
1) $\alpha\beta$ -Dibrom- α -Isobutylidenamido- β -Methylpropan (Isobutenyl- $\alpha\beta$ -Dibromisobutylamin) (A. 211, 352; B. 14, 1749). — I, 948.
1) Norgrataneninjodid. Sm. 221° u. Zers. (B. 27, 2858).
2) Tropinjodid. Sm. 115° (A. 217, 123). — III, 782.
1) Heptylsenfö. Sd. 238°_{732.9} (G. 26 [1] 326).

- C₈H₈NS** 1) **2-Methyläther d. 2-Merkapto-4,4,6-Trimethyl-4,5-Dihydro-1,3-Thiazin.** Sd. 240°_{761,5} (2HCl, PtCl₄), Pikrat (B. 30, 1322).
- C₈H₈N₂Cl** 2) **2,6-Dimethylhexahydropyridin-1-Dithiocarbonsäure** (B. 27, 1329).
- C₈H₈N₂Cl** 1) **Chlormethylat d. 1,3,4,5-Tetramethylpyrazol.** 2 + PtCl₄ (A. 279, 246). — IV, 527.
- 2) **Verbindung (aus Aethylacetamid).** HCl, (2HCl, PtCl₄) (A. 184, 113). — I, 1161.
- C₈H₈N₂J** 1) **Jodmethylat d. 1,3,4,5-Tetramethylpyrazol.** Sm. 190° (A. 279, 236, 246). — IV, 527.
- 2) **Jodmethylat d. 1-Methyl-2-Isopropylimidazol.** Sm. 245—246° (M. 9, 611). — IV, 528.
- C₈H₈N₂S** 1) **2-Thiocarbonyl-1-Allyl-4,6-Dimethylhexahydro-1,3,5-Triazin.** Sm. 108—109° (Soc. 53, 415; B. 9, 571). — I, 1330.
- 2) **Propylcyanamid d. Propylamidothioameisensäure.** Sm. 56° (B. 23, 1662). — I, 1443.
- C₈H₈N₂S** 1) **Methylester d. Thiodiäthylammelin.** Sm. 83—84° (B. 18, 2775). — I, 1349.
- 2) **Isoamylester d. Diamidothiocyanursäure (I. d. Thioammelin).** Sm. 178° (J. pr. [2] 33, 300). — I, 1448.
- C₈H₁₀ON** 1) **siehe C₈H₁₀ON Pseudotriacetonalamin.** — I, 984.
- C₈H₁₀ON₂** C 61,6 — H 10,2 — O 10,2 — N 17,9 — M. G. 156.
- 1) **α-Aethyliden-β-[γ-Oxybutyliden]amidoäthan?** Sm. 111—113° (2HCl, PtCl₄) (M. 19, 619).
- 2) **γ-Oximido-β-Allylamido-β-Methylbutan.** HCl (A. 241, 305). — I, 1231.
- 3) **3-Methylhexahydrophenylharnstoff.** Sm. 178° (A. 289, 340). — IV, 31.
- 4) **Oxim d. Hygrin.** Sm. 116—120°. Pikrat (B. 26, 852). — III, 878.
- 5) **1-Nitroso-2-Propylhexahydropyridin (Nitrosoconiin; Azoconhydrin).** Sd. 150—160° (A. 123, 162; 130, 269). — IV, 32.
- 6) **1-[β-Oximidopropyl]hexahydropyridin (Piperidonacetoxim).** Sm. 104 bis 105° (123°); Sd. oberh. 210° (B. 28, 1251; 31, 2398). — IV, 22.
- 7) **4-Oximido-2,2,6-Trimethylhexahydropyridin (Vinylidiacetonamin-oxim).** Sm. 150—151°. HCl, 2HCl (B. 29, 522; A. 294, 350).
- 8) **2-Keto-3-[γ-Amidopropyl]hexahydropyridin.** Fl. HCl, (2HCl, PtCl₄), Pikrat (B. 27, 980). — IV, 491.
- 9) **Nitril d. α-Amidoxylcaprylsäure.** Sm. 92—93° (B. 26, 1557).
- 10) **Aethylamid d. Hexahydropyridin-1-Carbonsäure (α-Aethylpiperidylharnstoff)** (A. ch. [3] 38, 86). — IV, 13.
- 11) **Verbindung (aus α-Crotonaldehyd)** (J. 1883, 650). — I, 959.
- C₈H₁₀ON₂** C 52,2 — H 8,7 — O 8,7 — N 30,4 — M. G. 184.
- C₈H₁₀OCl₂** 1) **1-β-Semicarbazonäthyl]piperidin.** Sm. 76° (B. 31, 2543).
- C₈H₁₀OBr₂** 1) **Isobutyläther d. αβ-Dichlor-α-Oxy-β-Methylpropan.** Sd. 192,5° (Bl. [3] 11, 686).
- C₈H₁₀OS₂** 1) **η-Dibrom-δ-Oxy-β-Methylheptan.** Fl. (B. 27, 2435).
- C₈H₁₀O₂N₂** 1) **Aethylester d. Oxydithioameisenisoamyläthersäure (Aethylester d. Isoamylxanthogensäure)** (A. 84, 341). — I, 886.
- C 55,8 — H 9,3 — O 18,6 — N 16,3 — M. G. 172.
- 1) **αδ-Dioximidooktan.** Sm. 150—155° (B. 30, 1964).
- 2) **βγ-Dioximidooktan.** Sm. 170° (167—169°) (J. pr. [2] 51, 509; [2] 58, 364; G. 28 [2] 264).
- 3) **γδ-Dioximidooktan.** Sm. 139—141° (G. 28 [2] 264; J. pr. [2] 58, 364).
- 4) **γζ-Dioximido-β-Methylheptan.** Sm. 132° (B. 30, 434).
- 5) **εζ-Dioximido-β-Methylheptan.** Sm. 172—173° (177—178°) (B. 22, 2124; G. 28 [2] 266, 275; J. pr. [2] 58, 365). — I, 1034.
- 6) **αβ-Di[Propionylamido]äthan.** Sm. 160—162°; Sd. 220—230°₉₅ (B. 28, 1175).
- 7) **Diäthyläther d. αδ-Diimido-αδ-Dioxybutan (Succinimidodiäthyläther).** 2HCl (B. 16, 361; PINNER, Imidoäther 45). — I, 1491.
- 8) **Acetat d. ε-Oximido-ε-Amido-β-Methylpentan (A. d. Isocapramidoxim).** Sm. 87° (B. 19, 1501). — I, 1484.
- 9) **α-Propyl-Butyrylharnstoff.** Sm. 99° (B. 15, 757). — I, 1304.
- 10) **α-Isopropyl-Isobutyrylharnstoff.** Sm. 86° (B. 15, 756). — I, 1304.
- 11) **1-Nitroso-2-[β-Oxypropyl]hexahydropyridin.** Fl. (A. 301, 145).
- 12) **Amid d. α-Oximidocaprylsäure.** Sm. 138—139° (B. 26, 1558).

- $C_8H_{16}O_2N_2$ 13) Amid d. Hexan- $\alpha\zeta$ -Dicarbonsäure. Sm. 216° (C. 1896 [2] 1091; B. 31, 2350).
- 14) Amid d. β -Methylpentan- $\epsilon\epsilon$ -Dicarbonsäure (Amid d. Isoamylmalonsäure). Sm. 210° (B. 23, 1498). — I, 1387.
- 15) Di[Methylamid] d. Butan- $\alpha\delta$ -Dicarbonsäure (D. d. Adipinsäure). Sm. 151—153° (Bl. 43, 619). — I, 1386.
- 16) Di[Dimethylamid] d. Aethan- $\alpha\beta$ -Dicarbonsäure (D. d. Bernsteinsäure). Sm. 81° (R. 4, 202). — I, 1382.
- 17) Triäthylamid d. Oxalsäure. Sd. 257—259° (B. 14, 741; A. 214, 266). — I, 1365.
- 18) s-Di[Propylamid] d. Oxalsäure. Sm. 162° (B. 13, 516; 14, 422; A. 214, 312). — I, 1366.
- 19) s-Di[Isopropylamid] d. Oxalsäure. Sm. 110° (A. ch. [5] 23, 303). — I, 1366.
- $C_8H_{16}O_2N_4$ C 48,0 — H 8,0 — O 16,0 — N 28,0 — M. G. 200.
- 1) α -1,4-Dinitroso-2,5-Dimethyl-3-Aethylpiperazin. Sm. 92° (J. pr. [2] 47, 522). — IV, 484.
- 2) α -1,4-Dinitroso-2,3,5,6-Tetramethylpiperazin. Sm. 154° (157°) (B. 26, 724; J. pr. [2] 55, 75). — IV, 485.
- 3) β -1,4-Dinitroso-2,3,5,6-Tetramethylpiperazin. Sm. 99° (101°) (B. 26, 724; J. pr. [2] 55, 76). — IV, 485.
- 4) Amid d. α -Azoisobuttersäure. Sm. 104° (A. 290, 36).
- $C_8H_{16}O_2Cl_2$ 1) Dichlordioxyoktan (aus $\beta\epsilon$ -Dimethyl- $\alpha\epsilon$ -Hexadien). Fl. (B. 20, 3241). — I, 266.
- $C_8H_{16}O_2N_2$ C 51,1 — H 8,5 — O 25,5 — N 14,9 — M. G. 188.
- 1) α -Nitroso- α -Nitrooktan. Fl. (Am. 21, 230).
- 2) Nitrosomitrooktan (Oktylnitrolsäure) (B. 12, 1885). — I, 211.
- 3) β -Nitroso- β -Nitrooktan (norm. Amylpseudonitrol). Fl. Zers. bei 53 bis 55° (B. 29, 101).
- 4) Dimethylmonamid d. α -Dimethylamidobernsteinsäure. Sm. bei 104° (C. 1896 [2] 537).
- $C_8H_{16}O_3Cl_2$ 1) Triäthyläther d. $\beta\beta$ -Dichlor- $\alpha\alpha\alpha$ -Trioxyäthan (Dichloräthenyltriäthyläther). Sd. 205° (J. 1864, 316—318; 1873, 315). — I, 312.
- 2) Verbindung (aus Chloraldehydalkoholat). Sd. 163—165° (B. 4, 216; A. 164, 220; 226, 270). — I, 928.
- $C_8H_{16}O_4N_2$ C 47,1 — H 7,8 — O 31,4 — N 13,7 — M. G. 204.
- 1) $\alpha\alpha$ -Dinitrooktan. Fl. Na (Am. 20, 214; 21, 231).
- 2) $\beta\beta$ -Dinitrooktan. Sd. 220° (B. 29, 102).
- 3) $\beta\epsilon$ -Dinitro- $\beta\epsilon$ -Dimethylhexan. Sm. 124—125° (B. 28, 1854).
- 4) Dimethyläther d. Diäthylloxaldihydroxamsäure. Fl. (B. 27, 1112).
- 5) Diäthyläther d. α -Oxymethyl- β -Oxyacetylharnstoff. Sm. 80° (B. 18, 2736). — I, 1310.
- 6) α -Hydrazoisobuttersäure. Sm. 223—224°. NH_4 , K, Ca + 2H₂O, HCl + H₂O (A. 290, 25).
- 7) Dimethylester d. α -Hydrazopropionsäure. Sm. 93°; Sd. 220°₇₂₀ (A. 303, 90).
- 8) Dimethylester d. Tetramethylen- $\alpha\delta$ -Di[Amidoameisensäure]. Sm. 128° (R. 9, 95). — I, 1256.
- 9) Diäthylester d. $\alpha\alpha$ -Aethylendi[Amidoameisensäure] (Aethylidenurethan). Sm. 125—126° (B. 6, 160, 629; J. pr. [2] 24, 124). — I, 1257.
- 10) Diäthylester d. $\alpha\beta$ -Aethylendi[Amidoameisensäure]. Sm. 112° (110°) (R. 7, 260; A. 232, 228; J. pr. [2] 52, 222). — I, 1255.
- 11) Diäthylester d. meso-Diamidobernsteinsäure. 2HCl (B. 26, 1985).
- 12) Diäthylester d. isom. Diamidobernsteinsäure. Sm. 122° (B. 14, 625; 15, 1849).
- 13) Diäthylester d. isom. Diamidobernsteinsäure. 2HCl (B. 26, 1988).
- $C_8H_{16}O_4N_4$ C 41,4 — H 6,9 — O 27,6 — N 24,1 — M. G. 232.
- 1) Dimethylester d. s-Diäthyltetrazondicarbonsäure. Sm. 88—89° (R. 9, 151). — I, 1258.
- 2) Diäthylester d. s-Dimethyltetrazondicarbonsäure. Sm. 127—128° (R. 9, 150). — I, 1258.
- $C_8H_{16}O_4N_6$ C 36,9 — H 6,1 — O 24,6 — N 32,3 — M. G. 260.
- 1) Verbindung (aus Succinylamidoessigsäureäthylester) (J. pr. [2] 52, 445).
- $C_8H_{16}O_4S$ 1) Isobutylallylcarbinolschwefelsäure. Ba + 2H₂O (Bl. [3] 15, 888).

- $C_8H_{16}O_4S_2$ 1) **Arabinosetrimethylenmerkaptal**. Sm. 150° (B. 29, 551).
2) **Rhamnoseäthylenmerkaptal**. Sm. 169° (B. 29, 550).
- $C_8H_{16}O_3S_2$ 1) **Galaktoseäthylenmerkaptal**. Sm. 149° (B. 29, 550).
2) **Glykoseäthylenmerkaptal**. Sm. 143° (B. 29, 548).
3) **Mannoseäthylenmerkaptal**. Sm. 153—154° (B. 29, 549).
- $C_8H_{16}O_6N_3$ 1) **Verbindung** (aus Wickensamen) = $(C_8H_{16}O_6N_3)_x$ (J. pr. [2] 7, 374). — I, 1379.
- $C_8H_{16}O_7N_2$ C 38,1 — H 6,3 — O 44,4 — N 11,1 — M. G. 252.
1) **Oxyleucein**. Sm. bei 100°. Cu, (Cu, CuO). — IV, 1631.
2) **Verbindung** (aus α -Hydroxynitrosamidoisobuttersäure). Sm. 92—93° (A. 300, 68).
- $C_8H_{16}NCl$ 1) **1-[γ -Chlorpropyl]hexahydropyridin**. HCl (B. 29, 2391). — IV, 7.
2) **1-Chlor-2-Propylhexahydropyridin** (1-Chlorconiin). Fl. (B. 22, 1001). — IV, 32.
3) **2-Chlor-2-Propylhexahydropyridin** (Chlorconiin). HCl, (2HCl, PtCl₄) (B. 18, 21). — IV, 32.
4) **Trimethylenpiperyliumchlorid**. 2 + PtCl₄, + AuCl₃ (B. 29, 2390). — IV, 10.
5) **Chlormethylat d. 1,6-Dimethyl-1,2,3,4-Tetrahydropyridin**. 2 + PtCl₄ + $\frac{1}{2}$ H₂O (A. 289, 224). — IV, 50.
- $C_8H_{16}NBr$ 1) **Isoamylbromallylamin**. Sd. bei 150° u. Zers. (B. 21, 3195). — I, 1143.
2) **1-Brom-2-Propylhexahydropyridin** (1-Bromconiin). Fl. (B. 18, 110). — IV, 32.
3) **1-[γ -Brompropyl]hexahydropyridin**. Fl. HBr, Pikrat (B. 17, 682; 29, 2389). — IV, 7.
4) **4-Brom-2,2,6-Trimethylhexahydropyridin**. Sm. 16°. HBr, Pikrat (B. 31, 667).
5) **Trimethylenpiperyliumbromid** (B. 29, 2390). — IV, 10.
- $C_8H_{16}NJ$ 1) **2-Jod-2-Propylhexahydropyridin** (Jodconiin). Fl. HCl, (2HCl, PtCl₄), HJ (B. 18, 21). — IV, 32.
2) **4-Jod-2,2,6-Trimethylhexahydropyridin**. Sm. 60° (61°). HJ (B. 15, 1024; 17, 1797; 31, 667). — I, 982.
3) **Jodmethylat d. Dimethylpiperidein** (A. 247, 60). — IV, 6.
4) **Jodmethylat d. 1,6-Dimethyl-1,2,3,4-Tetrahydropyridin** (A. 289, 222). — IV, 50.
5) **Verbindung** (aus α -Pseudoconhydrin). HJ (B. 24, 1672). — IV, 35.
- $C_8H_{16}N_2S$ 1) **s-Allylisobutylthioharnstoff**. Sm. 28,5° (B. 25, 814). — I, 1323.
2) **$\alpha\beta$ -Diäthyl- α -Allylthioharnstoff**. Fl. HJ (B. 23, 2197). — I, 1326.
3) **$\alpha\alpha$ -Diäthyl- β -Allylthioharnstoff**. Sm. 55° (B. 17, 3038). — I, 1323.
4) **2-Diäthylamido-5-Methyl-4,5-Dihydrothiazol**. Sd. 226°. (2HCl, PtCl₄), Pikrat (B. 24, 264). — I, 1323.
5) **2-Aethylimido-3-Aethyltetrahydro-1,3-Thiazin**. (2HCl, PtCl₄) (B. 23, 2199). — I, 1325.
6) **Aethylamid d. Hexahydropyridin-1-Thiocarbonsäure** (s-Aethylpiperidinthioharnstoff). Sm. 44—46,5° (Soc. 55, 625). — IV, 14.
- $C_8H_{17}ON$ C 67,1 — H 11,9 — O 11,2 — N 9,8 — M. G. 143.
1) **β -Nitroso- $\beta\epsilon$ -Dimethylhexan**. Sm. 54° (B. 31, 457).
2) **γ -Amido- β -Ketooktan**. HCl, Pikrat (B. 30, 1515).
3) **ϵ -Amido- ζ -Keto- β -Methylheptan**. HCl, Pikrat (B. 30, 1519).
4) **ζ -Dimethylamido- β -Ketoheptan** (Methyl- δ -Dimethylamidobutylketon). Sd. 195°₇₃₀. HCl, (2HCl, PtCl₄), Pikrat (B. 25, 2196; A. 289, 249). — I, 998.
5) **β -Dimethylamido- δ -Keto- β -Methylpentan** (Dimethyldiacetonamin). HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Dioxalat (A. 197, 27). — I, 981.
6) **β -Aethylamido- δ -Keto- β -Methylpentan** (Aethyldiacetonamin). HCl, (2HCl, PtCl₄), (2HCl, PtCl₂), (HCl, AuCl₃), H₂SO₄, Oxalat, Dioxalat, Pikrat (A. 204, 51). — I, 981.
7) **α -Methylbutylamido- β -Ketopropan**. Sm. 154—155°. (2HCl, PtCl₄) (B. 29, 871).
8) **α -Oximido- δ -Ketooktan** (Oxim d. Caprylsäurealdehyd). Sd. 121—123° (Bl. 47, 164). — I, 970.
9) **β -Oximido- δ -Ketooktan** (Oxim d. Methyl-norm. Hexylketon). Sd. 213—217°₇₁₃ u. Zers. (B. 21, 509; 24, 4021; 26, 1433). — I, 1031.

- C₈H₁₇ON** 10) Methyläther d. α -Oximidoheptan (Methyläther d. Oenanthaldoxim). Fl. (B. 25, 2594). — I, 969.
- 11) Methyläther d. α -Imido- α -Oxyheptan (Heptenylimidomethyläther). HCl (Sm. 88°) (B. 28, 474).
- 12) Aethyläther d. ϵ -Imido- ϵ -Oxy- β -Methylpentan (Capronimidoäthyläther). Sd. 168° (B. 17, 178). — I, 1489.
- 13) Dibutyraldin. (2HCl, PtCl₄) (A. 157, 354). — I, 944.
- 14) Conhydrin. Sm. 120,6°; Sd. 224,5°_{119,2}. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), H₂SO₄ (A. 100, 329; J. 1863, 435; B. 15, 2315; 18, 21; 27, 1779). — IV, 35.
- 15) α -Pseudoconhydrin (2-[α -Oxypropyl]hexahydropyridin). Sm. 100—102°; Sd. 229—231°. HCl, (HCl, AuCl₃), HBr, (2HJ, CdJ₂) (B. 24, 1671, 2534; 27, 1776, 1781). — IV, 35.
- 16) β -Pseudoconhydrin (isom. 2-[α -Oxypropyl]hexahydropyridin). Sm. 69,5 bis 71,5°. (HCl, AuCl₃), HBr, + CdJ₂ (B. 24, 2535; 27, 1778). — IV, 36.
- 17) γ -Pseudoconhydrin. Sm. 52—69° (B. 27, 1780). — IV, 36.
- 18) 1-[γ -Oxypropyl]hexahydropyridin. Sd. 194°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (B. 14, 1880, 2406; 15, 1147; 17, 680). — IV, 18.
- 19) 2-[β -Oxypropyl]hexahydropyridin. Sm. 45—47°; Sd. 224—226°. (HCl, 6HgCl₂), (2HCl, PtCl₄) (B. 22, 2588; A. 301, 145). — IV, 36.
- 20) 2-[γ -Oxypropyl]hexahydropyridin. Fl. (B. 24, 1674). — IV, 38.
- 21) 1-Methyl-2-[β -Oxyäthyl]hexahydropyridin (Hydrotropin). Sd. 232,5° (cor.). (HCl, 5HgCl₂), (HCl, AuCl₃) (B. 24, 1623; A. 301, 132). — IV, 29.
- 22) 3-Oxymethyl-1,2-Dimethylhexahydropyridin. Sd. 214,5—215,5°₇₂₀. (HCl, 6HgCl₂), (HCl, AuCl₃) (A. 294, 141; 301, 123; B. 25, 2199). — IV, 29.
- 23) stabil. 4-Oxy-2,2,6-Trimethylhexahydropyridin (Vinyldiacetonalkamin). Sm. 137—138°; Sd. 209—211°₇₅₈. HCl (B. 17, 1794; A. 294, 372). — I, 982.
- 24) labil. 4-Oxy-2,2,6-Trimethylhexahydropyridin. Sm. 160—161°; Sd. 204—205°₇₅₈ (A. 294, 373).
- 25) Trimethylenpiperyliumhydrat. Salze, siehe diese. Pikrat (B. 29, 2390). — IV, 10.
- 26) Aldehyd d. δ -Amidoheptan- α -Carbonsäure. Sd. 103—105°₁₀. HCl (B. 28, 1460).
- 27) Aldehyd d. ζ -Amidoheptan- γ -Carbonsäure. Sd. 111—113°₁₀. HCl (B. 28, 2273).
- 28) Aldehyd d. Dipropylamidoessigsäure. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (B. 30, 1511).
- 29) Amid d. Heptan- α -Carbonsäure (A. d. norm. Caprylsäure). Sm. 105 bis 106° (110°); Sd. über 200° u. Zers. (J. 1868, 624; B. 15, 983; 17, 1408; 31, 2348). — I, 1248.
- 30) Amid d. Heptan- δ -Carbonsäure. Sd. 123—124° (G. 26 [2] 245).
- 31) Amid d. Säure C₈H₁₆O₂ (aus Harzessenz). Sm. 84—85° (B. 20, 1023). — I, 1248.
- 32) Methylamid d. Hexan- α -Carbonsäure (M. d. Oenanthsäure). Sm. 9°; Sd. 265,5—266,5°₇₅₈ (R. 6, 248). — I, 1248.
- 33) Dipropylamid d. Essigsäure. Sd. 209—210° (Bl. [3] 11, 935).
- 34) Base (aus Tropinjodid). 2Chlorid + PtCl₄, Pikrat (A. 217, 126). — III, 790.
- C₈H₁₇OC₂** 1) Chloroxyoktan (Chloroktylalkohol) (Z. 1870, 411). — I, 248.
- C₈H₁₇OBr** 1) ϵ -Brom- β -Oxy- $\beta\epsilon$ -Dimethylhexan. Sm. 77—78° (C. 1899 [1] 774).
- C₈H₁₇OJ** 1) ϵ -Jod- β -Oxy- $\beta\epsilon$ -Dimethylhexan. Sm. 70—71° (C. 1899 [1] 774).
- C₈H₁₇O₂N** C 60,4 — H 10,7 — O 20,1 — N 8,8 — M. G. 159.
- 1) α -Nitrooktan. Sd. 205—210° (Am. 20, 213; 21, 228).
- 2) β -Nitrooktan. Sd. 210—212° (B. 12, 1883; J. r. 25, 492). — I, 211.
- 3) β -Nitro- $\beta\epsilon$ -Dimethylhexan. Sd. 201—202°₇₅₅ (B. 28, 1853).
- 4) ϵ -Oximido- δ -Oxyoktan? (Butyroinoxim). Fl. (B. 19, 1846). — I, 1031.
- 5) ζ -Oximido- β -Oxy- β -Methylheptan. Sd. 172°₃₂ (Bl. [3] 17, 186).
- 6) δ -Oximido- γ -Oxy- $\beta\epsilon$ -Dimethylhexan. Sd. 133—135°₁₃ (Bl. [3] 13, 1050).
- 7) α -Oximido- γ -Oxy- $\beta\beta\delta$ -Trimethylpentan. Sd. 140°₁₆ (M. 17, 645, 674).
- 8) 1-[$\beta\gamma$ -Dioxypropyl]hexahydropyridin. Fest (Blätter). Sd. 223—227°₁₉₅. (HCl, AuCl₃), HBr (B. 15, 1150). — IV, 19.

- C₈H₁₇O₂N** 9) Nitrit d. α -Oxyoktan (Salpetrigsäure-norm. Oktylester). *Sd.* 175—177° (*B.* 12, 1887). — I, 322.
 10) Nitrit d. β -Oxyoktan (Salpetrigsäuremethylhexylcarbinolester). *Sd.* 165 bis 166° (*G.* 16, 521). — I, 322.
 11) Homoconiinsäure. *Sm.* 158°. (2HCl, PtCl₄) (*B.* 19, 502). — IV, 34.
 12) α -Amidoheptan- α -Carbonsäure (α -Amidocaprylsäure). HCl, H₂SO₄, HNO₃, Cu (*A.* 176, 344). — I, 1204.
 13) η -Amidoheptan- α -Carbonsäure. *Sm.* 172°. HCl, (2HCl, PtCl₄), Ag (*B.* 27, 3128; 29, 809).
 14) η -Amidoheptan- δ -Carbonsäure (α -Propylhomopiperidinsäure). *Sm.* 186°. (2HCl, PtCl₄) (*B.* 23, 3699). — I, 1205.
 15) α -Aethylamidocapronsäure. *subl.* (2HCl, PtCl₄), Cu (*A. ch.* [5] 29, 172). — I, 1203.
 16) α -Dimethylamidocapronsäure + 2H₂O. (2HCl, PtCl₄), (HCl, AuCl₃), Cu + H₂O (*Bl.* [3] 13, 484).
 17) α -Diäthylamidobuttersäure. *Sm.* 135°. Cu (*Bl.* [3] 3, 504; 43, 615). — I, 1198.
 18) Dipropylamidoessigsäure. HCl, (2HCl, PtCl₄), (HCl, AuCl₃ + $\frac{1}{2}$ H₂O), Cu + H₂O (*Bl.* [3] 9, 235).
 19) Triäthylamidoessigsäure. *Sd.* 210—220° u. *Zers.* (2HCl, PtCl₄), (HCl, AuCl₃), HJ, (3HJ, 2BiJ₃), HNO₃ (*J.* 1862, 333; *A.* 177, 201; 182, 175; 210, 317). — I, 1187.
 20) Inn. Anhydrid d. Triäthylammoniumessigsäure (Aethylbetaïn; Triäthylglykokol) (*B.* 30, 1508).
 21) Aethylester d. d- α -Amido- γ -Methylvaleriansäure. HCl (*Sm.* 134°) (*B.* 30, 1980).
 22) Aethylester d. i- α -Amido- γ -Methylvaleriansäure. HCl (*Sm.* 112°) (*B.* 30, 1981).
 23) Aethylester d. Diäthylamidoessigsäure. *Sd.* 177°. (2HCl, PtCl₄), (3HJ, 2BiJ₃), (*A.* 182, 176; 210, 317). — I, 1187.
 24) Aethylester d. Isoamylamidoameisensäure. *Sd.* 218° (*B.* 12, 1329). — I, 1255.
 25) Amid d. α -Oxyhexan- α -Carbonsäure (Amid d. α -Oxycaprylsäure). *Sm.* 150° (*A.* 177, 108). — I, 1344.
- C₈H₁₇O₂N₃** C 51,3 — H 9,1 — O 17,1 — N 22,5 — M. G. 187.
 1) Aethylamid d. $\alpha\beta$ -Diäthylharnstoff- α -Carbonsäure (Triäthylbiuret). *Fl.* (*B.* 9, 1011; *A.* 109, 105). — I, 1307.
- C₈H₁₇O₂Cl** 1) Chlordioxyoktan (aus Allyldiäthylcarbinol). *Fl.* (*J. r.* 21, 285). — I, 266.
 2) Chlordioxyoktan (aus Methylallylpropylcarbinol). *Fl.* (*J. r.* 21, 289). — I, 266.
 3) α -Isoamyläther d. γ -Chlor- $\alpha\beta$ -Dioxypropan? *Sd.* 235° (*A. Spl.* 1, 234). — I, 306.
- C₈H₁₇O₂Br₂** 1) Isobutyrbromal-Isobutylalkoholat (*J.* 1874, 305). — I, 949.
- C₈H₁₇O₂P** 1) Triäthylphosphidoessigsäure. HCl, (2HCl, PtCl₄), HJ (*J.* 1862, 334). — I, 1508.
- C₈H₁₇O₃N** C 54,9 — H 9,7 — O 27,4 — N 7,9 — M. G. 175.
 1) α -Amidoxylocaprylsäure. *Sm.* 168° (*B.* 26, 1558).
 2) Monamid d. α -Buten- $\alpha\beta$ -Dicarbonsäuremonäthylester (M. d. Aethylfumar säuremonäthylester). *Sm.* 77—77,5° (*A. ch.* [5] 20, 487). — I, 715.
- C₈H₁₇O₃J** 1) Triäthyläther d. β -Jod- $\alpha\alpha\alpha$ -Trioxyäthan. *Sd.* 93°₁₄ (*A.* 298, 352).
- C₈H₁₇O₄Cl** 1) Tetraäthylenglykolchlorhydrin. *Sd.* 262—272° (*A. ch.* [3] 67, 293). — I, 261.
- C₈H₁₇NCl₂** 1) Hydrotropinchlorid. 2 + PtCl₄ (*B.* 14, 227; *A.* 217, 126). — III, 790.
 2) Piperpropylalkinchlorid. + AuCl₃ (*B.* 15, 1146). — IV, 18.
 3) Di- β -Chlorbutylamin. (HCl, AuCl₃) (*B.* 28, 3117).
- C₈H₁₇NBr₂** 1) α -Dibromamidooktan. *Fl.* (*B.* 17, 1920).
 2) δ -[$\beta\gamma$ -Dibrompropyl]amido- β -Methylbutan. *Fl.* HBr (*B.* 21, 3195). — I, 1135.
 3) isom. δ -[β -Dibrompropyl]amido- β -Methylbutan. HBr (*B.* 21, 3195). — I, 1135.
 4) Brompentenyltrimethylammoniumbromid (*B.* 14, 231, 1342). — I, 1144.
- C₈H₁₇NJ₂** 1) Piperpropylalkinjodid? (*B.* 15, 1145). — IV, 18.
 2) Methylenjodid d. 1-Aethylhexahydropyridin (*B.* 14, 1343). — IV, 7.
 3) Methylenjodid d. Dimethylpiperidin (*B.* 14, 1347). — IV, 7.

- $C_8H_{17}N_2J$ 1) Jodmethylat d. 1,4-Dimethylhexahydro-1,4-Diazin (J. d. Dimethylpiperazin). HJ, HJ + CdJ₂ (C. 1898 [1] 727).
- $C_8H_{17}N_4J$ 1) Jodäthylat d. Hexamethylentetramin. Sm. 133° (B. 19, 1844). — I, 1168.
- $C_8H_{17}N_4J_5$ 1) Jodäthylat d. Hexamethylentetramintetrajodid + 6H₂O. Sm. 67° (Bl. [3] 13, 358).
- $C_8H_{17}ClHg$ 1) Quecksilberoktylchlorid (B. 12, 1881). — I, 1526.
- $C_8H_{17}JHg$ 1) Quecksilberoktyljodid (B. 12, 1881). — I, 1526.
- $C_8H_{17}S_3P$ 1) Verbindung (aus Triäthylphosphin u. Schwefelkohlenstoff) (J. 1861, 490). — I, 1501.
- $C_8H_{19}ON_2$ C 60,8 — H 11,4 — O 10,1 — N 17,7 — M. G. 158.
 1) norm. Heptylharnstoff. Sm. 110—111° (B. 25 [2] 637). — I, 1300.
 2) tert. Heptylharnstoff (aus Triäthylcarbinolbromid) (B. 27 [2] 23).
 3) Dibutylnitrosamin (prim. Nitrosodibutylamin). Sd. 234—237° (B. 10, 132). — I, 1132.
 4) Diisobutylnitrosamin (Nitrosodiisobutylamin). Sd. 213—216° (B. 12, 949; C. 1898 [2] 888). — I, 1133.
 5) ϵ -Oximido- α -Dimethylamidohexan. Fl. HCl (A. 289, 252).
 6) Aethyläther d. ϵ -Amido- ϵ -Oximido- β -Methylpentan (Ae. d. Isocapramidoxim). Sm. 35° (B. 19, 1502). — I, 1484.
 7) Amid d. α -Amidoheptan- α -Carbonsäure (Amid d. α -Amidocaprylsäure). HCl, (2HCl, PtCl₄) (A. 177, 128). — I, 1248.
- $C_8H_{19}OS$ 1) norm. Dibutylsulfoxyd. Sm. 32° (A. 175, 349). — I, 361.
 2) Diisobutylsulfoxyd. Sm. 68,5°. HNO₃ (A. 171, 257; J. pr. [2] 17, 446). — I, 362.
- $C_8H_{19}OHg$ 1) Quecksilberoktyloxydhydrat. Sm. 75° (B. 12, 1882). — I, 1526.
- $C_8H_{19}OSn$ 1) Zinn-diisobutyloxyd (Bl. 34, 476). — I, 1529.
- $C_8H_{19}O_2N_2$ C 55,2 — H 10,3 — O 18,4 — N 16,1 — M. G. 174.
 1) $\alpha\eta$ -Diamidoheptan- δ -Carbonsäure (Di[γ -Amidopropyl]essigsäure). Fl. 2HCl (B. 26, 2142, 2143).
 C 47,5 — H 8,9 — O 15,8 — N 27,7 — M. G. 202.
 1) $\alpha\zeta$ -Diureidoheptan. Sm. 196° (C. 1877 [2] 849).
 2) $\alpha\alpha'$ -Aethylendi[α -Aethylharnstoff]. Sm. 124° u. Zers. (2HCl, PtCl₄) (A. 119, 356). — I, 1301.
 3) $\alpha\alpha'$ -Aethylendi[β -Aethylharnstoff]. Sm. 201° (A. 119, 357). — I, 1301.
 4) $\alpha\alpha'$ -Aethylidendi[$\beta\beta$ -Dimethylharnstoff]. Sm. 160° u. Zers. (R. 8, 236). — I, 1313.
 5) Diäthyläther d. $\alpha\delta$ -Diamido- $\alpha\delta$ -Dioximidobutan (D. d. Succinendiamidoxim). Sm. 119° (B. 22, 2958). — I, 1486.
 6) Hydrazid d. Hexan- $\alpha\zeta$ -Dicarbonsäure. Sm. 185—186° (B. 29, 1166). C 41,7 — H 7,8 — O 13,9 — N 36,5 — M. G. 230.
- $C_8H_{19}O_2N_2$ 1) α -Azoisobutyramidoxim. Sm. 154° (A. 290, 34).
- $C_8H_{19}O_2S$ 1) Triäthyläther d. β -Merkapto- $\alpha\alpha$ -Dioxyäthan (Thioäthylacetal). Sd. 168—170° (B. 24, 162). — I, 939.
 2) norm. Dibutylsulfon. Sm. 43,5° (A. 175, 350). — I, 361.
 3) Diisobutylsulfon. Sd. 265° (J. pr. [2] 17, 448). — I, 362.
- $C_8H_{19}O_2Si$ 1) Triäthylsilicolacetat. Sd. 168° (A. 164, 317). — I, 1519.
- $C_8H_{19}O_3S$ 1) Oktansulfonsäure. Fl. Ba, Pb (Am. 20, 672).
- $C_8H_{19}O_4S$ 1) norm. Oktylschwefelsäure. Ba (A. 185, 62). — I, 333.
 2) sec. Oktylschwefelsäure (aus Methylhexylcarbinol). K + $\frac{1}{2}$ H₂O, Ba + 3H₂O (A. 92, 397). — I, 333.
 3) Schwefelsäurediisobutylester. Fl. (Bl. [3] 11, 872).
- $C_8H_{19}O_4S_2$ 1) $\beta\beta$ -Di[Aethylsulfon]butan (Trional). Sm. 76° (H. 14, 60; A. 253, 150). — I, 996.
 2) $\alpha\alpha$ -Di[Aethylsulfon]- β -Methylpropan (Isobutylidendiäthylsulfon). Sm. 94° (A. 253, 152). — I, 949.
 3) $\alpha\beta$ -Di[Propylsulfon]äthan. Sm. 155° (J. pr. [2] 36, 446). — I, 352.
- $C_8H_{19}O_5S$ 1) α -Oxy- $\beta\beta\delta$ -Trimethylpentan- δ -Schwefelsäure. Ba + 5H₂O (M. 17, 88, 99).
- $C_8H_{19}O_5Si$ 1) Kieselsäuretriäthylesteracetat. Sd. 192—197° (J. 1866, 491). — I, 463.
- $C_8H_{19}O_6S_2$ 1) Oktandisulfonsäure (Am. 20, 673).
- $C_8H_{19}NCl$ 1) α -Chlor- δ -Amidomethylheptan (ϵ -Chlor- β -Propylamylamin). HCl, Pikrat (B. 28, 1203).
 2) ϵ -Chlor- α -Dimethylamidoheptan. Fl. (A. 264, 338). — I, 1145.

- $C_8H_{18}NCl$ 3) ϵ -Chlor- β -Dimethylamidohexan. Fl. (2HCl, PtCl₄), (HCl, AuCl₃) (A. 264, 332). — I, 1145.
 4) δ -Chlor- α -Dimethylamido- β -Methylbutan. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (A. 278, 8).
 5) Diisobutylchloramin. Sd. 163° u. Zers. (B. 25, 3623; Bl. [3] 7, 545). — I, 1133.
 6) Chlormethylat d. 1,2,4-Trimethyltetrahydropyrrol (A. 278, 9). — IV, 25.
 7) Chlormethylat d. 1,2-Dimethylhexahydropyridin. 2 + PtCl₄ + H₂O, + AuCl₃ (A. 264, 336; 289, 230; B. 31, 292). — IV, 27.
 8) Chlormethylat d. 1,3-Dimethylhexahydropyridin. 2 + PtCl₄, + AuCl₃ (A. 278, 6). — IV, 28.
- $C_8H_{18}NJ$ 1) Jodmethylat d. δ -Dimethylamido- β oder γ -Methyl- α -Buten (J. pr. [2] 57, 152).
 2) Jodmethylat d. 1-Dimethylamido-R-Pentamethylen. Sm. 260° u. Zers. (A. 298, 139).
 3) Jodmethylat d. 1,2,5-Trimethyltetrahydropyrrol. Zers. bei 400° (A. 264, 331). — IV, 26.
 4) Jodmethylat d. 1,2-Dimethylhexahydropyridin (A. 264, 336; 289, 229). — IV, 27.
 5) Jodmethylat d. 1,3-Dimethylhexahydropyridin. Sm. 196—197° (191—192,5° (B. 18, 3099; A. 247, 69; 278, 5). — IV, 28.
 6) Jodmethylat d. Dimethylpiperidin. Sm. 200° (B. 14, 660). — IV, 6.
- $C_8H_{18}N_3S$ 1) s-Aethylisoamylthioharnstoff. Sm. 45—46° (Soc. 63, 323). — I, 1321.
 2) $\alpha\beta$ -Diäthyl- α -Propylthioharnstoff. HJ, Pikrat (B. 23, 2197). — I, 1320.
- $C_8H_{18}ClP$ 1) Vinyltriäthylphosphoniumchlorid. 2 + PtCl₄ (A. Spl. 1, 174). — I, 1506.
- $C_8H_{18}ClAs$ 1) Vinyltriäthylarsoniumchlorid. + AuCl₃, 2 + PtCl₄ (A. Spl. 1, 313). — I, 1513.
- $C_8H_{18}Cl_2Sn$ 1) Zinndiisobutylchlorid. Sd. 260—261° (Bl. 34, 476). — I, 1529.
- $C_8H_{18}BrBi$ 1) Wismuthdiisobutylbromid (B. 21, 2039). — I, 1517.
- $C_8H_{18}J_2Sn$ 1) Zinndiisobutyljodid. Sd. 290—295° (Bl. 34, 476). — I, 1529.
- $C_8H_{18}J_4S$ 1) Diäthylisopropylsulfinjodid + Jodoform. Sm. 129° (C. 1898 [2] 524).
 C 66,2 — H 13,1 — O 11,0 — N 9,7 — M. G. 145.
- $C_8H_{19}ON$ 1) α -Isoamylamido- β -Oxypropan (Oxyisopropylisoamylamin). Sd. bei 200° (B. 16, 533). — I, 1175.
 2) Valeryltrimethylammoniumhydrat. (2HCl, PtCl₄) (J. 1867, 805). — I, 1144.
- $C_8H_{19}OP$ 1) Vinyltriäthylphosphoniumhydrat. Salze siehe (A. Spl. 1, 173; J. 1860, 338). — I, 1506.
- $C_8H_{19}OAs$ 1) Vinyltriäthylarsoniumhydrat (A. Spl. 1, 313). — I, 1513.
- $C_8H_{19}O_2N$ C 59,6 — H 11,8 — O 19,9 — N 8,7 — M. G. 161.
 1) Diäthyläther d. β -Dimethylamido- $\alpha\alpha$ -Dioxyäthan. Sd. 170—171°. (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 30, 1513).
 2) Triäthylammoniumessigsäurealdehyd. Salze siehe (B. 30, 1508).
- $C_8H_{19}O_2P$ 1) Diisobutylphosphinsäure. Fl. (B. 6, 305). — I, 1503.
- $C_8H_{19}O_3N$ C 54,2 — H 10,7 — O 27,1 — N 7,9 — M. G. 177.
 1) α -Trimethylamidoisovaleriansäure. (HCl, AuCl₃), (2HCl, PtCl₄ + 4H₂O) (B. 23 [2] 610; Bl. [3] 3, 507). — I, 1200.
 C 34,7 — H 6,8 — O 23,1 — N 35,4 — M. G. 277.
- $C_8H_{19}O_4N_7$ 1) Amphikreatinin (Bl. 48, 19). — III, 883.
- $C_8H_{19}O_4P$ 1) Tetrahydrooxyäthylidenphosphin (A. ch. [6] 2, 11; B. 21, 329, 331). — I, 921.
- $C_8H_{19}NBr_2$ 1) β -Bromtetraäthylammoniumbromid (J. 1859, 376). — I, 1128.
- $C_8H_{19}ClS$ 1) Methyläthylamylsulfinchlorid. + 2 u. 6HgCl₂ (B. 31, 2286).
- $C_8H_{19}ClSi$ 1) Silikononylchlorid. Sd. 185° (A. 138, 20). — I, 1518.
- $C_8H_{19}Cl_3P$ 1) β -Chlortetraäthylphosphoniumchlorid. 2 + PtCl₄ (A. Spl. 1, 276). — I, 1502.
- $C_8H_{19}Br_3P$ 1) β -Bromtetraäthylphosphoniumbromid. Sm. 235° u. Zers. (A. Spl. 1, 154). — I, 1502.
- $CH_{10}Br_2As$ 1) β -Bromtetraäthylarsoniumbromid (A. Spl. 1, 312). — I, 1513.
- $C_8H_{19}JS$ 1) Methyläthylisoamylsulfinjodid (B. 31, 3178).
- $C_8H_{20}OSi$ 1) Silicononylalkohol. Sd. 190° (A. 138, 23). — I, 1518.
 2) Silicoheptyläthyläther. Sd. 153° (A. 164, 313). — I, 1519.
- $C_8H_{20}OSn$ 1) Zinntetraäthyloxyd. Sd. 190—192° (A. Spl. 8, 66). — I, 1528.

- $C_8H_{20}O_2Si$ 1) Siliciumdiäthyläther. *Sd.* 155,8° (*A.* 164, 307). — *I*, 1519.
 $C_8H_{20}O_3N_2$ C 50,0 — H 10,4 — O 25,0 — N 14,6 — *M. G.* 192.
- $C_8H_{16}O_5Si$ 1) Säure (aus Albumin). — *IV*, 1587.
- $C_8H_{20}O_5Si$ 1) Orthosilicopropionsäuretriäthyläther. *Sd.* 158,5° (*A.* 159, 259; 164, 300). — *I*, 1518.
- $C_8H_{20}O_4Si$ 1) Tetraäthylester d. Kieselsäure. *Sd.* 165° (*A.* 57, 334; *J.* 1875, 462; *B.* 32, 118; *J. pr.* [2] 31, 359; *Am.* 13, 244; *B.* 5, 327; 8, 713; *G.* 27 [2] 452; *Ph. Ch.* 25, 357). — *I*, 346.
- $C_8H_{20}O_4Ti$ 1) Titansäuretetraäthylester (*J.* 1875, 462). — *I*, 347.
- $C_8H_{20}O_6P_2$ 1) Tetraäthylester d. Unterphosphorsäure (*A.* 232, 14). — *I*, 339.
- $C_8H_{20}O_7P_2$ 1) Tetraäthylester d. Pyrophosphorsäure (*A.* 91, 375; 119, 298). — *I*, 341.
- $C_8H_{20}NCl$ 1) Trimethylisoamylammoniumchlorid (*J.* 1876, 805). — *I*, 1134.
 2) Tetraäthylammoniumchlorid. + 1(2,3,5,6)HgCl₂, 3 + 2BiCl₃, 2 + CuCl₂, 2 + PtCl₄, + AuCl₃ (*J.* 1864, 420; 1883, 620; *J. pr.* [2] 3, 344; *B.* 31, 2292). — *I*, 1127.
- $C_8H_{20}NBr_3$ 1) Tetraäthylammoniumtribromid. *Sm.* 78° (*B.* 3, 284). — *I*, 1128.
- $C_8H_{20}NJ$ 1) Trimethylisoamylammoniumjodid (*A.* 108, 4; *J.* 1876, 805; *Soc.* 57, 775; *B.* [3] 6, 710). — *I*, 1134.
 2) Tetraäthylammoniumjodid. + HgJ₂, 2 + 3HgJ₂, 3 + 2BiJ₃ (*A.* 78, 257; 91, 34; 101, 20; 107, 223; 108, 6; 195, 381; 240, 69; *B.* 12, 562). — *I*, 1127.
- $C_8H_{20}NJ_3$ 1) Trimethylisoamylammoniumtrijodid. *Sm.* 80° (*A.* 108, 4). — *I*, 1134.
 2) Tetraäthylammoniumtrijodid (*A.* 91, 33, 34; 240, 91; *Am.* 18, 373). — *I*, 1128.
- $C_8H_{20}NJ_7$ 1) Tetraäthylammoniumheptajodid. *Sm.* 108° (*A.* 240, 69, 86). — *I*, 1128.
- $C_8H_{20}N_2J_2$ 1) Diäthylentetramethyldiaminjodid (*J.* 1859, 389). — *I*, 1154.
- $C_8H_{20}N_2S$ 1) Di[Diäthylamin]sulfid (Tetraäthylthiodiamin). *Sd.* 190° u. Zers. (*B.* 28, 575, 1016).
- $C_8H_{20}N_2S_2$ 1) Di[Diäthylamin]disulfid. *Sd.* 137—138°₂₀ (*B.* 28, 166).
- $C_8H_{20}N_2Zn$ 1) Verbindung (*J.* 1857, 419).
- $C_8H_{20}N_4S_4$ 1) Verbindung (aus Aethylamin). *Fl.* (*B.* 28, 2743).
- $C_8H_{20}ClP$ 1) Trimethylisoamylphosphoniumchlorid. 2 + PtCl₄ (*A.* 104, 34). — *I*, 1505.
 2) Tetraäthylphosphoniumchlorid. 2 + ZnCl₂, + AuCl₃, 3 + BiCl₃ (*A.* 120, 198; *J. pr.* [2] 3, 345; *Soc.* 55, 132). — *I*, 1502.
- $C_8H_{20}ClAs$ 1) Tetraäthylarsoniumchlorid + H₂O. 2 + PtCl₄, 3 + 2BiCl₃ (*A.* 92, 371; 122, 200; *J. pr.* [2] 3, 374). — *I*, 1513.
- $C_8H_{20}ClSb$ 1) Antimontetraäthylchlorid. 2 + PtCl₄, 2 + 3HgCl₂, 4 + 3HgCl₂ (*A.* 97, 325; *J.* 1860, 373; *J. pr.* [2] 3, 347). — *I*, 1515.
- $C_8H_{20}Cl_3P$ 1) Tetraäthylphosphoniumtrichlorid (*Soc.* 55, 132). — *I*, 1502.
- $C_8H_{20}BrP$ 1) Tetraäthylphosphoniumbromid (*Soc.* 55, 130). — *I*, 1502.
- $C_8H_{20}BrAs$ 1) Tetraäthylarsoniumbromid. 3 + BiBr₃ (*A.* 92, 371; *J. pr.* [2] 3, 342). — *I*, 1513.
- $C_8H_{20}BrSb$ 1) Antimontetraäthylbromid + xH₂O. 3 + 2BiBr₃ (*A.* 97, 327; *J. pr.* [2] 3, 342). — *I*, 1515.
- $C_8H_{20}Br_3P$ 1) Tetraäthylphosphoniumtribromid (*Soc.* 55, 130). — *I*, 1502.
- $C_8H_{20}Br_7P$ 1) Tetraäthylphosphoniumheptabromid (*Soc.* 55, 130). — *I*, 1502.
- $C_8H_{20}JP$ 1) Trimethylisoamylphosphoniumjodid (*A.* 104, 34). — *I*, 1505.
 2) Tetraäthylphosphoniumjodid. + TIJ₃, 2 + ZnJ₂, 3 + 2BiCl₃ (*A.* 104, 15; 137, 118; *A. Spl.* 1, 6; *Z.* 1871, 359, 770; *J. pr.* [2] 3, 340; [2] 6, 82; *Soc.* 55, 129, 140; *G.* 23 [1] 101; *B.* 30, 1089). — *I*, 1501.
- $C_8H_{20}J_3P$ 1) Tetraäthylphosphoniumtrijodid. *Sm.* 66—67° (*J.* 1871, 770). — *I*, 1502.
- $C_8H_{20}JAs$ 1) Tetraäthylarsoniumjodid. + ZnJ₂, + CdJ₂, 3 + 2BiJ₃, + AsJ₃ (*A.* 89, 331; 92, 364; 122, 200; *J. pr.* [2] 3, 336, 340). — *I*, 1513.
- $C_8H_{20}JSb$ 1) Antimontetraäthyljodid + 1½H₂O. 2 + 3HgJ₂, 4 + 3HgJ₂, 3 + 2BiBr₃, 3 + 2BiCl₃, 3 + 2BiJ₃ (*A.* 97, 323; *J.* 1860, 373; *J. pr.* [2] 3, 340). — *I*, 1515.
- $C_8H_{20}J_3As$ 1) Tetraäthylarsoniumtrijodid (*A.* 122, 215; *J. pr.* [2] 3, 336). — *I*, 1513.
- $C_8H_{20}J_3Sb$ 1) Antimontetraäthyltrijodid (*J.* 1871, 770).
- $C_8H_{20}S_5P_2$ 1) Diäthylidithiophosphinsulfid. *Sm.* 105° (*B.* 25, 2443). — *I*, 1500.

- $C_5H_{11}ON$ C 65,3 — H 14,3 — O 10,9 — N 9,5 — M. G. 147.
 1) Trimethylisoamylammoniumhydrat. Salze siehe (A. 108, 4; J. 1876, 805; Soc. 57, 775). — I, 1134.
 2) Tetraäthylammoniumhydrat. Salze meist bek. Lit. bedeutend. — I, 1127.
- $C_5H_{11}OJ$ 1) Aethylätherhydrojodid (B. 21, 327).
 $C_5H_{11}OP$ 1) Tetraäthylphosphoniumhydrat. Salze siehe (A. 104, 15; A. Spl. 1, 6; J. 1871, 770; J. pr. [2] 6, 87). — I, 1501.
- $C_5H_{11}OAs$ 1) Tetraäthylarsoniumhydrat (A. 89, 331; 92, 364; 122, 201). — I, 1513.
 $C_5H_{11}OSb$ 1) Antimontetraäthyloxydhydrat. Salze siehe (A. 97, 322). — I, 1515.
 $C_5H_{11}O_3P$ 1) Oxyäthyltriäthylphosphoniumhydrat. Salze (A. Spl. 1, 166). — I, 1501.
- $C_5H_{11}O_4B$ 1) Verbindung (aus Borsäuretriäthylester). Na (Bl. [3] 21, 111).
 $C_5H_{11}O_5N$ C 45,5 — H 10,0 — O 37,9 — N 6,6 — M. G. 211.
 1) Tetra[β -Oxyäthyl]ammoniumhydrat. Fl. (A. 121, 229). — I, 1172.
- $C_5H_{12}N_2Cl_2$ 1) Aethylenhexamethyldiammoniumchlorid. + $PtCl_4$ (B. 28, 3073).
 $C_5H_{12}N_2J_2$ 1) Aethylenhexamethyldiammoniumdijodid (J. 1859, 387).
 $C_5H_{12}Cl_2P_2$ 1) Hexamethyläthylendiphosphoniumchlorid. 2 + $PtCl_4$ (J. 1860, 340). — I, 1506.
- $C_5H_{12}Br_2P_2$ 1) Hexamethylenäthylidiphosphoniumbromid (J. 1860, 340). — I, 1506.
 $C_5H_{12}J_2P_2$ 1) Hexamethyläthylendiphosphoniumjodid (J. 1860, 340). — I, 1506.
 $C_5H_{12}O_2N_2$ C 53,3 — H 13,3 — O 17,8 — N 15,5 — M. G. 180.
 1) Aethylenhexamethyldiammoniumoxydhydrat. Chlorid, Pikrat (B. 28, 3073; J. 1859, 387).
- $C_5H_{12}O_4P_2$ 1) Hexamethyläthylendiphosphoniumhydrat. Salze siehe (J. 1860, 340; A. Spl. 1, 287). — I, 1506.
- $C_5H_{12}SSb_2$ 1) Antimontetramethylsulfid (A. 84, 54). — I, 1514.
 $C_5O_2Cl_4J_4$ 1) Chlorid d. 2,3,5,6-Tetrajodbenzol-1,4-Dicarbonsäure. Sm. 279° (B. 29, 2837).
- $C_5O_2Cl_4S_4$ 1) Anhydrid d. Trichlorthiophensulfonsäure (B. 19, 651). — III, 743.
 $C_5O_2Br_4S_4$ 1) Anhydrid d. 2,3,5-Tribromthiophen-4-Sulfonsäure. Sm. 115–116° (B. 18, 1775). — III, 743.
- $C_5ClBr_3S_2$ 1) Chlorpentabrom-2,2'-Bithiophen. Sm. 238–240° (B. 26, 2948). — III, 751.
 $C_5Cl_2Br_4S_2$ 1) Dichlortetrabrom-2,2'-Bithiophen. Sm. 221–222° (B. 26, 2946). — III, 752.
 $C_5Cl_3Br_3S_2$ 1) Trichlortribrom-2,2'-Bithiophen. Sm. 214–215° (B. 26, 2946). — III, 752.
 $C_5Cl_4Br_2S_2$ 1) Tetrachlordibrom-2,2'-Bithiophen (Tetrachlordibromdithienyl). Sm. 211,5–212,5° cor. (B. 28, 2385, 3302).

C_8 -Gruppe mit vier Elementen.

- $C_8HO_2NCl_4$ 1) Imid d. 3,4,5,6-Tetrachlorbenzol-1,2-Dicarbonsäure. Sm. bei 360° (A. 238, 332). — II, 1820.
 $C_8H_2O_4NCl_3$ 1) 2,2,2-Trichlor-1,3-Diketo-2,3-Dihydro-4-Pyriden. Sm. bei 100° (A. 290, 357). — IV, 247.
 $C_8H_2O_3N_4Cl_2$ 1) Verbindung (aus Chloranil u. Cyanamid). $K_2 + 2H_2O$ (Bl. [3] 19, 939).
 $C_8H_2O_2N_4Br_2$ 1) 3,6-Dibrom-2,5-Dioxy-1,4-Di[Cyanimido]-1,4-Dihydrobenzol. $K_2 + 2H_2O$, Ba, Ag₂ (Bl. [3] 19, 318).
 $C_8H_2O_3Cl_2Br_2$ 1) Chlorid d. 2,5-Dibrombenzol-1,4-Dicarbonsäure. Sm. 80–81° (J. pr. [2] 37, 23). — II, 1837.
 $C_8H_4O_3NCl_3$ 1) Chlorid d. Pyridin-2,3,4-Tricarbonsäure. Sd. 205–206°, (A. 201, 320). — IV, 178.
 $C_8H_4O_3ClBr$ 1) Anhydrid d. 4-Chlor-5-Brombenzol-1,2-Dicarbonsäure. Sm. 185° (J. pr. [2] 43, 258). — II, 1821.
 $C_8H_2O_6NCl_3$ 1) 3,4,5-Trichlor-6-Nitrobenzol-1,2-Dicarbonsäure (B. 10, 1844). — II, 1823.
 $C_8H_3ONCl_2$ 1) 2,3-Dichlor-1-Keto-4-Pyriden. Sm. 112° (A. 290, 372). — IV, 246.
 $C_8H_3ONCl_4$ 1) 2,2,3,3-Tetrachlor-1-Keto-2,3-Dihydro-4-Pyriden (A. 290, 376). — IV, 246.
 $C_8H_3ON_2Cl_3$ 1) 2,3,5-Trichlor-6-Oxy-1,4-Benzdiazin (C. 1895 [1] 835).

- $C_8H_5O_2NCl_2$ 1) *p*-Dichlor-2-Oxy-3-Ketopseudoindol (Dichlorisatin). Sm. 186° + $KHSO_3$ (*J. pr.* [2] 19, 346; [2] 22, 270; [2] 24, 7; *A.* 48, 278; 53, 34). — II, 1606.
- 2) 2,*p*-Dichlor-3-Oxy-1-Keto-4-Pyrinden. Sm. bei 180° u. Zers. (*A.* 290, 358). — IV, 247.
- 3) 2,2-Dichlor-1,3-Diketo-2,3-Dihydro-4-Pyrinden. Sm. 106—107° (*A.* 290, 347). — IV, 246.
- 4) Lakton d. 3-[$\beta\beta$ -Dichlor- α -Oxyäthenyl]pyridin-2-Carbonsäure. Sm. 135—136° (*A.* 290, 351). — IV, 212.
- 5) Imid d. *p*-Dichlorbenzol-1,2-Dicarbonsäure. Sm. 191° (*A.* 238, 355). — II, 1819.
- $C_8H_5O_2NCl_2$ 1) Nitril d. 1,1,3,3,4,5-Hexachlor-2-Acetoxy-2,3-Dihydro-*R*-Penten-2-Carbonsäure. Sm. 96—97° (*B.* 23, 2218). — I, 1476.
- $C_8H_5O_2NBr_2$ 1) *p*-Dibrom-2-Oxy-3-Ketopseudoindol (Dibromisatin). Sm. 250°. Ag, + $KHSO_3$ (*B.* 15, 2098; *A.* 48, 285; 53, 47). — II, 1607.
- $C_8H_5O_2N_2Br_2$ 1) *p*-Tribrom-3-Oximido-2-Oxypseudoindol (Tribromisatoxim). Sm. 162° (*A.* 140, 36). — II, 1612.
- $C_8H_5O_2N_2S_2$ 1) *p*-Nitro-1,3-Dirhodanbenzol. Sm. 150—150,5° (*B.* 10, 184). — II, 935.
- $C_8H_5O_2Cl_2Br$ 1) Chlorid d. 2-Brombenzol-1,4-Dicarbonsäure. Sd. 304,5—305,5° (*B.* 12, 620). — II, 1837.
- $C_8H_5O_2NCl_2$ 1) Inn. Anhydrid d. *p*-Dichlorbenzol-1-Carbonsäure-2-Amidoameisensäure (Dichloranthranilcarbonsäure). Sm. 254—256° u. Zers. (*J. pr.* [2] 33, 51). — II, 1278.
- $C_8H_5O_2NBr_2$ 1) Inn. Anhydrid d. 3,4-Dibrombenzol-1-Carbonsäure-2-Amidoameisensäure. Sm. 255° (*J. pr.* [2] 33, 46). — II, 1280.
- $C_8H_5O_2N_2Br$ 1) *p*-Brom-*p*-Nitro-2-Oxy-3-Ketopseudoindol (Bromnitroisatin). Sm. 237° u. Zers. (*J. pr.* [2] 33, 53). — II, 1607.
- $C_8H_5O_2Cl_2S$ 1) Trichlorid d. Benzol-1,2-Dicarbonsäure-4-Sulfonsäure. Fl. (*A.* 233, 229). — II, 1825.
- $C_8H_5O_2NCl_2$ 1) 2,5-Dichlor-3-Nitrobenzol-1,4-Dicarbonsäure. Sm. 225—226° u. Zers. (NH_4), Ca + $3H_2O$ (*B.* 21, 1961). — II, 1839.
- $C_8H_5O_2NBr_2$ 1) 3,6-Dibrom-2-Nitrobenzol-1,4-Dicarbonsäure. Sm. 257—258° (*G.* 21, 36). — II, 1839.
- 2) 5,6-Dibrom-3-Nitrobenzol-1,4-Dicarbonsäure. Sm. 280—281° (*G.* 21, 40). — II, 1839.
- 3) 3,5-Dibrompyridin-2,4,6-Tricarbonsäure + $4H_2O$. Sm. 204—205° u. Zers. K + $6H_2O$, Cu, + H_2O , Ag, + H_2O (*B.* 20, 1347). — IV, 180.
- $C_8H_5O_2N_2Br$ 1) Aldehyd d. *p*-Brom-*p*-Dinitro-3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure. Sm. 173° (*B.* 25, 2594). — III, 103.
- C_8H_4ONCl 1) 2-Chlor-3-Ketopseudoindol (Isatinchlorid). Sm. bei 180° u. Zers. (*B.* 11, 1296; 12, 456). — II, 1605.
- C_8H_4ONBr 1) Nitril d. 2-Brombenzol-1-Ketocarbonsäure. Sm. 62—64° (*B.* 25, 3298). — II, 1600.
- $C_8H_4ONBr_2$ 1) *p*-Tribrom-2-Keto-2,3-Dihydroindol + $2H_2O$. Zers. bei 270° (*A.* 140, 33). — II, 1321.
- $C_8H_4ON_2S$ 1) Nitril d. 1-Oxybenzthiazol-5-Carbonsäure. Sm. oberh. 250° (*A.* 277, 251). — II, 802.
- $C_8H_4O_2NCl$ 1) 4[oder 6]-Chlor-2-Oxy-3-Ketopseudoindol (*m*-Chlorisatin). Sm. 243° u. Zers. Ag, + $KHSO_3$ (*A.* 48, 269; 53, 12; *J. pr.* [2] 19, 337; [2] 24, 5; [2] 33, 49). — II, 1605.
- 2) 5-Chlor-2-Oxy-3-Ketopseudoindol (*p*-Chlorisatin). Sm. 247—248° (*A.* 243, 346; *B.* 29, 1033). — II, 1606.
- 3) 2-Chlor-3-Oxy-1-Keto-4-Pyrinden. Na, K (*A.* 290, 341, 375). — IV, 246.
- 4) Imid d. 4-Chlorbenzol-1,2-Dicarbonsäure. Sm. 210—211° (*A.* 233, 238). — II, 1818.
- 5) Chlorid d. α -Cyan- β -[2-Furanyl]akrylsäure. Sm. 79° (*B.* 28, 2254). — III, 711.
- $C_8H_4O_2NCl_2$ 1) 2-Trichloräthenylpyridin-3-Carbonsäure. Sm. 153—154° (*A.* 290, 376). — IV, 212.
- $C_8H_4O_2NCl_2$ 1) *p*-Nitro-1-Pentachloräthylbenzol. Sm. 114° (*A.* 296, 272).
- $C_8H_4O_2NBr$ 1) *p*-Brom-2-Oxy-3-Ketopseudoindol (*m*-Bromisatin). Sm. 255° (*J. pr.* [2] 19, 358; *A.* 53, 40; *B.* 15, 2095). — II, 1606.

- $C_8H_4O_4NBr$ 2) 4-Brom-3-Cyanbenzol-1-Carbonsäure. Sm. 186° (B. 24, 371). — II, 1229.
- $C_8H_4O_4NJ$ 3) Nitril d. p-Brom-3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure (N. d. Brompiperonylsäure). Sm. 100° (G. 25 [2] 207).
- $C_8H_4O_4NJ$ 1) Imid d. 3-Jodbenzol-1,2-Dicarbonsäure. Sm. 238° (J. pr. [2] 53, 381).
- $C_8H_4O_4NJ$ 2) Imid d. 4-Jodbenzol-1,2-Dicarbonsäure. Sm. 222–224° (J. pr. [2] 53, 387).
- $C_8H_4O_4N_2Br_2$ 1) p-Dibrom-3-Oximido-2-Oxypseudoindol (Dibromisatoxin). Zers. bei 255° (B. 16, 1708). — II, 1611.
- $C_8H_4O_4N_2S_2$ 1) 1,5-Dimerkaptobenzbioxazol (Thiocarbodiamidoresorcin). Zers. bei 270° (B. 22, 3240). — II, 929.
- $C_8H_4O_4ClBr$ 1) Lakton d. p-Chlor-p-Brom-1-Oxymethylbenzol-2-Carbonsäure. Sm. 179° (B. 19, 1154). — II, 1557.
- $C_8H_4O_4NCl$ 1) p-Chlor-p-Nitrobenzofuran (Chlornitrocumaron). Sm. 147° (B. 30, 2096).
- $C_8H_4O_4NCl$ 2) Inn. Anhydrid d. p-Chlorbenzol-1-Carbonsäure-2-Amidoameisensäure (Chloranthranilcarbonsäure). Sm. 265–268° u. Zers. (J. pr. [2] 33, 49). — II, 1278.
- $C_8H_4O_4NCl_3$ 1) 3-Trichloracetylpyridin-2-Carbonsäure. Sm. 174° u. Zers. (A. 290, 352). — IV, 212.
- $C_8H_4O_4NCl_3$ 2) p-Chlor-3-Dichloracetylpyridin-2-Carbonsäure. Sm. 148° (A. 290, 358). — IV, 247.
- $C_8H_4O_4NBr$ 1) p-Brom-p-Nitrobenzofuran (Bromnitrocumaron). Sm. 132° (B. 30, 2096).
- $C_8H_4O_4NBr$ 2) Inn. Anhydrid d. 5-Brombenzol-1-Carbonsäure-2-Amidoameisensäure. Sm. 270–275° u. Zers. (J. pr. [2] 33, 33). — II, 1279.
- $C_8H_4O_4N_2Br_2$ 1) p-Dibrom-p-Nitroso-3-Oxy-2-Keto-2,3-Dihydroindol (Dibrom-nitrosodioxindol) + 3 H₂O. Sm. 275° (A. 140, 25). — II, 1613.
- $C_8H_4O_4ClBr$ 1) 4-Chlor-5-Brombenzol-1,2-Dicarbonsäure. Sm. 205°. Na₂ + 3 H₂O, Ba + 3 H₂O (J. pr. [2] 43, 258). — II, 1821.
- $C_8H_4O_4ClBr$ 2) 2-Chlor-5-Brombenzol-1,4-Dicarbonsäure. Sm. 308–310° u. Zers. (G. 23 [2] 71). — II, 1837.
- $C_8H_4O_4ClBr$ 3) p-Chlor-p-Brombenzol-1,4-Dicarbonsäure. Ba + H₂O (J. pr. [2] 39, 410). — II, 1838.
- $C_8H_4O_4NBr$ 1) Aldehyd d. p-Brom-p-Nitro-3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure. Sm. 90° (B. 24, 2593). — III, 103.
- $C_8H_4O_4N_2Cl_3$ 1) p-Dinitrophenylamid d. Trichloressigsäure. Sd. 118° (Bl. 21, 399). — II, 365.
- $C_8H_4O_4N_4Br_2$ 1) Dibromdibarbitursäure. HBr (A. 130, 147). — I, 1376.
- $C_8H_4O_4NCl$ 1) 3-Chlor-p-Nitrobenzol-1,2-Dicarbonsäure. K₂ (B. 10, 547). — II, 1823.
- $C_8H_4O_4NCl$ 2) 6-Chlorpyridin-2,3,4-Tricarbonsäure + 2 H₂O. Sm. 212° (Soc. 73, 591).
- $C_8H_4O_4NBr$ 1) 3-Brom-6-Nitrobenzol-1,2-Dicarbonsäure. Na₂ (A. 222, 277). — II, 1823.
- $C_8H_4O_4NJ$ 1) 5-Jod-p-Nitrobenzol-1,3-Dicarbonsäure (B. 28, 86). — II, 1829.
- $C_8H_4O_4N_2Cl_2$ 1) p-Dichlor-p-Dinitrophenylessigsäure. Sm. 140°. Na (Am. 18, 680).
- $C_8H_4O_4N_4Cl_2$ 1) Dichlorhydurilsäure + 2 H₂O. K₂ + H₂O (A. 127, 26). — I, 1404.
- $C_8H_4O_4N_6S$ 1) 5-[p-Trinitrophenyl]amido-1,2,3-Thiodiazol. Sm. 221° (B. 29, 2592). — IV, 1103.
- $C_8H_5ONCl_2$ 1) p-Dichlor-1-Keto-1,3-Dihydroisoindol (Dichlorphtalimidin). Sm. 210° (A. 238, 356). — II, 1558.
- $C_8H_5ONCl_2$ 2) Nitril d. α-Oxy-2,5-Dichlorphenylessigsäure. Sm. 93° (A. 299, 350).
- $C_8H_5ONCl_4$ 1) 2,3,4,5-Tetrachlorphenylamid d. Essigsäure. Sm. 154° (B. 21, 1534). — II, 364.
- $C_8H_5ONCl_4$ 2) 2,3,4,6-Tetrachlorphenylamid d. Essigsäure. Sd. 173–174° (A. 196, 236). — II, 364.
- C_8H_5ONS 1) Rhodanid d. Benzolcarbonsäure. Fl. (A. ch. [5] 11, 300). — II, 1157.
- C_8H_5ONS 2) polym. Rhodanid d. Benzolcarbonsäure. Sm. 160° (A. ch. [5] 11, 300). — II, 1157.
- $C_8H_5ON_2Cl$ 1) Chlorimesatin (J. pr. [1] 25, 466). — II, 1608.
- $C_8H_5ON_2Br$ 1) Bromimesatin (Z. 1865, 593). — II, 1608.
- $C_8H_5ON_2Br$ 2) Nitril d. α-Oximido-α-[4-Bromphenyl]essigsäure. Sm. 131–132°. Na, Cu, Ag (A. 250, 165). — II, 1600.
- $C_8H_5OClBr_2$ 1) Dibrommethyl-4-Chlorphenylketon. Sm. 92,5° (Bl. [3] 21, 70).

- $C_8H_5OClBr_2$ 2) Chlorid d. 2,4-Dibrom-1-Methylbenzol-4-Carbonsäure. Sm. 80° (A. 265, 380). — II, 1346.
- 3) Chlorid d. 2,5-Dibrom-1-Methylbenzol-4-Carbonsäure. Sm. 60° (A. 265, 374). — II, 1347.
- $C_8H_5O_2NCl_2$ 1) p-Dichlor-3-Oxy-2-Keto-2,3-Dihydroindol (Dichlordioxindol). Zers. bei 75° (A. 140, 19). — II, 1613.
- 2) 2-[$\alpha\beta$ -Dichloräthenyl]pyridin-3-Carbonsäure. Sm. 139° (A. 290, 377). — IV, 212.
- $C_8H_5O_2NCl_4$ 1) Aethylester d. 2,3,5,6-Tetrachlorpyridin-4-Carbonsäure. Sm. 66–67° (Soc. 71, 1080).
- $C_8H_5O_2NBr_2$ 1) p-Dibrom-3-Oxy-2-Keto-2,3-Dihydroindol (Dibromdioxindol). Sm. 170° (A. 140, 19). — II, 1613.
- $C_8H_5O_2NS$ 1) p-Nitrobenzthiofuran. Sm. 77° (C. 1897 [2] 270).
- 2) Benzthiazol-1-Carbonsäure. Sm. 108° (B. 20, 2257). — II, 799.
- 3) Phenylsenfö-3-Carbonsäure. Zers. oberh. 310° (A. 169, 103). — II, 1264.
- 4) 2-Oxybenzoylthiocarbimid. Fl. (A. ch. [5] 11, 304). — II, 1500.
- 5) Verbindung (aus Thiophen) (B. 20, 3233). — III, 739.
- $C_8H_5O_2N_2Cl$ 1) p-Chlor-3-Oximido-2-Oxypseudoindol (Oxim d. m-Chlorisatin). Sm. 252° (B. 28, 545). — II, 1605.
- 2) Nitril d. 5-Chlor-3-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 140° (A. 274, 297). — II, 1333.
- 3) Nitril d. 5-Chlor-4-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 86° (A. 274, 299). — II, 1334.
- 4) Nitril d. 5-Chlor-2-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 93° (A. 265, 345). — II, 1350.
- 5) Nitril d. 6-Chlor-3-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 157° (A. 265, 355). — II, 1349.
- 6) Nitril d. 5-Nitro-1-Chlormethylbenzol-2-Carbonsäure. Sm. 94° (B. 31, 2733).
- 7) Nitril d. 2-Nitro-1-Chlormethylbenzol-4-Carbonsäure. Sm. 84° (B. 27, 2162). — II, 1350.
- $C_8H_5O_2N_2Br$ 1) p-Brom-3-Oximido-2-Oxypseudoindol (Bromisatoxim) (A. 140, 35). — II, 1611.
- 2) p-Bromindazol-3-Carbonsäure. Zers. oberh. 240° (A. 227, 330). — IV, 890.
- 3) Nitril d. 2-Nitro-1-Brommethylbenzol-4-Carbonsäure. Sm. 106 bis 107° (B. 27, 2170). — II, 1351.
- 4) Nitril d. 5-Brom-3-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 106 bis 107° (A. 269, 212). — II, 1334.
- 5) Nitril d. 5-Brom-2-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 132° (A. 265, 366). — II, 1351.
- 6) Nitril d. 5-Brom-3-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 130° (A. 265, 370). — II, 1350.
- $C_8H_5O_2N_3Cl_{12}$ 1) Ditrichloracetyl-Ditrichloräthylidendiamin. Sm. 215–216° (A. ch. [6] 26, 25). — I, 932.
- $C_8H_5O_2N_4Cl$ 1) 1-Nitroso-2-Keto-6-Diazo-2,3-Dihydroindolchlorid (B. 14, 832, 2332). — II, 1321.
- $C_8H_5O_2NCl_2$ 1) Dichlormethyl-2-Nitrophenylketon. Sm. 73° (A. 221, 328). — III, 123.
- 2) p-Dichlor-2-Amidobenzol-1-Ketocarbonsäure (Dichlorisatinsäure). $K + H_2O$, $Ba + 2H_2O$, Cu , Ag (J. pr. [2] 19, 348; [2] 24, 9). — II, 1606.
- 3) 2,4-Dichlorphenyloxaminsäure. Sm. 122°. K (Am. 8, 353). — II, 408.
- 4) 3-Dichloracetylpyridin-2-Carbonsäure. Sm. 151° u. Zers. (A. 290, 349). — IV, 212.
- 5) Acetat d. 2,5-Dichlor-4-Oximido-1-Keto-1,4-Dihydrobenzol. Sm. 149° (A. 303, 13).
- $C_8H_5O_2NBr_2$ 1) Dibrommethyl-2-Nitrophenylketon. Sm. 85–86° (A. 221, 328). — III, 123.
- 2) Dibrommethyl-3-Nitrophenylketon. Sm. 59° (B. 18, 2240). — III, 123.
- 3) Dibrommethyl-4-Nitrophenylketon. Sm. 67,4° (B. 22, 204). — III, 123.

- $C_8H_5O_3NBr_2$ 4) **p-Dibrom-2-Amidobenzol-1-Ketocarbonsäure** (Dibromisatinsäure). $K + H_2O$ (*J. pr.* [1] 19, 360; *B.* 15, 2098). — II, 1607.
- $C_8H_5O_3NS$ 1) **3-[2-Thiényl]isoxazol-5-Carbonsäure**. Sm. 177° u. Zers. Ag (*G.* 21, [2] 280). — III, 761.
- $C_8H_5O_3N_2Cl_2$ 1) **4-Nitrophenylamid d. Trichloressigsäure**. Sm. 142° (*B.* 27, 1250).
2) **2,4,5-Trichlor-p-Nitrophenylamid d. Essigsäure**. Sm. 193° (*A.* 196, 235). — II, 366.
- $C_8H_5O_3N_2Br$ 1) **6-Brom-4-Nitro-1-Methylbenzoxazol**. Sm. 146—147° (*Soc.* 69, 1327).
- $C_8H_5O_3N_2Br_2$ 1) **3,4,5-Tribrom-2-Nitrophenylamid d. Essigsäure**. Sm. 229° (*Am.* 20, 184).
2) **2,4,6-Tribrom-3-Nitrophenylamid d. Essigsäure**. Sm. 169° (*B.* 7, 351; *Am.* 17, 702). — II, 366.
3) **2,4,5-Tribrom-3 oder 6-Nitrophenylamid d. Essigsäure**. Sm. 228° (*Am.* 20, 186).
- $C_8H_5O_4NCl_2$ 1) **4,6-Dichlor-2-Nitrophenylester d. Essigsäure**. Sm. 77° (*A. Spl.* 7, 188). — II, 695.
- $C_8H_5O_4NBr_2$ 1) **2,6-Dibrom-4-Nitrophenylester d. Essigsäure**. Sm. 178,5° (*B.* 26, 3335). — II, 699.
- $C_8H_5O_4N_2Br$ 1) **β -Brom- β -Nitro- α -[4-Nitrophenyl]äthen** (*B.* 16, 851).
- $C_8H_5O_4N_4Br$ 1) **Verbindung (aus Malyloreidsäure)**. Zers. bei 142° (*A. ch.* [5] 11, 420). — I, 1384.
- $C_8H_5O_4Cl_2J$ 1) **5-Dichlorjodosobenzol-1,3-Dicarbonsäure** (Jodidchlorid d. 5-Jodisophthalsäure) (*B.* 28, 87).
- $C_8H_5O_5NBr_2$ 1) **p-Dibrom-4-Oxy-?-Methylpyridin-2,6-Dicarbonsäure** (Dibrommethylammonchelidonsäure). Zers. bei 170° (*M.* 6, 295). — IV, 173.
- $C_8H_5O_5NS$ 1) **2-Oxy-3-Ketopseudoindol-?-Sulfonsäure + 2H₂O** (Isatinsulfonsäure). $NH_4 + H_2O$, $Na + 2H_2O$, $K + H_2O$, $Ca + 2H_2O$, $Ba + 4H_2O$, $Ag + H_2O$ (*A.* 120, 6). — II, 1607.
2) **2,3-Imid d. Benzol-1,2-Dicarbonsäure-3-Sulfonsäure**. Sm. noch nicht bei 240° (*Am.* 5, 109; 6, 269). — II, 1824.
3) **1,2-Imid d. Benzol-1,2-Dicarbonsäure-4-Sulfonsäure**. NH_4 (*A.* 233, 226). — II, 1826.
4) **3,4-Imid d. Benzol-1,3-Dicarbonsäure-4-Sulfonsäure**. Sm. 289° (*B.* 12, 1436; 13, 1554; *Am.* 3, 204). — II, 1831.
5) **1,2-Imid d. Benzol-1,4-Dicarbonsäure-2-Sulfonsäure**. Sm. 297 bis 299°. $K + H_2O$, $Ba + 3H_2O$ (*B.* 12, 1433; *Am.* 4, 197; 9, 97). — II, 1840.
- $C_8H_5O_5N_2Cl_2$ 1) **Aethyläther d. 2,4,6-Trichlor-3,5-Dinitro-1-Oxybenzol**. Sm. 100° (*A.* 149, 153). — II, 696.
- $C_8H_5O_5N_2Br_2$ 1) **Aethyläther d. 2,4,6-Tribrom-3,5-Dinitro-1-Oxybenzol**. Sm. 147° (*Am.* 13, 187). — II, 699.
- $C_8H_5O_5N_3Cl_2$ 1) **3,4-Dichlor-p-Nitrophenylamid d. Essigsäure**. Sm. 245—246° (*A.* 196, 227). — II, 366.
- $C_8H_5O_6N_2Cl$ 1) **5-Chlor-4,6-Dinitro-1-Methylbenzol-2-Carbonsäure**. Sm. 212° (*A.* 274, 300). — II, 1334.
2) **3-Chlor-2,6-Dinitro-1-Methylbenzol-4-Carbonsäure**. Sm. 233°. $Ba + H_2O$ (*A.* 265, 349; *J. pr.* [2] 39, 496). — II, 1350.
- $C_8H_5O_6N_2Br$ 1) **3-Brom-4,6-Dinitrophenylessigsäure**. Sm. 177°. Ag (*Am.* 11, 549). — II, 1320.
- $C_8H_5O_6N_3Cl_2$ 1) **2,5-Dichlor-3,4,6-Trinitro-1-Aethylbenzol**. Sm. 195° u. Zers. (*Bl.* 48, 42). — II, 99.
- $C_8H_5O_6Cl_8$ 1) **4-Chlorid d. Benzol-1,2-Dicarbonsäure-4-Sulfonsäure**. Sm. 167 bis 170° u. Zers. (*A.* 233, 228). — II, 1825.
- $C_8H_5NCl_2S_2$ 1) **Verbindung (aus Anilin u. Chlordithioameisensäureperchlormethylester)**. Sm. 69,5° (*B.* 21, 2540). — II, 387.
- $C_8H_5N_3S_2P$ 1) **Phenyldirhodanphosphin**. Sd. 205—207° (*A.* 293, 213). — IV, 1648.
- $C_8H_5N_3Br_2S$ 1) **2,6-Dibrom-4-Methylbenzoldiazoniumrhodanid** (*B.* 31, 1261). — IV, 1530.
- C_8H_6ONCl 1) **p-Chlor-3-Keto-3,4-Dihydro-1,4-Benzoxazin**. Sm. 196—197°; subl. bei 130° (*J. pr.* [2] 29, 183). — II, 727.
- $C_8H_6ONCl_2$ 1) **Phenylamid d. Trichloressigsäure**. Sm. 82° (*Bl.* 21, 399; *B.* 3, 783; 13, 517). — II, 363.

- C_6H_5ONCl 2) 2,3,4-Trichlorphenylamid d. Essigsäure. Sm. 120—122° (A. 196, 234). — II, 364.
3) 2,4,5-Trichlorphenylamid d. Essigsäure. Sm. 184—185° (A. 196, 233). — II, 364.
4) 2,4,6-Trichlorphenylamid d. Essigsäure. Sm. 204° (A. 196, 232). — II, 364.
- C_6H_5ONBr 1) 3-Brom-2-Keto-2,3-Dihydroindol. Sm. 176° (A. 140, 32). — II, 1321.
 $C_6H_5ONBr_2$ 1) Dibrommethyl-5-Brom-2-Amidophenylketon. Sm. 140—145° u. Zers. (B. 17, 967). — III, 128.
2) 2,4,5-Tribromphenylamid d. Essigsäure. Sm. 188° (Am. 18, 249).
3) 2,4,6-Tribromphenylamid d. Essigsäure. Sm. 232°. Hg (B. 7, 350; Am. 18, 547). — II, 364.
4) 3,4,5-Tribromphenylamid d. Essigsäure. Sm. 253—254° (Am. 20, 183).
- $C_6H_5ON_2S$ 1) 5-Merkapto-3-Phenyl-1,2,4-Oxdiazol. Sm. 131° (B. 28, 2232).
2) 2-Thiocarbonyl-4-Keto-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 280—281° (284°) (J. pr. [2] 44, 416; B. 30, 1098). — II, 1247.
- $C_6H_5ON_2S_2$ 1) 5-Merkapto-2-Keto-3-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 86—87° (B. 27, 2515). — IV, 682.
- $C_6H_5ON_2Cl$ 1) 5-Keto-1-[p-Chlorphenyl]-4,5-Dihydro-1,2,4-Triazol. Sm. 152°. — IV, 1100.
2) 5-Keto-1-[p-Chlorphenyl]-4,5-Dihydro-1,2,4-Triazol. Sm. 257°. — IV, 1100.
- $C_6H_5ON_2Br$ 1) 5-Brom-1-Acetyl-1,2,3-Benztriazol. Sm. 117—118° (A. 249, 363). — IV, 1145.
- $C_6H_5ON_2S$ 1) 5-Phenylnitrosamido-1,2,3-Thiodiazol. Sm. 98° (B. 29, 2593). — IV, 1103.
2) 3-Nitroso-2-Phenylimido-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 80 bis 81° u. Zers. (B. 27, 618). — IV, 1103.
- C_6H_5OClBr 1) Chlormethyl-4-Bromphenylketon. Sm. 116—117° (Bl. [3] 19, 96).
2) Brommethyl-4-Chlorphenylketon. Sm. 96—96,5° (Bl. [3] 19, 96; [3] 21, 69).
3) Chlorid d. 3-Brom-1-Methylbenzol-4-Carbonsäure. Sm. 120° (J. pr. [2] 39, 487). — II, 1346.
- $C_6H_5OCl_2J$ 1) Aethyläther d. 2,3,5-Trichlor-4-Jod-1-Oxybenzol. Sm. 60—61° (J. pr. [2] 33, 392). — II, 677.
- $C_6H_5OBr_2J$ 1) 2,5,6-Tribrom-1-Jod-4-Keto-1,3-Dimethyl-1,4-Dihydrobenzol. Sm. 134,5—135,5° (B. 29, 2352).
- $C_6H_5O_2NCl$ 1) p-Chlor-3-Oxy-2-Keto-2,3-Dihydroindol (Chlordioxyindol) (A. 140, 18). — II, 1613.
2) α -Chlor- β -Nitro- α -Phenyläthen. Sm. 48—49° (A. 225, 345). — II, 168.
3) α -Chlor- α -[2-Nitrophenyl]äthen. Fl. (A. 221, 329). — II, 168.
4) β -Chlor- α -[2-Nitrophenyl]äthen. Sm. 58—59° (B. 17, 1070; 26, 2969). — II, 168.
5) α -Chlor- α -[4-Nitrophenyl]äthen. Sm. 63—64° (A. 212, 162). — II, 168.
6) Oximidochlormethylphenylketon. Sm. 131—132° (A. 274, 96). — III, 122.
7) Chlorid d. Phenylloxaminsäure. Sm. 82,5° (B. 23, 1823). — II, 408.
8) Verbindung (aus d. Oxyessig-2-Amidophenyläthersäure). Sm. 195 bis 197° (J. pr. [2] 25, 266; B. 20, 1944). — II, 712.
- $C_6H_5O_2NBr$ 1) α -Brom- β -Nitro- α -Phenyläthen. Sm. 67—68° (A. 225, 343). — II, 168.
2) α -Brom- α -[2-Nitrophenyl]äthen? Sm. 255° (B. 17, 222). — II, 1639.
3) Oximidomethyl-4-Bromphenylketon. Sm. 164° (B. 25, 3465). — III, 122.
4) p-Brom-3-Oxy-2-Keto-2,3-Dihydroindol (Bromdioxindol). Sm. 165° (A. 140, 20). — II, 1613.
5) Amid d. 2-Brombenzol-1-Ketocarbonsäure. Sm. 136—137° (B. 25, 3298). — II, 1600.
- $C_6H_5O_2NBr_2$ 1) p-Tribromphenylamidoessigsäure (B. 11, 1131). — II, 428.
 $C_6H_5O_2N_2Cl_2$ 1) Amid d. 2,5-Dichlorbenzol-1,4-Dicarbonsäure. Sm. noch nicht bei 300° (B. 22, 2111). — II, 1837.

- $C_8H_6O_3N_4Br_2$ 1) Amid d. 2,5-Dibrombenzol-1,4-Dicarbonsäure. Zers. bei 300° (*J. pr.* [2] 37, 23). — II, 1837.
- $C_8H_6O_3N_2S$ 1) 2-Nitro-4-Methylphenylsenföhl. Sm. $56-57^\circ$ (*B.* 16, 2337). — II, 497.
 2) 2-Nitro-1-Rhodanmethylbenzol. Sm. 75° (*B.* 25, 3028). — II, 1059.
 3) 3-Nitro-1-Rhodanmethylbenzol. Sm. $75-76^\circ$ (*B.* 30, 1066).
 4) 4-Nitro-1-Rhodanmethylbenzol (*B.* 2, 638). — II, 1060.
 5) Methylester d. Benzthiodiazol-5-Carbonsäure. Sm. $150-151^\circ$ (*A.* 277, 256). — IV, 1557.
- $C_8H_6O_3N_2Se$ 1) 4-Nitrobenzylselenocyanid. Sm. $122,5^\circ$ (*A.* 179, 16). — II, 1061.
 $C_8H_6O_3N_3Cl$ 1) 3,5-Diketo-1-[3-Chlorphenyl]tetrahydro-1,2,4-Triazol. Sm. 227° (*Soc.* 63, 871). — IV, 677.
 2) 3,5-Diketo-1-[4-Chlorphenyl]tetrahydro-1,2,4-Triazol. Sm. 266° (*Soc.* 59, 212). — IV, 677.
- $C_8H_6O_3ClBr$ 1) 3-Chlor-6-Brom-1-Methylbenzol-4-Carbonsäure. Sm. $187-188^\circ$ (186° ; $192-193^\circ$). Ba + $1\frac{1}{2}H_2O$ (*G.* 23 [2] 74; *J. pr.* [2] 39, 409; *A.* 265, 347). — II, 1347.
 2) Chlorid d. Oxyessig-4-Bromphenyläthersäure. Sm. 42° ; Sd. 259°_{760} (*C.* 1898 [1] 988).
- $C_8H_6O_3ClJ$ 1) Verbindung (aus 2-Dichlorjodosophenylessigsäure) (*B.* 27, 3234). — II, 1317.
- $C_8H_6O_3Cl_3P$ 1) Trichlorid d. 2-Methylphenylphosphinsäure-4-Carbonsäure. Sd. 310° (*B.* 20, 1724). — IV, 1675.
 2) Trichlorid d. 2-Methylphenylphosphinsäure-5-Carbonsäure. Sm. 62° (*B.* 21, 1496). — IV, 1676.
 3) Trichlorid d. 3-Methylphenylphosphinsäure-5-Carbonsäure. Sd. 249°_{147} (*B.* 21, 1493). — IV, 1676.
- $C_8H_6O_3NCl$ 1) 5-Chlor-2-Acetylamido-1,4-Benzochinon. Sm. $174-175^\circ$ (*B.* 31, 2402).
 2) 2-Chlor-2-Amidobenzol-1-Ketocarbonsäure (Chlorisatinsäure). K, Ba + $1(3)H_2O$, Pb + $2H_2O$, Ag (*J. pr.* [2] 19, 339; [2] 24, 5). — II, 1605.
 3) Acetat d. labil. 2-Chlor-4-Oximido-1-Keto-1,4-Dihydrobenzol. Sm. $136-137^\circ$ (*A.* 303, 7).
 4) Acetat d. stabil. 2-Chlor-4-Oximido-1-Keto-1,4-Dihydrobenzol. Sm. $166-167^\circ$ (*A.* 303, 6).
 5) Chlorid d. 3-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 157° (*A.* 266, 210). — II, 1348.
- $C_8H_6O_3NCl_3$ 1) Aethyläther d. 2,4,6-Trichlor-3-Nitro-1-Oxybenzol. Sm. 53 bis 54° (*A.* 149, 152). — II, 696.
 2) Aethyläther d. 2,3,5-Trichlor-4-Nitro-1-Oxybenzol. Sm. 68 bis 69° (*J. pr.* [2] 33, 383). — II, 696.
- $C_8H_6O_3NBr$ 1) Brommethyl-2-Nitrophenylketon. Sm. $55-56^\circ$ (*A.* 221, 327). — III, 123.
 2) Brommethyl-3-Nitrophenylketon. Sm. 96° (*B.* 10, 2008). — III, 123.
 3) Brommethyl-4-Nitrophenylketon. Sm. 98° (*B.* 22, 204). — III, 123.
 4) 3,4-Methylenäther d. p-Brom-3,4-Dioxybenzaloxim. Sm. 168° (*B.* 24, 2593). — III, 104.
 5) 5-Brom-2-Acetylamido-1,4-Benzochinon. Sm. $183-185^\circ$ (*B.* 31, 2402).
 6) p-Brom-2-Amidobenzol-1-Ketocarbonsäure (Bromisatinsäure). Na, K, Ba + $3H_2O$, Zn + $2H_2O$, Pb + $2H_2O$, Cu + $2H_2O$, Ag (*Z.* 1865, 592). — II, 1606.
 7) α -Oximido- α -[2-Bromphenyl]essigsäure. Sm. $162-164^\circ$ (*B.* 25, 3299). — II, 1600.
 8) 4-Bromphenyloxaminsäure. Sm. 198° u. Zers. K, Ca, Ba, Ag (*Am.* 8, 355). — II, 108.
 9) Bromamid d. 3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure. K (*B.* 16, 49).
- $C_8H_6O_3NBr_3$ 1) Aethyläther d. 2,4,5 oder 2,5,6-Tribrom-3-Nitro-1-Oxybenzol. Sm. 158° (*Am.* 18, 244; 20, 188; *B.* 28, 190).
 2) Aethyläther d. 2,4,6-Tribrom-3-Nitro-1-Oxybenzol. Sm. 79° (*B.* 18, 614). — II, 699.
 3) Nitroverbindung (aus 3,5,6-Tribrom-4-Oxy-1,2 Dimethylbenzol). Sm. $97-99^\circ$ (*A.* 302, 161).

- $C_8H_6O_3NBr_3$ 4) Nitroverbindung (aus 2,5,6-Tribrom-4-Oxy-1,3-Dimethylbenzol). Sm. 97° (B. 30, 757; A. 302, 162).
- 5) Nitroverbindung (aus 3,5,6-Tribrom-2-Oxy-1,4-Dimethylbenzol). Sm. 85–86° (A. 302, 162).
- $C_8H_6O_3NJ$ 1) 4-Jodphenyloxaminsäure. Sm. 197–200° u. Zers. (Am. 8, 357). — II, 408.
- $C_8H_6O_3N_2Cl_2$ 1) 3,4-Dichlor-2-Nitrophenylamid d. Essigsäure. Sm. 152–153° (A. 196, 227). — II, 366.
- 2) 3,5-Dichlor-2-Nitrophenylamid d. Essigsäure. Sm. 138–139° (A. 196, 228). — II, 366.
- 3) 3,6-Dichlor-2-Nitrophenylamid d. Essigsäure. Sm. 204–205° (A. 196, 222). — II, 366.
- 4) 4,5-Dichlor-2-Nitrophenylamid d. Essigsäure. Sm. 123–124° (A. 196, 226). — II, 366.
- 5) 4,6-Dichlor-2-Nitrophenylamid d. Essigsäure. Sm. 188° (B. 7, 1603). — II, 366.
- 6) 2,5-Dichlor-4-Nitrophenylamid d. Essigsäure. Sm. 145–146° (A. 196, 224). — II, 366.
- 7) 2,6-Dichlor-4-Nitrophenylamid d. Essigsäure. Sm. 210° (B. 8, 144). — II, 366.
- 8) 3,5-Dichlor-4-Nitrophenylamid d. Essigsäure. Sm. 222° (A. 196, 228). — II, 366.
- $C_8H_6O_3N_2Br_2$ 1) 3,5-Dibrom-2-Nitrophenylamid d. Essigsäure. Sm. 163° (A. 269, 218). — II, 366.
- 2) 4,6-Dibrom-2-Nitrophenylamid d. Essigsäure. Sm. 209° (B. 7, 348). — II, 366.
- 3) 2,6-Dibrom-4-Nitrophenylamid d. Essigsäure. Sm. 135° (B. 25 3337). — II, 366.
- 4) 3,5-Dibrom-4-Nitrophenylamid d. Essigsäure. Sm. 270–275° (A. 269, 218). — II, 366.
- $C_8H_6O_3N_2S$ 1) Verbindung (aus o-Benzylpseudotbioharnstoff). Ba, Ag (B. 28, 1034). — IV, 879.
- $C_8H_6O_3N_2S_2$ 1) 2-Thiocarbonyl-3-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol-5-Sulfonsäure. K (B. 27, 2514). — IV, 684.
- $C_8H_6O_3N_2Cl$ 1) 3-Diazochloridphenylenoxamidsäure (B. 18, 963). — IV, 1526.
- $C_8H_6O_3N_2Br_2$ 1) Perbromid (aus 3-Diazochloridphenylenoxamidsäure) (B. 18, 963). — IV, 1526.
- $C_8H_6O_3ClJ$ 1) Methylester d. 5-Chlor-2-Jod-2-Oxybenzol-1-Carbonsäure. Sm. 129–130° (Am. 8, 97). — II, 1507.
- $C_8H_6O_3ClP$ 1) 3-Methylsalicylochlorphosphin. Sm. 36–37° (B. 30, 223).
- $C_8H_6O_3Cl_2S$ 1) Chlorid d. 1-Methylbenzol-4-Carbonsäure-3-Sulfonsäure. Sm. 59° (Am. 13, 261).
- $C_8H_6O_4NCl$ 1) 5-Chlor-3-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 189° (A. 274, 297). — II, 1333.
- 2) 5-Chlor-4-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 193°. K + $\frac{1}{2}H_2O$, Mg + $4H_2O$ (A. 274, 299). — II, 1333.
- 3) 5-Chlor-6-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 186°. K + H_2O , Mg + $5H_2O$ (A. 274, 300). — II, 1334.
- 4) 3-Chlor-2-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 192°. Mg + $3\frac{1}{2}H_2O$ (A. 265, 347). — II, 1349.
- 5) 5-Chlor-2-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 180–181°. Mg + $8H_2O$, Ba + $3\frac{1}{2}H_2O$ (J. pr. [2] 39, 495; A. 265, 341; G. 18, 312). — II, 1350.
- 6) 6-Chlor-2-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 159°. Ca, Ba + $1\frac{1}{2}H_2O$ (A. 265, 360). — II, 1349.
- 7) 2-Chlor-3-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 211°. Ca, Ba + $1\frac{1}{2}H_2O$ (A. 265, 362). — II, 1349.
- 8) 6-Chlor-3-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 184–185°. K + $\frac{1}{2}H_2O$, Ba + $1\frac{1}{2}H_2O$, Cu (A. 265, 356; 266, 234). — II, 1349.
- 9) 2-Nitro-1-Chlormethylbenzol-4-Carbonsäure. Sm. 140–141°. Ba, Ag (B. 27, 2164). — II, 1350.
- 10) 6-Chlor-4-Methylpyridin-2,3-Dicarbonsäure + $2H_2O$. Sm. 183 bis 184° u. Zers. (wasserfrei) (B. 31, 800).
- 11) 4-Nitrobenzylester d. Chlorameisensäure. Sm. 32° (A. 302, 258).

- $C_8H_5O_4NCl$ 12) Acetat d. 4-Chlor-3-Nitro-1-Oxybenzol. Sm. 83—85° (Soc. 69, 1323).
 13) Acetat d. 2-Chlor-4-Nitro-1-Oxybenzol. Sm. 63° (Soc. 69, 1328).
- $C_8H_5O_4NBr$ 1) 2-Brom-?-Nitrophenylessigsäure. Sm. 162° (Soc. 37, 101). — II, 1320.
 2) 4-Brom-2-Nitrophenylessigsäure. Sm. 167—169°. Ba + 4H₂O (Soc. 37, 97). — II, 1319.
 3) 4-Brom-3-Nitrophenylessigsäure. Sm. 113—114°. Ba + H₂O (Soc. 37, 97; B. 2, 208). — II, 1319.
 4) 5-Brom-3-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 226° (A. 269, 212). — II, 1334.
 5) 5-Brom-4-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 200°. Na + 4H₂O, K + H₂O, Mg + 7H₂O, Ba + 4H₂O (A. 269, 207). — II, 1334.
 6) 5-Brom-6-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 220°. Mg, Ba + H₂O (A. 269, 208). — II, 1334.
 7) ?-Brom-?-Nitro-1-Methylbenzol-3-Carbonsäure. Sm. 175—176°. Ca + 3H₂O, Ba + 3H₂O (A. 147, 34). — II, 1338.
 8) 3-Brom-2-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 214°. Mg + 3½H₂O, Ba + 4H₂O (A. 265, 368). — II, 1350.
 9) 5-Brom-2-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 203°. Na + 4½H₂O, K + H₂O, Mg + 8H₂O, Ca + 5H₂O, Ba + 4(5)H₂O (G. 16, 297; 18, 300; A. 265, 364). — II, 1350.
 10) 6-Brom-2-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 181°. Ba (A. 266, 237). — II, 1350.
 11) 2-Brom-3-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 170—180° u. Zers. Ba + H₂O (B. 5, 268). — II, 1350.
 12) 5-Brom-3-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 206° (A. 265, 369). — II, 1350.
 13) 6-Brom-3-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 181° (A. 266, 234). — II, 1350.
 14) Bromapophyllensäure + 2H₂O. Sm. 204—205° (wasserfrei) u. Zers. Ba + 3H₂O, (2HCl, PtCl₄) (A. 210, 91). — IV, 165.
- $C_8H_5O_4NBr_2$ 1) Dimethyläther d. 2,4,6-Tribrom-5-Nitro-1,3-Dioxybenzol. Sm. 126° (Am. 13, 188). — II, 927.
- $C_8H_5O_4NJ$ 1) 2-Jod-?-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 235—237° (B. 26, 1735). — II, 1351.
 2) 2-Jod-?-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 162—164° (B. 26, 1735). — II, 1351.
 3) Methylester d. 2-Jod-?-Nitrobenzol-1-Carbonsäure. Sm. 123° (B. 30, 3002).
 4) Methylester d. 4-Jod-?-Nitrobenzol-1-Carbonsäure. Sm. 103,5° (B. 30, 3002).
 5) 4-Jod-3-Nitrophenylester d. Essigsäure. Sm. 107,5° (J. pr. [2] 43, 75). — II, 700.
- $C_8H_5O_4N_2Cl_2$ 1) 4,5-Dichlor-3,6-Dinitro-1,2-Dimethylbenzol. Sm. 155° (J. pr. [2] 43, 583). — II, 99.
 2) 2,4-Dichlor-5,6-Dinitro-1,3-Dimethylbenzol. Sm. 155° (B. 23, 2321). — II, 100.
 3) 4,6-Dichlor-2,5-Dinitro-1,3-Dimethylbenzol. Sm. 223° (215°) (J. pr. [2] 42, 117; B. 23, 2321). — II, 100.
 4) 2,5-Dichlor-3,6-Dinitro-1,4-Dimethylbenzol. Sm. 225° (B. 18, 2048). — II, 101.
- $C_8H_5O_4N_2Br_2$ 1) 2-Nitro-1-[αβ-Dibrom-β-Nitroäthyl]benzol. Sm. 90—90,5° (A. 225, 352). — II, 99.
 2) 4-Nitro-1-[αβ-Dibrom-β-Nitroäthyl]benzol. Sm. 102—103° (A. 225, 349). — II, 99.
 3) 4,5-Dibrom-3,6-Dinitro-1,2-Dimethylbenzol. Sm. 250° (B. 18, 2562). — II, 99.
 4) 4,5-Dibrom-2,6-Dinitro-1,3-Dimethylbenzol. Sm. 191° (B. 21, 2825). — II, 101.
 5) 4,6-Dibrom-2,5-Dinitro-1,3-Dimethylbenzol. Sm. 252° (B. 21, 2825). — II, 101.
 6) 3,6-Dibrom-2,5-Dinitro-1,4-Dinitrobenzol. Sm. 255° (B. 20, 2343).
 7) Methylester d. 2,4-Dibrom-6-Nitrophenylamidoameisensäure. Sm. 152° (J. pr. [2] 34, 425). — II, 373.

- $C_6H_4O_2N_2S$ 1) 1-Amid-2,3-Imid d. Benzol-1,2-Dicarbonsäure-3-Sulfonsäure. Sm. 275°. Ba, Ag (*Am.* 13, 200). — II, 1825.
2) 4-Amid-1,2-Imid d. Benzol-1,4-Dicarbonsäure-2-Sulfonsäure. Sm. oberh. 300° (*Am.* 2, 405, 413). — II, 1840.
- $C_6H_4O_2N_4Cl$ 1) Verbindung (aus Chloral) u. $\alpha\beta$ -Diamido- $\alpha\beta$ -Dioximidoäthan; Chloral-oxalendiamidoxim). Sm. 196—197° (*B.* 24, 815). — I, 1486.
- $C_6H_4O_2N_2S$ 1) p-Dinitro-4-Methyl-1,3,4-Benzthiodiazin. Sm. 250° u. Zers. (*B.* 27, 866). — IV, 682.
- $C_6H_4O_2NBr$ 1) 5-Brom-3-Nitro-4-Oxybenzylmethyläther-1-Carbonsäure. Sm. 182—183°. Na + 3H₂O, K + 2H₂O, Ca + 7½H₂O, Ba + 5½H₂O, Ag (*G.* 14, 241; *B.* 30, 1478). — II, 1539.
- $C_6H_4O_2NJ$ 1) 2-Jodoso-p-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. bei 160° u. Zers. (*B.* 26, 1735). — II, 1351.
- $C_6H_4O_2N_2S$ 1) Methylester d. 5-Nitro-3-Thionylamidobenzol-1-Carbonsäure. Sm. 55—56° (*B.* 28, 596).
2) Methylimid d. 4-Nitrobenzol-1-Carbonsäure-4-Sulfonsäure. Sm. 179° (*Am.* 19, 508).
- $C_6H_4O_2N_3Cl$ 1) 5-Chlor-2,4,6-Trinitro-1,3-Dimethylbenzol. Sm. 218° (*B.* 28, 2047; 29, 311).
- $C_6H_4O_2NJ_3$ 1) β -Jodäthyläther d. 2,4,6-Trinitro-1-Oxybenzol. Sm. 69,5° (*B.* 13, 244). — II, 692.
- $C_6H_4O_{11}Cl_{12}S$ 1) Verbindung (aus Chloral) (*B.* 6, 1071). — I, 931.
- $C_6H_4NCl_8$ 1) 4-Chlorbenzylrhodanid. Sm. 17° (*Am.* 2, 91; *B.* 11, 905). — II, 1056.
- $C_6H_4NBr_8$ 1) 2-Brombenzylrhodanid. Fl. (*Am.* 2, 316). — II, 1057.
2) 4-Brombenzylrhodanid. Sm. 25° (*B.* 10, 1212). — II, 1058.
- C_6H_4NJS 1) 4-Jodbenzylrhodanid. Sm. 40° (*B.* 11, 58; *Am.* 2, 250). — II, 1058.
- $C_6H_4ONCl_2$ 1) Phenylamid d. Dichloressigsäure. Sm. 117—118° (*B.* 9, 339, 1022; 10, 1062, 1265; *A.* 267, 36; 279, 56). — II, 363.
2) 2,3-Dichlorphenylamid d. Essigsäure. Sm. 156—157° (*A.* 196, 218). — II, 363.
3) 2,4-Dichlorphenylamid d. Essigsäure. Sm. 143°. + HClO (*A.* 182, 95; 196, 219; *J.* 1882, 369; *B.* 7, 1602; *Am.* 9, 352; *Soc.* 69, 849). — II, 364.
4) 2,5-Dichlorphenylamid d. Essigsäure. Sm. 132° (143—144°) (*A.* 196, 215; *G.* 28 [2] 315). — II, 364.
5) 2,6-Dichlorphenylamid d. Essigsäure. Sm. 175° (*A.* 196, 220). — II, 364.
6) 3,4-Dichlorphenylamid d. Essigsäure. Sm. 120,5° (*A.* 196, 217). — II, 364.
7) 3,5-Dichlorphenylamid d. Essigsäure. Sm. 186—187° (*A.* 196, 219). — II, 364.
- $C_6H_4ONBr_2$ 1) Amid d. 3,5-Dibrom-1-Methylbenzol-2-Carbonsäure. Sm. 198° (*A.* 269, 215). — II, 1333.
2) Amid d. 2,4-Dibrom-1-Methylbenzol-4-Carbonsäure. Sm. 117° (*A.* 265, 380). — II, 1346.
3) Amid d. 3,5-Dibrom-1-Methylbenzol-4-Carbonsäure. Sm. 148° (*A.* 265, 378). — II, 1347.
4) Phenylamid d. Dibromessigsäure. Sm. 138—139° (*B.* 23, 60). — II, 363.
5) 2,4-Dibromphenylamid d. Essigsäure. Sm. 146° (*B.* 7, 348; *J.* 1880, 376). — II, 364.
6) 3,4-Dibromphenylamid d. Essigsäure. Sm. 128° (*B.* 27 [2] 402; *G.* 25 [1] 96).
- C_6H_4ONS 1) 4-Oxybenzylsenföhl (Sinalbinsenföhl). Fl. (*A.* 199, 163). — II, 755.
2) Methyläther d. 2-Oxyphenylsenföhl. Sd. 264—266° (*B.* 20, 1796). — II, 710.
3) Methyläther d. 4-Oxyphenylsenföhl. Sd. 270° (*B.* 7, 1012). — II, 720.
4) 1-Oxymethylbenzthiazol. Sm. 176° (*B.* 13, 1234). — II, 798.
5) 1-Merkapto-4-Methylbenzoxazol. Sm. 216—217° (*B.* 22, 3235). — II, 753.
6) 1-Thiocarbonyl-2-Methyl-1,2-Dihydrobenzoxazol. Sm. 128°; Sd. oberhalb 300° (*J. pr.* [2] 42, 453). — II, 710.
7) 3-Thiocarbonyl-3,4-Dihydro-2,4-Benzoxazin (Thiocumazon). Sm. 142° u. Zers. K (*B.* 25, 2979; 27, 1866). — II, 1062; IV, 219.

- C_8H_7ONS 8) **3-Keto-3,4-Dihydro-1,4-Benzthiazin.** Sm. 179° (B. 30, 608, 2393).
- $C_8H_7ON_2Br$ 1) **?-Brom-?-Amido-2-Keto-2,3-Dihydroindol.** HCl + H_2O (Am. 12, 301). — II, 1841.
- 2) **7-Brom-2-Keto-5-Methyl-2,3-Dihydrobenzimidazol.** Sm. 324 bis 325° (B. 23, 1048). — IV, 614.
- 3) **Dinitril d. ?-Brom-?-Keto-?-Methyl-?-Penten- $\alpha\epsilon$ -Dicarbonsäure.** Na (A. ch. [6] 18, 518). — I, 1223.
- $C_8H_7ON_2Br_2$ 1) **?-[2,4,6]-Tribromphenylhydrazid d. Essigsäure.** Sm. 188° (B. 28, 1931). — IV, 664.
- $C_8H_7ON_2S$ 1) **2-Amido-5-Keto-4-Phenyl-4,5-Dihydro-1,3,4-Thiodiazol** (Phenyldehydrothiobiuret; Phenylcarbiziinthiocarboamid). Sm. 270° (B. 21, 2465). — IV, 676.
- $C_8H_7OCl_2S$ 1) **Verbindung** (aus Phenylmerkaptan u. Chloral). Sm. $52-53^\circ$ (B. 18, 886). — II, 780.
- $C_8H_7O_2NCl_2$ 1) **$\alpha\beta$ -Dichlor-?-Nitroäthylbenzol** (Phenyldichlornitroäthan). Fl. (A. 225, 344). — II, 98.
- 2) **2,5-Dichlor-?-Nitro-1-Aethylbenzol.** Sm. 145° (Bl. 48, 41). — II, 98.
- 3) **?-Nitro-1,4-Di[Chlormethyl]benzol.** Sm. 45° (Z. 1871, 598). — II, 101.
- 4) **4,6-Dichlor-2-Nitro-1,3-Dimethylbenzol.** Sm. $118-119^\circ$ (J. pr. [2] 42, 117). — II, 100.
- 5) **Aethylester d. 2,6-Dichlorpyridin-3-Carbonsäure.** Sm. 50° (J. pr. [2] 34, 262). — IV, 146.
- 6) **Aethylester d. 2,6-Dichlorpyridin-4-Carbonsäure.** Sm. $65-66^\circ$ (Soc. 71, 1077).
- $C_8H_7O_2NBr_2$ 1) **$\alpha\beta$ -Dibrom-?-Nitroäthylbenzol.** Sm. 86° (B. 17, 414; A. 225, 342). — II, 99.
- 2) **2-Nitro-1-[$\alpha\beta$ -Dibromäthyl]benzol.** Sm. 52° (B. 16, 2213). — II, 99.
- 3) **3-Nitro-1-[$\alpha\beta$ -Dibromäthyl]benzol.** Sm. $78-79^\circ$ (B. 17, 598). — II, 99.
- 4) **4-Nitro-1-[$\alpha\beta$ -Dibromäthyl]benzol.** Sm. $72-73^\circ$ (B. 16, 3006). — II, 99.
- 5) **4,5-Dibrom-3-Nitro-1,2-Dimethylbenzol.** Sm. 141° (B. 18, 2561). — II, 99.
- 6) **?-Dibrom-?-Nitro-1,3-Dimethylbenzol.** Sm. 108° (A. 147, 28). — II, 100.
- 7) **3,6-Dibrom-2-Nitro-1,4-Dimethylbenzol.** Sm. 106° ($111-112^\circ$); Sd. 199°_{20} (A. 147, 28; B. 29, 2343). — II, 101.
- 8) **4,6-Dibrom-2-Acetylamido-1-Oxybenzol.** Sm. 186° (J. pr. [2] 32, 69). — II, 729.
- 9) **2,6-Dibrom-4-Acetylamido-1-Oxybenzol.** Sm. $173-174^\circ$ (J. pr. [2] 32, 68). — II, 729.
- 10) **3,4-Dibrom-2,5-Diacetylpyrrol.** Sm. $171-172^\circ$ (B. 20, 2595). — IV, 101.
- 11) **$\alpha\beta$ -Dibrom-?-[2-Pyridyl]propionsäure.** Sm. 127° (A. 265, 227). — IV, 148.
- 12) **Methylester d. 2,4-Dibromphenylamidoameisensäure.** Sm. $96,5^\circ$ (J. pr. [2] 34, 423). — II, 373.
- $C_8H_7O_2N_2Cl$ 1) **Diamid d. 2-Chlorbenzol-1,2-Dicarbonsäure.** Sm. oberh. 300° (B. 19, 1639). — II, 1836.
- $C_8H_7O_2N_2Br$ 1) **$\alpha\beta$ -Dioximido- α -[4-Bromphenyl]äthan.** Sm. $169-170^\circ$. — III, 92.
- 2) **3-Bromphenylhydrazonessigsäure.** Sm. 167° u. Zers. (J. pr. [2] 52, 164).
- 3) **Amid d. 2-Brombenzol-1,4-Dicarbonsäure.** Sm. 270° (B. 12, 620). — II, 1837.
- $C_8H_7O_2N_2Br_2$ 1) **2-Aethyläther d. ?-Tribrom-2-Oxy-1-Diazobenzol.** Nitrat (J. pr. [2] 24, 484). — IV, 1547.
- $C_8H_7O_2Cl_2J$ 1) **2-Dichlorjodosophenylessigsäure.** Sm. 119° u. Zers. (B. 27, 3233). — II, 1317.
- 2) **6-Dichlorjodoso-1-Methylbenzol-3-Carbonsäure** (B. 28, 89). — II, 1337.
- 3) **2-Dichlorjodoso-1-Methylbenzol-4-Carbonsäure.** Sm. $193-195^\circ$ (B. 26, 1735). — II, 1347.

- $C_6H_7O_3BrS$ 1) Merkaptoessig-4-Bromphenyläthersäure. Sm. 112° (*Bl.* 23, 444). — II, 793.
- $C_6H_7O_3NCl_2$ 1) Aethyläther d. 4,6-Dichlor-2-Nitro-1-Oxybenzol. Sm. 29° (*A. Spl.* 7, 188). — II, 695.
2) Aethyläther d. 2,6-Dichlor-4-Nitro-1-Oxybenzol. Sm. 35° (*A. Spl.* 7, 201). — II, 696.
- $C_6H_7O_3NBr_2$ 1) Aethyläther d. 3,5-Dibrom-2 [oder 4]-Nitro-1-Oxybenzol. Sm. 91° (*Am.* 14, 364). — II, 699.
2) Aethyläther d. 4,6-Dibrom-2-Nitro-1-Oxybenzol. Sm. 46° (*A.* 217, 58). — II, 698.
3) Aethyläther d. p-Dibrom-3-Nitro-1-Oxybenzol. Sm. 110° (*B.* 18, 613). — II, 698.
4) Aethyläther d. 2,6-Dibrom-4-Nitro-1-Oxybenzol. Sm. 108° (*A.* 217, 67). — II, 699.
5) 3,5-Dibrom-2-Keto-4-Methyl-1,2-Dihydropyridin-6-Methylcarbonsäure. Sm. 227—228° u. Zers. (*Soc.* 71, 310). — IV, 155.
6) 2-Methylester d. 3,4-Dibrompyrrol-2-Carbonsäure-5-Ketocarbonsäure (*B.* 20, 2603). — IV, 88.
- $C_6H_7O_3NS$ 1) Methylester d. 3-Thionylamidobenzol-1-Carbonsäure. Sm. 57°; Sd. 212°₉₀₋₁₀₀ (*A.* 274, 250). — II, 1259.
2) Imid d. 1-Methylbenzol-4-Carbonsäure-3-Sulfonsäure (Methylsaccharin). Sm. 249—250° (246°). Ba + 5H₂O, Ag (*Am.* 13, 269; *B.* 25, 1737). — II, 1355.
3) Methylimid d. Benzol-1-Carbonsäure-2-Sulfonsäure. Sm. 131 bis 132° (*Am.* 9, 406). — II, 1296.
4) Methyläther d. Pseudosaccharin. Sm. 182—183° (*B.* 26, 2296). — II, 1297.
- $C_6H_7O_3N_2Cl$ 1) Amid d. 5-Nitro-1-Chlormethylbenzol-2-Carbonsäure. Sm. bei 228° (*B.* 31, 2735).
2) Amid d. 2-Nitro-1-Chlormethylbenzol-4-Carbonsäure. Sm. 125° (*B.* 27, 2163). — II, 1350.
3) 5-Chlor-2-Nitrophenylamid d. Essigsäure. Sm. 115° (*A.* 182, 105). — II, 365.
4) 4-Chlor-3-Nitrophenylamid d. Essigsäure. Sm. 99—100° (*B.* 20, 1381). — II, 365.
5) 6-Chlor-3-Nitrophenylamid d. Essigsäure. Sm. 153—154° (*A.* 182, 101). — II, 365.
6) 2-Chlor-4-Nitrophenylamid d. Essigsäure. Sm. 139° (*A.* 182, 108). — II, 365.
7) 3-Chlor-4-Nitrophenylamid d. Essigsäure. Sm. 141—142° (*A.* 182, 107). — II, 365.
- $C_6H_7O_3N_2Cl_3$ 1) $\beta\beta\beta$ -Trichlor- α -[4-Nitrophenyl]amido- α -Oxyäthan. Sm. 128° (*A.* 302, 365).
- $C_6H_7O_3N_2Br$ 1) Amid d. 5-Brom-3-Nitro-1-Methylbenzol-2-Carbonsäure. Sm. 235° (*A.* 269, 213). — II, 1334.
2) Amid d. 5-Brom-2-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 191° (*A.* 265, 366). — II, 1351.
3) Amid d. 5-Brom-3-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 171° (*A.* 265, 371). — II, 1350.
4) 4-Brom-2-Nitrophenylamid d. Essigsäure. Sm. 104° (102°) (*A.* 209, 356; *B.* 6, 796; 7, 347). — II, 366.
5) 5-Brom-2-Nitrophenylamid d. Essigsäure. Sm. 139° (*J. pr.* [2] 43, 200). — II, 366.
6) 4-Brom-3-Nitrophenylamid d. Essigsäure. HBr, 2 + HBr (*Am.* 17, 615).
7) 6-Brom-3-Nitrophenylamid d. Essigsäure. Sm. 180° (*Am.* 17, 701).
8) 3-Brom-4-Nitrophenylamid d. Essigsäure (*J. pr.* [2] 43, 200). — II, 366.
- $C_6H_7O_3N_3S$ 1) 6-Acetyl-3,5-Diketo-1-Methyl-3,4,5,6-Tetrahydro-2,4,6-Benzthiotriazol. Sm. oberh. 300° (*M.* 16, 731). — IV, 542.
- $C_6H_7O_3N_4Cl$ 1) 2-Nitro-4-Acetylamido-1-Diazobenzolchlorid (*B.* 30, 982). — IV, 1527.
- $C_6H_7O_3ClS$ 1) Chlorid d. Phenylsulfonessigsäure. Sm. 58° (*J. pr.* [2] 40, 559). — II, 786.

- $C_8H_7O_4NCl_2$ 1) Aethylester d. 4,5-Dichlor-2,6-Dioxy-pyridin-3-Carbonsäure. Sm. 248° u. Zers. (*Soc.* 73, 286).
- $C_8H_7O_4NBr_2$ 1) Dimethyläther d. p-Dibrom-3-Nitro-1,2-Dioxybenzol. Sm. 149 bis 150° (*C.* 1898 [1] 617, 1024).
2) 3-Aethyläther d. 2,6-Brom-4-Nitro-1,3-Dioxybenzol. Sm. 69° (*M.* 1, 897). — II, 927.
3) Dimethylester d. p-Dibrompyrrol-p-Dicarbonsäure. Sm. 222° (*B.* 20, 2601). — IV, 91.
- $C_8H_7O_4NS$ 1) Sulfisatanige Säure. $NH_4 + H_2O$ (*J. pr.* [1] 28, 346). — II, 1616.
2) Indoxylschwefelsäure. K (*B.* 12, 1099, 1193; 14, 1745; *H.* 3, 254; 8, 79; 23, 23). — II, 1614.
3) α -Acetoximido-2-Thiénylessigsäure. Sm. 85—87° (*B.* 24, 49). — III, 758.
4) 1,2-Imid d. 4-Oxybenzylmethyläther-1-Carbonsäure-2-Sulfonsäure. Sm. 271° (*Am.* 15, 332). — II, 1542.
- $C_8H_7O_4N_2Cl$ 1) 4-Chlor-2,5-Dinitro-1,3-Dimethylbenzol. Sm. 61°; Sd. 290—291° (*B.* 29, 313).
- $C_8H_7O_4N_2Br$ 1) 4-Brom-2,6-Dinitro-1,3-Dimethylbenzol. Sm. 89° (*B.* 24, 2102). — II, 100.
2) 6-Brom-4-Nitro-2-Acetylamido-1-Oxybenzol. Sm. 194—204° u. Zers. (*Soc.* 69, 1326).
3) 4-Brom-6-Nitro-2-Acetylamido-1-Oxybenzol. Sm. 161—162° (*Soc.* 73, 687).
4) 5-Brom-3-Nitro-4-Amidophenylelessigsäure. Sm. 191—192° (*B.* 15, 1994). — II, 1327.
- $C_8H_7O_4Cl_2P$ 1) Dichloracetophenonphosphorige Säure. Sm. 152—153° (*Bl.* 50, 682). — IV, 1676.
- $C_8H_7O_4Cl_2S_2$ 1) Chlorid d. 6-Chlor-1,3-Dimethylbenzol-2,4-Disulfonsäure. Sm. 155° (*B.* 23, 3117). — II, 144.
- $C_8H_7O_4N_2Cl$ 1) Aethyläther d. 4-Chlor-2,6-Dinitro-1-Oxybenzol. Sm. 54—55° (*A.* 157, 161). — II, 694.
- $C_8H_7O_5NS$ 1) Isatinschweflige Säure. NH_4 , K + 2 H_2O (*J. pr.* [2] 25, 2; [2] 28, 337; *A.* 48, 267). — II, 1605.
- $C_8H_7O_5N_2Br$ 1) Aethyläther d. 4-Brom-2,6-Dinitro-1-Oxybenzol. Sm. 66° (*Am.* 3, 185). — II, 698.
- $C_8H_7O_5N_3S$ 1) 3 oder 6-Nitro-2,4-Dimethyl-1-Diazobenzol-5-Sulfonsäure (*A.* 230, 339). — IV, 1539.
- $C_8H_7O_5N_4Br$ 1) Bromsarkosinmesoharnsäure (*B.* 17, 521). — I, 1341.
- $C_8H_7O_6NS$ 1) 3-Nitrophenylsulfonessigsäure. Sm. 75°. K, Ag (*A.* 294, 250).
2) 2-Amidobenzol-1-Ketocarbonsäure-p-Sulfonsäure (Sulfoisatinsäure). $K_2 + H_2O$, Ba + 3 H_2O , Pb + 1½ H_2O , Ag + 1½ H_2O (*A.* 120, 14). — II, 1607.
3) 3-Amid d. Benzol-1,2-Dicarbonsäure-3-Sulfonsäure + H_2O (Sulfamidphtalsäure). Sm. 155—160° (wasserfrei). K, K_2 , Ba, Pb, Ag, Ag_2 (*Am.* 5, 107; 6, 263; 13, 194). — II, 1824.
4) 4-Amid d. Benzol-1,2-Dicarbonsäure-4-Sulfonsäure. Sm. 192 bis 202° u. Zers. K + 2½ H_2O (*Am.* 5, 110; *A.* 233, 229). — II, 1825.
5) 2-Amid d. Benzol-1,3-Dicarbonsäure-2-Sulfonsäure (*B.* 11, 902). — II, 1830.
6) 4-Amid d. Benzol-1,3-Dicarbonsäure-4-Sulfonsäure. K + 2 H_2O , K_2 + 4 H_2O , Ca + 4 H_2O , CaH + 6 H_2O , Ba + 4 H_2O , BaH + 4 H_2O , Ag_3 (*B.* 11, 464, 900; 12, 2320; 13, 1554; *Am.* 1, 122; 3, 209). — II, 1831.
7) 2-Amid d. Benzol-1,4-Dicarbonsäure-2-Sulfonsäure. K + ½ H_2O , Ba + H_2O (*Am.* 9, 94). — II, 1840.
- $C_8H_7O_6N_2Br$ 1) Dimethyläther d. 4-Brom-p-Dinitro-1,2-Dioxybenzol. Sm. 113 bis 114° (*G.* 26 [2] 231).
2) Dimethyläther d. p-Brom-2,4-Dinitro-1,3-Dioxybenzol. Sm. 237 bis 238° (*Am.* 13, 178). — II, 927.
- $C_8H_7O_7NS$ 1) 1-Methylester d. 4-Nitrobenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 270° u. Zers. Na + H_2O , K, Ca + 3 H_2O , Ba + 3 H_2O , Cu + 8 H_2O (*Am.* 11, 187). — II, 1305.
- $C_8H_7NCl_2S$ 1) Verbindung (aus 2-Amido-1-Methylbenzol u. Perchlormethylmercaptan). Zers. bei 134° (*B.* 19, 396). — II, 468.

- C₈H₇NCl₂S** 2) Verbindung (aus 4-Amido-1-Methylbenzol u. Perchlormethylmerkaptan). Sm. 138° u. Zers. (B. 19, 396). — II, 504.
- C₈H₇N₂BrS** 1) 2-Brom-4-Methyl-1,3,4-Benzthiodiazin. Sm. 106°. HBr (B. 27, 865). — IV, 682.
- C₈H₇ONCl** 1) α-Oximido-α-[4-Chlorphenyl]äthan. Sm. 95° (Bl. [3] 21, 69).
 2) Methyläther d. Phenylchloroximidomethan. Sd. 225° (B. 17, 1689; 18, 735, 1057). — II, 1196.
 3) Methyläther d. α-Chlor-α-Phenylimido-α-Oxymethan. Sd. 215° u. Zers. (Am. 16, 391).
 4) Phenyläthylennitrosylechlorid. Sm. 97° (Soc. 63, 483). — II, 167.
 5) Amid d. Phenylchloroessigsäure. Sm. 116° (B. 25, 1680). — II, 1316.
 6) Amid d. 4-Chlorphenylessigsäure. Sm. 175° (A. 147, 349). — II, 1315.
 7) Amid d. 1-Chlormethylbenzol-3-Carbonsäure. Sm. 124° (B. 24, 2417). — II, 1336.
 8) Amid d. 1-Chlormethylbenzol-4-Carbonsäure. Sm. 173° (B. 22, 3211). — II, 1345.
 9) Amid d. 5-Chlor-1-Methylbenzol-2-Carbonsäure. Sm. 183° (A. 274, 290). — II, 1331.
 10) Amid d. 2-Chlor-1-Methylbenzol-4-Carbonsäure (J. pr. [2] 39, 497). — II, 1345.
 11) Amid d. 3-Chlor-1-Methylbenzol-4-Carbonsäure. Sm. 182° (J. pr. [2] 39, 495). — II, 1345.
 12) Phenylamid d. Chloressigsäure. Sm. 134,5° (B. 8, 1153; 10, 1376; 13, 518; Bl. 19, 400; A. 207, 141; 214, 221; 279, 56). — II, 363.
 13) Phenylchloramid d. Essigsäure. Sm. 91° (B. 19, 2272; 28, 3268). — II, 362.
 14) 2-Chlorphenylamid d. Essigsäure. Sm. 87—88° (A. 182, 100; B. 29, 1897). — II, 363.
 15) 3-Chlorphenylamid d. Essigsäure. Sm. 72,5° (A. 182, 104). — II, 363.
 16) 4-Chlorphenylamid d. Essigsäure. Sm. 172,5° (174°; 177°) (A. 182, 98; 302, 368; B. 29, 1897; 30, 2645; G. 28 [2] 313). — II, 363.
 17) Chlorid d. Methylphenylamidoameisensäure. Sm. 88°; Sd. 280° (B. 12, 1165; J. 1881, 335). — II, 373.
- C₈H₇ONCl₃** 1) 2-[γγγ-Trichlor-β-Oxypropyl]pyridin. Sm. 86—87°. HCl, HBr (A. 265, 210; B. 20, 1593). — IV, 133.
- C₈H₇ONBr** 1) Methyläther d. Bromimidooxymethylbenzol. Fl. (Am. 19, 138).
 2) α-Oximido-α-[4-Bromphenyl]äthan. Sm. 128—128,5° (Bl. [3] 21, 67).
 3) Bromamid d. Phenylessigsäure. Sm. 123—125° (R. 6, 384). — II, 1311.
 4) Amid d. 5-Brom-1-Methylbenzol-2-Carbonsäure. Sm. 180° (B. 20, 1016). — II, 1332.
 5) Amid d. 3-Brom-1-Methylbenzol-4-Carbonsäure. Sm. 137° (J. pr. [2] 39, 487). — II, 1346.
 6) Phenylamid d. Bromessigsäure. Sm. 130—131° (J. pr. [2] 40, 429; B. 23, 58). — II, 363.
 7) Phenylbromamid d. Essigsäure. Sm. 75—80° (B. 28, 3266).
 8) 2-Bromphenylamid d. Essigsäure. Sm. 99° (J. 1875, 342). — II, 364.
 9) 3-Bromphenylamid d. Essigsäure. Sm. 87,5° (A. 231, 175). — II, 364.
 10) 4-Bromphenylamid d. Essigsäure. Sm. 167—168° (165,4°). 2 + HCl, 2 + HCl + J₂, 2 + HBr, 2 + HBr + Br₂, 2 + HBr + Br₄, 2 + HBr + J₂, 2 + HJ, 2 + HJ + J₂, 2 + HJ + J₄, (2 + HBr, CuBr), + NaOH (J. 1875, 342; A. 209, 355; B. 7, 346; 8, 1114; 16, 1200; 28, 3267; Am. 18, 88; 19, 679; 20, 79; Soc. 73, 160). — II, 364.
- C₈H₇ONBr₂** 1) Aethyläther d. 3,5,6-Tribrom-2-Amido-1-Oxybenzol. Sm. 77° (J. pr. [2] 24, 481). — II, 729.
 2) Aethyläther d. 2,4,6-Tribrom-3-Amido-1-Oxybenzol. Fl. HCl, (HCl, SnCl₂), H₂SO₄ (B. 18, 614). — II, 730.
- C₈H₇ONJ** 1) Methyläther d. Jodimidooxymethylbenzol. Fl. (Am. 19, 138).
 2) 2-Jodphenylamid d. Essigsäure. Sm. 109,5—110° (G. 17, 490). — II, 364.
 3) 3-Jodphenylamid d. Essigsäure. Sm. 119,5° (G. 17, 490). — II, 364.
 4) 4-Jodphenylamid d. Essigsäure. Sm. 183° (181,5°) (B. 11, 108; G. 17, 491). — II, 364.
- C₈H₇ONF** 1) 4-Fluorphenylamid d. Essigsäure. Sm. 150—151° (A. 243, 223). — II, 363.

- C₆H₄ON, Br** 1) **2,4-Dibromphenylhydrazid d. Essigsäure.** Sm. 146° (A. 272, 220; B. 26, 2192). — IV, 664.
2) **3,4-Dibromphenylhydrazid d. Essigsäure.** Sm. bei 162—163° u. Zers. (A. 272, 217). — IV, 664.
- C₆H₄ON, S** 1) **Benzoylthioharnstoff.** Sm. 171° (169—170°) (A. ch. [5] 11, 313; B. 6, 755, 1107). — II, 1172.
2) **Aethyläther d. 5-Oxybenzisothiodiazol (Ae. d. p-Oxypiazthiol).** Sm. 76—77° (B. 25, 501). — IV, 568.
- C₆H₄ON, Se** 1) **Aethyläther d. 5-Oxy-2,1,3-Benzselenodiazol (Aethyläther d. 5-Oxy-piaselenol).** Sm. 103—104° (B. 22, 2897). — II, 723.
- C₆H₄ON, Cl** 1) **Methyläther d. 4-Chlor-1-[Imidooxymethyl]azobenzol.** Sm. 69° (B. 28, 2078). — IV, 1453.
- C₆H₄ON, Cl₂** 1) **Aethyläther d. 2,6-Dichlor-8-Oxy-7-Methylpurin.** Sm. 181—182° (185—186° cor.) (B. 30, 1847). — IV, 1249.
2) **Aethyläther d. 2,6-Dichlor-8-Oxy-9-Methylpurin.** Sm. 152° (154° cor.) (B. 30, 1854). — IV, 1249.
- C₆H₃O₂NCl** 1) **4-Chlor-5-Nitro-1,2-Dimethylbenzol.** Sm. 73° (J. pr. [2] 43, 257). — II, 99.
2) **5-Chlor-2[oder 4]-Nitro-1,3-Dimethylbenzol.** Sm. 48—49° (B. 28, 2045).
3) **4-Chlor-5-Nitro-1,3-Dimethylbenzol.** Sm. 52°; Sd. 278° (B. 29, 311).
4) **4-Chlor-6-Nitro-1,3-Dimethylbenzol.** Sm. 42° (A. 271, 17). — II, 100.
5) **2-Chloracetylamido-1-Oxybenzol.** Sm. 136° (B. 20, 1524). — II, 705.
6) **Methyläther d. 2-Chlor-4-Oxy-1-Oximidomethylbenzol.** Sm. 93° (B. 24, 711). — III, 86.
7) **3-[oder 6]-Chlor-2-Methylamidobenzol-1-Carbonsäure.** Sm. 178° (B. 18, 1450). — II, 1277.
8) **5-Chlor-2-Amido-1-Methylbenzol-4-Carbonsäure.** Sm. 220° (A. 265, 346). — II, 1353.
9) **6-Chlor-2,4-Dimethylpyridin-3-Carbonsäure.** Sm. 148° (Soc. 73, 590).
- C₆H₃O₂NCl₂** 10) **Chlorlutidoncarbonsäure.** Sm. 183°. Ag (Soc. 67, 407). — IV, 149.
- C₆H₃O₂NBr** 1) **Verbindung (d. Acet-2,4-Dichloranilid).** Fl. (B. 8, 1227). — II, 364.
1) ***o*-Brom-*o*-Nitrophenyläthan.** Fl. (J. r. 25, 527).
2) **4-Brom-6-Nitro-1,3-Dimethylbenzol.** Sm. 57° (A. 271, 17). — II, 100.
3) **4-Brom-2-Nitro-1,3-Dimethylbenzol.** Sd. 260—265° u. Zers. (A. 147, 31). — II, 100.
4) **4-Brom-2-Acetylamido-1-Oxybenzol.** Sm. 177—179° (J. pr. [2] 32, 63). — II, 728.
5) **2-Brom-4-Acetylamido-1-Oxybenzol.** Sm. 157° (155°) (J. pr. [2] 32, 67; B. 30, 480). — II, 729.
6) **4-Brom-2-Amidophenylelessigsäure.** Sm. 167° u. Zers. HCl + H₂O (Soc. 37, 98; B. 10, 1658). — II, 1326.
7) **4-Brom-3-Amidophenylelessigsäure.** Sm. 133—134°. HCl + H₂O (B. 10, 1658). — II, 1326.
8) **3-Brom-4-Amidophenylelessigsäure.** Sm. 135—136° (B. 15, 840). — II, 1326.
9) ***p*-Brom-*p*-Amidophenylelessigsäure.** Sm. 186°. HCl (B. 10, 1658 bis 1659). — II, 1326.
10) **4-Bromphenylamidoessigsäure.** Sm. 98° (B. 13, 236). — II, 428.
11) **5-Brom-2-Amido-1-Methylbenzol-4-Carbonsäure.** Sm. 186—187° (G. 18, 307). — II, 1353.
12) ***β*-Brom-*β*-[2-Pyridyl]propionsäure.** Fl. HBr (A. 265, 228). — IV, 148.
13) **Methylester d. 3-Bromphenylamidoameisensäure.** Sm. 84,5 bis 85,5°; Sd. 165—167°₇₅ (Am. 19, 329; J. pr. [2] 58, 198).
14) **Methylester d. 4-Bromphenylamidoameisensäure.** Sm. 124° (81°) (B. 13, 229; J. pr. [2] 58, 202). — II, 373.
15) **Amid d. 3-Brom-4-Oxybenzolmethyläther-1-Carbonsäure.** Sm. 185,5° (G. 11, 424). — II, 1537.
16) **Amid d. Oxyessig-2-Bromphenyläthersäure.** Sm. 151° (B. 27, 2800).

- C₈H₆O₂NJ** 1) 6-Jod-4-Nitro-1,3-Dimethylbenzol. Sm. 86° (A. 271, 18). — II, 101.
2) Methyläther d. 3-Jod-4-Oxy-1-Oximidomethylbenzol. Sm. 129 bis 130° (J. pr. [2] 57, 496).
- C₈H₆O₂N₂Br** 1) 2-Aethyläther d. 3,5-Dibrom-2-Oxy-1-Diazobenzol. Nitrat (J. pr. [2] 24, 482). — IV, 1546.
- C₈H₆O₂N₂S** 1) 2-Oxybenzoylthioharnstoff. Sm. 182° u. Zers. (A. ch. [5] 11, 315). — II, 1500.
2) Phenylthioharnstoff-3-Carbonsäure. Sm. 187° (B. 4, 407; 15, 2118). — II, 1263.
3) 4-Nitrobenzylamidodithioameisensäure. p-Nitrobenzylaminsalz. Sm. 193° (B. 23, 339). — II, 527.
4) Phenylester d. Allophanthionsäure. Sm. 218° (A. 244, 43). — II, 664.
- C₈H₆O₂N₂Cl** 1) α-Nitro-α-[4-Chlorphenyl]azoäthan. Sm. 112° u. Zers. (B. 30, 1968). — IV, 1374.
- C₈H₆O₂N₂Br** 1) α-Nitro-α-[4-Bromphenyl]azoäthan. Sm. 135—138° u. Zers. K (B. 9, 393). — IV, 1374.
- C₈H₆O₂N₂J** 1) α-Jod-α-Nitro-α-[4-Methylphenyl]hydrazonmethan. Zers. bei 108 bis 110° (B. 25, 2636). — IV, 1381.
- C₈H₆O₂Cl₂S** 1) Dichlormethyl-4-Methylphenylsulfon. Sm. 114° (J. pr. [2] 40, 544). — II, 823.
2) Chlorid d. 5-Chlor-1,3-Dimethylbenzol-2-Sulfonsäure. Sm. 48 bis 49° (56—58°) (B. 27, 3025; 29, 311).
- C₈H₆O₂Br₂S** 1) Dibrommethyl-4-Methylphenylsulfon. Sm. 116—117° (J. pr. [2] 40, 546). — II, 823.
- C₈H₆O₂NCl** 1) Methyläther d. 2-Chlor-4-Nitro-1-Oxymethylbenzol. Sm. 54° (B. 25, 83). — II, 1060.
2) Aethyläther d. 4-Chlor-2-Nitro-1-Oxybenzol. Sm. 61—62° (Am. 2, 258; A. Spl. 7, 193; Z. 1869, 451; B. 14, 37). — II, 693.
3) Aethyläther d. 4-Chlor-3-Nitro-1-Oxybenzol (B. 32, 157).
4) Aethyläther d. 6-Chlor-3-Nitro-1-Oxybenzol. Sm. 64° (B. 32, 158).
5) Aethyläther d. 2-Chlor-4-Nitro-1-Oxybenzol. Sm. 77° (82°) (Am. 3, 21; B. 32, 156). — II, 694.
6) Oxyessig[-p-Chlor-2-Amidophenyläther]säure. K, Pb, Ag (J. pr. [2] 29, 183). — II, 726.
7) Verbindung (aus Dehydracetsäurechlorid). Sm. 205° u. Zers. (B. 25, 337). — II, 1757.
- C₈H₆O₂NBr** 1) Aethyläther d. 4-Brom-2-Nitro-1-Oxybenzol. Sm. 43° (47°) (B. 14, 37; Am. 3, 20; A. 217, 57). — II, 696.
2) Aethyläther d. p-Brom-3-Nitro-1-Oxybenzol. Sm. 57° (B. 18, 612). — II, 697.
3) Aethyläther d. 2-Brom-4-Nitro-1-Oxybenzol. Sm. 98° (138°) (Am. 3, 20; A. 217, 67; B. 14, 37; 30, 1173; 32, 160). — II, 697.
4) β-Bromäthyläther d. 2-Nitro-1-Oxybenzol. Sm. 43,5° (J. pr. [2] 21, 128; [2] 24, 246). — II, 679.
5) β-Bromäthyläther d. 3-Nitro-1-Oxybenzol. Sm. 39° (J. pr. [2] 24, 255). — II, 681.
6) β-Bromäthyläther d. 4-Nitro-1-Oxybenzol. Sm. 63—64° (J. pr. [2] 21, 127; [2] 24, 254). — II, 682.
7) 5-Brom-3-Amido-4-Oxybenzolmethyläther-1-Carbonsäure. Sm. 185—187°. Ca + 5½ H₂O, Ba + 3 H₂O, HCl (G. 14, 245; B. 30, 1478). — II, 1540.
8) Bromoxyhydrocyanmesitenlaktone. Sm. 98—100° (A. 266, 348). — I, 1482.
- C₈H₆O₂NJ** 1) Aethyläther d. 4-Jod-3-Nitro-1-Oxybenzol. Sm. 63,5°; Sd. oberh. 320° u. Zers. (J. pr. [2] 43, 74; B. 29, 2597). — II, 700.
2) Aethyläther d. 2-Jod-4-Nitro-1-Oxybenzol. Sm. 96° (B. 29, 2596).
- C₈H₆O₂N₂Br** 1) Verbindung (aus d. 3-Nitrophenylamid d. Essigsäure). Sm. 143° u. Zers. (Am. 17, 612).
- C₈H₆O₂N₂S** 1) 2,4-Dimethyl-1-Diazobenzol-5-Sulfonsäure (A. 230, 335; B. 19, 139). — IV, 1539.
2) 2,5-Dimethyl-1-Diazobenzol-4-Sulfonsäure (B. 19, 141). — IV, 1539.
3) 3-Methylindazol-2-Sulfonsäure. Na (A. 227, 316). — IV, 870.

- $C_8H_5O_3N_3S$ 4) Methylester d. 3-Nitrophenylamidothioameisensäure. Sm. 119 bis 120° (B. 16, 551). — II, 385.
5) 2-Nitrobenzylester d. Amidithiolameisensäure. Sm. 115—117° (B. 28, 1027; 29, 160).
6) 3-Nitrobenzylester d. Amidithiolameisensäure. Sm. 121,5° (B. 30, 1067).
- $C_8H_5O_3N_3Cl$ 1) 3-Chlor-*p*-Nitro-1-Aethylnitrosamidobenzol. Sm. 72,5—73,5° (B. 31, 2533).
2) 4-Chlor-5-Nitro-2-Methylnitrosamido-1-Methylbenzol. Sm. 80,5 bis 81,5° (B. 31, 2533).
- $C_8H_5O_3N_3Br$ 1) 4-Brom-2-Nitrophenylhydrazid d. Essigsäure. Sm. 173° (B. 22, 2817). — IV, 665.
- $C_8H_5O_3Cl_2S$ 1) 4,6-Dichlor-1,3-Dimethylbenzol-2-Sulfonsäure siehe Amid (B. 23, 2319). — II, 144.
2) 2,6-Dichlor-1,3-Dimethylbenzol-4-Sulfonsäure siehe Amid (B. 23, 2320). — II, 144.
- $C_8H_5O_3Br_2S$ 1) 4,5-Dibrom-1,2-Dimethylbenzol-3-Sulfonsäure. Na + 1½ H₂O, Ba (B. 27 [2] 591).
2) 4,6-Dibrom-1,3-Dimethylbenzol-2-Sulfonsäure. Sm. 165° u. Zers. Na + 2H₂O, Ba (B. 11, 1534). — II, 144.
3) 2,6-Dibrom-1,3-Dimethylbenzol-4-Sulfonsäure. Na + H₂O, K + H₂O, Ba (B. 21, 2825). — II, 144.
4) 3,6-Dibrom-1,4-Dimethylbenzol-2-Sulfonsäure. Sm. 151° u. Zers. Na + H₂O, Ba (Soc. 57, 976). — II, 147.
- $C_8H_5O_3J_2S$ 1) *p*-Dijod-1,3-Dimethylbenzol-4-Sulfonsäure. Na + H₂O, Ba (B. 26, 1107). — II, 145.
- $C_8H_5O_4NCl$ 1) Chlorkyaminsäure + H₂O. Sm. 186° (wasserfrei). Ba + 8H₂O, Ag (J. pr. [2] 29, 11). — IV, 152.
- $C_8H_5O_4NBr$ 1) Dimethyläther d. 4-Brom-*p*-Nitro-1,2-Dioxybenzol. Sm. 124,5 bis 125° (G. 26 [2] 231).
2) Dimethyläther d. *p*-Brom-4-Nitro-1,2-Dioxybenzol. Sm. 111 bis 112° (C. 1898 [1] 617, 1024).
3) Dimethyläther d. *p*-Brom-*p*-Nitro-1,4-Dioxybenzol. Sm. 152 bis 153° (B. 23, 3250). — II, 947.
4) 1-Aethyläther d. *p*-Brom-4-Nitro-1,3-Dioxybenzol. Sm. 114° (M. 1, 898). — II, 927.
5) 1-Brom-6-Oxy-2-Keto-1,2-Dihydropyridin-5-Carbonsäure. Zers. bei 210° (J. pr. [2] 58, 425).
6) Aethylester d. *p*-Brom-2,6-Dioxypyridin-3-Carbonsäure (G. 27 [2] 408; B. 31, 1245).
7) Aethylester d. *p*-Brom-4,6-Dioxypyridin-3-Carbonsäure. Zers. bei 225° (B. 31, 1686).
- $C_8H_5O_4N_2S$ 1) Aethyläther d. 2,4-Dinitro-1-Merkaptobenzol. Sm. 113° (B. 18, 330). — II, 794.
- $C_8H_5O_4N_3Cl$ 1) 4-Chlor-2,6-Dinitro-1-Dimethylamidobenzol. Sm. 111—112° (B. 31, 2986).
- $C_8H_5O_4Cl_2S_2$ 1) Chlorid d. 1,2-Dimethylbenzol-4,6-Disulfonsäure. Sm. 79° (J. pr. [2] 46, 155). — II, 142.
2) Chlorid d. 1,3-Dimethylbenzol-2,4-Disulfonsäure. Sm. 129° (B. 23, 3114; J. pr. [2] 46, 153). — II, 143.
3) Chlorid d. 1,3-Dimethylbenzol-2,6-Disulfonsäure. Fl. (J. pr. [2] 46, 154). — II, 143.
4) Chlorid d. 1,3-Dimethylbenzol-4,6-Disulfonsäure. Sm. 131° (B. 27 [2] 889).
5) Chlorid d. 1,4-Dimethylbenzol-2,6-Disulfonsäure. Sm. 72—74° (74—75°) (J. pr. [2] 46, 156; Am. 13, 372). — II, 146.
- $C_8H_5O_4Cl_2Cr_2$ 1) Verbindung (aus 1,3-Xylidendichlorochromsäure) (A. ch. [5] 22, 244). — II, 27.
- $C_8H_5O_4Cl_6S$ 1) Acetylchloralsulfhydrat. Sm. 78° (B. 7, 211). — I, 931.
- $C_8H_5O_6N_2S$ 1) Phenylsulfonnitrosamidoessigsäure. Sm. 142° (B. 22 [2] 692). — II, 115.
2) Benzolsulfonat d. α -Nitro- α -Oximidoäthan (B. d. Aethylnitrolsäure). Sm. 90—91° (B. 28, 1281).

- $C_8H_5O_5Cl_2S_2$ 1) Chlorid d. 1-Oxybenzoläthyläther-*p*-Disulfonsäure. Sm. 106—108° (A. 198, 27). — II, 533.
- $C_8H_5O_4N_2S$ 1) 3-Nitrophenylsulfonamidoessigsäure (B. 22 [2] 692). — II, 115.
- $C_8H_5O_7N_2S$ 1) 2,6-Dinitro-1,3-Dimethylbenzol-4-Sulfonsäure. Na + H₂O, Ca + 3½ H₂O, Ba + 3H₂O, Cu + 2½ H₂O (B. 19, 1424). — II, 145.
2) 5,6-Dinitro-1,3-Dimethylbenzol-4-Sulfonsäure. Na + H₂O, Ca + 5H₂O, Ba + ½ H₂O, Pb + 4½ H₂O, Cu + H₂O (B. 19, 1425). — II, 146.
- C_8H_5NCIS 1) Chlorid d. Methylphenylamidothioameisensäure. Sm. 34,5—35° (B. 20, 1631). — II, 385.
- $C_8H_5NCl_3S$ 1) Verbindung (aus 2-Amido-1-Methylbenzol u. Perchlormethylmerkaptan). Fl. (B. 19, 396). — II, 468.
2) Verbindung (aus 4-Amido-1-Methylbenzol u. Perchlormethylmerkaptan) (B. 19, 396). — II, 504.
- $C_8H_5ONCl_2$ 1) Aethyläther d. *p*-Dichlor-4-Amido-1-Oxybenzol. Sm. 46°; Sd. 275° (B. 8, 898). — II, 727.
2) Aethyläther d. *p*-Dichlor-4-Amido-1-Oxybenzol. Sm. 63,5—64,5°. Pikrat (B. 32, 154).
3) 3,5-Dichlor-2-Keto-1,4,6-Trimethyl-1,2-Dihydropyridin. Sm. 187° (B. 17, 1031). — IV, 129.
- $C_8H_5ONBr_2$ 1) Aethyläther d. 4,6-Dibrom-2-Amido-1-Oxybenzol. Sm. 92°. HCl, H₂SO₄, Oxalat (A. 217, 65). — II, 729.
2) Aethyläther d. *p*-Dibrom-2-Amido-1-Oxybenzol. Sm. 52,5° (J. pr. [2] 24, 479). — II, 729.
3) Aethyläther d. *p*-Dibrom-3-Amido-1-Oxybenzol. Fl. (2HCl, SnCl₂) (B. 18, 613). — II, 729.
4) Aethyläther d. 2,6-Dibrom-4-Amido-1-Oxybenzol. Sm. 67°. HCl, H₂SO₄, Oxalat (A. 217, 71). — II, 729.
5) 3,5-Dibrom-2-Keto-1,4,6-Trimethyl-1,2-Dihydropyridin. Sm. 173° (B. 17, 1030). — IV, 129.
- C_8H_5ONBr 1) Tetrabromtropinon. Sm. 164° (B. 29, 2229). — III, 791.
- C_8H_5ONS 1) α -Phenyläthylthionylamin. Fl. (B. 26, 2167). — II, 538.
2) β -Phenyläthylthionylamin. Sd. 170—173°₂₅ (B. 26, 2166). — II, 539.
3) 2,4-Dimethylphenylthionylamin. Sd. 238° (A. 274, 233). — II, 543.
4) 2,5-Dimethylphenylthionylamin. Sd. 119°₃₀ (A. 274, 237). — II, 547.
5) 3,4-Dimethylphenylthionylamin. Sd. 131°₃₀ (A. 274, 235). — II, 541.
6) 2-Methylbenzylthionylamin. Fl. (B. 26, 2165). — II, 541.
7) 3-Acetylamido-1-Merkaptobenzol. Sm. 208° (B. 27, 2816).
8) 4-Acetylamido-1-Merkaptobenzol. Sm. 182° (B. 27, 2814, 2815).
9) Methylester d. Phenylamidothionameisensäure. Sm. 83—84° (B. 15, 340). — II, 385.
10) Benzylester d. Amidothionameisensäure. Sm. 125°. + 2AgNO₃ (Soc. 57, 292). — II, 1053.
11) Amid d. Merkapttoessigphenyläthersäure. Sm. 104° (Bl. 23, 441). — II, 785.
12) Amid d. Oxythioessigphenyläthersäure. Sm. 111° (J. pr. [2] 20, 279). — II, 664.
13) Amid d. 4-Oxy-1-Methylbenzol-3-Thiocarbonsäure. Sm. 126—127° (B. 24, 3660). — II, 1548.
14) Amid d. 4-Oxybenzoldimethyläther-1-Thiocarbonsäure. Sm. 148 bis 149° (B. 27, 2159). — II, 1540.
15) Phenylamid d. Merkapttoessigsäure. Sm. 106—107° (G. 28 [1] 360).
16) Verbindung (aus Rhodankalium) (J. pr. [2] 7, 474).
- $C_8H_5ON_2Cl$ 1) 3-Chlor-1-Aethylnitrosamidobenzol. Fl. (B. 31, 2532).
2) 4-Chlor-2-Methylnitrosamido-1-Methylbenzol. Fl. (B. 31, 2532).
3) 3-Chlor-4-Nitroso-1-Dimethylamidobenzol. HCl (B. 16, 33; Bl. [3] 21, 25). — II, 330.
4) *n*-Acetyl-[4-Chlorphenyl]hydrazin (4-Chlorphenylhydrazid d. Essigsäure). Sm. 154° (B. 27, 224). — IV, 664.
5) Aethyläther d. 4-Oxydiazobenzolchlorid. Sm. bei 78° (B. 28, 2056; J. pr. [2] 22, 461). — IV, 1545.

- $C_8H_6ON_2Br$ 1) 4-Brom-1-Aethylnitrosamidobenzol. Sm. 63—64° (Soc. 55, 423). — II, 332.
2) 2-Brom-4-Methylphenylharnstoff. Sm. 184,5° (B. 24, 4170). — II, 494.
3) α -Methyl- β -[4-Bromphenyl]harnstoff. Sm. 212° (B. 30, 650).
4) 4-Bromphenylhydrazid d. Essigsäure. Sm. 167° (B. 25, 1555; 26, 2190; 28, 1757). — IV, 664.
- $C_8H_6ON_2Cl$ 1) Aethyläther d. 2-Chlor-6-Oxy-7-Methylpurin. Sm. 240° u. Zers. (B. 30, 2405). — IV, 1250.
- C_8H_6OClHg 1) Aethyläther d. 2-Oxyphenylquecksilberchlorid. Sm. 132° (B. 27, 261). — IV, 1709.
2) Aethyläther d. 4-Oxyphenylquecksilberchlorid. Sm. 234° (B. 27, 258). — IV, 1709.
- $C_8H_6OCl_2P$ 1) Aethyläther d. 4-Oxyphenyldichlorphosphin. Sd. 266° u. ger. Zers. (A. 293, 257). — IV, 1649.
2) Dichlorid d. 4-Aethylphenylphosphinsäure. Sd. 294° (A. 293, 315). — IV, 1674.
3) Dichlorid d. 2,5-Dimethylphenylphosphinsäure. Sd. 280—281° (B. 21, 1494). — IV, 1675.
- $C_8H_6OCl_2B$ 1) Aethyläther d. 2-Oxyphenylborchlorid. Fl. (B. 27, 261).
2) Aethyläther d. 4-Oxyphenylborchlorid. Sm. 2°; Sd. 220°₄₀₀ (B. 27, 260). — IV, 1700.
- C_8H_6OBrS 1) 3-Brom-4-Acetyl-2,5-Dimethylthiophen? Sm. 78° (B. 28, 1806). — III, 765.
- C_8H_6OBrHg 1) Aethyläther d. 2-Oxyphenylquecksilberbromid. Sm. 121° (B. 27, 261). — IV, 1709.
2) Aethyläther d. 4-Oxyphenylquecksilberbromid. Sm. 241,5° (B. 27, 259). — IV, 1709.
- C_8H_6OJHg 1) Aethyläther d. 2-Oxyphenylquecksilberjodid. Sm. 111° (B. 27, 262). — IV, 1709.
2) Aethyläther d. 4-Oxyphenylquecksilberjodid. Sm. 216° (B. 27, 258). — IV, 1710.
- $C_8H_6O_2NBr_2$ 1) Methyläther d. 2-Dibrom-4-Oximido-1-Keto-3-Methyl-2-Tetrahydrobenzol. Sm. 112° (Am. 20, 774).
- $C_8H_6O_2NS$ 1) Methyläther d. 2-Nitro-1-Merkaptomethylbenzol. Fl. (B. 29, 163).
2) Methyläther d. 3-Nitro-1-Merkaptomethylbenzol. Sm. 31° (B. 30, 1070).
3) Aethyläther d. 4-Thionylamido-1-Oxybenzol. Sm. 32°; Sd. 220°₂₀₀ (A. 274, 246). — II, 719.
4) Merkaptoessig-2-Amidophenyläthersäure. K (B. 30, 2393).
5) Anhydrophenylamidoäthansulfonsäure (Anhydrophenyltaurin). Sm. 69° (B. 18, 871; Am. 19, 746). — II, 427.
- $C_8H_6O_2N_2Cl$ 1) 4-Chlor-5-Nitro-2-Methylamido-1-Methylbenzol. Sm. 185—186° (B. 31, 2533).
2) 4-Chlor-2-Nitro-1-Dimethylamidobenzol. Sm. 56° (57—57,5°) (B. 20, 151, 2460; 31, 2984, 2986). — II, 331.
3) 4-Chlor-3-Nitro-1-Dimethylamidobenzol. Sm. 81,5—82,5° (B. 31, 2986).
4) 5-Chlor-2-Nitro-1-Aethylamidobenzol. Sm. 83—84° (B. 11, 1157). — II, 333.
5) 3-Chlor-2-Nitro-1-Aethylamidobenzol. Sm. 75,5—76,5° (B. 31, 2533).
- $C_8H_6O_2N_2Br$ 1) 4-Brom-2-Nitro-1-Dimethylamidobenzol. Sm. 72° (B. 20, 2460). — II, 331.
2) 2-Brom-4-Nitro-2-Methylamido-1-Methylbenzol. Sm. 133° (A. 304, 103).
3) 5-Brom-3,4-Diamidophenyllessigsäure. Sm. 195—200° u. Zers. (B. 15, 1995). — II, 1326.
- $C_8H_6O_2N_2S$ 1) 2-Nitro-4-Methylphenylthioharnstoff. Sm. 176° (B. 16, 2337). — II, 497.
- $C_8H_6O_2N_4Cl$ 1) 8-Chlor-2,6-Diketo-3-Methyl-7-Aethylpurin. Sm. 225—227° (C. 1898 [2] 1192).
2) 8-Chlor-2,6-Diketo-1,3,7-Trimethylpurin (Chlorkaffein). Sm. 188°. HCl, (HCl, Br₄), (HCl, J₄), (HBr, Br₄), (HBr, J₄), HJ, (HJ, J₄) (J. 1850,

- 435; *A.* 215, 261; 221, 336; *B.* 28, 3140; 30, 2237, 3010; 31, 1985; 32, 491; *Am. Soc.* 18, 364). — III, 959.
- $C_8H_7O_2N_4Cl$ 3) 2-Chlor-6,8-Diketo-1,7,9-Trimethylpurin. Sm. 251—252° (*B.* 32, 254).
- 4) Monäthyläther d. 2-Chlor-6,8-Dioxy-7-Methylpurin. Sm. 260 bis 261° (270—271° cor.) (*B.* 30, 1849). — IV, 1252.
- $C_8H_7O_2N_4Br$ 1) 8-Brom-2,6-Diketo-1,3,7-Trimethylpurin (Bromkaffein). Sm. 206°. HCl, (HCl, Br₁), (HCl, J₁), HBr, (HBr, Br₁), (HBr, J₁), (HJ, J₁) (*Z.* 1867, 616; *M.* 3, 90; *B.* 14, 639; *A.* 215, 264; *Am. Soc.* 18, 370). — III, 960.
- $C_8H_7O_2ClS$ 1) α -Chloräthylphenylsulfon. Sm. 52° (*J. pr.* [2] 40, 532). — II, 781.
- 2) β -Chloräthylphenylsulfon. Sm. 55—56° (*J. pr.* [2] 30, 197). — II, 781.
- 3) Chlormethyl-4-Methylphenylsulfon. Sm. 81° (*J. pr.* [2] 40, 528). — II, 823.
- 4) Chlorid d. 1-Aethylbenzol-2-Sulfonsäure. Fl. (*C.* 1895 [1] 1020).
- 5) Chlorid d. 1-Aethylbenzol-4-Sulfonsäure. Sm. 12° (*C.* 1895 [1] 1020).
- 6) Chlorid d. 1,2-Dimethylbenzol-3-Sulfonsäure. Sm. 47° (*B.* 27, [2] 591).
- 7) Chlorid d. 1,2-Dimethylbenzol-4-Sulfonsäure. Sm. 51—52° (*B.* 10, 1012; II, 23). — II, 142.
- 8) Chlorid d. 1,3-Dimethylbenzol-2-Sulfonsäure. Fl. (*B.* 11, 22). — II, 143.
- 9) Chlorid d. 1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 34° (*B.* 11, 20). — II, 143.
- 10) Chlorid d. 1,4-Dimethylbenzol-2-Sulfonsäure. Sm. 24—26° (*B.* 11, 22). — II, 146.
- $C_8H_7O_2ClS_2$ 1) Chlorid d. 1-Merkaptobenzoläthyläther-4-Sulfonsäure. Sm. 33° (*C.* 1895 [2] 495).
- $C_8H_7O_2BrS$ 1) α -Bromäthylphenylsulfon. Sm. 49—50° (*J. pr.* [2] 40, 552). — II, 781.
- 2) Brommethyl-4-Methylphenylsulfon. Sm. 90—92° (*J. pr.* [2] 40, 545). — II, 823.
- $C_8H_7O_2JS$ 1) Jodmethyl-4-Methylphenylsulfon. Sm. 126° (*J. pr.* [2] 40, 512). — II, 823.
- $C_8H_7O_2NS$ 1) *p*-Nitro-*p*-Acetyl-2-Aethylthiophen. Sm. 71° (*B.* 18, 3021). — III, 765.
- 2) Methylester d. α -Methoximido-2-Thiënylessigsäure. Fl. (*B.* 19, 2121). — III, 758.
- 3) Aethylester d. α -Oximido-2-Thiënylessigsäure. Sm. 122—123° (*B.* 19, 2121). — III, 758.
- 4) Amid d. Phenylsulfonessigsäure. Sm. 153°. Hg (*J. pr.* [2] 30, 345). — II, 786.
- $C_8H_7O_2N_2S$ 1) 3,4-Diamido-1-[*p*-Sulfophenyl]-1,2,5-Triazol. NH₄ (*A.* 295, 142). — IV, 1314.
- $C_8H_7O_2ClS$ 1) *p*-Chlor-*p*-Aethylbenzol-*p*-Sulfonsäure (*A. ch.* [6] 6, 411). — II, 142.
- 2) 6-Chlor-1,2-Dimethylbenzol-3-Sulfonsäure + 2H₂O. Na + H₂O, Ba + H₂O (*B.* 18, 1756; *A.* 274, 307). — II, 142.
- 3) 5-Chlor-1,2-Dimethylbenzol-4-Sulfonsäure + 5H₂O. Na + 5H₂O, K, Ba + 4H₂O (*B.* 18, 1757; *A.* 274, 307). — II, 142.
- 4) 5-Chlor-1,3-Dimethylbenzol-2-Sulfonsäure. Sm. 65—68° (52°). Na, Ba (*B.* 27, 3025; 29, 310).
- 5) 6-Chlor-1,3-Dimethylbenzol-4-Sulfonsäure. Na + H₂O, K + H₂O (*Bl.* 12, 221; 28, 343). — II, 144.
- 6) *p*-Chlor-1,4-Dimethylbenzol-*p*-Sulfonsäure. Na + H₂O, Ba + H₂O (*B.* 18, 2099). — II, 146.
- 7) Aethylester d. 4-Chlorbenzol-1-Sulfonsäure. Sm. 25—26°; Sd. 171 bis 172°₁₅ (*B.* 25, 2260; *Am.* 17, 296). — II, 118.
- 8) Chlorid d. 2-Oxybenzoläthyläther-1-Sulfonsäure. Sm. 62° (*B.* 27 [2] 591).
- 9) Chlorid d. 3-Oxybenzoläthyläther-1-Sulfonsäure. Sm. 38° (*B.* 23, 3393). — II, 832.
- 10) Chlorid d. 4-Oxybenzoläthyläther-1-Sulfonsäure. Sm. 36,5° (39°) (*B.* 25, 1838; 26 [2] 607). — II, 832.

- C₈H₇O₃ClS** 11) Chlorid d. 2-Oxy-1-Methylbenzolmethyläther-*p*-Sulfonsäure (*Am.* 19, 572).
12) Chlorid d. 4-Oxy-1-Methylbenzolmethyläther-3-Sulfonsäure. Sm. 84° (*Am.* 15, 311). — II, 844.
- C₈H₇O₃BrS** 1) 4-Brom-1-Aethylbenzol-2-Sulfonsäure. K + H₂O, Ba + 3(4)H₂O (*B.* 22, 2669; *C.* 1895 [1] 1020). — II, 142.
2) 2-Brom-1-Aethylbenzol-3 [oder 5]-Sulfonsäure. K + 1/2 H₂O, Ba + 3 H₂O (*B.* 22, 2668). — II, 142.
3) 5-Brom-1,2-Dimethylbenzol-4-Sulfonsäure + x H₂O. Na + 1 1/2 H₂O, K + H₂O, Ba + 3 H₂O (*B.* 17, 2374). — II, 143.
4) *p*-Brom-1,2-Dimethylbenzol-4-Sulfonsäure. Ba + 4 H₂O (*B.* 19, 2138). — II, 143.
5) 4-Brom-1,3-Dimethylbenzol-2-Sulfonsäure (*B.* 11, 1536). — II, 144.
6) 5-Brom-1,3-Dimethylbenzol-4-Sulfonsäure + 2 H₂O. Na + H₂O, Ba + H₂O, Zn + 9 H₂O, Cu + 7 H₂O (*B.* 11, 1062; 19, 139; *A.* 230, 335). — II, 144.
7) 5-Brom-1,4-Dimethylbenzol-2-Sulfonsäure. Ba + 2 H₂O (*B.* 19, 141). — II, 146.
8) *p*-Brom-1,4-Dimethylbenzol-*p*-Sulfonsäure. Na + H₂O, Ba (*B.* 17, 2379). — II, 146.
9) Aethylester d. 4-Brombenzol-1-Sulfonsäure. Sm. 39,5°; Sd. 181 bis 182°₁₅ (*B.* 25, 2261; *Am.* 17, 293; 19, 894). — II, 120.
- C₈H₇O₃JS** 1) 6-Jod-1,3-Dimethylbenzol-4-Sulfonsäure. Na + H₂O, Ba (*B.* 23, 1635, 3119; 26, 1105). — II, 145.
- C₈H₇O₄NS** 2) Aethylester d. 4-Jodbenzol-1-Sulfonsäure. Sm. 51° (*Am.* 17, 292).
1) Aethyl-[3-Nitrophenyl]sulfon. Sm. 100° (*A.* 278, 245).
2) 3-Acetylamidobenzol-1-Sulfonsäure. Ba (*B.* 21, 2580). — II, 568.
3) 4-Acetylamidobenzol-1-Sulfonsäure. Na (*B.* 17, 707). — II, 569.
4) Phenylsulfonamidoessigsäure (*B.* 22 [2] 692). — II, 115.
5) 1-Methylester d. Benzol-1-Carbonsäure-2-Sulfonsäureamid. Sm. 125° (*Am.* 9, 408; 11, 343). — II, 1296.
6) 4-Amid d. 1-Methylbenzol-2-Carbonsäure-4-Sulfonsäure. Sm. 243°. Cu, Ag (*B.* 14, 40). — II, 1335.
7) 5-Amid d. 1-Methylbenzol-2-Carbonsäure-5-Sulfonsäure. Sm. 217°. K, Ag (*B.* 14, 39). — II, 1335.
8) 2-Amid d. 1-Methylbenzol-3-Carbonsäure-2-Sulfonsäure. Sm. 202 bis 203° (*B.* 11, 902). — II, 1339.
9) 6-Amid d. 1-Methylbenzol-3-Carbonsäure-6-Sulfonsäure. Sm. 254°. Ca + 1 1/2 H₂O, Ba + 4 H₂O (*B.* 10, 1044; 11, 889, 896; *Am.* 1, 41; 3, 205). — II, 1339.
10) 2-Amid d. 1-Methylbenzol-4-Carbonsäure-2-Sulfonsäure. Sm. 267°. Ca + 4 H₂O, Ba + 2 H₂O, Mn + 5 H₂O (*B.* 11, 230; 12, 1433). — II, 1354.
11) 3-Amid d. 1-Methylbenzol-4-Carbonsäure-3-Sulfonsäure. Sm. 185°. Ba + 2 H₂O, Ag (*B.* 25, 1739). — II, 1355.
12) 4-Amid d. 1-Methylbenzol-4-Carbonsäure-3-Sulfonsäure. Sm. 186°. NH₄, Ag (*B.* 25, 1742). — II, 1354.
13) *p*-Amid d. 1-Methylbenzol-4-Carbonsäure-*p*-Sulfonsäure. Sm. 242° (*B.* 16, 2565). — II, 1355.
- C₈H₇O₄N₃S** 1) Triamid d. Benzol-1,2-Dicarbonsäure-3-Sulfonsäure (*Am.* 13, 200). — II, 1825.
- C₈H₇O₄ClS** 1) 4-Chlor-1-Oxybenzoläthyläther-*p*-Sulfonsäure. K (*A.* 157, 147). — II, 834.
- C₈H₇O₄ClS₂** 1) Chlorid d. Aethylphenylsulfon-4-Sulfonsäure. Sm. 103,5° (*C.* 1895 [2] 495).
- C₈H₇O₄Cl₂P** 1) Diacetoxychloralalphosphin + 1/2 H₂O (*Bl.* 46, 338). — I, 933.
- C₈H₇O₄BrS** 1) 2-Brom-1-Oxybenzoläthyläther-4-Sulfonsäure + 4 H₂O. K, Ba (*J.* 1870, 739). — II, 835.
- C₈H₇O₅NS** 1) β -Oxyäthyl-3-Nitrophenylsulfon. Sm. 78,5° (*A.* 294, 246).
2) 2-Nitro-1-Aethylbenzol-*p*-Sulfonsäure. Ba (*A.* 156, 208). — II, 142.
3) 4-Nitro-1-Aethylbenzol-*p*-Sulfonsäure. Ba + 5 H₂O (*A.* 156, 207). — II, 142.

- C₈H₇O₅NS**
- 4) 2-Nitro-1,3-Dimethylbenzol-4-Sulfonsäure + H₂O. Sm. 144° (wasserfrei). Na + H₂O, K + $\frac{1}{2}$ H₂O, Ca, Ba, Pb, Cu + 2H₂O, Ag + $\frac{1}{2}$ H₂O (B. 19, 1420). — II, 145.
 - 5) 5-Nitro-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 95–100°. Na + H₂O, Ca + H₂O, Ba + $1\frac{1}{2}$ H₂O, Pb, Cu + 6H₂O, Ag + H₂O (B. 19, 1421). — II, 145.
 - 6) 6-Nitro-1,3-Dimethylbenzol-4-Sulfonsäure. Cu + 6H₂O, Ag + H₂O (B. 13, 1558; 19, 1419). — II, 145.
 - 7) ?-Sulfophenylamidoessigsäure. Sm. 183–185°. Ba, Ag + 3H₂O (M. 5, 333; 6, 523). — II, 1188.
 - 8) α -Amido- α -[3-Sulfophenyl]essigsäure (B. 18, 1182). — II, 1328.
 - 9) 4-Acetylamidophenyl-1-Schwefelsäure. K (H. 13, 15). — II, 838.
 - 10) Oxim d. Thiänoylbrenztraubensäure. Sm. 110–112° u. Zers. (G. 21 [2] 282). — III, 760.
 - 11) Methylester d. 4-Sulfophenylamidoameisensäure. Sm. 188° u. Zers. (B. 18, 979). — II, 569.
 - 12) ?-Amid d. 2-Oxybenzolmethyläther-1-Carbonsäure-?-Sulfonsäure. Sm. 211° (Am. 19, 574, 578).
 - 13) 3-Amid d. 4-Oxybenzolmethyläther-1-Carbonsäure-3-Sulfonsäure. Ba + 3H₂O (Am. 15, 315). — II, 1542.
- C₈H₇O₅N₃S**
- 1) α -Nitro- α -Phenylhydrazonäthan-4-Sulfonsäure. K (B. 12, 2286). — IV, 1375.
- C₈H₇O₆NS**
- 1) 2-[oder 5]Nitro-4-Oxy-1,3-Dimethylbenzol-6-Sulfonsäure. Ba + 3H₂O, Pb + 3H₂O (A. 230, 340). — II, 846.
- C₈H₇O₆N₃S**
- 1) β -Nitro- β -Phenylhydrazon- α -Oxyäthan-4-Sulfonsäure. K (A. 256, 34). — IV, 1375.
 - 2) Amid d. 5,6-Dinitro-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 158° (B. 19, 1426). — II, 146.
- C₈H₇O₆ClS₂**
- 1) 6-Chlor-1,3-Dimethylbenzol-2,4-Disulfonsäure (B. 23, 3117). — II, 144.
- C₈H₇O₆BrS₂**
- 1) 6-Brom-1,3-Dimethylbenzol-2,4-Disulfonsäure (B. 23, 3116). — II, 144.
- C₈H₇N₂ClS**
- 1) Chloräthylat d. Benzthiodiazol + xH₂O (A. 277, 230). — IV, 1548.
- C₈H₇N₂ClS₂**
- 1) Methylenroth. 2 + ZnCl₂ + 2H₂O (B. 12, 594; A. 230, 165; 251, 19). — IV, 581.
- C₈H₇N₂JS**
- 1) Jodmethylat d. 5-Methylbenzthiodiazol (A. 277, 234). — IV, 1550.
 - 2) Jodäthylat d. Benzthiodiazol (A. 277, 229). — IV, 1548.
- C₈H₇N₂JSe**
- 1) Jodmethylat d. 5-Methylbenzisoselendiazol (J. d. Methylpiaselenol). HJ (B. 22, 865). — IV, 625.
- C₈H₇N₃ClBr**
- 1) Chlormethylat d. 5-Brom-1-Methyl-1,2,3-Benztriazol. Sm. 204° u. Zers. 2 + PtCl₄ + ClJ (A. 249, 365). — IV, 1143.
- C₈H₇N₃BrJ**
- 1) Jodmethylat d. 5-Brom-1-Methyl-1,2,3-Benztriazol. Sm. 220° u. Zers. + J₂ (A. 249, 366). — IV, 1143.
- C₈H₁₀ONCl**
- 1) Aethyläther d. 4-Chlor-2-Amido-1-Oxybenzol. Sm. 42°. Pikrat (B. 32, 153).
 - 2) Aethyläther d. 4-Chlor-3-Amido-1-Oxybenzol. Fl. (B. 32, 157).
 - 3) Aethyläther d. 2-Chlor-4-Amido-1-Oxybenzol. Sm. 66°. Pikrat (B. 32, 155).
 - 4) Thierölpikolinacetylchlorid (J. 1876, 783). — IV, 126.
 - 5) Pyridylacetylchlorid. 2 + PtCl₄ + AuCl₃ + HgCl₂, Pikrat (B. 27 [2] 510; C. 1899 [1] 116).
- C₈H₁₀ONBr**
- 1) Aethyläther d. 4-Brom-2-Amido-1-Oxybenzol. Sm. 57° (53°). HCl, H₂SO₄, Oxalat (A. 217, 62; B. 32, 159, 163). — II, 728.
 - 2) Aethyläther d. ?-Brom-3-Amido-1-Oxybenzol. Fl. HCl (B. 18, 612). — II, 728.
 - 3) Aethyläther d. 2-Brom-4-Amido-1-Oxybenzol. Sm. 46° (47,2 bis 47,5°); Sd. 189°₁₀₀. HCl, (HCl, HgCl₂), H₂SO₄, Oxalat, Pikrat (A. 217, 69; B. 30, 478, 1172; 32, 158, 161; G. 28 [2] 990). — II, 728.
- C₈H₁₀ONJ**
- 1) Aethyläther d. 2-Jod-4-Amido-1-Oxybenzol. HCl, H₂SO₄, Pikrat (B. 29, 2596).
 - 2) Jodmethylat d. 2-Acetylpyridin. Sm. 161° (B. 24, 2528). — IV, 183.
- C₈H₁₀ONP**
- 1) Aethyläther d. Phosphazobenzol. Fl. (B. 27, 496).
- C₈H₁₀ONAs**
- 1) 4-Dimethylamidophenylarsinoxid. Sm. 75° (A. 270, 141). — IV, 1686.

- C₈H₁₀ON₂S** 1) α -Oxy- β -Methyl- α -Phenylthioharnstoff. Sm. 146° (*J. pr.* [2] 56, 91).
 2) α -Oxy- β -[4-Methylphenyl]thioharnstoff. Sm. 92° (*B.* 24, 381). — II, 465.
 3) Methyläther d. 2-Oxyphenylthioharnstoff. Sm. 152° (*A.* 207, 246; *B.* 20, 1796). — II, 711.
 4) 4-Thionylamido-1-Dimethylamidobenzol. Sm. 72° (*B.* 31, 2180).
 5) β -Thionyl- α -Aethyl- α -Phenylhydrazin. Fl. (*B.* 22, 2231; *A.* 270, 121). — IV, 661.
 6) 2-Aethylimido-4-Keto-3-Allyltetrahydrothiazol (Aethylallylthiohydantoin). Fl. (*B.* 31, 137).
 7) Aethyloxydhydrat d. Benznthiodiazol. Chlorid + x H₂O, Jodid, Pikrat (*A.* 277, 229). — IV, 1548.
- C₈H₁₀ON₃Br** 1) 2-Brom-4-Methylphenylamidoharnstoff. Sm. 163° (*Soc.* 73, 177). — IV, 805.
- C₈H₁₀O₂N₄S** 1) 8-Merkapto-2,6-Diketo-1,3,7-Trimethylpurin (Thiokaffein). Sm. 316° u. Zers. (*B.* 32, 485 Anm.).
 2) 2-Aethyläther d. 6-Merkapto-2-Oxy-7-Methylpurin. Sm. 234° (cor.) (*B.* 31, 438). — IV, 1254.
 3) α -Amid- β -Phenylamid d. Hydrazo- α -Thiocarbonsäure- β -Carbonsäure. Sm. 217—218° (*B.* 29, 2510).
- C₈H₁₀O₂NCl** 1) 3-Methylpyridinbetainchlorid. Sm. 189° u. Zers. 2 + PtCl, (*J. pr.* [2] 43, 364). — IV, 125.
 2) Chlormethylat d. Pyridin-3-Carbonsäuremethylester. 2 + PtCl, (*B.* 19, 32). — IV, 146.
- C₈H₁₀O₂NJ** 1) Jodmethylat d. Pyridin-3-Carbonsäuremethylester (*B.* 19, 32). — IV, 146.
- C₈H₁₀O₂N₂S** 1) 2-Thiocarbonyl-4,5-Diketo-1-Aethyl-3-Allyltetrahydroimidazol (Aethylallylthioparabansäure). Sm. 54° (*B.* 31, 138).
- C₈H₁₀O₂N₄Br₂** 1) Kaffeindibromid (*M.* 3, 86).
- C₈H₁₀O₂N₃Cl₂** 1) 5,5-Dichlor-2,4,6-Triketo-1,3-Diäthylhexahydro-1,3-Diazin (Dichlormalonyldiäthylharnstoff). Sm. 86,5° (*B.* 30, 1819).
- C₈H₁₀O₂N₂Br₂** 1) 5,5-Dibrom-2,4,6-Triketo-1,3-Diäthylhexahydro-1,3-Diazin (Dibrommalonyldiäthylharnstoff). Sm. 85—86° (*B.* 30, 1818; *C.* 1898 [2] 1081).
- C₈H₁₀O₃N₂S** 1) α -Acetyl- β -Phenylsulfonhydrazin. Sm. 183—184° u. Zers. (*J. pr.* [2] 58, 173).
 2) α -Amido-4-Methylbenzylidensulfaminsäure. Sm. 250—251°. Ba (*B.* 26, 2838). — IV, 852.
 3) Aethylester d. Phenylazosulfonsäure. Fl. (*B.* 27, 1246). — IV, 1519.
 4) Amid d. Phenylsulfonamidoessigsäure. Sm. 142° (*B.* 22 [2] 692). — II, 115.
 5) Amid d. 2-Methylsulfonamidobenzol-1-Carbonsäure. Sm. 156 bis 157° (*J. pr.* [2] 44, 430). — II, 1249.
 6) Amid d. 1-Methylbenzol-4-Carbonsäure-2-Sulfonsäure + $\frac{1}{2}$ H₂O. Sm. 228° (218°) (*B.* 12, 618; 13, 1499). — II, 1354.
 7) Aethenylamidoximester d. Benzolsulfonsäure. Sm. 130° (*B.* 26, 606). — II, 113.
- C₈H₁₀O₃N₂S₂** 1) 1-Thiodiazobenzoläthyläther-4-Sulfonsäure. Na (*B.* 17, 2076). — IV, 1535.
- C₈H₁₀O₃N₄S** 1) Verbindung (aus Harnstoff) + H₂O (*Bl.* 34, 207). — II, 115.
- C₈H₁₀O₄N₂S** 1) 4-Aethoxyl-1-Diazobenzolschwefligsäure. Na (*B.* 25, 1843). — IV, 1549.
 2) Amid d. 2-Nitro-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 172° (*B.* 19, 1421). — II, 145.
 3) Amid d. 5-Nitro-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 108° (*B.* 19, 1423). — II, 145.
 4) Amid d. 6-Nitro-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 187° (*B.* 19, 1419). — II, 145.
 5) Nitroäthylamid d. Benzolsulfonsäure. Sm. 43—44° (*R.* 3, 14). — II, 115.
- C₈H₁₀O₄N₄S₂** 1) Verbindung (aus Cystin) (*H.* 16, 576). — I, 1311.
- C₈H₁₀O₄N₄Hg** 1) Aethylester d. Quecksilberdiazooessigsäure. Sm. 104° (*B.* 28, 216).
- C₈H₁₀O₄ClBr** 1) Diäthylester d. Chlorbrommaleinsäure. Sd. 254° (*B.* 29 [2] 187).

- $C_6H_5O_2Cl_2Cr$ 1) Phenyläthylidendichlorochromsäure (*A. ch.* [5] **22**, 246). — II, 26.
2) 1,3-Dimethylphenylendichlorochromsäure (*A. ch.* [5] **22**, 244). — II, 27.
- $C_6H_5O_5NP$ 1) *p*-Nitro-2,4-Dimethylphenylphosphinsäure. Sm. 100° (*B.* **20**, 1722). — IV, 1675.
2) *p*-Nitro-2,4-Dimethylphenylphosphinsäure. Sm. 182° (*B.* **20**, 1722). — IV, 1675.
3) *p*-Nitro-2,5-Dimethylphenylphosphinsäure. Sm. 224° (*B.* **21**, 1495). — IV, 1675.
4) *p*-Nitro-3,5-Dimethylphenylphosphinsäure. Sm. 107° (*B.* **20**, 1723). — IV, 1675.
- $C_6H_5O_5N_2S$ 1) *p*-Nitro-4-Amido-1,3-Dimethylbenzol-6-Sulfonsäure. $K + 1\frac{1}{2}H_2O$, $Ba + 1\frac{1}{2}H_2O$, $Pb + H_2O$ (*A.* **230**, 338). — II, 583.
2) *p*-Nitro-1-Dimethylamidobenzol-*p*-Sulfonsäure. Ca , Ba (*B.* **14**, 2176; *Ph. Ch.* **11**, 610). — II, 576.
3) Amid d. 5-Nitro-2-Methoxyphenylmethan-*a*-Sulfonsäure. Sm. 100° (*B.* **31**, 1861).
- $C_6H_5O_5N_2S_2$ 1) α -Phenylhydrazonäthan- $\beta\beta$ -Disulfonsäure. $Ba + 3H_2O$ (*A.* **303**, 126).
2) 2,6-Diamid d. 1-Methylbenzol-4-Carbonsäure-2,6-Disulfonsäure $+ H_2O$. Sm. 272°. $K + 2H_2O$, $Ba + 5H_2O$, $Pb + 6H_2O$, $Ag + 2H_2O$ (*Am.* **13**, 380). — II, 1355.
- C_6H_5NBrS 1) β -Bromäthyläther d. 2-Amido-1-Merkaptobenzol. Fl. (*B.* **30**, 609).
 C_6H_5NClHg 1) Quecksilber-4-Dimethylamidophenylchlorid. Sm. 225° u. Zers. (*B.* **23**, 2342). — IV, 1705.
- $C_6H_5NCl_2P$ 1) 4-Dimethylamidophenyldichlorphosphin. Sm. 66°; Sd. bei 250°₁₀₀ u. Zers. (*B.* **21**, 1497; *A.* **260**, 2). — IV, 1647.
- $C_6H_5NCl_2As$ 1) 4-Dimethylamidophenyldichlorarsin. HCl (*A.* **270**, 142). — IV, 1686.
 C_6H_5NBrHg 1) Quecksilber-4-Dimethylamidophenylbromid. Sm. 195° u. Zers. (226°) (*G.* **24** [2] 463; *B.* **23**, 2343). — IV, 1705.
- $C_6H_5NBr_2As$ 1) 4-Dimethylamidophenyldibromarsin. HBr (*A.* **270**, 142). — IV, 1686.
 C_6H_5NJHg 1) Quecksilber-4-Aethylamidophenyljodid. Sm. 137° (*G.* **24** [2] 464). — IV, 1705.
2) Quecksilber-4-Dimethylamidophenyljodid. Sm. 195° u. Zers. (*G.* **24** [2] 463; *B.* **23**, 2443). — IV, 1705.
- C_6H_5NSAs 1) 4-Dimethylamidophenylarsinsulfid. Sm. 187° (*A.* **270**, 143). — IV, 1686.
- C_6H_5ONS 1) *p*-[α -Oximidoäthyl]-3-Methyl-1,4-Penthiophen. Sm. 68° (*B.* **19**, 3272). — III, 765.
2) 2[oder 3]-[α -Oximidoisobutyl]thiophen. Sm. 107—108° (*B.* **19**, 675). — III, 765.
3) *p*-[α -Oximidoäthyl]-2-Aethylthiophen. Sm. 110° (*B.* **18**, 3021). — III, 765.
4) *p*-[α -Oximidoäthyl]-3-Aethylthiophen. Sm. 56° (*A.* **267**, 153). — III, 765.
5) *p*-[α -Oximidoäthyl]-2,4-Dimethylthiophen. Sm. 70° (*B.* **20**, 2020). — III, 765.
6) 3-[α -Oximidoäthyl]-2,5-Dimethylthiophen. Sm. 65° (*B.* **18**, 2302). — III, 765.
7) Amid d. 2,3,4-Trimethylthiophen-5-Carbonsäure. Sm. 146—147° (*A.* **244**, 60). — III, 757.
- $C_6H_5ON_2Cl$ 1) Oxim d. Pyridylacetylchlorid. Sm. 182—184°. $2 + PtCl_4 + AuCl_3$ (*C.* **1899** [1] 117).
- $C_6H_5ON_2J$ 1) Jodmethylat d. Pyridin-3-Carbonsäuremethyleamid. Sm. 174° (*C.* **1898** [1] 677).
- $C_6H_5ON_3S$ 1) 2-Allylimido-3-Acetyl-5-Methyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 77—78° (*B.* **27**, 629). — IV, 1107.
- $C_6H_5ON_3S$ 1) 3[oder 4]-Nitroso-2-Allylimido-4-Thiocarbonyl-1-Allyltetrahydro-1,3,4-Triazol. Sm. 105° (*B.* **26**, 2879).
- $C_6H_5O_2NS$ 1) α -Phenyläthylthionaminsäure (*B.* **26**, 2168). — II, 538.
2) β -Phenyläthylthionaminsäure (*B.* **26**, 2166). — II, 539.
3) Aethylester d. 2-Methylthiazol-4-Methylecarbonsäure. Sd. 238 bis 240°. ($2HCl$, $PtCl_4$) (*A.* **261**, 38). — IV, 85.
4) Aethylester d. 2,4-Dimethylthiazol-5-Carbonsäure. Sm. 50 bis 51°; Sd. 242—242,5° (*A.* **250**, 269). — IV, 85.

- C₈H₁₁O₃NS**
- 5) Amid d. 1-Aethylbenzol-2-Sulfonsäure. Sm. 99—100° (97°) (*B.* 22, 2672; *C.* 1895 [1] 1020). — II, 141.
 - 6) Amid d. 1-Aethylbenzol-3-Sulfonsäure. Sm. 85—86° (*B.* 22, 2674). — II, 141.
 - 7) Amid d. 1-Aethylbenzol-4-Sulfonsäure. Sm. 109° (110°) (*B.* 7, 1166; 22, 2664; 26, 2944; *C.* 1895 [1] 1020). — II, 141.
 - 8) Amid d. 1,2-Dimethylbenzol-3-Sulfonsäure. Sm. 167° (*B.* 18, 1760; 27 [2] 591). — II, 142.
 - 9) Amid d. 1,2-Dimethylbenzol-4-Sulfonsäure. Sm. 144° (*B.* 10, 1012; 11, 23; 14, 2626). — II, 142.
 - 10) Amid d. 1,3-Dimethylbenzol-2-Sulfonsäure. Sm. 95—96° (*B.* 10, 1015; 11, 22; *A.* 184, 188). — II, 143.
 - 11) Amid d. 1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 137° (*B.* 10, 1015; 11, 20; *A.* 184, 188; *Am.* 4, 192). — II, 143.
 - 12) Amid d. 1,4-Dimethylbenzol-2-Sulfonsäure. Sm. 147—148° (*B.* 11, 22). — II, 146.
 - 13) Methylamid d. 1-Methylbenzol-4-Sulfonsäure. Sm. 75° (*Am.* 8, 241). — II, 132.
 - 14) Dimethylamid d. Benzolsulfonsäure. Sm. 47—48° (*R.* 3, 8). — II, 115.
 - 15) Aethylamid d. Benzolsulfonsäure. Sm. 58° (*R.* 3, 13). — II, 115.
- C₈H₁₁O₃NS,**
- 1) Amid d. 1-Merkaptobenzoläthyläther-4-Sulfonsäure. Sm. 134° (*C.* 1895 [2] 495).
- C₈H₁₁O₃N₃Cl₂**
- 1) Verbindung (aus d. Tetrachlortriäthylester d. Isocyanursäure) (*A.* 109, 111). — I, 1270.
- C₈H₁₁O₃NS**
- 1) β -Oxyäthyl-3-Amidophenylsulfon. Fl. HCl, (2 HCl, PtCl₄) (*A.* 294, 248).
 - 2) 1-Aethylamidobenzol-*p*-Sulfonsäure. Ba + 2H₂O (*B.* 7, 1241). — II, 576.
 - 3) 2-Amido-1-Aethylbenzol-*p*-Sulfonsäure (*B.* 17, 2803). — II, 583.
 - 4) 1-Dimethylamidobenzol-*p*-Sulfonsäure + H₂O. Sm. 257° (230°). Na + 2H₂O, Ba + 3H₂O (*B.* 6, 345, 663; 7, 1237; 14, 2177; 23, 556; *J. pr.* [2] 16, 463; [2] 20, 259; *Ph. Ch.* 11, 610). — II, 575.
 - 5) 2-Methylamido-1-Methylbenzol-4-Sulfonsäure. Na, Ba + 3H₂O (*A.* 304, 109).
 - 6) 2-Methylamido-1-Methylbenzol-*p*-Sulfonsäure. Ba (*A.* 304, 112).
 - 7) 4-Amido-1,2-Dimethylbenzol-6-Sulfonsäure (*Bl.* [3] 19, 24).
 - 8) 4-Amido-1,3-Dimethylbenzol-5-*p*-Sulfonsäure. Na + H₂O, K + H₂O, Ba + 1(2)H₂O (*Z.* 1866, 22; *B.* 16, 193; 19, 138; *A.* 230, 334). — II, 583.
 - 9) 4-Amido-1,3-Dimethylbenzol-6-Sulfonsäure (*Bl.* [3] 19, 23).
 - 10) 2-Amido-1,4-Dimethylbenzol-5-Sulfonsäure. Na, Ba + 7H₂O (*B.* 18, 2664; 19, 141; *Ph. Ch.* 3, 411). — II, 583.
 - 11) 2-Amido-1,4-Dimethylbenzol-6-Sulfonsäure + H₂O (*B.* 19, 143). — II, 583.
 - 12) β -Phenylamidoäthan- α -Sulfonsäure (Phenyltaurin). Sm. 260° u. Zers. (277—280°). Ba + 3H₂O (*M.* 4, 138; *J. pr.* [2] 31, 415; *B.* 18, 871). — II, 427.
 - 13) 2,4-Dimethylphenylsulfaminsäure. Ba + H₂O, 2,4-Dimethylphenylaminsalz (*B.* 23, 1657; 31, 1234). — II, 583.
 - 14) Amid d. 2-Oxybenzoläthyläther-1-Sulfonsäure. Sm. 156° (*B.* 27, [2] 591; *Am.* 20, 462).
 - 15) Amid d. 3-Oxybenzoläthyläther-1-Sulfonsäure. Sm. 131° (126°) (*B.* 23, 3393; *Am.* 17, 458). — II, 832.
 - 16) Amid d. 4-Oxybenzoläthyläther-1-Sulfonsäure. Sm. 149° (150°) (*B.* 25, 1838; 26 [2] 607). — II, 832.
 - 17) Amid d. 2-Oxy-1-Methylbenzoldimethyläther-*p*-Sulfonsäure. Sm. 137° (*Am.* 19, 573).
 - 18) Amid d. 4-Oxy-1-Methylbenzoldimethyläther-2-Sulfonsäure. Sm. 150—151° (*A.* 221, 355; *Am.* 15, 329). — II, 844.
 - 19) Amid d. 4-Oxy-1-Methylbenzoldimethyläther-3-Sulfonsäure. Sm. 180—181° (*Am.* 15, 314). — II, 844.
 - 20) Verbindung (aus Acetaldehyd u. Schwefligeurem Anilin) (*A.* 140, 127; 210, 129). — II, 442.

- $C_8H_{11}O_3N_2S$ 1) α -Amido- α -Phenylhydrazonäthan-4-Sulfonsäure. K (B. 12, 2288). — IV, 1375.
- $C_8H_{11}O_4NS$ 1) 4-Amido-1-Oxybenzoläthyläther-2 oder 3-Sulfonsäure (Phenetidin-sulfonsäure) (C. 1898 [2] 1189).
2) Amid d. 1,2-Dioxybenzoldimethyläther-4-Sulfonsäure + $2H_2O$. Sm. 136,5—137,5° (G. 26 [2] 234).
- $C_8H_{11}O_{12}Cl_3S_2$ 1) Chloralosedischwefelsäure. Ba (Bl. [3] 11, 39).
2) Parachloralosedischwefelsäure. Ba (Bl. [3] 11, 41).
- $C_8H_{11}ONCl$ 1) Dimethylphenyloxyammoniumchlorid. Sm. 124—125° u. Zers. 2 + $PtCl_4$, + $AuCl_3$ (B. 32, 349).
2) Chlormethylat d. 2-[β -Oxyäthyl]pyridin. 2 + $PtCl_4$ (A. 301, 126).
- $C_8H_{11}ONBr$ 1) Amid d. 2-Bromtetrahydro-R-Hepten-2-Carbonsäure. Sm. 134 bis 135° (B. 31, 2246).
- $C_8H_{11}ONJ$ 1) Jodmethylat d. 4-Keto-2,6-Dimethyl-1,4-Dihydropyridin. Sm. 242° (B. 22, 80). — IV, 130.
- $C_8H_{12}O_2NCl$ 1) $\beta\gamma$ -Dioxychlorpropylat d. Pyridin. Sm. 105—107°. 2 + $PtCl_4$, + $AuCl_3$ (J. pr. [2] 44, 134). — IV, 111.
- $C_8H_{12}O_2NP$ 1) 4-Dimethylamidophenylphosphinige Säure. Sm. 162°. Na + $2H_2O$, K, Pb, Cu, HCl (B. 21, 1498; A. 260, 11). — IV, 1650.
- $C_8H_{12}O_2NAs$ 1) Phenylamid d. Dimethylarsensäure. Sd. 159—162° u. Zers. (A. 261, 290). — II, 357.
- $C_8H_{12}O_2N_2Br_4$ 1) Di[$\beta\gamma$ -Dibrompropylamid] d. Oxalsäure. Zers. über 220° (B. 13, 514). — I, 1366.
- $C_8H_{12}O_2N_2S$ 1) 2-Amidomethylbenzyl-1-Thionaminsäure (o-Xylylenthionaminsäure) (B. 28, 608). — IV, 641.
2) 3-Amidomethylbenzyl-1-Thionaminsäure (m-Xylylenthionaminsäure) (B. 28, 604). — IV, 643.
3) 4-Amidomethylbenzyl-1-Thionaminsäure (p-Xylylenthionaminsäure) (B. 28, 605). — IV, 644.
4) 4-Dimethylamidophenyl-1-Thionaminsäure. Sm. 90° (B. 31, 2180).
5) Methylester d. 2-Amidothiazol-4-[Isopropyl- α -Carbonsäure]. Sm. 166° (B. 32, 138).
6) Aethylester d. 2-Amido-4-Methylthiazol-5-Methylcarbonsäure. Sm. 123°. (2HCl, $PtCl_4$) (A. 285, 209).
7) Phenylamid d. Dimethylsulfaminsäure. Sm. 84—85°. Na (A. 222, 127). — II, 424.
- $C_8H_{12}O_2N_6S_2$ 1) Dinitrosoderivat d. Dipropylenpseudohydrazodicarbonthioamid. Zers. bei 170° (B. 29, 863).
- $C_8H_{12}O_3NP$ 1) 4-Dimethylamidophenylphosphinsäure. Sm. 133° (B. 21, 1500; A. 260, 19). — IV, 1653.
- $C_8H_{12}O_3N_2Cl_2$ 1) Verbindung (aus Butyrochloraloxim) (G. 21 [2] 8). — I, 969.
- $C_8H_{12}O_3N_2S$ 1) 2,4 oder 4,5-Diamido-1,3-Dimethylbenzol-6-Sulfonsäure. K + H_2O , Ba + $3\frac{1}{2}H_2O$, Pb, HCl + H_2O (A. 230, 343). — IV, 642.
2) 4-Amido-1-Dimethylamidobenzol-2-Sulfonsäure. Ca, Ba (B. 14, 2176). — IV, 595.
3) 2-Methylimido-4-Keto-3-Methyltetrahydrothiazol-5-[Aethyl- α -Carbonsäure] (Dimethylthiohydantoin- α -Propionsäure). Ba (M. 18, 70).
4) α -[2,4-Dimethylphenyl]hydrazin- β -Sulfonsäure. Na + $\frac{1}{2}H_2O$ (M. 11, 284). — IV, 813.
- $C_8H_{12}O_3N_2S_2$ 1) 2-Amido-5-Dimethylamidobenzol-1-Thiosulfonsäure. Sm. 193 bis 204° u. Zers. HCl (A. 251, 50). — II, 800.
- $C_8H_{12}O_4N_2S$ 1) α -[4-Aethoxyphenyl]hydrazin- β -Sulfonsäure. Na (B. 25, 1844). — IV, 815.
- $C_8H_{12}O_4N_2S_2$ 1) 1,2-Phenylendi[Methylthionaminsäure] (o-Xylylendithionaminsäure) (B. 28, 608). — IV, 641.
2) 1,3-Phenylendi[Methylthionaminsäure] (m-Xylylendithionaminsäure) (B. 28, 604). — IV, 643.
3) 1,4-Phenylendi[Methylthionaminsäure] (p-Xylylendithionaminsäure) (B. 28, 605).
4) Amid d. 1,2-Dimethylbenzol-4,6-Disulfonsäure. Sm. 239° (J. pr. [2] 46, 156). — II, 142.
5) Amid d. 1,3-Dimethylbenzol-2,4-Disulfonsäure. Sm. 249° (B. 23, 3114; J. pr. [2] 46, 153). — II, 143.

- $C_8H_{12}O_4N_2S_2$ 6) Amid d. 1,3-Dimethylbenzol-2,6-Disulfonsäure. Sm. 210° (J. pr. [2] 46, 154). — II, 144.
7) Amid d. 1,4-Dimethylbenzol-2,6-Disulfonsäure. Sm. $294-295^\circ$ u. Zers. (Am. 13, 379; J. pr. [2] 46, 156). — II, 146.
- $C_8H_{12}O_4ClBr$ 1) Diäthylester d. fum. s-Chlorbrombernsteinsäure. Sm. $59-60^\circ$ (B. 30, 2885).
2) Diäthylester d. mal. s-Chlorbrombernsteinsäure. Fl. (B. 30, 2888).
- $C_8H_{12}O_5N_2S_2$ 1) Amid d. 1-Oxybenzoläthyläther-?-Disulfonsäure. Sm. 233° (A. 198, 28). — II, 833.
- $C_8H_{13}O_{17}Cl_{19}S_3$ 1) Verbindung (aus Chloral). Sm. 92° (B. 6, 1071). — I, 931.
- $C_8H_{13}O_2NS$ 1) Isoamylester d. Rhodanmethancarbonsäure (I. d. Rhodaneessigsäure). Sd. 255° (B. 10, 1349). — I, 1228.
- $C_8H_{13}O_2N_2Cl$ 1) 1-Methylimidazol + Chloressigsäureäthylester. Sm. $196-197^\circ$. 2 + $PtCl_4$ (A. 271, 31). — IV, 502.
- $C_8H_{13}O_2Cl_6P$ 1) Dihydroxylbutyrochloralphosphin. Sm. 96° (A. ch. [6] 2, 52). — I, 945.
- $C_8H_{13}O_3NBr_2$ 1) Bromid d. β -Acetylamidocrotonsäureäthylester. Sm. $138-140^\circ$ (A. 226, 319).
2) Verbindung (aus Hexahydropyridin-1-Carbonsäureäthylester). Sm. 140° (B. 16, 648). — IV, 13.
- $C_8H_{13}O_3NS$ 1) Aethylester d. Thiacetamidoacetessigsäure. Sm. 94° (A. 261, 35). — I, 1243.
- $C_8H_{13}O_5NBr$ 1) Verbindung (aus ?-Nitro-?-Tetrahydropyridin-1-Carbonsäureäthylester). Sm. 157° (B. 16, 646). — IV, 13.
- $C_8H_{14}ONCl$ 1) Chlormethylat d. 2-Dimethylamidomethylfuran (Ch. d. Dimethylfurylamin). + $AuCl_3$ (G. 20, 514). — IV, 70.
- $C_8H_{14}ONBr$ 1) Piperidid d. α -Brompropionsäure. Sm. 30° ; Sd. $150-152^\circ_{10}$ (B. 31, 2845).
- $C_8H_{14}ONBr_3$ 1) Tribromoxyconiin. Fl. ($2HCl$, $PtCl_4$), (HCl , $AuCl_3$), HBr (B. 18, 121). — IV, 37.
- $C_8H_{14}ONJ$ 1) Jodmethylat d. 2-Dimethylamidomethylfuran (J. d. Dimethylfurylamin). Sm. $118-120^\circ$ (G. 20, 514). — IV, 70.
- $C_8H_{14}ON_2S$ 1) Amid d. 5-Keto-1-Aethyl-2-Methyltetrahydropyrrol-2-Thiocarbonsäure. Sm. 176° u. Zers. (B. 23, 711). — I, 1396.
- $C_8H_{14}OClBr$ 1) Chlorid d. δ -Brom- β -Methylhexan- δ -Carbonsäure. Fl. (Bl. [3] 13, 184).
- $C_8H_{14}O_2NCl$ 1) Nitril d. Chlordioxyessigdipropyläthersäure. Sd. $199-202^\circ$ (A. 229, 178). — I, 1476.
- $C_8H_{14}O_2NBr$ 1) Aethylester d. β -[β -Bromäthyl]amidopropen- α -Carbonsäure. Sm. $48-50^\circ$ (B. 24, 1120). — I, 1207.
- $C_8H_{14}O_4N_2Cl_2$ 1) Diäthylester d. $\beta\beta$ -Dichloräthylidendi[amidoameisensäure] (Dichloräthylidenurethan). Sm. 120° (122°) (B. 5, 81; A. 33, 96; J. pr. [2] 24, 120). — I, 1257.
- $C_8H_{14}O_4N_2Br_2$ 1) Diäthylester d. $\beta\beta$ -Dibromäthylidendi[amidoameisensäure]. Sm. 120° (B. 27, 1254).
- $C_8H_{14}O_{15}Cl_{12}S_3$ 1) Verbindung (aus Chloral) (B. 6, 226, 1071). — I, 931.
- $C_8H_{14}N_2ClBr$ 1) Bromäthylat d. 2-Methyl-1-Aethylimidazol. + Br_2 (A. 184, 48). — IV, 517.
- $C_8H_{14}N_2ClJ$ 1) Jodäthylat d. 2-Methyl-1-Aethylimidazol (A. 184, 47). — IV, 517.
- $C_8H_{15}O_2NCl$ 1) Verbindung (aus Tropicin). Sm. 138° (B. 23, 2889). — III, 789.
- $C_8H_{15}O_2NS$ 1) Aethylester d. Valerylamidothioameisensäure. Sm. $54-56^\circ$ (Soc. 67, 1045).
- $C_8H_{15}O_2N_2Cl_3$ 1) Verbindung (aus Chloral u. Isocapramidoxim). Sm. 130° (B. 19, 1506). — I, 1484.
- $C_8H_{15}O_3NS$ 1) Isobutylester d. Carboxyäthylamidothioameisensäure. Fl. (Soc. 69, 334).
- $C_8H_{15}O_4N_2Cl$ 1) Diäthylester d. β -Chloräthylidendi[amidoameisensäure] (Chloräthylidenurethan). Sm. 147° (B. 5, 82; 7, 630; J. pr. [2] 24, 122). — I, 1257.
- $C_8H_{15}O_4N_2Br$ 1) α -Brom- $\alpha\alpha$ -Dinitrooktan. Fl. (Am. 21, 232).
2) Diäthylester d. β -Bromäthylidendi[amidoameisensäure] (Bromäthylidenurethan). Sm. 142° (B. 5, 85; 27, 1253).
- $C_8H_{15}O_6N_2Cl$ 1) Verbindung (aus Dehydracetsäurechlorid). Sm. 167° u. Zers. (B. 25, 336). — II, 1757.

- $C_5H_{16}ONCl$ 1) 1-[γ -Chlor- β -Oxypropyl]hexahydropyridin. Fl. (2HCl, PtCl₄) (M. 15, 119). — IV, 19.
2) isom. 1-[γ -Chlor- β -Oxypropyl]hexahydropyridin. (2HCl, PtCl₄) (M. 15, 120). — IV, 19.
3) Piperidiniumhydrinchlorid. Sm. 141°. 2 + PtCl₄ (M. 15, 121). — IV, 19.
- $C_5H_{16}O_2NCl$ 1) Chlormethylat d. 1-Methylhexahydropyridin-2-Carbonsäure. + AuCl₃ (Sm. 227—228° u. Zers.) (B. 29, 392).
- $C_5H_{16}O_2NBr$ 1) α -Brom- α -Nitrooktan. Fl. (Am. 21, 229).
2) β -Brom- β -Nitrooktan (J. r. 25, 493).
- $C_5H_{16}O_2N_2S$ 1) Diamid d. Dipropylsulfid- $\gamma\gamma'$ -Dicarbonsäure (D. d. γ -Thiodibuttersäure). Sm. 152° (B. 25, 3040). — I, 1343.
2) Aethylester d. α -Isobutylthioharnstoff- β -Carbonsäure. Sm. 53—54° (Soc. 69, 331).
- $C_5H_{16}O_2N_2S_2$ 1) Diamid d. Dipropyldisulfid- $\gamma\gamma'$ -Dicarbonsäure (D. d. Dithiodibuttersäure). Sm. 166—167° (B. 23, 2490). — I, 1343.
- $C_5H_{16}N_4Cl_2S_2$ 1) Verbindung (aus Aethylenthioharnstoff u. Aethylenchlorid). + PtCl₄, + 2AuCl₃ (C. 1897 [2] 194).
- $C_5H_{16}N_4Br_2S_2$ 1) Verbindung (aus Aethylenthioharnstoff u. Aethylenbromid) (C. 1897 [2] 194).
- $C_5H_{17}O_2N_2Cl$ 1) Chlormethylat d. β -Acetoximido- α -Dimethylamidopropan. + AuCl₃ (C. 1898 [2] 632).
- $C_5H_{17}O_2BrS$ 1) Dipropylthetinbromid (J. 1878, 683). — I, 877.
- $C_5H_{17}O_2JS$ 1) Jodäthylat d. Merkaptoessigäthyläthersäureäthylester (Bl. 23, 445). — I, 891.
- $C_5H_{17}O_3NS$ 1) 2-Propylhexahydropyridin-6-Sulfonsäure. Sm. 135° (B. 28, 1463). — IV, 35.
2) 2-Methyl-5-Aethylhexahydropyridin-6-Sulfonsäure (Copellidinsulfonsäure). Sm. 139° (B. 28, 2274). — IV, 40.
- $C_5H_{17}NClBr$ 1) Valeryltrimethylaminchlorobromid. 2 + PtCl₄, + AuCl₃ (B. 14, 1343). — I, 1144.
- $C_5H_{17}NClJ$ 1) Methylenchlorojodid d. 1-Aethylhexahydropyridin. 2 + PtCl₄, + AuCl₃ (B. 14, 1344). — IV, 7.
2) Methylenchlorojodid d. Dimethylpiperidin. 2 + PtCl₄, + AuCl₃ (B. 14, 1348). — IV, 7.
- $C_5H_{17}NBrJ$ 1) Valeryltrimethylaminbromojodid (B. 14, 231, 1342). — I, 1144.
- $C_5H_{17}N_2JS$ 1) α -Diäthylallylthioharnstoffhydrojodid (B. 23, 2197). — I, 1320.
- $C_5H_{18}ONCl$ 1) Chloräthylat d. Diäthylamidoessigsäurealdehyd. Sm. 87—88° 2 + PtCl₄ + 2H₂O, + AuCl₃ (B. 30, 1507).
- $C_5H_{18}ON_2S_2$ 1) Verbindung (aus Rhodankalium) (J. pr. [2] 7, 474). — I, 1288.
- $C_5H_{18}O_2NCl$ 1) α -Trimethylchloramido-norm. Valeriansäure. (2 + PtCl₄ + 2H₂O), + AuCl₃ (G. 23 [2] 211).
2) α -Trimethylchloramidoisovaleriansäure. 2 + PtCl₄ + 4H₂O (Bl. [3] 3, 507; B. 23, 406). — I, 1200.
3) Triäthylammoniumchloridessigsäure. (2 + PtCl₄ + 4H₂O), + AuCl₃ (B. 30, 1508).
4) Aethylester d. α -Trimethylchloramidopropionsäure (B. 9, 38).
- $C_5H_{18}O_2NJ$ 1) α -Trimethyljodamido-norm. Valeriansäure + 2H₂O. Sm. 181—182°. K (G. 23 [2] 210).
- $C_5H_{18}O_4N_4S_2$ 1) Verbindung (aus Thioharnstoff u. Oxalsäurediäthylester) (B. 7, 780). — I, 1319.
- $C_5H_{18}NCl_2P$ 1) Diisobutylamidodichlorphosphin. Sm. 37—38°; Sd. 115—117°₁₆ (B. 29, 711).
- $C_5H_{18}NCl_2As$ 1) Diisobutylamidodichlorarsin. Fest. Sd. 125°₁₅ (B. 29, 714).
- $C_5H_{18}NCl_2B$ 1) Diisobutylamidodichlorborin. Sd. 92—95°₁₇ (B. 29, 715).
- $C_5H_{18}NCl_3Si$ 1) Diisobutylamidotrichlorsilicin. Sd. 120—124°₃₀ (B. 29, 714).
- $C_5H_{18}NJS_2$ 1) Jodmethylat d. Methylthialdin (B. 19, 2381). — I, 920.
- $C_5H_{19}N_2JS$ 1) α -Diäthylpropylthioharnstoffhydrojodid (B. 23, 2197). — I, 1320.
- $C_5H_{19}ClBrP$ 1) β -Bromäthyltriäthylphosphoniumchlorid. 2 + PtCl₄, + AuCl₃ (A. Spl. 1, 158). — I, 1502.
- $C_5H_{19}ClBrAs$ 1) Bromäthyltriäthylarsoniumchlorid. 2 + PtCl₄ (A. Spl. 1, 311). — I, 1513.
- $C_5H_{19}BrJP$ 1) β -Bromäthyltriäthylphosphoniumjodid (A. Spl. 1, 158). — I, 1502.

- $C_8H_{20}ONCl$ 1) **Methyldiäthyl- β -Oxyisopropylammoniumchlorid**. 2 + $PtCl_4$ (B. 15, 1145). — I, 1175.
 2) **β -Oxyäthyltriäthylammoniumchlorid**. 2 + $PtCl_4$ + $AuCl_3$ (A. Spl. 7, 88; B. 30, 1509). — I, 1172.
- $C_8H_{20}ONJ$ 1) **Methyldiäthyl- β -Oxyisopropylammoniumjodid** (B. 15, 1145). — I, 1175.
- $C_8H_{20}ON_2S$ 1) **Di[Diäthylamin]sulfoxyd** (n-Thionyldiäthylamin). $Sd. 118^{\circ}_{27-28}$ (B. 28, 1016).
- $C_8H_{20}OCIP$ 1) **Oxytetraäthylphosphoniumchlorid**. 2 + $PtCl_4$ + $AuCl_3$ (A. Spl. 1, 167).
- $C_8H_{20}OCl_2Te_2$ 1) **Aethyltelluroxychlorid** (J. 1861, 565). — I, 383.
- $C_8H_{20}OJP$ 1) **Oxytetraäthylphosphoniumjodid** (A. Spl. 1, 165).
- $C_8H_{20}O_2NJ$ 1) **Diäthyldi[β -Oxyäthyl]ammoniumjodid**. $Sm. 212-214^{\circ}$ (B. 31, 1076).
- $C_8H_{20}O_2N_2S$ 1) **Diäthylamid d. Diäthylsulfaminsäure**. $Sd. 249-251^{\circ}$ u. Zers. (B. 15, 1612; A. 222, 136). — I, 1178.
- $C_8H_{20}O_2S_3P_2$ 1) **Tetraäthylester d. Pentathiopyrophosphorsäure**. $Sm. 71,2^{\circ}$ (J. 1861, 586; A. 119, 300). — I, 341.
- $C_8H_{20}O_4NCl$ 1) **Tetra[β -Oxyäthyl]ammoniumchlorid**. 2 + $PtCl_4$ (A. 121, 229). — I, 1172.
- $C_8H_{20}O_4CIP$ 1) **Tetrahydroxyäthylidenphosphoniumchlorid**. $Sm. 112^{\circ}$ (B. 21, 329). — I, 921.
- $C_8H_{20}O_4BrP$ 1) **Tetrahydroxyäthylidenphosphoniumbromid**. $Sm. 88^{\circ}$ (B. 21, 331). — I, 921.
- $C_8H_{20}O_4JP$ 1) **Tetrahydroxyäthylidenphosphoniumjodid**. $Sm. 64-65^{\circ}$ (A. ch. [6] 2, 11). — I, 921.
- $C_8H_{20}O_4S_3P_2$ 1) **Tetraäthylester d. Trithiopyrophosphorsäure**. Fl. (B. 5, 8, 9). — I, 341.
- $C_8H_{20}O_5S_3P_2$ 1) **Tetraäthylester d. Dithiopyrophosphorsäure**. Fl. (A. 119, 299). — I, 341.
- $C_8H_{20}NCl_2J$ 1) **Tetraäthylammoniumchloridjodid**. $Sm. 146-148^{\circ}$ (Z. 1866, 350; A. 240, 124).
- $C_8H_{20}Cl_2JP$ 1) **Tetraäthylphosphoniumdichloridjodid** (Soc. 55, 129).
- $C_8H_{20}Cl_4JP$ 1) **Tetraäthylphosphoniumtetrachloridjodid** (Soc. 55, 129). — I, 1502.
- $C_8H_{20}Br_2JP$ 1) **Tetraäthylphosphoniumdibromidjodid** (Soc. 55, 129). — I, 1502.
- $C_8H_{21}O_2N_2Cl$ 1) **Diäthyläther d. $\alpha\alpha$ -Dimethyl- α -[$\beta\beta$ -Dioxyäthyl]hydrazoniumchlorid**. Fl. 2 + $PtCl_4$ (B. 27, 2207).
- $C_8H_{21}O_2N_2J$ 1) **Diäthyläther d. $\alpha\alpha$ -Dimethyl- α -[$\beta\beta$ -Dioxyäthyl]hydrazoniumjodid**. Fl. (B. 27, 2207).
- $C_8H_{22}NCl_2P$ 1) **Triäthyläthylenphosphammoniumchlorid**. 2 + $PtCl_4$ (A. Spl. 1, 290). — I, 1506.
- $C_8H_{22}NCl_3As$ 1) **Triäthyläthylenarsenammoniumchlorid**. 2 + $PtCl_4$ (A. Spl. 1, 318). — I, 1514.
- $C_8H_{22}NBr_2P$ 1) **Aethylentriäthylphosphammoniumbromid** (A. Spl. 1, 290). — I, 1506.
- $C_8H_{22}NBr_3As$ 1) **Aethylentriäthylarsenammoniumbromid** (A. Spl. 1, 318). — I, 1514.
- $C_8H_{24}O_2NP$ 1) **Aethylentriäthylphosphammoniumhydrat**. Salze siehe (A. Spl. 1, 291).
- $C_8H_{24}O_2NAs$ 1) **Aethylentriäthylarsoniumhydrat**. Salze siehe (A. Spl. 1, 318).
- $C_8H_{24}O_3N_2Si_2$ 1) **Diamid d. Dikieselsäuretetramethylester** (A. ch. [5] 7, 472). — I, 346.

C_8 -Gruppe mit fünf Elementen.

- $C_8H_5ONClBr$ 1) **Bromisatinchlorid** (B. 12, 1315). — II, 1607.
- $C_8H_5O_4NCl_5P$ 1) **Verbindung** (aus d. 2,3-Imid d. Benzol-1,2-Dicarbonsäure-3-Sulfonsäure). $Sm. 120-126^{\circ}$ (Am. 6, 274). — II, 1825.
- $C_8H_5O_6NClBr$ 1) **?-Chlor-?-Brom-?-Nitrobenzol-1,4-Dicarbonsäure**. $Sm.$ bei 300° . $Ba + H_2O$ (J. pr. [2] 39, 412). — II, 1839.
- $C_8H_5O_3NClBr$ 1) **Chlorid d. 5-Brom-2-Nitro-1-Methylbenzol-4-Carbonsäure**. $Sm. 60^{\circ}$ (A. 265, 366). — II, 1351.
- $C_8H_5O_4NClBr$ 1) **3-Chlor-6-Brom-2-[oder 5]-Nitro-1-Methylbenzol-4-Carbonsäure?** $Sm. 220^{\circ}$. $Ba + H_2O$ (J. pr. [2] 39, 411). — II, 1351.
- $C_8H_5ONCl_2Br$ 1) **Dichlormethyl-5-Brom-2-Amidophenylketon**. $Sm. 110-120^{\circ}$ (B. 17, 967). — III, 128.

- $C_6H_4O_2N_2ClBr$ 1) 6-Chlor-3-Brom-2,5-Dinitro-1,4-Dimethylbenzol. Sm. 245° (*J. pr.* [2] 39, 408). — II, 101.
- $C_6H_4O_2NCIS$ 1) 2-Chloridd. 4-Nitrobenzol-1-Carbonsäuremethylester-2-Sulfonsäure. Sm. 90° (*Am.* 11, 182). — II, 1305.
- $C_6H_4N_3Cl_2BrJ$ 1) Jodmethylat d. 4,6,7-Trichlor-5-Brom-1-Methyl-1,2,3-Benzotriazol. Sm. 185° (*A.* 249, 372). — IV, 1143.
- C_6H_4ONSHg 1) Methyläther d. 4-Oxyphenylquecksilbersulfocyanid. Sm. 208° (*B.* 27, 260).
- $C_6H_4O_2NClBr$ 1) 4-Chlor-5-Brom-*p*-Nitro-1,2-Dimethylbenzol. Sm. 223° (*J. pr.* [2] 43, 257). — II, 99.
2) *p*-Chlor-*p*-Brom-*p*-Nitro-1,4-Dimethylbenzol. Sm. 99,5° (*J. pr.* [2] 39, 408). — II, 101.
- $C_6H_4O_2ClBr_2S$ 1) Chlorid d. 4,6-Dibrom-1,3-Dimethylbenzol-2-Sulfonsäure. Sm. 107° (*B.* 11, 1535). — II, 144.
2) Chlorid d. 3,6-Dibrom-1,4-Dimethylbenzol-2-Sulfonsäure. Sm. 78—79° (*Soc.* 57, 976). — II, 147.
- $C_6H_4O_2ClJ_2S$ 1) Chlorid d. *p*-Dijod-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 85 bis 87° (*B.* 26, 1107). — II, 145.
- $C_6H_4O_2Cl_2BrS_2$ 1) Chlorid d. 6-Brom-1,3-Dimethylbenzol-2,4-Disulfonsäure. Sm. 160° (*B.* 23, 3116). — II, 144.
- $C_6H_4O_2N_3ClS$ 1) Chlorid d. 5,6-Dinitro-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 117—118° (*B.* 19, 1426). — II, 146.
- C_6H_4ONFS 1) *p*-Fluor-4-Thionylamido-1,3-Dimethylbenzol. Sd. 144° (*A.* 274, 236). — II, 543.
- $C_6H_4O_2ClBrS$ 1) Chlorid d. 5-Brom-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 61° (*B.* 11, 1063). — II, 144.
2) Chlorid d. 5-Brom-1,4-Dimethylbenzol-2-Sulfonsäure. Sm. 77 bis 78° (*B.* 19, 142). — II, 146.
- $C_6H_4O_2ClJS$ 1) Chlorid d. 6-Jod-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 73° (*B.* 26, 1106). — II, 145.
- $C_6H_4O_2NBrS$ 1) Acetylamid d. 4-Brombenzol-1-Sulfonsäure. Sm. 199° (*B.* 8, 598).
- $C_6H_4O_2NCIS$ 1) Chlorid d. 2-Nitro-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 96° (*B.* 19, 1421). — II, 145.
2) Chlorid d. 5-Nitro-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 97° (*B.* 19, 1423). — II, 145.
3) Chlorid d. 6-Nitro-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 98° (*B.* 18, 2174). — II, 145.
- $C_6H_4O_2NBrS$ 1) 6-Brom-2[oder 5]-Nitro-1,3-Dimethylbenzol-4-Sulfonsäure. $K + H_2O$, $Ba + 3\frac{1}{2}H_2O$ (*A.* 230, 341). — II, 146.
- $C_6H_4O_2NCl_2S$ 1) Amid d. 4,6-Dichlor-1,3-Dimethylbenzol-2-Sulfonsäure. Sm. über 250° u. Zers. (*B.* 23, 2319). — II, 144.
2) Amid d. 2,6-Dichlor-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. über 300° u. Zers. (*B.* 23, 2320). — II, 144.
- $C_6H_4O_2NBr_2S$ 1) Amid d. 4,6-Dibrom-1,3-Dimethylbenzol-2-Sulfonsäure. Sm. 220° (*B.* 11, 1535). — II, 144.
2) Amid d. 2,6-Dibrom-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. über 300° (*B.* 21, 2825). — II, 145.
3) Amid d. 3,6-Dibrom-1,4-Dimethylbenzol-2-Sulfonsäure. Sm. 198° (*Soc.* 57, 976). — II, 147.
- $C_6H_4O_2NJ_2S$ 1) Amid d. *p*-Dijod-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 242 bis 243° u. Zers. (*B.* 26, 1107). — II, 145.
- $C_6H_{10}ONSP$ 1) Phenylimid d. Thiophosphorsäuremonäthylester (Sulfophosphazobenzoläthylester). Sm. 206° (*B.* 28, 1240).
- $C_6H_{10}O_2NCIS$ 1) Amid d. 6-Chlor-1,2-Dimethylbenzol-3-Sulfonsäure. Sm. 199° (*B.* 18, 1757). — II, 142.
2) Amid d. 5-Chlor-1,2-Dimethylbenzol-4-Sulfonsäure. Sm. 207° (*B.* 18, 1757). — II, 143.
3) Amid d. 5-Chlor-1,3-Dimethylbenzol-2-Sulfonsäure. Sm. 189 bis 190° (191—192°) (*B.* 27, 3025; 29, 311).
4) Amid d. 6-Chlor-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 195° (*B.* 18, 1761). — II, 142.
5) Chlorid d. 1-Dimethylamidobenzol-*p*-Sulfonsäure (*J. pr.* [2] 20, 262, 263). — II, 576.

- $C_8H_{10}O_2NBrS$ 1) Amid d. 4-Brom-1-Aethylbenzol-2-Sulfonsäure. Sm. 123—124° (B. 22, 2670). — II, 142.
 2) Amid d. 2-Brom-1-Aethylbenzol-3[oder 5]-Sulfonsäure. Sm. 104—105° (B. 22, 2669). — II, 142.
 3) Amid d. 5-Brom-1,2-Dimethylbenzol-4-Sulfonsäure. Sm. 213° (B. 17, 2374). — II, 143.
 4) Amid d. ?-Brom-1,2-Dimethylbenzol-4-Sulfonsäure. Sm. 186,5° (B. 19, 2138). — II, 143.
 5) Amid d. 4-Brom-1,3-Dimethylbenzol-2-Sulfonsäure. Sm. 161° (B. 11, 1536). — II, 144.
 6) Amid d. 5-Brom-1,3-Dimethylbenzol-2-Sulfonsäure. Sm. 200 bis 201° (B. 19, 142). — II, 146.
 7) Amid d. 5-Brom-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 194° (189—190°) (B. 11, 1063; 19, 139). — II, 144.
 8) Amid d. ?-Brom-1,4-Dimethylbenzol-?-Sulfonsäure. Sm. 206° (B. 17, 2379). — II, 147.
- $C_8H_{10}O_2NJS$ 1) Amid d. 6-Jod-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 176° (B. 26, 1106). — II, 145.
- $C_8H_{10}O_3NBrS$ 1) ?-Brom-4-Amido-1,3-Dimethylbenzol-5-Sulfonsäure (B. 19, 140). — II, 583.
 2) ?-Brom-2-Amido-1,4-Dimethylbenzol-6-Sulfonsäure. K (B. 19, 143). — II, 583.
- $C_8H_{10}O_4NCl_2S$ 1) Verbindung (aus Chloral und Anilinsulfit) (A. 210, 130). — II, 443.
- $C_8H_{11}O_4N_2ClS_2$ 1) Amid d. 6-Chlor-1,3-Dimethylbenzol-2,4-Disulfonsäure. Sm. 270° (B. 23, 3117). — II, 144.
- $C_8H_{11}O_4N_2BrS_2$ 1) Amid d. 6-Brom-1,3-Dimethylbenzol-2,4-Disulfonsäure. Sm. 265° (B. 23, 3116). — II, 144.
- $C_8H_{10}ONCl_2P$ 1) Diisobutylamid d. Phosphorsäuredichlorid. Sm. 54° (B. 29, 712).
- $C_8H_{10}NCl_2SP$ 1) Diisobutylamid d. Thiophosphorsäuredichlorid. Sd. 150°₁₀ (B. 29, 713).
- $C_8H_{12}N_{10}Br_4S_8Si$ 1) Verbindung (aus Thioharnstoff u. $SiBr_4$) (Soc. 51, 203). — I, 1318.

C_8 -Gruppe mit sechs Elementen.

- $C_8H_6ONClSP$ 1) 4-Chlorphenylimid d. Thiophosphorsäuremonäthylester (Sulphosphazo-p-Chlorbenzoläthylester). Sm. 91° (B. 28, 1242).
- $C_8H_{10}O_2N_2ClBrS_2$ 1) Verbindung (aus Xanthogenamid u. Trimethylenchlorobromid). Sm. 102—103° (B. 26, 1084).

C_9 -Gruppe mit einem Element.

- C_9H_8 C 93,1 — H 6,9 — M. G. 116.
 1) Inden. Sd. 179,5—180,5° (B. 23, 3276; 26, 2251; Soc. 65, 246). — II, 174.
 2) Isoinden? Sd. 180° (B. 26, 2252).
 3) Parainden = $(C_9H_8)_2$ (B. 23, 3278; 26, 2252). — II, 175.
 4) α -Phenylpropin (Phenylallylen). Sd. 185°. $2 + 3HgCl_2 + 3HgO$ (B. 21, 276). — II, 174.
- C_9H_{10} C 91,5 — H 8,5 — M. G. 118.
 1) 2,3-Dihydroinden. Sd. 176—176,5° (B. 23, 3281; Soc. 65, 248). — II, 170.
 2) α -Phenylpropen (Allylbenzol). Sm. 174—175° (A. 172, 129; B. 11, 670; 27, 2312; J. 1874, 393; 1877, 381; Soc. 59, 1010; G. 16, 318; J. r. 16, 324). — II, 168.
 3) γ -Phenylpropen (Isoallylbenzol). Sd. 155° (A. 172, 132; 283, 304; J. 1873, 359). — II, 169.
 4) 3-Methylphenyläthen (m-Methylstyrol). Sd. 164° (B. 20, 1215). — II, 169.
 5) 4-Methylphenyläthen (p-Methylstyrol). Sd. 170—175° (B. 24, 1332). — II, 169.

- C_9H_{12} C 90,0 — H 10,0 — M. G. 120.
- 1) Propylbenzol. *Sd.* 157° (*A.* 149, 324; 218, 379; 220, 93; 223, 68; 234, 319; 270, 164; *B.* 10, 294; 18, 605; 24, 768; 26 [2] 693; 27, 1477; *Ph. Ch.* 10, 300; 11, 590; *J. r.* 27, 298). — II, 28.
 - 2) Isopropylbenzol (Cumol). *Sd.* 152,5—153,5° (*A.* 38, 88; 270, 159; *B.* 8, 1260; 11, 1251; 12, 2280; 13, 45; *Ph. Ch.* 10, 301; 11, 590, 785; *Bl.* 43, 317; [3] 9, 36). — II, 28.
 - 3) 1-Methyl-2-Aethylbenzol. *Sd.* 158—159° (*B.* 18, 1121; 19, 3084). — II, 28.
 - 4) 1-Methyl-3-Aethylbenzol. *Sd.* 158—159° (*A.* 192, 198; *B.* 11, 270; 31, 677; *M.* 1, 195). — II, 28.
 - 5) 1-Methyl-4-Aethylbenzol. *Sd.* 161—162° (*A.* 136, 312; 220, 93; 223, 68; 235, 314; *B.* 7, 1513; 28, 2648; *M.* 1, 195). — II, 28.
 - 6) 1,2,3-Trimethylbenzol (Hemellithol; Hemimellithen). *Sd.* 175—175,5° (*B.* 15, 1857; 19, 2513; 20, 904; 29, 953). — II, 28.
 - 7) 1,2,4-Trimethylbenzol (Pseudocumol). *Sd.* 169,8°. *Lit.* bedeutend. — II, 29.
 - 8) 1,3,5-Trimethylbenzol (Mesitylen). *Sd.* 164,5°. *Lit.* bedeutend. — II, 29.
- C_9H_{14} C 88,5 — H 11,5 — M. G. 122.
- 1) 1-Methyl-3-Aethyl- β -Dihydrobenzol. *Sd.* 153,5°_{74,7} (*B.* 13, 72). — II, 20.
 - 2) Carpen (aus Podocarpinsäure). *Sd.* 155—157° (*A.* 170, 252). — I, 139.
 - 3) Kohlenwasserstoff = $(C_9H_{14})_x$ (aus Dichlornononaphtylen) (*J. r.* 23, 447).
- C_9H_{18} C 87,1 — H 12,9 — M. G. 124.
- 1) Isopropyl- β -Tetrahydrobenzol. *Sd.* 155° (*A. ch.* [6] 1, 239). — II, 17.
 - 2) Isogeraniolen (1,3,3-Trimethyl-1,2,3,4-Tetrahydrobenzol). *Sd.* 138 bis 140° (*B.* 26, 2727; *A.* 297, 200).
 - 3) β -Dimethyl- $\alpha\epsilon$ -Heptadien (Geraniolen). *Sd.* 142—143° (*B.* 26, 2724; 28, 2134).
 - 4) Campholen (Tetrahydropseudocumol?). *Sd.* 129—130,5° (133—135°) (*A.* 38, 340; 162, 266; *B.* 20, 484; 26, 923; 26, [2] 492; 28, 2184; 30, 594; *G.* 23 [2] 507; *Bl.* [3] 11, 394; *C.* 1895 [1] 49). — I, 136.
 - 5) Isocampholen. *Sd.* 134° (*C.* 1895 [1] 49).
 - 6) Nononaphtylen. *Sd.* 135—137° (*J. r.* 22, 131). — II, 17.
 - 7) Kohlenwasserstoff (aus Brasilin). *Sd.* 155—165° (*B.* 27, 529).
 - 8) Kohlenwasserstoff (aus Campher). *Sd.* 135—140° (*B.* 1, 96). — I, 136.
 - 9) Kohlenwasserstoff (aus Pulegensäure). *Sd.* 138—140° (*A.* 289, 353).
- C_9H_{18} C 85,7 — H 14,3 — M. G. 126.
- 1) η -Methyl- β -Okten. *Sd.* 141,5—143° (*B.* 24, 3359). — I, 122.
 - 2) 1,2-Dimethyl- β -Heptamethylen. *Sd.* 153° (*Soc.* 59, 227). — I, 122.
 - 3) Propylhexahydrobenzol. *Sd.* 146—148°₇₃₀ (140—142°) (*B.* 23, 1158; 27, 1477; *J. r.* 26 [1] 42). — I, 122.
 - 4) Isopropylhexahydrobenzol. *Sd.* 147—150° (*A. ch.* [6] 1, 229). — II, 15.
 - 5) 1-Methyl-2-Aethylhexahydrobenzol. *Sd.* 150—152° (*Soc.* 57, 25). — I, 122.
 - 6) 1,1,3-Trimethylhexahydrobenzol. *Sd.* 137,5—138,5°₇₇₀ (*A.* 297, 202).
 - 7) 1,2,4-Trimethylhexahydrobenzol (Nononaphten). *Sd.* 142—143° (132 bis 134°) (*J. r.* 15, 331; 16 [2] 296; 19, 255; 22, 9; 25, 390; *B.* 29, 214; *Ph. Ch.* 2, 649; *Bl.* [3] 11, 398, 432). — II, 15.
 - 8) 1,3,5-Trimethylhexahydrobenzol. *Sd.* 135—138° (*A.* 155, 275; *J. r.* 19, 256; *Bl.* [3] 11, 431). — II, 15.
 - 9) Dihydrofencholen. *Sd.* 141—142° (*A.* 269, 341).
 - 10) Nonen (aus Aceton). *Sd.* 130° (*B.* 12, 1583).
 - 11) Nonen (aus Aethyldipropylcarbinoljodid). *Sd.* 139,5° (cor.) (*J. pr.* [2] 39, 446). — I, 122.
 - 12) Nonen (aus Campher). *Sd.* 115—118° (*B.* 1, 95).
 - 13) Nonen (aus Campholensäure). *Sd.* 134—136° (*A.* 269, 343).
 - 14) Nonen (aus Colophonium). *Sd.* 147—150° (*C. r.* 95, 245).
 - 15) Nonen (aus Fischthran). *Sd.* 153° (*Z.* 1868, 230). — I, 122.
 - 16) Nonen (aus Fuselöl). *Sd.* 140° (*A.* 128, 232). — I, 123.
 - 17) Nonen (aus Harzessenz). *Sd.* 147—150° (*Bl.* 39, 541). — I, 122.
 - 18) Nonen (aus Naphta). *Fl.* (*B.* 16, 966).

- C_9H_{18} 19) **Nonen** (aus Oelsäure). *Sd.* 110° (*A.* 20, 65). — I, 122.
 20) **Nonen** (aus Oenanthol). *Sd.* 144—146° (*A.* 117, 78). — I, 123.
 21) **Nonen** (aus Paraffin). *Sd.* 145—148° (*A.* 165, 19). — I, 122.
 22) **Nonen** (aus Petroleumnonan). *Sd.* 133—136° (*Bl.* 41, 165). — I, 123.
 23) **Nonen** (aus bitum. Schiefer). *Sd.* 120—121° (*A.* 25, 285). — I, 122.
- C_9H_{20} C 84,4 — H 15,6 — M. G. 128.
 1) **norm. Nonan**. *Sd.* 150,8° (147—148°) (*A.* 165, 19; *B.* 15, 1692; 25, 1674; *Am.* 21, 215). — I, 104.
 2) **δ -Äthylheptan**. *Sd.* 138—139° (*B.* 29, 2004).
 3) **β -Dimethylheptan**. *Sd.* 128—134° (*Bl.* [3] 11, 1180).
 4) **β -Dimethylheptan** (Isobutylisocamyl). *Sd.* 132° (*J.* 1855, 575). — I, 104.
 5) **$\beta\gamma\delta$ -Tetramethylpentan** (Dimethyldiisopropylmethan)? *Sd.* 130° (*B.* 5, 984). — I, 104.
 6) **Nonan** (aus Petroleum). *Sd.* 129,5—131,5° u. 136—137° (*Bl.* 41, 164). — I, 104.
- C_9Cl_7 1) **Oktochlorinden**. *subl.* *Sm.* 85° (*A.* 272, 270). — II, 175.

C_9 -Gruppe mit zwei Elementen.

- $C_9H_7N_{1,3}$ C 45,6 — H 1,3 — N 53,1 — M. G. 237.
 1) **Mellonwasserstoff** (Cyamellon). $K, K_2 + 3H_2O, K_3 + 5H_2O, Ca_2 + 4H_2O, Ba_2 + 6H_2O, Cu_2 + 5H_2O, Ag_2$ (*A.* 50, 358; 95, 270; *J. pr.* [2] 9, 29; [2] 33, 289). — I, 1453.
- $C_9H_4O_3$ C 67,5 — H 2,5 — O 30,0 — M. G. 160.
 1) **1,2,3-Triketo-2,3-Dihydroinden**. *Sm.* 190—206° u. Zers. (*B.* 30, 387).
- $C_9H_4O_4$ C 61,3 — H 2,3 — O 36,4 — M. G. 176.
 1) **Dilakton d. 1-Dioxymethylbenzol-2,6-Dicarbonsäure**. *Sm.* noch nicht bei 340° (*B.* 26, 1798; *A.* 290, 216). — II, 1960.
- $C_9H_4O_5$ C 56,3 — H 2,0 — O 41,7 — M. G. 192.
 1) **1,2-Anhydrid d. Benzol-1,2,3-Tricarbonsäure** (A. d. Hemimellithsäure). *Sm.* 196° (*A.* 290, 214, 221).
 2) **1,2-Anhydrid d. Benzol-1,2,4-Tricarbonsäure**. *Sm.* 157—158° (*A.* 166, 340). — II, 2010.
 3) **Anhydrid d. 4,5-Dioxybenzolmethylenäther-1,2-Dicarbonsäure** (A. d. Hydrastsäure). *Sm.* 175° (*A.* 271, 381). — II, 2000.
- $C_9H_5O_2$ 1) **Verbindung** (aus Trichlorakrylbenzol-2-Carbonsäure) = $(C_9H_5O_2)_x$. *Sm.* noch nicht bei 270° (*A.* 255, 374). — II, 1678.
- C_9H_6O C 83,1 — H 4,6 — O 12,3 — M. G. 130.
 1) **Globularetin** (*J.* 1860, 560; *B.* 16, 574; *A. ch.* [5] 28, 72). — III, 591.
 2) **Truxon** = $(C_9H_6O)_x$. *Sm.* 289° (*B.* 22, 784; 31, 2095). — III, 170.
- $C_9H_6O_2$ C 74,0 — H 4,1 — O 21,9 — M. G. 146.
 1) **Methylenäther d. 3,4-Dioxyphenyläthin**. *Fl.* (*Bl.* [3] 17, 618).
 2) **1,3-Diketo-2,3-Dihydroinden**. *Sm.* 129—131° u. Zers. (*A.* 246, 351; 252, 75; *B.* 26, 954). — III, 274.
 3) **1,2-Benzpyron** (Cumarin). *Sm.* 67°; *Sd.* 290—290,5°. + 2NaOH, + 2KOH, + $Ba(OH)_2$, + 2PbO, + Ag_2O . *Lit.* bedeutend. — II, 1629.
 4) **1,2-Isobenzpyron** (Isocumarin). *Sm.* 47°; *Sd.* 285—286°₁₁₉ (*B.* 27, 207). — II, 1640.
 5) **Methylenphtalyl**. *Sm.* 217—219,5° (*B.* 14, 926). — III, 274.
 6) **Phenyläthincarbonsäure** (Phenylpropiolsäure). *Sm.* 136—137°. $K, Ba + 3H_2O, Cu + 4H_2O, Ag$, Anilinsalz (*A.* 154, 140; *J. pr.* [2] 20, 180; *B.* 16, 152; 22, 1181; 25, 951; *Soc.* 45, 172; *Ph. Ch.* 3, 279). — II, 1438.
 7) **Säure** (aus Benzoylessigsäureäthylester) = $(C_9H_6O_2)_x$. *Sm.* oberh. 300° (*Soc.* 47, 280). — II, 1643.
 8) **Lakton d. 1-[α -Oxyäthenyl]benzol-2-Carbonsäure** (Methylenphtalid). *Sm.* 58—60° (*B.* 17, 2522). — II, 1646.
- $C_9H_8O_3$ C 66,7 — H 3,7 — O 29,6 — M. G. 162.
 1) **Difuranylketon** (*Bl.* [3] 17, 612).
 2) **6-Oxy-1,2-Benzpyron** (m-Oxycumarin). *Sm.* 248—250° (*B.* 17, 1649; *G.* 24 [2] 501). — II, 1775.
 3) **7-Oxy-1,2-Benzpyron** (Umbelliferon). *Sm.* 223—224° (*J.* 1859, 573; *A.* 115, 15; 139, 99; 264, 284; *B.* 12, 994; 14, 2744; 17, 932; *Bl.* [3] 13, 900). — II, 1773.

$C_9H_6O_3$

- 4) **Methylenphtalidoxyd**. Sm. 144—146° (B. 17, 2524). — II, 1647.
- 5) **Skimmetin**. Sm. 223° (R. 3, 208). — III, 611.
- 6) **α -[2-Oxyphenyl]äthin- β -Carbonsäure** (Benzfuran-1-Carbonsäure; o-Cumarilsäure). Sm. 192—193° (190—191°). $Ca + 3H_2O$, $Ba + 4H_2O$, Ag (Z. 1871, 178; A. 216, 162). — II, 1675.
- 7) **α ,2-Lakton d. 1-[$\alpha\beta$ -Dioxyäthenyl]benzol-2-Carbonsäure?** (Oxymethylenphtalyl). Sm. 145—146° (B. 11, 1012). — II, 1649.
- 8) **Lakton d. β -[2,3-Dioxyphenyl]akrylsäure**. Sm. 280—285° u. Zers. (G. 15, 34). — II, 1773.
- 9) **Lakton d. α -[2-Oxyphenyl]äthanoxyd- β -Carbonsäure** (Oxycumarin). Sm. 152—153° (B. 18, 1187). — II, 1848.
- 10) **Anhydrid d. 1-Methylbenzol-2,3-Dicarbonsäure**. Sm. 109—110° (B. 25, 2106). — II, 1845.
- 11) **Anhydrid d. 1-Methylbenzol-3,4-Dicarbonsäure**. Sm. 92° (M. 12, 626). — II, 1846.
- 12) **Anhydrid d. Benzol-1-Carbonsäure-2-Methylcarbonsäure** (A. d. o-Homophtalsäure). Sm. 140,5—141° (A. 233, 108). — II, 1842.
C 60,7 — H 3,3 — O 36,0 — M. G. 178.

 $C_9H_6O_4$

- 1) **6,7-Dioxy-1,2-Benzpyron + H_2O** (Aeskuletin). Sm. oberh. 270° u. Zers. Pb , + $NaHSO_3$ + $\frac{1}{2}H_2O$ (A. 90, 68; Z. 1868, 727; J. 1863, 589; B. 13, 1590; 15, 1595, 2072; 23, 3347; 32, 288). — III, 567.
- 2) **Aeskulethinhydrat + $\frac{1}{4}H_2O$** . Sm. oberh. 250° (A. 90, 72; J. 1863, 590). — III, 567.
- 3) **Paraäskuletin + $2\frac{1}{2}H_2O$ (oder $C_9H_6O_4$). + $NaHSO_3$ + $\frac{1}{2}H_2O$** (J. 1863, 589; A. 161, 84; Z. 1867, 531, 532; B. 13, 1595; 14, 477). — III, 569.
- 4) **7,8-Dioxy-1,2-Benzpyron** (Daphnetin). Sm. 253—256° u. Zers. Pb (A. 115, 8; B. 12, 109; 17, 934, 2188; 32, 287). — II, 1949.
- 5) **Parellsäure + $2H_2O$** (A. 54, 274; B. 30, 363). — II, 1861.
- 6) **2, α -Lakton d. α -Oxy- α -Phenylmethan- α -Carbonsäure-2-Carbonsäure** (Phtalidcarbonsäure). Sm. 151—152° (B. 27, 743; 31, 373). — II, 1947.
- 7) **Anhydrid d. 5-Oxy-1-Methylbenzol-2,3-Dicarbonsäure** (A. d. β -Coccinsäure). Sm. 166—168° (B. 30, 1743).
- 8) **Anhydrid d. 3-Oxybenzoldimethyläther-1,2-Dicarbonsäure**. Sm. 87° (B. 16, 1964). — II, 1935.
- 9) **Anhydrid d. 4-Oxybenzoldimethyläther-1,2-Dicarbonsäure**. Sm. 93° (97°) (B. 12, 829; A. 296, 358). — II, 1935.
- 10) **Verbindung (aus Brasilin)**. Sm. 271° u. Zers. $PbO + H_2O$ (B. 21, 3016; 25, 22). — III, 655.

 $C_9H_6O_5$

- 11) **Verbindung (aus Lokaetin)** (J. 1872, 1068). — III, 596.
C 55,7 — H 3,1 — O 41,2 — M. G. 194.
- 1) **Opinsäure + $2H_2O$** . Sm. 148° (J. 1876, 809; A. Spl. 7, 149). — II, 1960.
- 2) **Benzol-1-Carbonsäure-2-Ketocarbonsäure + $2H_2O$** (Phtalonsäure). Sm. 144,5° (wasserfrei). K_2 , $Ba + 2H_2O$, $Cu + Cu(OH)_2 + 6H_2O$, Ag_2 (A. 226, 53; 240, 142; 300, 204; B. 18, 379; 21, 1608; 30, 387; 31, 369). — II, 1960.
- 3) **3,4-Dioxybenzoldimethylenäther-1-Ketocarbonsäure**. Sm. 148—149°. Ag (B. 23, 1160). — II, 1946.
- 4) **Anhydrid d. 3,4-Dioxybenzol-4-Methyläther-1,2-Dicarbonsäure + $2H_2O$** (A. d. Methylätheruorhemipinsäure). Sm. 148° (A. Spl. 7, 153). — II, 1994.
- 5) **2-Aldehyd d. Benzol-1,2,3-Tricarbonsäure**. Sm. 175—178° (162 bis 165°). $Ba + 2H_2O$, Ag_2 (B. 26, 1798; 30, 695, 697; A. 290, 215). — II, 1961.

 $C_9H_6O_6$

- C 51,4 — H 2,9 — O 45,7 — M. G. 210.
- 1) **Benzol-1,2,3-Tricarbonsäure + $2H_2O$** (Hemimellithsäure). Sm. 196° u. Zers. K , K_3 , $Ba_3 + 5(6)H_2O$, Ag_2 , Ag_3 . Monoanilinsalz (A. Spl. 7, 31; M. 15, 815; B. 26, 1798; 29, 1401; 30, 695; A. 290, 211, 217). — II, 2010.
- 2) **Benzol-1,2,4-Tricarbonsäure** (Trimellithsäure). Sm. 216°. $Ba_3 + 4H_2O$, Ag_3 (A. 172, 97; 233, 230; A. Spl. 7, 40; B. 10, 1494; 11, 88; 12, 1257; 17, 2338; 19, 1635; J. pr. [2] 43, 427). — II, 2010.
- 3) **Benzol-1,3,5-Tricarbonsäure** (Trimesinsäure). Sm. 345—350°. Na , $Na_3 + H_2O$, K , $K_3 + 2H_2O$, $Ca_3 + 12H_2O$, $Ba_3 + 10H_2O$, $BaH + 4H_2O$,

- $\text{Zn}_3, \text{Pb}_3 + 5\text{H}_2\text{O}, \text{Cu}_3 + \text{H}_2\text{O}, \text{Ag}_3$ (Z. 1868, 119; A. Spl. 7, 22, 40, 48; A. 141, 153; 147, 304; 166, 340; 264, 294; 305, 153; B. 7, 1435, 1781; 19, 900, 2185; 20, 537; J. pr. [2] 40, 140; Bl. 34, 636; Ph. Ch. 5, 398; C. 1898 [2] 473). — II, 2011.
- $\text{C}_9\text{H}_6\text{O}_6$ 4) 4,5-Dioxybenzolmethylenäther-1,2-Dicarbonsäure (Hydrastsäure). Sm. 174° (u. 185—187°). $\text{NH}_4, \text{Ba} + \text{H}_2\text{O}, \text{Cu} + 6\text{H}_2\text{O}, \text{CuH}, \text{Ag}_3$ (A. 271, 375; Soc. 57, 1095; B. 26, 1008). — II, 1999.
- 5) 1-Aldehyd d. 2-Oxybenzol-1,3,5-Tricarbonsäure. Sm. 260° u. Zers. $\text{Ag}_3 + \text{H}_2\text{O}$ (B. 11, 793). — II, 2009.
- 6) 1-Aldehyd d. 4-Oxybenzol-1,3,5-Tricarbonsäure. Sm. 237—238° u. Zers. Ca, Mg, Ba (B. 11, 795). — II, 2010.
- $\text{C}_9\text{H}_6\text{O}_7$ C 47,8 — H 2,6 — O 49,6 — M. G. 226.
- 1) 5-Oxybenzol-1,2,4-Tricarbonsäure + 2H₂O (Oxytrimellithsäure). Sm. 245° u. Zers. (wasserfrei). $\text{Ba}_3 + 5\text{H}_2\text{O}$ (B. 16, 192). — II, 2046.
- 2) 2-Oxybenzol-1,3,5-Tricarbonsäure (Oxytrimesinsäure). K, Ca + 6H₂O, $\text{Ca}_3 + 8\text{H}_2\text{O}, \text{Ba}_3 + 8\text{H}_2\text{O}, \text{Ag}_3 + 3\text{H}_2\text{O}$ (A. 206, 204; J. pr. [2] 14, 96, 109; [2] 15, 302; [2] 17, 282; B. 31, 1685). — II, 2046.
- $\text{C}_9\text{H}_6\text{N}_2$ C 76,0 — H 4,2 — N 19,7 — M. G. 142.
- 1) Nitril d. 1-Methylbenzol-3,4-Dicarbonsäure. Sm. 120° (117°) (B. 21, 2663; M. 12, 624). — II, 1846.
- 2) Nitril d. 1-Methylbenzol-2-Dicarbonsäure (Z. 1869, 612). — II, 1847.
- 3) Nitril d. Benzol-1-Carbonsäure-2-Methylcarbonsäure (o-Cyanbenzylcyanid). Sm. 81° (B. 20, 2224, 2502). — II, 1843.
- 4) Nitril d. Benzol-1-Carbonsäure-3-Methylcarbonsäure (N. d. Homo-isophtalsäure). Sm. 84° (B. 24, 2417). — II, 1843.
- 5) Nitril d. Benzol-1-Carbonsäure-4-Methylcarbonsäure. Sm. 100°; Sd. oberh. 360° (B. 22, 3209). — II, 1844.
- $\text{C}_9\text{H}_6\text{N}_4$ C 63,5 — H 3,5 — N 32,9 — M. G. 170.
- 1) Nitril d. Phenylhydrazonmethandicarbonensäure. Sm. 130—144° u. Zers. (135°) (B. 21, 3001; 29, 1174). — IV, 720, 756.
- 2) Nitril d. 1-Phenyl-1,2,5-Triazol-3-Carbonsäure. Sm. 94,5°; Sd. 180 bis 192°₆₀ (A. 262, 298). — IV, 1112.
- $\text{C}_9\text{H}_5\text{Cl}_2$ 1) 1,1-Dichlorinden. Sm. 29° (B. 22, 2025). — II, 175.
- 2) Truxonchlorid. Sm. 178° (B. 22, 785). — III, 170.
- $\text{C}_9\text{H}_7\text{N}$ C 83,7 — H 5,4 — N 10,8 — M. G. 129.
- 1) Chinolin. Sd. 234—234,5°_{758,6} (240,4—241,3°_{780,1}). Salze meist bek. Lit. bedeutend). — IV, 247.
- 2) Isochinolin. Sm. 24,6°; Sd. 240,5°₇₆₃. (2HCl, $\text{PtCl}_4 + 2\text{H}_2\text{O}$), H_2SO_4 , $\text{H}_2\text{Cr}_2\text{O}_7$, Pikrat. Lit. bedeutend. — IV, 299.
- 3) Nitril d. β-Phenylakrylsäure. Sm. 11°; Sd. 254—255° (Z. 1866, 362; A. ch. [6] 29, 463; B. 17, 1768). — II, 1408.
- $\text{C}_9\text{H}_7\text{Br}$ 1) Brominden. Sd. 242—244° (B. 26, 2254; Soc. 65, 253). — II, 175.
- $\text{C}_9\text{H}_7\text{Br}_3$ 1) 2-Pentabrom-1-Isopropylbenzol. Sm. 97° (A. 149, 326; Z. 1867, 323; J. r. 26 [1] 43). — II, 66.
- $\text{C}_9\text{H}_8\text{O}$ C 81,8 — H 6,0 — O 12,1 — M. G. 132.
- 1) Methyläther d. 4-Oxyphenyläthin. Sm. 28,5°; Sd. 205—212° (Bl. [3] 17, 513).
- 2) 2-Methylbenzofuran (β-Methylcumaron). Sd. 188—189° (B. 19, 1294; 28, 1254). — II, 1676.
- 3) 4-Methylbenzofuran. Sd. 197—199°. Pikrat (B. 30, 1706).
- 4) 5-Methylbenzofuran. Sd. 195—196°. Pikrat (B. 30, 1706).
- 5) 6-Methylbenzofuran. Sd. 190—191°. Pikrat (B. 30, 1707).
- 6) 1-Keto-2,3-Dihydroinden. Sm. 40°; Sd. 243—245° (B. 22, 2018; 27, [2] 598; A. 275, 342; Soc. 65, 485). — III, 158.
- 7) 2-Keto-2,3-Dihydroinden (β-Hydrindon). Sm. 61° (58°); Sd. 220—225° u. Zers. (A. 275, 353; B. 26, 222; 32, 31). — III, 160.
- 8) Phenyläther d. α-Oxypropin (Propargylphenyläther). Sd. 210° u. Zers. (Bl. 40, 324). — II, 655.
- 9) γ-Keto-γ-Phenylpropen (Vinylphenylketon). Sm. 42° (A. ch. [7] 2, 199). III, 158.
- 10) Aldehyd d. β-Phenylakrylsäure (A. d. Zimmtsäure). Sd. 128—130°₃₀. HCl, HNO_3 , (3 J, KJ), $+(\text{NH}_4 \cdot \text{HSO}_3)$, $+\text{NaHSO}_3$, $+\text{KHSO}_3$, $+2\text{KHSO}_3 + 2\text{H}_2\text{O}$. Lit. bedeutend. — III, 58.
- 11) Verbindung (aus Zimmtaldehyd) = $(\text{C}_9\text{H}_8\text{O})_x$ (B. 17, 1814). — III, 58.

$C_9H_8O_2$

- C 72,9 — H 5,4 — O 21,6 — M. G. 148.
- 1) 1,2-Phenylenäther d. $\alpha\beta$ -Dioxypropen. Sd. 213—218° (Bl. [3] 21, 298).
 - 2) $\alpha\beta$ -Diketo- α -Phenylpropan (Methylphenyldiketon). Sd. 216—218° (B. 21, 2119, 2176; 22, 2128; A. 291, 287). — III, 268.
 - 3) 5-Oxy-2-Methylbenzofuran (m-Oxymethyleumaron). Sm. 96—97° (B. 19, 2929). — III, 730.
 - 4) Methyläther d. 5-Oxybenzofuran. Sm. 178—180° (B. 19, 1784). — II, 1862.
 - 5) α -Phenylakrylsäure (Atropasäure). Sm. 106—107°; Sd. 267° u. Zers. (202—204°₁₃). Ca + 5H₂O, Ag. Lit. bedeutend. — II, 1402.
 - 6) Isoatropasäuren, siehe C₁₈H₁₄O₄. — II, 1403.
 - 7) β -Phenylakrylsäure (Zimmtsäure). Sm. 133°; Sd. 300°. Salze meist bekannt. Lit. bedeutend. — II, 1404.
 - 8) isom. β -Phenylakrylsäure (Isozimmtsäure). Sm. 57° (45—47°); Sd. 265°. Ca + 3H₂O, Ba + 2H₂O, Ag, Anilinsalz (B. 23, 141, 512, 2515; Ph. Ch. 6, 315; A. 286, 8, 12). — II, 1422.
 - 9) Allo- β -Phenylakrylsäure (Allozimmtsäure). Sm. 68°. Ca + 2H₂O, Ag, Anilinsalz, 4-Toluidinsalz (B. 23, 2511; 24, 1102; 25, 950; 26, 283, 1587; 27, 2038; 29, 2907; 31, 2095; A. 286, 10, 12; Ph. Ch. 10, 418). — II, 1422.
 - 10) isom. β -Phenylakrylsäure. Sm. 43,5—46° (A. 287, 5; B. 31, 2096).
 - 11) 1-Aethenylbenzol-3-Carbonsäure. Sm. 95° (B. 26 [2] 677). — II, 1124.
 - 12) Homococasäure. Sm. 150°. Cu + 3H₂O, Ag (A. 271, 194). — II, 1404.
 - 13) Homoisococasäure (oder C₁₈H₁₆O₄). Sm. 162°. Cu + 2H₂O (A. 271, 201). — II, 1404.
 - 14) Lakton d. β -[3-Oxyphenyl]propionsäure. Sm. 25°; Sd. 272° (A. Spl. 5, 106). — II, 1562.
 - 15) Lakton d. 1-[α -Oxyäthyl]benzol-3-Carbonsäure (α -Methylphtalid). Sd. 275—276° (B. 10, 2205; 20, 2500; 29, 2533; 2540). — II, 1579.
 - 16) Anhydrid d. Alorcinsäure. Sm. 138° (A. 167, 69). — II, 1581.
 - 17) Aldehyd d. α -Keto- α -Phenyläthan- β -Carbonsäure (A. d. Benzoylessigsäure). Fl. Cu (B. 20, 2192; 21, 1135). — III, 94.
 - 18) Aldehyd d. 1-Methylbenzol-4-Ketocarbonsäure + H₂O. Sm. 111 bis 112° (B. 22, 2560). — III, 95.
 - 19) isom. Aldehyd d. 1-Methylbenzol-4-Ketocarbonsäure? Sm. 170° (J. pr. [2] 41, 402). — III, 95.
 - 20) Aldehyd d. β -[2-Oxyphenyl]akrylsäure. Sm. 133° (B. 18, 1962). — III, 93.
 - 21) Melilotol (J. 1875, 852; 1878, 797). — II, 1562.

 $C_9H_8O_3$

- C 65,8 — H 4,9 — O 29,2 — M. G. 164.
- 1) 3,4-Methylenäther d. Methyl-3,4-Dioxyphenylketon (Paracumarhydrin). Sm. 87—88° (A. 199, 36; B. 24, 2989; 25, 1127). — III, 138.
 - 2) α -Oxy- β -Phenylakrylsäure (B. 16, 2821). — II, 1637.
 - 3) β -[2-Oxyphenyl]akrylsäure (o-Cumarsäure; o-Oxyzimmtsäure). Sm. 200 bis 202° (207—208°). Ba + H₂O, Zn, Pb, Ag (A. 45, 333; 59, 183; 147, 232; 216, 146; 222, 274; 226, 351; A. Spl. 8, 23; B. 10, 286; 14, 479; 22, 1714; Ph. Ch. 3, 277). — II, 1627.
 - 4) β -[3-Oxyphenyl]akrylsäure (m-Cumarsäure). Sm. 191° (B. 15, 2049, 2297). — II, 1634.
 - 5) β -[4-Oxyphenyl]akrylsäure (p-Cumarsäure). Sm. 206°. NH₄ + H₂O, Cd + 3H₂O, Cu + 6H₂O, Ag (A. 136, 31; B. 10, 66; 12, 1259; 15, 2301; 18, 1324; 20, 299, 2528; 22, 1715; M. 12, 458; 14, 337; Ph. Ch. 3, 277). — II, 1635.
 - 6) isom. β -[4-Oxyphenyl]akrylsäure (β -Oxy- α -Truxillsäure). Sm. noch nicht bei 360°. Ca (B. 24, 2591). — II, 1637.
 - 7) isom. β -[4-Oxyphenyl]akrylsäure (p-Oxytruxillsäure). Sm. 273°. Ag (B. 22, 783). — II, 1637.
 - 8) α -Phenyläthanoxyd- β -Carbonsäure (Phenylglycidsäure). Fl. Na, K, Ag (A. 147, 98; 271, 153; 289, 280; B. 13, 308; J. r. 13, 232). — II, 1638.
 - 9) 1-Methylbenzol-4-Ketocarbonsäure (4-Methylbenzoylameisensäure; Toluy-4-Carbonsäure). Sm. 99° (95—97°); Sd. 164°₁₀. Na + $\frac{1}{2}$ H₂O, K, Ca + H₂O, Ba + 8H₂O, Ag (B. 14, 1750; 20, 1763, 2049; C. 1896 [2] 92; Bl. [3] 17, 367). — II, 1653.

$C_9H_8O_3$

- 10) **2-Acetylbenzol-1-Carbonsäure** (Acetophenon-2-Carbonsäure). Sm. 114 bis 115°. Ba, Pb (B. 10, 1554; 14, 920; 17, 2521; 18, 1258). — II, 1646.
- 11) **4-Acetylbenzol-1-Carbonsäure**. Sm. 200° (205°). Ba + $\frac{1}{2}H_2O$, Pb + $1\frac{1}{2}H_2O$, Cu + H_2O , Ag (B. 12, 1071; 27, 2527; A. 219, 260). — II, 1650.
- 12) **β -Phenyl- α -Ketoäthan- α -Carbonsäure** (Phenylbrenztraubensäure). Sm. 154—155° u. Zers. (B. 16, 2817; 20, 592; A. 271, 165; 284, 287). — II, 1641.
- 13) **β -Phenyl- β -Ketoäthan- α -Carbonsäure** (Benzoylessigsäure). Sm. 103 bis 104° u. Zers. Ag (B. 15, 2705; 16, 2128; 17, 66; 18, 2373; 19, 1393; 20, 653, 656; 28, 812; Soc. 45, 174; A. 266, 17; Bl. 48, 25; Am. 20, 138). — II, 1642.
- 14) **δ -Furanyl- $\alpha\gamma$ -Butadien- α -Carbonsäure** (Furfurakroleinessigsäure). Sm. 153—154° (B. 31, 284).
- 15) **1,2-Dihydrobenzofuran-1-Carbonsäure** (Hydrocumarilsäure). Sm. 116,5°; Sd. 298,5—300,5°. Ca + $2H_2O$, Ba + $2H_2O$, Ag (A. 216, 166). — II, 1641.
- 16) **1,2-Lakton d. 4-Oxy-1-Oxymethylbenzol-4-Methyläther-2-Carbonsäure**. Sm. 120° (A. 296, 355).
- 17) **Anhydrosaligeninglykolsäure**. Sm. 140° (G. 21 [1] 259). — II, 1109.
- 18) **Essigbenzolcarbonsäureanhydrid**. Fl. (A. 87, 81; 298, 286; Bl. 32, 168; 33, 426; [3] 13, 333; B. 20, 3189). — II, 1158.
- 19) **isom. Essigbenzolcarbonsäureanhydrid?** Sm. 70° (A. 135, 92). — II, 1158.
- 20) **Aldehyd d. 3,4-Dioxybenzol-3,4-Aethylenäther-1-Carbonsäure**. Sm. 50—51,5°; Sd. 299° (Bl. [3] 19, 510).
- 21) **Aldehyd d. 2-Acetoxybenzol-1-Carbonsäure**. Sm. 37°; Sd. 253° u. ger. Zers. (A. 148, 203; C. 1897 [1] 589). — III, 67.
- 22) **Aldehyd d. 3-Acetoxybenzol-1-Carbonsäure**. Sd. 263° (B. 15, 2047). — III, 79.
- 23) **Aldehyd d. 4-Acetoxybenzol-1-Carbonsäure**. Sd. 264—265° (B. 10, 64; Bl. 33, 54). — III, 82.
- 24) **Monaldehyd d. Benzol-1,2-Dicarbonsäuremonomethylester**. Sm. 44° (A. 239, 84). — II, 1625.
- 25) **Methylester d. Benzolketocarbonsäure**. Sd. 246—248° (B. 12, 629). — II, 1597.

 $C_9H_8O_4$

- 26) **Verbindung** (aus Limettin). Sm. 147° (Soc. 57, 325). — III, 636.
C 60,0 — H 4,4 — O 35,6 — M. G. 180.
- 1) **Aeskorcin** (Z. 1867, 532). — III, 569.
- 2) **Acetylbenzoylsuperoxyd**. Sm. 37—39°; Zers. bei 85—100° (A. 298, 280).
- 3) **1,2,3-Trioxymethylbenzolcarbonäthyläther**. Sm. 105° (B. 13, 698; A. 301, 108). — II, 1012.
- 4) **β -[2,4-Dioxyphenyl]akrylsäure** (Umbellsäure). Zers. bei 240—260° (ohne Sm.). Ca, Ba, Pb, Cu (B. 12, 994; 14, 2745; Ph. Ch. 3, 277). — II, 1773.
- 5) **β -[2,5-Dioxyphenyl]akrylsäure** (m-Oxycumarinsäure) siehe Anhydrid (B. 17, 1649). — II, 1775.
- 6) **β -[3,4-Dioxyphenyl]akrylsäure + $\frac{1}{2}H_2O$** (Kaffeesäure). Sm. 200° (wasserfrei). Ca + $3H_2O$, Sr + $4H_2O$, Ba + $4H_2O$, Ba₃ + $9H_2O$, Pb₃ + $2H_2O$ (A. 142, 221, 357; B. 15, 2624; 17, 1922; 30, 1617; 31, 676; M. 12, 444; 18, 502). — II, 1776.
- 7) **3,4-Dioxyphenylessigmethylenäthersäure** (α -Homopiperonylsäure). Sm. 127—128°. Ca + $2H_2O$, Zn, Cu, Ag (B. 24, 2883; G. 25 [2] 204). — II, 1749.
- 8) **3,4-Dioxybenzol-3,4-Aethylenäther-1-Carbonsäure**. Sm. 137° (133,5°) subl. Ca + $2H_2O$, Ba + $2H_2O$ (A. 168, 99; Bl. [3] 19, 511). — II, 1743.
- 9) **α -[2-Oxyphenyl]äthanoxyd- β -Carbonsäure** (o-Oxyphenylglycidsäure; Salicylglycidsäure). Ca + $6H_2O$ (B. 18, 1185). — II, 1848.
- 10) **Benzoyloxyessigsäure**. Na + $3H_2O$, Ca + H_2O , Ba + $2H_2O$, Zn + $4H_2O$, Pb, (2Pb, Ph(OH)₂ + $2H_2O$), Fe₂(OH)₃ + $12H_2O$, Ag (A. 68, 54; 80, 24; 90, 181; 145, 350; Z. 1865, 117). — II, 1153.
- 11) **α -Oxy- α -Benzoylessigsäure**. Sm. 125°. Ag (B. 16, 2133; Soc. 47, 245). — II, 1778.
- 12) **4-Oxy-1-Acetylbenzol-3-Carbonsäure?** (Acetylsalicylsäure). Sm. 210°. NH₄ + H_2O , Na + $3H_2O$, K + $\frac{1}{2}H_2O$, Ba + $2H_2O$ (B. 30, 1776).

- $C_9H_8O_4$
- 13) 4-Oxybenzylmethyläther-1-Ketocarbonsäure. Sm. 89° (75° ; 93° wasserfrei) (*G.* 20, 693; *B.* 28, 2716; *C.* 1896 [2] 92; *Bl.* [3] 17, 944). — II, 1771.
 - 14) 2-Acetoxybenzol-1-Carbonsäure. Sm. $118-118,5^\circ$ (*A.* 87, 162; 112, 181; 150, 9). — II, 1496.
 - 15) 3-Acetoxybenzol-1-Carbonsäure. Sm. 127° (125°) (*A.* 153, 339; *G.* 26 [2] 483). — II, 1517.
 - 16) 4-Acetoxybenzol-1-Carbonsäure. Sm. 185° (*J. pr.* [2] 28, 211). — II, 1527.
 - 17) Phenylmethandicarbonsäure (Phenylmalonsäure). Sm. $152-153^\circ$. Na_2 , Ca , $Cu + 5H_2O$, Ag_2 (*B.* 27, 1093). — II, 1840.
 - 18) Benzol-1-Carbonsäure-2-Methylcarbonsäure (Homophthalsäure, Isuvitinsäure). Sm. 175° . $Ca + 2H_2O$, Ba , $Cd + 5H_2O$, Ag_2 (*A.* 138, 70; 233, 106; 275, 354; 278, 198; 288, 79; *M.* 6, 169; *B.* 27, 744; 31, 375; 32, 29). — II, 1842.
 - 19) Benzol-1-Carbonsäure-3-Methylcarbonsäure (Homoisophthalsäure). subl. bei $200-210^\circ$. Ag_2 (*Bl.* 40, 100). — II, 1843.
 - 20) Benzol-1-Carbonsäure-4-Methylcarbonsäure (Homoterephthalsäure). Sm. $237-238^\circ$. $Ba + H_2O$, Ag_2 (*B.* 10, 1746; 22, 3209; *J. pr.* [2] 47, 533; *G.* 21, 61). — II, 1843.
 - 21) 1-Methylbenzol-2,3-Dicarbonsäure. Sm. 144° u. Zers. (*B.* 25, 2106). — II, 1845.
 - 22) 1-Methylbenzol-2,4-Dicarbonsäure (β -Xylidinsäure). Sm. $320-330^\circ$. $K_2 + 2H_2O$, $Ba + 2H_2O$, Cu , $Ag_2 + H_2O$ (*B.* 5, 1087; 14, 2112; 19, 233, 868; *Am.* 1, 119; *J. pr.* [2] 42, 509; *C.* 1896 [1] 1235; *Soc.* 71, 176). — II, 1845.
 - 23) 1-Methylbenzol-2,5-Dicarbonsäure (α -Xylidinsäure; Methylterephthalsäure). Sm. $280-283^\circ$ ($325-330^\circ$). Ca , Ba , Zn (*A.* 151, 276; *B.* 10, 859, 1493; *Soc.* 71, 177). — II, 1845.
 - 24) 1-Methylbenzol-2,6-Dicarbonsäure. Sm. 235° ($228-230^\circ$). $Ba + 2H_2O$ (*B.* 26, 1798; *A.* 290, 213). — II, 1846.
 - 25) 1-Methylbenzol-3,4-Dicarbonsäure. Sm. 152° (124° ; $115-120^\circ$). Ag_2 (*M.* 12, 624; *B.* 25, 2108; *Soc.* 69, 299). — II, 1846.
 - 26) 1-Methylbenzol-3,5-Dicarbonsäure (s -Uvitinsäure). Sm. $287-288^\circ$ ($290-291^\circ$). K_2 , $Ca + 1\frac{1}{2}H_2O$, $Ba + H_2O$, Cu , Ag (*A.* 122, 184; 147, 295; 168, 255; 305, 140, 152; *H.* 5, 324; *J. pr.* [2] 40, 140; *Ph. Ch.* 5, 397). — II, 1846.
 - 27) 1-Methylbenzol- p -Dicarbonsäure (Toluyldicarbonsäure) (*Z.* 1869, 612). — II, 1847.
 - 28) 1-Methylbenzol- p -Dicarbonsäure (Isoxylidinsäure). Sm. 315° . $Ba + 2H_2O$, Zn , Ag_2 (*A.* 164, 135). — II, 1847.
 - 29) Pyrousninsäure, siehe $C_{12}H_{12}O_5$.
 - 30) Anhydrid d. δ -Keto- $\beta\epsilon$ -Heptadien- $\beta\gamma$ -Dicarbonsäure. Sm. 166° ; Sd. 234°_{20} (*B.* 31, 682).
 - 31) 1,2-Lakton d. 3,4-Dioxy-1-[β -Oxyäthyl]benzol-2-Carbonsäure. Sm. $220-225^\circ$ (*Soc.* 57, 1028). — II, 1929.
 - 32) 1,2-Lakton d. 3,4-Dioxy-1-Oxymethylbenzol-3 [oder 4]-Methyläther-2-Carbonsäure (Normekonismethyläther). Sm. 125° . Ca , Ba (*J.* 1867, 519; 1876, 810; *B.* 20, 890). — II, 1928.
 - 33) α -Orcendialdehyd. Sm. $117-119^\circ$ (*B.* 12, 1003). — III, 109.
 - 34) β -Orcendialdehyd. Sm. 168° (*B.* 12, 1004). — III, 109.
 - 35) Aldehyd d. 3,4,5-Trioxybenzol-3-Methyläther-4,5-Methylenäther-1-Carbonsäure. Sm. 130° ; Sd. $290-295^\circ$ (*B.* 24, 3819). — III, 108.
 - 36) Aldehyd d. 3,5-Dioxybenzolmonomethyläther-1,2-Dicarbonsäure. Sm. 179° (*B.* 13, 2369). — III, 108.
 - 37) isom. Aldehyd d. 3,5-Dioxybenzolmonomethyläther-1,2-Dicarbonsäure. Sm. $88-89^\circ$ (*B.* 13, 2369). — III, 109.
 - 38) 2-Aldehyd d. Oxyessigphenyläthersäure-2-Carbonsäure. Sm. 132° . $Ag + NaHSO_3$ (*B.* 17, 2990). — III, 67.
 - 39) 3-Aldehyd d. Oxyessigphenyläthersäure-3-Carbonsäure. Sm. 148° . Ag (*B.* 19, 3043). — III, 79.
 - 40) 4-Aldehyd d. Oxyessigphenyläthersäure-4-Carbonsäure. Sm. 198° . Ag (*B.* 19, 3041). — III, 82.
 - 41) Methylester d. 3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure. Sm. $51,5^\circ$ (*R.* 16, 47).

- C₉H₆O₄** 42) Monomethylester d. Benzol-1,2-Dicarbonsäure. Sm. 82,5° (85°) (B. 25 [2] 724; Soc. 61, 717). — II, 1793.
- 43) Monomethylester d. Benzol-1,4-Dicarbonsäure (A. 245, 141). — II, 1832.
- C₉H₆O₅** C 55,1 — H 4,1 — O 40,8 — M. G. 196.
- 1) Lokaästin (J. 1872, 1068). — III, 596.
 - 2) 3-[oder 4]-Acetoxyl-4-Oxybenzol-1-Carbonsäure. Sm. 197—199° (B. 25, 1476). — II, 1744.
 - 3) Oxyessigphenyläthersäure-2-Carbonsäure (Salicyloxyessigsäure). Sm. 191,5—192° (186—187°). Ag (B. 17, 2995; 27, 2803). — II, 1497.
 - 4) Oxyessigphenyläthersäure-3-Carbonsäure. Sm. 206°. Ag₂ (B. 19, 3044). — II, 1517.
 - 5) Oxyessigphenyläthersäure-4-Carbonsäure. Sm. 278°. Ag₂ (B. 19, 3044). — II, 1527.
 - 6) α-Oxy-α-[3,4-Dioxyphenylmethylenäther]essigsäure. Sm. 156° (152 bis 153°) (B. 14, 793; G. 21 [2] 176). — II, 1927.
 - 7) 3,4,5-Trioxybenzoldimethylenmethyläther-1-Carbonsäure (Myristicin-säure). Sm. 208—210°; Sd. oberh. 300° u. Zers. Ca, Ba, Ag (A. 254, 348; B. 24, 3820). — II, 1921.
 - 8) 3,4-Dioxybenzol-3-Methyläther-1-Ketocarbonsäure (Vanilloylcarbon-säure). Sm. 133—134° (B. 24, 2878). — II, 1946.
 - 9) 3,4-Dioxybenzol-4-Methyläther-1-Ketocarbonsäure (Bl. [3] 17, 949).
 - 10) 5-Oxy-1-Methylbenzol-2,3-Dicarbonsäure (β-Coccinsäure). Sm. 155 bis 157°. Ag₂ (B. 30, 1743).
 - 11) 5-Oxy-1-Methylbenzol-2,4-Dicarbonsäure (m-Oxyuvitinsäure; α-Coccin-säure). Sm. 293° u. Zers. K₂ + H₂O, Ca + 1½ H₂O, Ba + 1½ H₂O, Cu, Ag₂ (B. 7, 932; 8, 884; 9, 321; 30, 691, 1743; A. 297, 44). — II, 1948.
 - 12) 3-Oxy-1-Methylbenzol-2,5-Dicarbonsäure. Sm. 280—283° (Soc. 75, 195).
 - 13) 6-Oxy-1-Methylbenzol-2,4-Dicarbonsäure. Sm. bei 270° u. Zers. (B. 14, 2115). — II, 1948.
 - 14) 4-Oxy-1-Methylbenzol-2,5-Dicarbonsäure. Sm. 285—290° u. Zers. K, Zn (B. 16, 191). — II, 1948.
 - 15) 2-Oxy-1-Methylbenzol-3,5-Dicarbonsäure. Sm. 294—295° (278°) u. Zers. Ca + 2H₂O, CaH + 2(4)H₂O, Ca₃, Ag₂ (A. 189, 177; 206, 188; Am. 2, 137; B. 13, 1933). — II, 1948.
 - 16) 4-Oxy-1-Methylbenzol-3,5-Dicarbonsäure. Zers. bei 225—235°. Ba, Cd (A. 195, 287; 206, 196). — II, 1949.
 - 17) 4-Oxy-1-Methylbenzol-3,6-Dicarbonsäure. Sm. 258—290°. K₂, Zn (B. 16, 191; 27 [2] 595).
 - 18) isom. ?-Oxy-1-Methylbenzol-?-Dicarbonsäure. Sm. 220° u. Zers. Ag₂ (A. 189, 181; B. 13, 1933). — II, 1949.
 - 19) α-Oxy-α-Phenylmethan-α-Carbonsäure-2-Carbonsäure (o-Carbon-mandelsäure) (B. 18, 381). — II, 1947.
 - 20) 3-Oxybenzoldimethyläther-1,2-Dicarbonsäure. Sm. 160°. Ag₂ (B. 16, 1964; 30, 1393). — II, 1934.
 - 21) 4-Oxybenzoldimethyläther-1,2-Dicarbonsäure. Sm. 138—144° (164°). Ag₂ (B. 12, 829; A. 296, 357). — II, 1935.
 - 22) 2-Oxybenzoldimethyläther-1,3-Dicarbonsäure. Sm. 216—218° (B. 12, 828). — II, 1936.
 - 23) 4-Oxybenzoldimethyläther-1,3-Dicarbonsäure. Sm. 261° (245°). Cu, Ag₂ (B. 11, 899; 12, 828). — II, 1937.
 - 24) 2-Oxybenzoldimethyläther-1,4-Dicarbonsäure. Sm. 277—279° (J. 1879, 519; B. 12, 828; 22, 2187). — II, 1938.
 - 25) Säure (aus Berberin) + H₂O. Pb (J. 1864, 408). — II, 1951.
 - 26) Säure (aus β-Ketoximakrylsäure). Sm. 207° (A. 264, 253).
 - 27) 1-Aldehyd d. 3,4-Dioxybenzol-3 [oder 4]-Methyläther-1,2-Dicarbon-säure + 2½ H₂O (Noropianmethyläthersäure). Sm. 155—156° (140—142°) wasserfrei. K + 2H₂O, Ba + H₂O (J. 1867, 519; J. pr. [2] 24, 368; M. 3, 790; B. 29, 2033; 30, 691). — II, 1939.
 - 28) 1-Aldehyd d. 5,6-Dioxybenzol-5-Methyläther-1,3-Dicarbonsäure (Aldehydovanillinsäure). Sm. 221—222°. Cu, Pb (B. 9, 1280; 10, 395). — II, 1945.
 - 29) Monomethylester d. 2-Oxybenzol-1,3-Dicarbonsäure. Sm. 135°. Na + H₂O (J. pr. [2] 44, 8). — II, 1936.

$C_9H_8O_6$

C 50,9 — H 3,8 — O 45,3 — M. G. 212.

- 1) 3,4-Dioxybenzol-4-Methyläther-1,2-Dicarbonsäure + 2H₂O (Methyläthernorhemipinsäure). Sm. 150—155° u. Zers. (wasserfrei 223—225° u. Zers.). K (*A. Spl.* 7, 151; *J.* 1876, 809; *M.* 3, 372; *B.* 27, 333). — II, 1994.
- 2) 2-Keto-3-Acetyl-6-Methyl-2,3-Dihydropyron-5-Carbonsäure (Dehydraceticarbonsäure). Sm. 154°. Na, K, K₂ (*A.* 273, 194).
- 3) Monäthylester d. 1,4-Pyron-2,6-Dicarbonsäure (M. d. Chelidonsäure). Sm. 182—184° (223—224°). Ag (*M.* 5, 343, 371). — I, 847.

 $C_9H_8O_7$

C 47,4 — H 3,5 — O 49,1 — M. G. 228.

- 1) Mekonäthyläthersäure + H₂O. Sm. 200° u. Zers. Pb + 1½H₂O (*J. pr.* [2] 26, 456). — II, 2042.
- 2) Monäthylester d. Mekonsäure. Sm. 179°. Ba, BaH, Ag + H₂O (*A.* 83, 358; *J. pr.* [2] 26, 450). — II, 2042.

 $C_9H_8N_2$

C 75,0 — H 5,6 — N 19,4 — M. G. 144.

- 1) 1-Phenylpyrazol. Sm. 11—12°; Sd. 248—249°. (2HCl, PtCl₄ + 2H₂O), 2 + PtCl₄ (*A.* 295, 320; *G.* 17, 177; 18, 357; *B.* 22, 180). — IV, 496.
- 2) 3-Phenylpyrazol? Sm. 228° (*J. pr.* [2] 52, 51). — IV, 905.
- 3) 4-Phenylpyrazol. Sm. 228°. HCl, (2HCl, PtCl₄) (*B.* 26, 260; 27, 789; 28, 223, 688, 697, 699). — IV, 906.
- 4) 5-Phenylpyrazol. Sm. 78°; Sd. 310—315°. HCl, (2HCl, PtCl₄), Pikrat (*A.* 279, 254; *J. pr.* [2] 51, 158; [2] 52, 52; [2] 53, 129; *B.* 26, 258; 28, 688, 697). — IV, 906.
- 5) 1-Phenylimidazol. Sm. 13°; Sd. 276°. (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (*B.* 22, 575, 1354; 27, 2206). — IV, 501.
- 6) 2-Phenylimidazol. Sm. 148°; Sd. 340°. (2HCl, PtCl₄), Oxalat (*A. ch.* [6] 24, 543). — IV, 907.
- 7) 1-[3-Pyridyl]pyrrol. Sd. 250,5—251°₃₀. (2HCl, PtCl₄ + 2H₂O), + HgCl₂, Pikrat (*B.* 28, 1907). — IV, 907.
- 8) 2-[3-Pyridyl]pyrrol. Sm. 72°. (2HCl, PtCl₄ + 2H₂O), + HgCl₂, Pikrat (*B.* 28, 1909). — IV, 907.
- 9) 2-Amidochinolin. Sm. 125° (129°). (2HCl, PtCl₄ + 2H₂O), Pikrat (*J. pr.* [2] 56, 208; *B.* 24, 2819; 31, 1297). — IV, 908.
- 10) 4-Amidochinolin + H₂O. Sm. 69° (153—154° wasserfrei). HCl, (2HCl, PtCl₄ + 2H₂O), HNO₃ + H₂O, Bichromat, 2 + AgNO₃ (*J. pr.* [2] 50, 237, 480 Anm.; [2] 56, 181; *R.* 10, 145; *M.* 15, 457). — IV, 909.
- 11) 5-Amidochinolin. Sm. 110°; Sd. 310°. Pikrat (*J. pr.* [2] 53, 400; *B.* 16, 725). — IV, 910.
- 12) 6-Amidochinolin + 2H₂O. Sm. 114° (wasserfrei). 2HCl, (2HCl, PtCl₄ + 2H₂O), Pikrat (*J. pr.* [2] 53, 119; *B.* 16, 671; 21, 863, 867). — IV, 912.
- 13) 7-Amidochinolin. Sm. 188—190°. (2HCl, PtCl₄) (*B.* 20, 3096; *J. pr.* [2] 48, 174). — IV, 913.
- 14) 8-Amidochinolin. Sm. 70° (*J. pr.* [2] 53, 400; *B.* 12, 451; 14, 2573; 18, 1245). — IV, 913.
- 15) 5- [oder 8]-Amidoisochinolin. Sm. 128°. HCl, (2HCl, PtCl₄) (*J. pr.* [2] 47, 261; [2] 52, 18; *M.* 14, 159). — IV, 915.
- 16) 2-Methyl-1,3-Benzdiazin. Sm. 35,5°; Sd. 237—239°_{mm}. HCl, (2HCl, PtCl₄), (2HCl, PtCl₄ + 4C₂H₅O), (HCl, 2HgCl₂ + H₂O), Pikrat (*B.* 24, 507; 28, 280). — IV, 900.
- 17) 6-Methyl-1,4-Benzdiazin. Sd. 245°. (2HCl, PtCl₄), Oxalat, + 2NaHSO₃ + 2H₂O (*A.* 237, 336; *Ph. Ch.* 22, 391). — IV, 902.
- 18) 1-Methyl-2,3-Benzdiazin. Sm. 74,5°; Sd. 322—324° u. Zers. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HJ, HNO₃, Bichromat, Ferrocyanat, Pikrat (*B.* 30, 3027). — IV, 904.
- 19) Nitril d. β-Imido-β-Phenylpropionsäure. Sm. 86° (*J. pr.* [2] 39, 242; [2] 52, 105). — II, 1216.
- 20) Nitril d. β-[2-Amidophenyl]akrylsäure. Sm. 134—135°. Pikrat (*B.* 31, 1296).

 $C_9H_8N_4$

C 62,8 — H 4,6 — N 32,6 — M. G. 172.

- 1) 1-Phenylazoimidazol. Sm. 177—178° (*A.* 271, 28). — IV, 1582.

 $C_9H_8Br_2$

- 1) 1,2-Dibrom-2,3-Dihydroinden. Sm. 43—45° (*B.* 23, 3279). — II, 170.
- 2) 2-Dibrom-2,3-Dihydroinden. Sd. 180—185°₅₀ (*B.* 26, 2254). — II, 170.
- 3) αβ-Dibrom-α-Phenylpropen. Sd. 250—255° u. Zers. (*B.* 21, 276). — II, 174.

C_9H_5Br

- 1) $\alpha\alpha\beta\beta$ -Tetrabrompropylbenzol ($\alpha\alpha\beta\beta$ -Tetrabrom- α -Phenylpropan). Sm. 75° (B. 21, 276). — II, 174.
- 2) 2,3,4,5-Tetrabrom-1-norm. Propylbenzol. Fl. (A. 149, 327). — II, 66.

 C_9H_5S C_9H_5N

- 1) Dithiēnylmethan. Sd. 267° (B. 17, 1345). — III, 752.
C 82,4 — H 6,9 — N 10,7 — M. G. 131.
- 1) γ -Imido- α -Phenylpropen (Cinnamylidenimid). HCl (B. 29, 2138).
- 2) 1-Methylindol. Sd. 240—241°₃₀. Pikrat (B. 17, 562, 2510). — IV, 218.
- 3) 2-Methylindol (Methylketol). Sm. 59—60°; Sd. 272°₃₀. (2HCl, PtCl₄ + 3H₂O), HJ, Pikrat (B. 13, 187; 14, 879, 1466; 20, 819; 27, 827; A. 236, 126; 242, 388). — IV, 220.
- 4) 3-Methylindol (Skatol). Sm. 95°; Sd. 265—266°₃₅. HCl, Pikrat (J. pr. [2] 17, 98, 129; [2] 20, 468; [2] 24, 18; B. 12, 651, 1985; 13, 2339; 16, 710; 20, 811, 1108; 22 [2] 441; 27, 827; H. 4, 371; A. 236, 138; M. 9, 629; 11, 156; 15, 764; G. 13, 358). — IV, 221.
- 5) 5-Methylindol. Sm. 58,5°. Pikrat (A. 239, 226). — IV, 222.
- 6) 3-Methylpseudoisindol. Fl. (2HCl, ZnCl₂), (2HCl, PtCl₄ + H₂O), Pikrat (B. 26, 710; 30, 3029). — IV, 222.
- 7) 2-Dihydrochinolin. Sm. 172—174° (G. 24 [2] 97). — IV, 253.
- 8) isom. 2-Dihydrochinolin. Sm. 184—187° (G. 24 [2] 97). — IV, 253.
- 9) 2-Dihydrochinolin. Sd. 220—226°. (2HCl, PtCl₄) (J. 1882, 1079). — IV, 254.
- 10) Base (aus Metanikotin). Pikrat (B. 27, 2867). — IV, 860.
- 11) Nitril d. α -Phenylpropionsäure. Sd. 230—232° (A. 250, 123, 137; G. 18, 574). — II, 1370.
- 12) Nitril d. β -Phenylpropionsäure. Sd. 261° (253,5°) (B. 7, 520; 26, 1971). — II, 1357.
- 13) Nitril d. 2-Methylphenylelessigsäure. Sd. 244° (B. 18, 1281). — II, 1373.
- 14) Nitril d. 3-Methylphenylelessigsäure. Sd. 240—241° (M. 9, 854; B. 18, 1282). — II, 1374.
- 15) Nitril d. 4-Methylphenylelessigsäure. Sm. 18°; Sd. 242—243° (B. 18, 1280). — II, 1374.
- 16) Nitril d. 1-Aethylbenzol-2-Carbonsäure. Sd. 212° (B. 29, 2535).
- 17) Nitril d. 1,2-Dimethylbenzol-4-Carbonsäure. Sd. 230—232° (B. 18, 1712). — II, 1375.
- 18) Nitril d. 1,3-Dimethylbenzol-2-Carbonsäure. Sm. 89° (Am. 20, 790).
- 19) Nitril d. 1,3-Dimethylbenzol-4-Carbonsäure. Sm. 23—25°; Sd. 222°. 2 + Cu₂Cl₂ (B. 18, 1012; 21, 3082; Bl. [3] 19, 787). — II, 1376.
C 67,9 — H 5,7 — N 26,4 — M. G. 159.
- 1) Cyan[4-Methylphenyl]formamidin. Sm. 176—177° (Am. 13, 520). — II, 488.
- 2) 5-Imido-3-Phenyl-4,5-Dihydropyrazol. Sm. 125°. (2HCl, PtCl₄) (J. pr. [2] 58, 150).
- 3) 3-Methyl-1-Phenyl-1,2,4-Triazol. Sm. 86,5—87°; Sd. 274°. (2HCl, PtCl₄ + 3H₂O), 2 + PtCl₄. — IV, 1104.
- 4) 5-Methyl-1-Phenyl-1,2,4-Triazol. Sm. 191°; Sd. 240°. (2HCl, PtCl₄ + H₂O) (B. 18, 1544; 19, 2602; 26, 2391). — IV, 1105.
- 5) 1-[2-Methylphenyl]-1,2,4-Triazol. Sm. 45°; Sd. 270°. (2HCl, PtCl₄), 2 + PtCl₄ (G. 26 [2] 419). — IV, 1099.
- 6) 1-[4-Methylphenyl]-1,2,4-Triazol. Sm. 67°; Sd. 265°. (2HCl, PtCl₄), 2 + PtCl₄ (G. 26 [2] 415; 28 [2] 562). — IV, 1099.
- 7) 3-Methyl-1-Phenyl-1,2,5-Triazol. Sd. 242° (B. 21, 2760; A. 262, 279). — IV, 1103.
- 8) 5,7-Diamidochinolin. (2HCl, PtCl₄), 2HJ (J. pr. [2] 53, 544). — IV, 1159.
- 9) 5,8-Diamidochinolin. Sm. 156°. (2HCl, PtCl₄) (B. 18, 1247). — IV, 1160.
- 10) 6,8-Diamidochinolin. Sm. 162—163°. (2HCl, PtCl₄) (B. 18, 1249). — IV, 1160.
- 11) 5-Hydrazidochinolin. Sm. 150—151°. HCl (Soc. 61, 785). — IV, 1160.
- 12) 8-Hydrazidochinolin. Sm. 64°. 2HCl (Soc. 59, 757). — IV, 1161.
- 13) 4-Methylamido-1,3-Benzdiazin. Sm. 282—284°. (2HCl, PtCl₄) (J. pr. [2] 47, 303). — IV, 1156.

 $C_9H_5N_2$

- C₉H₉Cl** 1) γ -Chlor- α -Phenylpropen (Styrylchlorid; γ -Chlorallylbenzol). Fl. (J. 1858, 446). — II, 1070.
- C₉H₉Cl₃** 1) 2,4,6-Trichlor-1,3,5-Trimethylbenzol. Sm. 204—205°; Sd. 280° (A. 150, 328; A. ch. [6] 10, 418; B. 26, 2943). — II, 54.
- C₉H₉Br** 1) α -Brom- α -Phenylpropen? Sd. 226° u. Zers. (B. 21, 276). — II, 169.
2) α -Brom- α -[3-Methylphenyl]äthen. Fl. Zers. bei 100° (B. 20, 1216). — II, 169.
3) β -Brom- α -[3-Methylphenyl]äthen. Sd. 242° u. Zers. (B. 20, 1216). — II, 169.
- C₉H₉Br₃** 1) $\alpha\beta\gamma$ -Tribrom-norm. Propylbenzol. Sm. 124° (Bl. 20, 121). — II, 1070.
2) 4-Brom-1-[$\alpha\beta$ -Dibrom-norm. Propyl]benzol. Sm. 61° (B. 24, 1336). — II, 66.
3) 4,5,6-Tribrom-1,2,3-Trimethylbenzol. Sm. 245° (B. 15, 1858; 19, 2517). — II, 67.
4) 3,5,6-Tribrom-1,2,4-Trimethylbenzol. Sm. 233° (225—226°) (A. 151, 267; B. 19, 1222; 29, 215). — II, 66.
5) 2,4,6-Tribrom-1,3,5-Trimethylbenzol. Sm. 224° (A. 147, 11; J. 1882, 446). — II, 66.
6) 1,3,5-Tri[Brommethyl]benzol. Sm. 94,5°; Sd. 210—220° (A. ch. [6] 6, 96). — II, 68.
7) 2-Brom-3,5-Di[Brommethyl]-1-Methylbenzol. Sm. 120—122° (B. 19, 215). — II, 68.
8) ?-Brom-1,3,5-[Dibromtrimethyl]benzol. Sm. 81° (A. ch. [6] 6, 101; Bl. 41, 362). — II, 68.
- C₉H₉J** 1) γ -Jod- α -Phenylpropen (Styryljodid; γ -Jodallylbenzol). Fl. (J. 1858, 447). — II, 1070.
- C₉H₉J₃** 1) 2,4,6-Trijod-1,3,5-Trimethylbenzol. Sm. 208° (B. 26, 1104). — II, 76.
- C₉H₉O** C 80,6 — H 7,4 — O 11,9 — M. G. 134.
1) γ -Oxy- α -Phenylpropen (γ -Phenylallylalkohol; Styron; Zimmtalkohol). Sm. 33°; Sd. 250° (A. 31, 274; 70, 4; 75, 300; 172, 122; 235, 17; B. 11, 671; Z. 1869, 156; Soc. 39, 319; J. pr. [2] 31, 348, 352; G. 15, 84). — II, 1069.
2) α -[4-Oxyphenyl]propen (4-Oxy-1-Propenylbenzol; p-Anol). Sm. 93°; Sd. 250° u. Zers. (A. Spl. 8, 89). — II, 850.
3) γ -[4-Oxyphenyl]propen (4-Oxy-1-Allylbenzol; Chavicol). Sd. 237° (B. 22, 2739; 23, 862). — II, 850.
4) Anhydro-5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol (A. 302, 118).
5) 1-Oxy-2,3-Dihydroinden. Sm. 54—54,5°; Sd. 220° u. Zers. (A. 275, 350). — II, 1070.
6) Methyläther d. 2-Oxyphenyläthen (M. d. 2-Oxy-1-Aethenylbenzol). Sd. 195—200° (B. 11, 515). — II, 849.
7) Methyläther d. 4-Oxyphenyläthen (M. d. 4-Oxy-1-Aethenylbenzol). Sd. 204—205° (B. 11, 515). — II, 849.
8) Allyläther d. Oxybenzol. Sd. 192—195° (B. 5, 455; C. 1899 [1] 248). — II, 654.
9) isom. Allyläther d. Oxybenzol. Sd. 160—162° (A. 254, 242). — II, 654.
10) isom. ?-Allyläther d. Oxybenzol. Sm. 48° (B. 26, 2570, 2988). — II, 654.
11) β -Keto- α -Phenylpropan (Methylbenzylketon). Sm. 27°; Sd. 215° + NaHSO₃ (B. 3, 198; 5, 500; 23, 1072; G. 16, 316; A. 291, 285; 298, 378). — III, 143.
12) Aethylphenylketon. Sm. 18,5° (21°); Sd. 215,5° (218°) (A. 118, 20; 119, 166; 161, 296; B. 6, 1007; 12, 463; 15, 891; 17, 3018; 19, 2896; 27, 847; Soc. 37, 742; G. 16, 321; J. r. 16, 325; 25, 537). — III, 140.
13) Methyl-3-Methylphenylketon (m-Methyltolylketon). Sd. 224—225° (218—220°) (B. 20, 1766; Bl. 42, 95). — III, 145.
14) Methyl-4-Methylphenylketon. Sd. 222° (215°₆₀) (B. 15, 185; 19, 234, 586; J. pr. [2] 41, 400; [2] 43, 114; Bl. 42, 95; [3] 9, 699; [3] 17, 909). — III, 146.
15) Aldehyd d. α -Phenylpropionsäure. Sd. 203—204°₇₁₈ (B. 24, 1359). — III, 54.

$C_9H_{10}O$

- 16) Aldehyd d. β -Phenylpropionsäure. *Sd.* 208° (221—224°₄₄). + NaHSO₄, (*A. ch.* [5] 22, 254; *B.* 23, 1080; 31, 1992). — III, 53.
- 17) Aldehyd d. 1,2-Dimethylbenzol-4-Carbonsäure. *Sd.* 226° (*C.* 1898 [2] 952).
- 18) Aldehyd d. 1,3-Dimethylbenzol-4-Carbonsäure. *Sm.* —9 bis —8°; *Sd.* 215—216° (*B.* 21, 3085; 22, 121; *Bl.* [3] 17, 369; *C.* 1898 [2] 952). — III, 54.
- 19) Aldehyd d. 1,3-Dimethylbenzol-5-Carbonsäure. *Sd.* 220—222° (*Bl.* 42, 287; *J. pr.* [2] 58, 359). — III, 54.
- 20) Aldehyd d. 1,4-Dimethylbenzol-2-Carbonsäure. *Sd.* 220° (*Bl.* [3] 17, 941; *C.* 1898 [2] 952).

 $C_9H_{10}O_2$

- C* 72,0 — *H* 6,7 — *O* 21,3 — *M. G.* 150.
- 1) 4-Methyläther d. 3,4-Dioxy-1-Aethenylbenzol (Hesperetol). *Sm.* 57° (*B.* 14, 967). — II, 972.
 - 2) Methylenäther d. $\alpha\beta$ -Dioxy- α -Phenyläthan (Jasmal). *Sd.* 100—101°₁₂; (*Bl.* [3] 21, 227; *B.* 32, 368).
 - 3) Äthylenäther d. Dioxymethylbenzol. *Sd.* 140° (*Bl.* [3] 21, 231).
 - 4) Phenolglycidäther. *Sd.* 234° u. geringer Zers. (*B.* 24, 2146). — II, 656.
 - 5) 1,2-Dioxy-2,3-Dihydroinden. *Sm.* 98—99° (120°?) (*B.* 26, 1544; 32, 30).
 - 6) Äthyl-4-Oxyphenylketon. *Sm.* 148° (*Soc.* 55, 547; *J. pr.* [2] 43, 86; *B.* 27, 2735). — III, 141.
 - 7) Methyl-4-Oxy-2-Methylphenylketon. *Sm.* 126° (*B.* 30, 1770).
 - 8) Methyl-4-Oxy-3-Methylphenylketon. *Sm.* 104° (*B.* 18, 2699; 30, 1770). — III, 146.
 - 9) Methyläther d. Methyl-2-Oxyphenylketon. *Sd.* 240°₁₂ (*B.* 25, 1308). — III, 133.
 - 10) Methyläther d. Methyl-3-Oxyphenylketon. *Sm.* 239—241° (*B.* 27, 3042). — III, 134.
 - 11) Methyläther d. Methyl-4-Oxyphenylketon. *Sm.* 38—39°; *Sd.* 258° (*B.* 23, 1202; *R.* 10, 215; *G.* 13, 275; *Bl.* [3] 17, 514). — III, 134.
 - 12) Phenyläther d. α -Oxy- β -Ketopropan (Ph. d. Oxyaceton). *Sd.* 229 bis 230° (*B.* 28, 1253).
 - 13) 2-Isopropyl-1,4-Benzochinon. *Sm.* 28,4° (*Bl.* [3] 13, 984). — III, 361.
 - 14) 5-Äthyl-2-Methyl-1,4-Benzochinon. *Sm.* 55,3° (*Bl.* [3] 13, 898). — III, 364.
 - 15) 2,3,5-Trimethyl-1,4-Benzochinon. *Sm.* 11° (*B.* 18, 1152; 27, 1430). — III, 364.
 - 16) α -Phenylpropionsäure (Hydratropasäure). *Sd.* 264°—265°. *Ca* + 3H₂O, *Ba* + 2H₂O, *Ag* (*A.* 148, 244; 195, 165; 250, 136, 152; *Ph. Ch.* 3, 271; *B.* 28, 816). — II, 1370.
 - 17) β -Phenylpropionsäure (Hydrozimmtsäure, Benzylelessigsäure, Homotoluylsäure). *Sm.* 48,7°; *Sd.* 279,8°. *NH₄*, *K*, *Ca* + 2H₂O, *Ba* + 2H₂O, *Zn*, *Pb* + H₂O, *Cu*, *Ag*. *Lit.* bedeutend. — II, 1356.
 - 18) 2-Methylphenylelessigsäure. *Sm.* 88—89°. *Ca* + 4H₂O, *Ag* (*B.* 15, 1747; 18, 1281). — II, 1373.
 - 19) 3-Methylphenylelessigsäure. *Sm.* 61°. *Ca* + 3H₂O, *Ag* (*B.* 15, 1746; 18, 1282). — II, 1373.
 - 20) 4-Methylphenylelessigsäure. *Sm.* 91°; *Sd.* 265—267°. *Na* + H₂O, *Ca* + 3H₂O, *Ba* + 2H₂O, *Ag* (*B.* 15, 1744; 18, 1281; 20, 2051; 21, 534; 22, 1230; 24, 3965; *J. pr.* [2] 44, 85). — II, 1374.
 - 21) 1-Äthylbenzol-2-Carbonsäure. *Sm.* 68; *Sd.* 259°₇₆₀. *Ca* + 2H₂O, *Cu* (*B.* 10, 2206; 20, 2056; 27, 2761; 29, 2533; 30, 103). — II, 1372.
 - 22) 1-Äthylbenzol-3-Carbonsäure. *Sm.* 47°. *Ca* + 4H₂O (*B.* 21, 2830). — II, 1373.
 - 23) 1-Äthylbenzol-4-Carbonsäure. *Sm.* 112—113°. *Ca* + 4H₂O, *Ba* + 2H₂O, *Cu*, *Ag* (*A.* 144, 290; 216, 218; *B.* 2, 421). — II, 1373.
 - 24) 1,2-Dimethylbenzol-3-Carbonsäure (α -Hemellithylsäure). *Sm.* 144°. *Ca* + H₂O (*B.* 19, 2518). — II, 1375.
 - 25) 1,2-Dimethylbenzol-4-Carbonsäure. *Sm.* 163° (165—166°). *Ca* + 3½H₂O, *Ba* + 4H₂O (*A.* 151, 275; *B.* 11, 23; 17, 2374; 18, 1711; 27, 3468; *J. pr.* [2] 43, 122). — II, 1375.
 - 26) 1,3-Dimethylbenzol-2-Carbonsäure. *Sm.* 97—99° (116°) (*B.* 11, 21; *Am.* 20, 813). — II, 1375.

$C_9H_{10}O_2$

- 27) 1,3-Dimethylbenzol-4-Carbonsäure. Sm. 126°; Sd. 267°₇₃₇. Ca + 2H₂O, Ba + 8H₂O, Ag (A. 137, 186; 151, 271; 240, 286; B. 12, 1968; 18, 1012, 1713; J. pr. [2] 43, 119). — II, 1375.
- 28) 1,3-Dimethylbenzol-5-Carbonsäure (Mesitylsäure). Sm. 166°. Na, Mg + 5H₂O, Ca + 5H₂O, Ba, Zn, Mn, Ni, Ag + H₂O (A. 141, 144; 147, 45; 202, 310; 305, 309; J. pr. [2] 40, 135; J. 1880, 371; Ph. Ch. 5, 397; Am. 2, 130; B. 31, 504). — II, 1378.
- 29) 1,4-Dimethylbenzol-2-Carbonsäure (Isoxylylsäure). Sm. 132°; Sd. 268°. K, Ca + 2H₂O, Ba + 4H₂O (B. 14, 2110; 18, 1858; 27, 661; A. 244, 54; J. pr. [2] 43, 121). — II, 1380.
- 30) isom. ?-Dimethylbenzolcarbonsäure (B. 11, 399). — II, 1380.
- 31) Lauroxylsäure. Sm. 155°. Ca + 4H₂O, Ba + 4H₂O, Ag (B. 145, 151). — II, 1380.
- 32) Pseudotolylessigsäure. Sd. 268—275°₇₃₀. Na (B. 18, 2378; 29, 106). — II, 1380.
- 33) Aldehyd d. Oxyessig-4-Methylphenyläthersäure. Sd. 175° (B. 30, 1440, 1704).
- 34) Aldehyd d. 2-Oxybenzoläthyläther-1-Carbonsäure. Sm. 20—22° (6—7°); Sd. 247—249°. + NaHSO₃ + xH₂O (A. 145, 306; 216, 150; B. 10, 8; Soc. 55, 551). — III, 67.
- 35) Aldehyd d. 3-Oxybenzoläthyläther-1-Carbonsäure. Sd. 245° (A. 286, 6; B. 28, 2001). — III, 79.
- 36) Aldehyd d. 4-Oxybenzoläthyläther-1-Carbonsäure. Sd. 255—256° (B. 29, 1892). — III, 82.
- 37) Aldehyd d. 4-Oxy-1-Methylbenzoldimethyläther-3-Carbonsäure. Sd. 254° (B. 11, 785). — III, 88.
- 38) Methylester d. Phenylelessigsäure. Sd. 220° (B. 2, 208; 26, 1440). — II, 1310.
- 39) Methylester d. 1-Methylbenzol-2-Carbonsäure. Sd. 207—208° (Ph. Ch. 24, 245).
- 40) Methylester d. 1-Methylbenzol-3-Carbonsäure. Sd. 214—215° (Ph. Ch. 24, 245).
- 41) Methylester d. 1-Methylbenzol-4-Carbonsäure. Sm. 32°; Sd. 217° (B. 12, 616). — II, 1340.
- 42) Methylester d. Säure C₉H₈O₂ (aus Diazoessigsäuremethylester u. Benzol). Sd. 210—211°₇₁₀. — II, 1355.
- 43) Aethylester d. Benzolcarbonsäure. Sd. 211,2°. Verbindungen mit TiCl₄ (Bl. 20, 229). + AlCl₃ (J. r. 16, 241) (J. 1847/48, 533; 1860, 7; 1868, 513; A. 94, 309; 133, 199; 160, 207; 234, 316; A. Spl. 1, 271; Am. 9, 213; J. pr. [2] 4, 445; B. 16, 658; 26, 1441; G. 24 [2] 164). — II, 1139.
- 44) Phenylester d. Propionsäure. Sm. 20°; Sd. 211° (Soc. 55, 546). — II, 662.
- 45) Benzylester d. Essigsäure. Sd. 216° (206°) (A. 88, 130; 96, 246; 193, 320; B. 19, 355; 32, 569 Anm., 778; J. pr. [2] 39, 157; Bl. [3] 21, 288). — II, 1051.
- 46) 4-Methylphenylester d. Essigsäure. Sd. 213°₇₃₄ (B. 2, 626; Am. 10, 372). — II, 749.
- 47) ?-Methylphenylester d. Essigsäure. Sd. 214° (Soc. 37, 489). — II, 755.

 $C_9H_{10}O_3$

- 1) $\alpha\beta$ -[1,2-Phenyl]äther d. $\alpha\beta\gamma$ -Trioxypropan. Sm. 89—90°; Sd. 283 bis 286° (Bl. [3] 19, 508).
- 2) Orcacetophenon (Methyl-?-Dioxy-3-Methylphenylketon). Sm. 146° (J. pr. [2] 26, 60). — III, 146.
- 3) Aethyl-2,4-Dioxyphenylketon. Sm. 95° (J. pr. [2] 43, 90). — III, 142.
- 4) Aethyl-2,5-Dioxyphenylketon. Sm. 92° (J. pr. [2] 43, 93). — III, 143.
- 5) 4-Methyläther d. Methyl-2,4-Dioxyphenylketon (Päonol). Sm. 50° (B. 24, 2460, 2847). — III, 135.
- 6) 3-Methyläther d. Methyl-3,4-Dioxyphenylketon (Acetovanillon). Sm. 115°; Sd. 295—300°. Na, K, Ba, Cu (B. 24, 2856, 2868, 2869; M. 15, 338). — III, 137.
- 7) 2-Oxyphenyläther d. α -Oxy- β -Ketopropan. Sm. 98—99°; Sd. 169 bis 170°₄₃ (Bl. [3] 21, 291).

$C_9H_{10}O_2$

- 8) α -Oxy- α -Phenylpropionsäure + $\frac{1}{2}H_2O$ (Atrolaktinsäure). Sm. 90—91° (93—94° wasserfrei). Ca + 8H₂O, Ba + 2H₂O, Zn + 2H₂O (A. 195, 154; 206, 24; 217, 107; B. 13, 374, 2042; 14, 238, 446, 1238, 1353, 1980). — II, 1578.
- 9) β -Oxy- α -Phenylpropionsäure (Tropasäure). Sm. 117—118°. Ca + 4H₂O, Ag (A. 138, 233; 148, 238; 195, 147; 206, 293; 209, 6; 217, 103, 111; B. 13, 254; 14, 237). — II, 1578.
- 10) d-Tropasäure. Sm. 127—128°. Chininsalz (B. 22, 2591). — II, 1579.
- 11) l-Tropasäure. Sm. 123° (B. 22, 2591). — II, 1579.
- 12) α -Oxy- β -Phenylpropionsäure (Phenyl- α -Milchsäure). Sm. 97—98°. Ba + H₂O, Ag (B. 13, 303; 16, 2823; 31, 2226; A. 209, 248). — II, 1576.
- 13) β -Oxy- β -Phenylpropionsäure (Phenyl- β -Milchsäure). Sm. 93°. K, Ba + $1\frac{1}{2}H_2O$, Zn + $1\frac{1}{2}H_2O$, Ag (A. 147, 86; 195, 139; 206, 26; 289, 280; B. 13, 304; 16, 2823; 27, 469; Soc. 47, 254). — II, 1572.
- 14) α -[4-Oxyphenyl]propionsäure (Phloretinsäure; 4-Oxyhydratropasäure). Sm. 129°. Ba + 2H₂O, Pb, Cu (J. 1855, 701; 1856, 699; A. 102, 145; 152, 96; 172, 357; 227, 270; B. 12, 1259; Ph. Ch. 3, 273). — II, 1569.
- 15) Isophloretinsäure(= α -[4-Oxyphenyl]propionsäure?). Sm. 129°. Ba (Z. 1868, 711; A. 227, 268). — II, 1571.
- 16) β -[2-Oxyphenyl]propionsäure (Melilotsäure; 2-Hydrocumarsäure). Sm. 82—83°. K + xH₂O, Mg + 4H₂O, Ca, Ba + 3H₂O, Zn + H₂O, Pb, Cu + H₂O, Ag (A. 126, 262; 226, 359; A. Spl. 5, 100, 121; B. 10, 286). — II, 1562.
- 17) β -[3-Oxyphenyl]propionsäure (3-Hydrocumarsäure). Sm. 111° (B. 15, 2050, 2051). — II, 1564.
- 18) β -[4-Oxyphenyl]propionsäure (4-Hydrocumarsäure). Sm. 128—129°. Ba, Zn + 2H₂O, Cu + 2H₂O, Ag. Lit. bedeutend. — II, 1564.
- 19) α -Oxy- α -[3-Methylphenyl]essigsäure (3-Methylmandelsäure). Sm. 84°. Ba (B. 17, 1469). — II, 1580.
- 20) α -Oxy- α -[4-Methylphenyl]essigsäure (4-Methylmandelsäure). Sm. 145 bis 146°. Na, K + $\frac{1}{2}H_2O$, Ca, Ba + $\frac{1}{2}H_2O$ (B. 20, 2050; 25, 3462). — II, 1580.
- 21) α -Oxypropionphenyläthersäure. Sm. 112—113°. Na, K + $1\frac{1}{2}H_2O$, Ca + 2H₂O, Ag (J. pr. [2] 21, 152; Bl. [3] 17, 361). — II, 665.
- 22) α -Oxyphenylessigmethyläthersäure. Sm. 71—72°. Na + 2H₂O, Ca, Ba + 2H₂O, Cu + 2H₂O, Ag (B. 14, 2392; A. 220, 44). — II, 1551.
- 23) Oxyessig[2-Methylphenyl]äthersäure. Sm. 151—152°. Salze meist bek. (G. 18, 511). — II, 738.
- 24) Oxyessig[3-Methylphenyl]äthersäure. Sm. 102°. Salze fast sämtlich bekannt (G. 20, 508). — II, 744.
- 25) Oxyessig[4-Methylphenyl]äthersäure. Sm. 135—136°. Salze meist bekannt (B. 14, 923; 30, 1440; G. 13, 74; 22 [2] 527). — II, 750.
- 26) Oxyessig[p-Methylphenyl]äthersäure. Na, Cu + 2H₂O (J. 1860, 315). — II, 755.
- 27) 4-Methoxyphenylessigsäure. Sm. 85—86°. Ag (A. 117, 246). — II, 1544.
- 28) 1-[α -Oxyäthyl]benzol-2-Carbonsäure (Acetophenonhydroxycarbonsäure). Ag (B. 10, 2205; 29, 2540). — II, 1579.
- 29) 4-Oxy-1-Aethylbenzol-3-Carbonsäure. Sm. 118—120° (A. 156, 213). — II, 1571.
- 30) isom.-p-Oxy-1-Aethylbenzol-p-Carbonsäure. Sm. 112°. Ba + H₂O (G. 13, 267). — II, 1571.
- 31) 5-Oxy-1,2-Dimethylbenzol-4-Carbonsäure. Sm. 199°. Ba (B. 11, 30; 12, 434). — II, 1571.
- 32) 6-Oxy-1,2-Dimethylbenzol-4-Carbonsäure. Sm. 203—204°. Ag (Soc. 75, 187).
- 33) 5-Oxy-1,3-Dimethylbenzol-2-Carbonsäure. Sm. 253—254° (Am. 20, 796).
- 34) 6-Oxy-1,3-Dimethylbenzol-4-Carbonsäure? Sm. 170,5° (B. 17, 1608; 27 [2] 595). — II, 1572.
- 35) 2-Oxy-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 223°. Ba (B. 12, 606; A. 206, 197). — II, 1571.

- $C_9H_{10}O_3$ 36) 4-Oxy-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 179°. NH_4 , K, Ca + 4H₂O, Ba + 5(6)H₂O, Zn + 2H₂O (A. 150, 333; 195, 274; 206, 199; M. 1, 812; Am. 3, 220; B. 11, 2055; 14, 43). — II, 1571.
- 37) 5-Oxy-1,4-Dimethylbenzol-2-Carbonsäure. Sm. 153° (B. 17, 1608). — II, 1572.
- 38) 2-Oxy-1,4-Dimethylbenzol-3-Carbonsäure. Sm. 144° (B. 17, 1608). — II, 1572.
- 39) 2-Oxy-1,4-Dimethylbenzol-?Carbonsäure. Sm. 137°. Ba + 4H₂O (G. 12, 166). — II, 1572.
- 40) isom.?-Oxydimethylbenzolcarbonsäure? Sm. 155°. Ca + 2H₂O, Ba + H₂O (Z. 1868, 233). — II, 1572.
- 41) 5-Oxy-1-Methylbenzoldimethyläther-2-Carbonsäure. Sm. 176° (B. 12, 825). — II, 1545.
- 42) 6-Oxy-1-Methylbenzoldimethyläther-2-Carbonsäure. Sm. 146°. Ca + 2H₂O (B. 16, 1964). — II, 1545.
- 43) 2-Oxy-1-Methylbenzoldimethyläther-3-Carbonsäure. Sm. 85°. Ba + 3½H₂O, Ag (M. 15, 729). — II, 1545.
- 44) 4-Oxy-1-Methylbenzoldimethyläther-3-Carbonsäure. Sm. 69° (70°). Ag (B. 12, 825; 22, 351; A. 244, 67). — II, 1546.
- 45) 6-Oxy-1-Methylbenzoldimethyläther-3-Carbonsäure. Sm. 192—193° (B. 12, 825). — II, 1548.
- 46) 2-Oxy-1-Methylbenzoldimethyläther-4-Carbonsäure. Sm. 156°. Ba + 4H₂O (J. 1880, 663; B. 11, 1587). — II, 1549.
- 47) 3-Oxy-1-Methylbenzoldimethyläther-4-Carbonsäure. Sm. 103—104° (B. 12, 825). — II, 1550.
- 48) 2-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 19,4°. Ca, Ba, Pb + 2H₂O, (Cu, CuOH), Ag (A. 150, 1; 216, 152; B. 9, 1474). — II, 1494.
- 49) 3-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 137°. Ca + 2H₂O, Ba + 2H₂O, Ag (A. 153, 332; B. 11, 1209; 21, 979). — II, 1517.
- 50) 4-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 195°. Ca, Ba, Ag (A. 141, 254; 244, 63; B. 2, 624; 21, 980; Am. 11, 326). — II, 1526.
- 51) α -[2-Furanyl]- α -Buten- β -Carbonsäure (Furfurangelikasäure). Sm. 87 bis 88° (B. 10, 1364; 12, 1200). — III, 712.
- 52) Alorcinsäure + H₂O. Sm. 97°. Ca, Ba + 4H₂O, Cu + 6H₂O (A. 167, 65). — II, 1580.
- 53) Stereocaulsäure = (C₉H₁₀O₃)_x. Sm. 193—195° (A. 288, 56; 295, 228). — II, 2083.
- 54) Usnetinsäure (Decarbonsäure). Sm. 172° (B. 10, 1326). — II, 1581.
- 55) Säure (aus Gummigutharz). Sm. 156—157° (G. 26 [2] 252). — III, 558.
- 56) Aldehyd d. α,β -Dioxy- β -Phenylpropionsäure. Sm. 114—125°. + NaHSO₃ (B. 31, 1996).
- 57) Aldehyd d. 4,5-Dioxy-1-Methylbenzol-5-Methyläther-3-Carbonsäure. Sd. 270—275° (B. 14, 2026). — III, 105.
- 58) Aldehyd d. 2,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 68 bis 69° (66°); Sd. 165°₁₀ (B. 13, 2370; 16, 2117; C. 1896 [2] 378; Bl. [3] 17, 947). — III, 97.
- 59) Aldehyd d. 2,5-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 51°; Sd. 270° (i. CO₂) (B. 14, 1992; 17, 1387; C. 1896 [2] 378; Bl. [3] 17, 947). — III, 98.
- 60) Aldehyd d. 3,4-Dioxybenzoldimethyläther-1-Carbonsäure (Vanillinmethyläther). Sm. 42—43°; Sd. 280—285° (B. 8, 1135; 11, 663; J. 1876, 808; Bl. [3] 17, 946). — III, 101.
- 61) Aldehyd d. 2,5-Dioxybenzol-5-Aethyläther-1-Carbonsäure. Sm. 51,5°; Sd. 230°. + NaHSO₃ (J. pr. [2] 22, 463). — III, 99.
- 62) Methylester d. α -Oxyphenylessigsäure (M. d. Mandelsäure). Sm. 52° (B. 13, 636; 28, 259). — II, 1551.
- 63) Methylester d. Oxyessigphenyläthersäure. Sd. 245° (J. pr. [2] 20, 275). — II, 664.
- 64) Methylester d. 4-Oxyphenylessigsäure. Sd. 310°_{700,5} (B. 22, 2140). — II, 1543.
- 65) Methylester d. 2-Oxy-1-Methylbenzol-3-Carbonsäure. Sd. 235° (B. 23, 2939). — II, 1545.
- 66) Methylester d. 4-Oxy-1-Methylbenzol-3-Carbonsäure. Sd. 242° (J. pr. [2] 14, 455; B. 23, 2939). — II, 1546.

$C_9H_{10}O_3$

- 67) Methylester d. 5-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 92–93° (B. 14, 2359). — II, 1548.
- 68) Methylester d. 3-Oxy-1-Methylbenzol-4-Carbonsäure. Sd. 243° (236 bis 237°) (B. 6, 324, 325; 23, 2939). — II, 1550.
- 69) Methylester d. 2-Oxybenzoldimethyläther-1-Carbonsäure. Sd. 228° (B. 17, 486; 30, 958; 31, 3274; A. 142, 329; 197, 18; Am. 19, 553). — II, 1494.
- 70) Methylester d. 3-Oxybenzoldimethyläther-1-Carbonsäure. Sd. 236 bis 238° (M. 15, 720; Am. 19, 555). — II, 1517.
- 71) Methylester d. 4-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 45–46°; Sd. 255° (A. 56, 311; 141, 252; M. 3, 129; J. pr. [2] 40, 345; Am. 19, 558; B. 31, 3275). — II, 1526.
- 72) Äthylester d. 2-Oxybenzol-1-Carbonsäure. Sd. 231,5°. Na (A. 52, 332; 70, 270; 74, 314; 197, 17; J. 1854, 26; B. 9, 1473; 30, 958; 31, 1568 Anm.; J. pr. [2] 36, 364; [2] 47, 240). — II, 1492.
- 73) Äthylester d. 3-Oxybenzol-1-Carbonsäure. Sm. 72°; Sd. 282°. Na (A. 142, 351; 153, 336; 280, 22). — II, 1517.
- 74) Äthylester d. 4-Oxybenzol-1-Carbonsäure. Sm. 112,5° (116°); Sd. 297–298°. Na (A. 139, 146; J. pr. [2] 16, 50; [2] 36, 368). — II, 1524.
- 75) Äthylester d. β -[2-Furanyl]akrylsäure. Sd. 233–235° (228–230°) (B. 21, 1404; 24, 144). — III, 710.
- 76) Äthylphenylester d. Kohlensäure. Sd. 200–210° (234°) (J. 1864, 477; J. pr. [2] 27, 43; B. 17, 1205; 19, 2268; 27, 3183; Bl. [3] 19, 769). — II, 663.
- 77) Monoacetat d. 3,5-Dioxy-1-Methylbenzol. Sd. 284–286°₂₄ (J. pr. [2] 26, 61).
- 78) 1-Acetate d. 3-Oxybenzylalkohol. Sm. 55°; Sd. 295–302° (J. pr. [2] 15, 169). — II, 1110.
- 79) 1-Acetate d. 4-Oxybenzylalkohol. Sm. 84° (B. 19, 2375). — II, 1110.
- 80) Acetat d. 1,2-Dioxybenzolmonomethyläther. Sd. 235–240° (B. 14, 2020). — II, 910.
- 81) Acetat d. 1,3-Dioxybenzolmonomethyläther. Sd. 254–256° (B. 16, 152). — II, 918.
- 82) Gallacetonein (Propylidenäther d. 1,2,3-Trioxymethylbenzol?). Zers. bei 250° (J. pr. [2] 26, 76). — II, 1012.

 $C_9H_{10}O_4$

- C 59,3 — H 5,5 — O 35,2 — M. G. 182.
- 1) Apion (1,2-Methylenäther-3,4-Dimethyläther d. 1,2,3,4-Tetraoxymethylbenzol?). Sm. 79° (B. 21, 1630; 23, 2292). — II, 1030.
 - 2) isom. Apion (aus Dillöl). Fl. (B. 29, 1808).
 - 3) $\alpha\beta$ -Dioxy- α -Phenylpropionsäure (Atroglycerinsäure). Sm. 146°. Ca, Ba (A. 206, 29; B. 16, 1293). — II, 1761.
 - 4) meso- $\alpha\beta$ -Dioxy- β -Phenylpropionsäure. Sm. 143–144° u. ger. Zers. Ca + 4H₂O, Ba + 2H₂O, Cd + 4H₂O, Zn + 4H₂O, Cu + H₂O (Z. 1867, 68; B. 16, 1286; 27, 469; 30, 1604; A. 268, 27; J. 1883, 1177). — II, 1761.
 - 5) isom. $\alpha\beta$ -Dioxy- β -Phenylpropionsäure. Sm. 120–121°. Ca + 3H₂O, Zn + 4H₂O, Cu + 2H₂O, Ag (B. 12, 539; 30, 1601). — II, 1761.
 - 6) β -[2,4-Dioxyphenyl]propionsäure (Hydroumbellsäure). Zers. bei 110°. Ca, Ba (A. 139, 102; B. 15, 2079). — II, 1762.
 - 7) β -[3,4-Dioxyphenyl]propionsäure (Hydrokaffeesäure). Sm. 139°. Ca, Ba, Pb₂ (A. 142, 354; B. 25, 3220; M. 12, 450). — II, 1762.
 - 8) α -Oxy- β -[2-Oxyphenyl]propionsäure (Salicylmilchsäure). Fl. Ca + 6H₂O (B. 18, 1188). — II, 1763.
 - 9) α -Oxy- β -[4-Oxyphenyl]propionsäure + H₂O. Sm. 139–140° (wasserfrei). Ca + 6H₂O (A. 219, 226). — II, 1763.
 - 10) α -[oder β] Oxy- β -[4-Oxyphenyl]propionsäure + $\frac{1}{2}$ H₂O (Oxyhydro-p-Cumarsäure). Sm. 162–164° (H. 6, 256). — II, 1763.
 - 11) α -Oxy- α -[4-Methoxyphenyl]essigsäure (p-Oxymandelmethylethersäure). Sm. 93°. Cu, Ag (B. 14, 1977). — II, 1750.
 - 12) Oxyessig-2-Oxymethylphenyläthersäure (Saligeninglykolsäure). Sm. 120°. Ag + 2H₂O (G. 21 [1] 257). — II, 1109.
 - 13) Oxyessig-2-Methoxyphenyläthersäure. Sm. 120° (121°). Ba + 3H₂O, Ag (G. 24 [1] 63; B. 27, 2804). — II, 910.

- $C_9H_{10}O_4$
- 14) 3,4-Dioxyphenylessig-3-Methyläthersäure (α -Homovanillinsäure). Sm. 142—143° (B. 10, 204). — II, 1749.
 - 15) 4,6-Dioxy-1,3-Dimethylbenzol-5-Carbonsäure (m-Xylorcincarbon-säure). Sm. 196° u. Zers. (B. 19, 2323). — II, 1765.
 - 16) 2,6-Dioxy-1-Methylbenzol-6-Methyläther-3-Carbonsäure. Sm. 210° (Soc. 67, 994).
 - 17) 4,5-Dioxy-1-Methylbenzol-5-Methyläther-3-Carbonsäure (Kresolcar-bonsäure). Sm. 180—182°. NH_4 , K, Ba, Pb, Cu (B. 19, 2325). — II, 1751.
 - 18) 2,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 108°. Ag (B. 13, 2378; 15, 2080; 16, 2117; 17, 2133). — II, 1736.
 - 19) 2,5-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 76°. Pb, Cu, Ag (B. 14, 1993). — II, 1738.
 - 20) 2,6-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 179° (R. 2, 222). — II, 1738.
 - 21) 3,4-Dioxybenzoldimethyläther-1-Carbonsäure + H_2O (Veratrumssäure). Sm. 179,5°. Na + 2 H_2O , Ba + 6 H_2O , Ag. Lit. bedeutend. — II, 1741.
 - 22) 3,5-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 175—176°. Ag (B. 14, 2003; M. 8, 436). — II, 1747.
 - 23) 2,4-Dioxybenzol-4-Aethyläther-1-Carbonsäure. Sm. 154°. Na + H_2O , K, Ba, Pb + 8 H_2O , Ag + 10 H_2O (M. 14, 47; 16, 885; 17, 225; B. 28, 2308; Soc. 67, 995). — II, 1739.
 - 24) 2,5-Dioxybenzol-5-Aethyläther-1-Carbonsäure. Sm. 164° (M. 16, 921 Anm.).
 - 25) 1-Methyl-1,2-Dihydrobenzol-3,5-Dicarbonsäure. Sm. 235—236°. Ca + 3½ H_2O , Ba + 2½ H_2O (A. 305, 143).
 - 26) Atranorinsäure (Physiol) oder $C_7H_8O_3$. Sm. 100—101° (107°) (G. 12, 257; A. 288, 48; 295, 225; B. 30, 359; J. pr. [2] 57, 284. — II, 2083.
 - 27) Everninsäure + H_2O . Sm. 157° (158°). Ba + 2(8) H_2O , Ag (A. 68, 86; 117, 299; J. pr. [2] 57, 251). — II, 1765.
 - 28) Dehydrodiacetylävulinsäure. Sm. 151,5—152°. Ba + 2 H_2O , Ag (G. 19, 277; 22 [1] 446; B. 15, 1523; 25 [2] 638, 639). — I, 734.
 - 29) Proteasäure. Sm. 187°. (Pb_2 + PbO + H_2O) (A. 290, 319).
 - 30) Sordidasäure + ½ H_2O . Sm. 172° (B. 30, 364).
 - 31) Säure (aus Dicampherylsäure). Fl. (Soc. 75, 186).
 - 32) Säure (aus Malonsäure und Methyläthylketon). Sm. 76—77°. Ba + H_2O (B. 27, 1575).
 - 33) $\alpha\delta$ -Lakton d. δ -Oxy- β -Methyl- $\alpha\gamma$ -Pentadien- $\alpha\gamma$ -Dicarbonsäuremono-methylester (Methylester d. Mesitenlaktonecarbonsäure). Sm. 67—67,5°; Sd. 167°₁₄ (A. 259, 156). — I, 776.
 - 34) Aldehyd d. 3,4,5-Trioxybenzol-3,5-Dimethyläther-1-Carbonsäure. Sm. 111,5° (G. 18, 215). — III, 107.
 - 35) Methylester d. 3,5-Dioxy-1-Methylbenzol-4-Carbonsäure (M. d. Orsellinsäure). Sm. 138° (A. 54, 268; 68, 75; J. pr. [2] 57, 267). — II, 1752.
 - 36) Methylester d. 2,3-Dioxybenzol-3-Methyläther-1-Carbonsäure. Sm. 63°. K (A. 301, 355).
 - 37) Methylester d. 3,4-Dioxybenzol-3-Methyläther-1-Carbonsäure. Sm. 62—63°; Sd. 285—287° (B. 11, 128). — II, 1741.
 - 38) Methylester d. 3,5-Dioxybenzolmonomethyläther-1-Carbonsäure. Sd. 315° u. Zers. (M. 8, 430). — II, 1747.
 - 39) Methylester d. 2-Methoxyphenylkohlsäure. Sd. 240° (Bl. [3] 19, 891).
 - 40) Monomethylester d. 1,4-Dihydrobenzol-2,5-Dicarbonsäure. Sm. 225° (A. 245, 146). — II, 1760.
 - 41) Methylester d. Dehydracetsäure. Sm. 91°. Na (B. 9, 324; Soc. 51, 497). — II, 1756.
 - 42) Aethylester d. 2,5-Dioxybenzol-1-Carbonsäure. Sm. 75° (J. pr. [2] 19, 373). — II, 1738.
 - 43) Aethylester d. 3,4-Dioxybenzol-1-Carbonsäure. Sm. 134° (A. 114, 295; 168, 113; 280, 23). — II, 1740.
 - 44) Aethylester d. 3,5-Dioxybenzol-1-Carbonsäure. Sm. unter 100° (A. 159, 225). — II, 1747.
 - 45) Aethylester d. 2-Oxyphenylkohlsäure. Sm. 58° (A. 300, 141).
 - 46) Aethylester d. Furanoylessigsäure. Sd. 142—143°₁₀ (C. 1898 [1] 327).
 - 47) Acetat d. Physiol. Fl. (J. pr. [2] 57, 285).

$C_9H_{10}O_5$

C 54,5 — H 5,0 — O 40,4 — M. G. 198.

- 1) δ -Keto- $\beta\epsilon$ -Heptadien- β -Dicarbonsäure (Acetondibrenztraubensäure). $Na_2 + 6H_2O$, $K_2 + 2H_2O$, Ag_2 (B. 31, 683).
- 2) 2,4,6-Triox-1,3-Dimethylbenzol-6-Carbonsäure. Sm. 159—160° u. Zers. (A. 302, 182).
- 3) 3,4,5-Triox-1,3-Dimethyläther-1-Carbonsäure (Syringensäure). Sm. 202°. $Ba + 3H_2O$ (G. 18, 215; B. 30, 2333). — II, 1921.
- 4) 2,4-Dimethylfuran-3-Carbonsäure-5-Methylcarbonsäure (Methylmethronsäure). Sm. 198°. $Ca + 3H_2O$, $Ba + 2H_2O$, Ag_2 (A. 250, 197). — III, 718.
- 5) Apoglucinsäure? Ca, Pb, Ag (J. 1870, 845; J. pr. [1] 21, 234). — I, 781.
- 6) Isoapoglucinsäure. Pb (Z. 1868, 51). — I, 781.
- 7) Uroleucinsäure (α -Oxy- β -Dioxyphenylpropionsäure) (H. 23, 416).
- 8) Anhydrid d. α -Oxycamphoronsäure (A. d. Camphoronsäure). Sm. 137°; Sd. 175°₁₀ (M. 9, 712; A. 299, 150, 152). — I, 843.
- 9) Monomethylester d. 2,5-Dimethylfuran-3,4-Dicarbonsäure. Sm. bei 129°. Ag (B. 22, 155). — III, 716.
- 10) 3[oder 5]-Methylester d. 2-Methylfuran-3-Carbonsäure-5-Methylcarbonsäure. Sm. 98°. Ag (A. 246, 12). — III, 717.
- 11) Aethylester d. 2,3,4-Triox-1-Carbonsäure + H_2O . Sm. 86° (102° wasserfrei) (B. 17, 2100; A. 245, 40). — II, 1918.
- 12) Aethylester d. 3,4,5-Triox-1-Carbonsäure + $2\frac{1}{2}H_2O$. Sm. 90° (141°; 150° wasserfrei). Na, Pb₂ (A. 159, 28; 163, 217; B. 11, 1882; Bl. 2, 94). — II, 1921.

 $C_9H_{10}O_6$

C 50,5 — H 4,7 — O 44,8 — M. G. 214.

- 1) 2,3,4,5-Tetraoxybenzoldimethyläther-1-Carbonsäure. Sm. 147—148° (G. 22 [1] 562). — II, 1991.
- 2) ?-Tetrahydrobenzol-1,3,5-Tricarbonsäure. Sm. 185° (C. 1898 [1] 830).
- 3) Dikonsäure. Sm. 199—200°; subl. bei 190°. Salze meist bekannt (J. pr. [2] 8, 382). — I, 825.

 $C_9H_{10}O_7$

C 46,9 — H 4,3 — O 48,7 — M. G. 230.

- 1) Citrat d. Glycerin (J. 1856, 603; A. ch. [3] 67, 313). — I, 840.

 $C_9H_{10}O_8$

C 43,9 — H 4,0 — O 52,0 — M. G. 246.

- 1) R-Pentamethylen-1,1,3,3-Tetracarbonsäure. Sm. 186—188° u. Zers. (B. 31, 1952).

 $C_9H_{10}N_2$

C 74,0 — H 6,8 — N 19,2 — M. G. 146.

- 1) Aethylimido-Phenylimidomethan (Carboäthylphenylimid). HCl (B. 8, 1530). — II, 451.
- 2) γ -Phenylazopropen. Sd. 95—100°₂₇ (A. 239, 205). — IV, 1376.
- 3) 1-Phenyl-4,5-Dihydropyrazol. Sm. 51—52°; Sd. 273—274°₅₄ (A. 239, 197; B. 24, 3739; G. 18, 358). — IV, 487.
- 4) 5-Phenyl-4,5-Dihydropyrazol. Fl. HCl (B. 26, 261). — IV, 884.
- 5) 5-Phenyl-4,5-Dihydropyrazol? Fl. (B. 27, 788; J. pr. [2] 52, 53). — IV, 885.
- 6) 2-Phenyl-4,5-Dihydroimidazol (Aethylenbenzenylamidin). Sm. 101°. HCl, (HCl, $HgCl_2$), (2HCl, $PtCl_4$), (HCl, $AuCl_3$), HNO_3 , H_2SO_4 , Pikrat (B. 21, 2335; 25, 2135). — IV, 840.
- 7) 3-Amido-2-Methylindol. Sm. 112—113°. HCl (A. 242, 385). — IV, 883.
- 8) 2-Aethylindazol. Fl. H_2SO_4 , Pikrat (A. 227, 314). — IV, 866.
- 9) 2,3-Dimethylindazol. Sm. 79—80° (A. 227, 322). — IV, 869.
- 10) 5,7-Dimethylindazol. Sm. 133—134° (A. 305, 310).
- 11) 1,3-Dimethylisindazol. Sm. 36,5° (A. 227, 336). — IV, 870.
- 12) 2-Aethylbenzimidazol (Propenylphenylenamidin). Sm. 177—178° (168 bis 169°). HCl, (2HCl, $PtCl_4 + 2H_2O$), $H_2Cr_2O_7$, + $HgCl_2$ (B. 11, 829; 27, 2190; Am. 6, 127). — IV, 879.
- 13) 1,2-Dimethylbenzimidazol. Sm. 112°; Sd. 290°. (2HCl, $PtCl_4$), (HCl, $AuCl_3$) (B. 25, 2838). — IV, 876.
- 14) 1,5-Dimethylbenzimidazol. Sm. 94,5—95,5°; Sd. 301°₁₀₀. HCl + H_2O , Pikrat (B. 26, 195; 28, 3044; 30, 3120). — IV, 876.
- 15) 1,6-Dimethylbenzimidazol. Sd. 280°. HCl, HJ + H_2O (B. 22, 644; 25, 2711). — IV, 876.

- C₉H₁₀N₂**
- 16) **2,5-Dimethylbenzimidazol.** Sm. 200—202° (203°). Sd. bei 350°. Na, Ag, (2HCl, PtCl₄), HNO₃ (B. 5, 920; 8, 677; 12, 954; 17, 81; 20, 1589; 21, 1909; 25, 862; 30, 3064; A. 273, 281, 368). — IV, 880.
 - 17) **2-Methyl-1,4-Dihydro-1,3-Benzdiazin.** Sd. 260—270°. HCl, Pikrat (B. 26, 1893). — IV, 884.
 - 18) **2-Methyl-3,4-Dihydro-1,3-Benzdiazin.** Fl. HCl, (2HCl, PtCl₄) (B. 23, 2812). — IV, 883.
 - 19) **2-Methyl-1,2-Dihydro-2,3-Benzdiazin.** Fl. HCl, Pikrat (B. 28, 1833). — IV, 875.
 - 20) **Methylapoharmin.** Sm. 77—78°. (2HCl, PtCl₄), HJ (B. 30, 2489).
 - 21) **Nitril d. α-Phenylamidopropionsäure.** Sm. 92° (B. 15, 2034; 25, 2032). — II, 432.
 - 22) **Nitril d. α-Amido-α-Phenylpropionsäure.** Fl. (B. 14, 1981). — II, 1372.
 - 23) **Nitril d. α-Amido-β-Phenylpropionsäure.** HCl (A. 219, 188). — II, 1365.
 - 24) **Nitril d. 4-Methylphenylamidoessigsäure.** Sm. 61° u. Zers. (B. 31, 2714).
 - 25) **isom. Nitril d. 4-Methylphenylamidoessigsäure?** Sm. 126° (B. 8, 1163, 1164). — II, 505.
 - 26) **Nitril d. Aethylphenylamidoameisensäure (Aethylcyananilid).** Sd. 271° (A. 90, 94). — I, 451.
 - 27) **Nitril d. 2-Aethylamidobenzol-1-Carbonsäure.** Sm. 32° (M. 19, 637).
 - 28) **Nitril d. 4-Dimethylamidobenzol-1-Carbonsäure.** Sm. 75—76° (Am. 19, 333; B. 20, 2958). — II, 1273.
- C₉H₁₀N₄**
- C 62,1 — H 5,7 — N 32,2 — M. G. 174.
- 1) **3,5-Diamido-1-Phenylpyrazol.** Fl. (J. pr. [2] 52, 46).
 - 2) **p-Phenylazo-4,5-Dihydropyrazol.** Sm. 80° (J. pr. [2] 50, 546). — IV, 1487.
 - 3) **3-Imido-2-Methyl-1-Phenyl-2,3-Dihydro-1,2,4-Triazol.** Fl. HJ, Pikrat (G. 29 [1] 25).
 - 4) **4-Amido-1-Phenyl-3-Methyl-1,2,5-Triazol.** Sm. 83,5° (B. 26, 2785; 28, 1286). — IV, 1238.
 - 5) **3-Amidomethyl-1-Phenyl-1,2,5-Triazol.** Sd. 222—223°₁₀₀. HCl, (2HCl, PtCl₄), H₂CO₃ (A. 262, 300). — IV, 1238.
 - 6) **1-Aethyl-5-Phenyl-1,2,3,4-Tetrazol** (A. 263, 106). — IV, 1267.
 - 7) **5,7,8-Triamidochinolin.** Sm. noch nicht bei 350°. 3HCl (J. pr. [2] 53, 547). — IV, 1273.
 - 8) **2,3-Diimido-5-Methyl-1,2,3,4-Tetrahydro-1,4-Benzdiazin + H₂O** (Toluylendiaminecyanid). Sm. 242—244° u. Zers. HCl + 1½ H₂O, 2HCl, (2HCl, PtCl₄ + 2H₂O), H₂SO₄ + H₂O (B. 18, 666). — IV, 622.
- C₉H₁₀N₆**
- C 53,5 — H 4,9 — N 41,6 — M. G. 202.
- 1) **Phenylmelamin.** Sm. 284°. (2HCl, PtCl₄) (J. pr. [2] 33, 295). — II, 451.
 - 2) **5-[α-Phenyläthyliden]hydrazido-1,2,3,4-Tetrazol.** Sm. 235° (A. 287, 236). — IV, 1329.
- C₉H₁₀Cl₂**
- 1) **p-Dichlor-4-Aethyl-1-Methylbenzol.** Sd. 240—243° u. ger. Zers. (B. 28, 2651).
 - 2) **p-Dichlor-p-Aethyl-1-Methylbenzol.** Sd. 365° (J. 1856, 621). — II, 53.
 - 3) **2,4-Dichlor-1,3,5-Trimethylbenzol.** Sm. 59°; Sd. 243—244° (A. 150, 327). — II, 54.
 - 4) **3,5-Di[Chlormethyl]-1-Methylbenzol.** Sm. 41,5°; Sd. 260—265° (Bl. 40, 110). — II, 54.
- C₉H₁₀Br₂**
- 1) **αα-norm. Dibrompropylbenzol.** Fl. (B. 18, 1275). — II, 66.
 - 2) **αβ-norm. Dibrompropylbenzol.** Sm. 66,5° (A. 172, 131; J. 1874, 393; 1877, 382; B. 18, 1275; 27, 2313). — II, 66.
 - 3) **βγ-Dibrompropylbenzol?** Sm. 90—100° (A. 283, 304).
 - 4) **3-[αβ-Dibromäthyl]-1-Methylbenzol.** Sm. 45° (B. 20, 1216). — II, 66.
 - 5) **4-[αβ-Dibromäthyl]-1-Methylbenzol.** Sm. 44,5° (B. 24, 1332). — II, 67.
 - 6) **p-Dibrom-4-Aethyl-1-Methylbenzol.** Sd. 260—265° (B. 28, 2652).
 - 7) **3,6-Dibrom-1,2,4-Trimethylbenzol.** Sm. 63,6°; Sd. 293—294° (B. 19, 217, 1221). — II, 67.
 - 8) **2,4-Dibrom-1,3,5-Trimethylbenzol.** Sm. 60° (64°); Sd. 285° (276 bis 278°) (Z. 1871, 454; B. 16, 965, 966; 19, 212; A. 147, 10; 215, 247). — II, 67.
 - 9) **2-Brom-5-Brommethyl-1,3-Dimethylbenzol.** Fl. (B. 19, 213). — II, 68.

- $C_9H_{10}Br_2$ 10) 3,4-Di[Brommethyl]-1-Methylbenzol. Sm. 97—97,5° (B. 19, 867). — II, 67.
11) 3,5-Di[Brommethyl]-1-Methylbenzol. Sm. 66,4° (A. ch. [6] 6, 91; Bl. 40, 110). — II, 68.
- $C_9H_{10}J_2$ 1) p-Dijod-1,2,4-Trimethylbenzol. Fl. (B. 22, 1586). — II, 76.
2) p-Dijod-1,2,4-Trimethylbenzol. Sm. 73° (B. 22, 1586). — II, 76.
3) 2,4-Dijod-1,3,5-Trimethylbenzol. Sm. 82—83° (B. 26, 1104). — II, 76.
- $C_9H_{10}S$ 1) Phenyläther d. γ -Merkaptopropen (Allylphenylsulfid). Sd. 207—208° (B. 19, 1792; A. 254, 232). — II, 783.
- $C_9H_{10}S_2$ 1) Aethylenäther d. Dimerkaptomethylbenzol (Benzylidenäthylendisulfid). Sm. 29° (B. 21, 1476). — III, 8.
- $C_9H_{11}N$ C 81,2 — H 8,3 — N 10,5 — M. G. 133.
1) γ -Phenylamidopropen (Allylamidobenzol). Sd. 208—209°. (2HCl, PtCl₄) (A. Spl. 3, 364). — II, 337.
2) γ -Amido- α -Phenylpropen (γ -Phenylpropenylamin). Sd. 235—237°. HCl, (2HCl, PtCl₄) (J. 1858, 448; B. 26, 1858). — II, 585.
3) β -Phenylimidopropan. Sd. 227—229°. H₂SO₄ (A. 187, 220; 238, 10; B. 6, 642). — II, 446.
4) Aethylimidomethylbenzol (Aethylbenzylidenamin). Sd. 195°₄₀ (A. 245, 279). — III, 28.
5) Benzylamidoäthen (Vinylbenzylamin). Fl. (B. 29, 2384).
6) 1-Amido-2,3-Dihydroinden (α -Amidohydrinden). Sd. 220,5°₇₄₇. HCl, H₂SO₄, Oxalat (A. 275, 348; Soc. 71, 250). — II, 586.
7) 2-Aethenyl-5-Aethylpyridin. Sd. 98—102°₂₁. (2HCl, 5HgCl₂) (B. 25, 2394). — IV, 203.
8) α -[2-Pyridyl]- α -Buten (2-Butenylpyridin). Sd. 147—149°₇₈ (2HCl, PtCl₄), (HCl, AuCl₃) (B. 23, 2711). — IV, 203.
9) α -[2-Pyridyl]- β -Methylpropen (α -Isobutenylpyridin). Sd. 200°. HCl + 3HgCl₂, (2HCl, PtCl₄) + 2H₂O, (HCl, AuCl₃), Pikrat (J. pr. [2] 42, 425). — IV, 203.
10) 1-Methyl-2,3-Dihydroindol. Sd. 216°₇₂₈. (2HCl, PtCl₄), Oxalat, Pikrat (A. 239, 246). — IV, 187.
11) 2-Methyl-2,3-Dihydroindol. Sd. 223—227°₇₁₆ (227—228°₇₄₃). (2HCl, PtCl₄), Oxalat (B. 14, 883; A. 239, 244; Ph. Ch. 16, 216; G. 28 [2] 66). — IV, 188.
12) 3-Methyl-2,3-Dihydroindol. Sd. 231—232°₇₄₄. (2HCl, PtCl₄), Oxalat, Pikrat (A. 239, 242). — IV, 189.
13) 1-Methyl-1,3-Dihydroisindol. Sd. 213°. HCl (B. 26, 712). — IV, 189.
14) 1,2,3,4-Tetrahydrochinolin. Sd. 251°. HCl, (2HCl, PtCl₄), H₂SO₄, Pikrat (B. 12, 1481; 13, 2400; 14, 101; 15, 335; 16, 728; 18, 1619; 19, 3302; 22, 1389; 27, 1477; 29 [2] 1123; Bl. [3] 19, 404; M. 2, 83; 7, 328; Ph. Ch. 16, 218; Soc. 69, 1245; R. 14, 189). — IV, 189.
15) isom. Tetrahydrochinolin. Sd. 212—213°. HCl, (2HCl, PtCl₄), (2HCl, PtCl₄) (A. ch. [5] 27, 477). — IV, 201.
16) 1,2,3,4-Tetrahydroisochinolin. Sd. 232—233°. HCl, (2HCl, PtCl₄), Tartrat, Pikrat (R. 5, 310; B. 26, 1209; 27, 854; 30, 2188; G. 22 [2] 425; Ph. Ch. 16, 218; Bl. [3] 19, 428). — IV, 201.
C 67,1 — H 6,8 — N 26,1 — M. G. 161.
- $C_9H_{11}N_3$ 1) 3-Amido-5,7-Dimethylindazol. Sm. 150—151° (A. 305, 319).
2) 5-Amido-1,2-Dimethylbenzimidazol. Sm. 167—168°. 2HCl, Pikrat (B. 27, 607; 29, 1055). — IV, 1149.
3) 4-Amido-2,6-Dimethylbenzimidazol + H₂O. Sm. 100° (B. 19, 719). — IV, 1152.
4) 5-Methyl-1-Aethyl-1,2,3-Benzotriazol. Sm. 147°. (2HCl, PtCl₄). (B. 20, 3000). — IV, 1146.
5) 1,5,7-Trimethyl-1,2,3-Benzotriazol. Sm. 118,5—119° (B. 31, 2933).
6) 3-Aethyl-3,4-Dihydro-1,2,3-Benzotriazin. Fl. HCl, (2HCl, PtCl₄), HBr, H₂SO₄, Pikrat (J. pr. [2] 51, 138). — IV, 626.
7) Nitril d. α -[β -Phenylhydrazido]propionsäure. Sm. 58° (B. 17, 1453; 25, 2061, 2701). — IV, 739.
C 57,1 — H 5,8 — N 37,0 — M. G. 189.
- $C_9H_{11}N_5$ 1) 3,5-Diimido-1-[2-Methylphenyl]tetrahydro-1,2,4-Triazol (2-Tolylguanazol). Sm. 159°. HCl, HNO₃, Pikrat (G. 24 [1] 486). — IV, 1313.

- $C_9H_{11}N_3$ 2) **3,5-Diimido-1-[4-Methylphenyl]tetrahydro-1,2,4-Triazol** (4-Tolyl-guanazol). Sm. 172°. HCl, (2HCl, PtCl₄), HNO₃, Pikrat (G. 24 [1] 484). — IV, 1313.
- 3) **3,5-Diimido-2-Methyl-1-Phenyltetrahydro-1,2,4-Triazol**. Sm. 208° u. Zers. HCl, (2HCl, PtCl₄), HNO₃ (G. 24 [1] 489). — IV, 1313.
- $C_9H_{11}N_7$ C 49,8 — H 5,1 — N 45,1 — M. G. 219.
- 1) **5-[4-Dimethylamidophenyl]azo-1,2,3,4-Tetrazol** (A. 270, 61; 303, 74). — IV, 1493.
- $C_9H_{11}Cl$ 1) α -Chlorpropylbenzol. Sd. 200—205° u. Zers. (G. 16, 322; Bl. [3] 9, 221). — II, 53.
- 2) β -Chlorpropylbenzol. Sd. 204—207° u. Zers. (G. 14, 506; 16, 317). — II, 53.
- 3) γ -Chlorpropylbenzol. Sd. 219—220° (G. 16, 313). — II, 53.
- 4) α -Chlorisopropylbenzol. Fl. (Bl. [3] 9, 220). — II, 53.
- 5) β -Chlorisopropylbenzol. Fl. (Bl. [3] 9, 220). — II, 53.
- 6) **2-Chlor-1-Isopropylbenzol**. Sd. 191°_{743,8} (G. 16, 420). — II, 53.
- 7) **4-Chlor-1-Isopropylbenzol**. Sd. 205—206° u. Zers. (Bl. [3] 9, 223; B. 26, 2944). — II, 53.
- 8) **2-Chlor-4-Aethyl-1-Methylbenzol**. Sd. 200—203° (B. 28, 2651).
- 9) **5-Chlormethyl-1,3-Dimethylbenzol**. Sm. 41,5°; Sd. 260—265° (Bl. 40, 315). — II, 54.
- 10) **5-Chlor-1,2,4-Trimethylbenzol**. Sm. 70—71°; Sd. 213—215° (B. 18, 93; 26, 2944; A. 243, 232). — II, 53.
- 11) **2-Chlor-1,3,5-Trimethylbenzol**. Sd. 204—206° (A. 150, 324; B. 26, 2943). — II, 54.
- $C_9H_{11}Br$ 1) **2-Brom-1-[norm.]Propylbenzol**. Sd. 221—223° (B. 18, 1274). — II, 66.
- 2) **4-Brom-1-[norm.]Propylbenzol**. Sd. 220° (J. pr. [2] 34, 101). — II, 66.
- 3) **2-Brom-1-Isopropylbenzol**. Sd. 205—207°₇₄₆ (G. 16, 131). — II, 66.
- 4) **4-Brom-1-Isopropylbenzol**. Sd. 216° (Z. 1867, 322; B. 12, 430; 15, 698; J. pr. [2] 34, 93). — II, 66.
- 5) **4-[α -Bromäthyl]-1-Methylbenzol**. Fl. (B. 24, 1332). — II, 66.
- 6) **4-Brom-2-Aethyl-1-Methylbenzol**. Sd. 220—221° (B. 19, 3088). — II, 66.
- 7) **2-Brom-4-Aethyl-1-Methylbenzol**. Sd. 215—217° (220—222° cor.) (B. 11, 225; 28, 2651). — II, 66.
- 8) **3-Brom-1,2,4-Trimethylbenzol**. Sd. 237—238° (226—229°) (B. 19, 1551; 21, 2822). — II, 67.
- 9) **5-Brom-1,2,4-Trimethylbenzol**. Sm. 73°; Sd. 233—235° (A. 137, 323; 215, 242; 243, 233; B. 18, 1446; 22, 1580). — II, 67.
- 10) **6-Brom-1,2,4-Trimethylbenzol**. Sd. 236—238° (B. 19, 1223). — II, 67.
- 11) **2-Brom-1,3,5-Trimethylbenzol**. Sd. 225° (A. 147, 6; B. 16, 996; 19, 212). — II, 67.
- 12) **5-Brommethyl-1,3-Dimethylbenzol**. Sm. 37,5°; Sd. 229—231°₇₇₄ u. ger. Zers. (A. ch. [6] 6, 89; B. 16, 1577). — II, 67.
- $C_9H_{11}J$ 1) **4-Jod-1-[norm.]Propylbenzol**. Sd. 250° (B. 16, 110). — II, 76.
- 2) **4-Jod-1-Isopropylbenzol**. Sd. 234° (B. 16, 114). — II, 76.
- 3) **p-Jod-1,2,4-Trimethylbenzol**. Sm. 37°; Sd. 256—258° (A. 243, 233; B. 22, 1586). — II, 76.
- 4) **2-Jod-1,3,5-Trimethylbenzol**. Sm. 30,5°; Sd. 248—250° (B. 25, 1522; 26, 1104). — II, 76.
- $C_9H_{11}F$ 1) **p-Fluor-1,2,4-Trimethylbenzol**. Sm. 27° (24°); Sd. 174—175° (172°) (A. 243, 232; C. 1898 [1] 1224). — II, 41.
- $C_9H_{12}O$ C 79,4 — H 8,8 — O 11,8 — M. G. 136.
- 1) α -Oxypropylbenzol (α -Oxy- α -Phenylpropan; α -Phenylpropylalkohol). Sd. 212° (219—220° u. Zers.) (J. 1874, 535; J. pr. [2] 26, 110; G. 16, 320; J. r. 16, 322). — II, 1064.
- 2) β -Oxypropylbenzol. Sd. 214,5—215,5° (G. 16, 315). — II, 1065.
- 3) γ -Oxypropylbenzol. Sd. 235° (A. 172, 122; 188, 202; Soc. 39, 319). — II, 1065.
- 4) **2-Oxy-1-norm. Propylbenzol**. Sd. 224,6—226,6° (B. 12, 295; Soc. 43, 357). — II, 761.
- 5) **4-Oxy-1-norm. Propylbenzol**. Sd. 230—232,6° (227—228°) (B. 12, 295; 16, 109). — II, 761.

$C_9H_{10}O$

- 6) **2-Oxy-1-Isopropylbenzol**. *Sd.* 212—212,5°_{732,5} (*J.* 1879, 760; 1880, 663; *G.* 16, 114; *Bl.* [3] 13, 981). — II, 761.
- 7) **3-Oxy-1-Isopropylbenzol**. *Sm.* 26°; *Sd.* 228° (*Bl.* [3] 13, 982; *B.* 11, 1062; 23, 1162). — II, 761.
- 8) **4-Oxy-1-Isopropylbenzol**. *Sm.* 61°; *Sd.* 228,2—229,2° (*J.* 1876, 455; *B.* 19, 1416; *J. r.* 23, 533). — II, 762.
- 9) **2-Oxy-4-Aethyl-1-Methylbenzol**. *Sd.* 225—226,5° (cor.) (*Bl.* [3] 13, 892).
- 10) **2-Oxy-4-Aethyl-1-Methylbenzol**. *Sd.* 215° (219,8—220,8° cor.) (*J.* 1880, 663; *Bl.* [3] 13, 893). — II, 763.
- 11) **5-Oxy-1,2,3-Trimethylbenzol**. *Sm.* 81° (*B.* 19, 2518). — II, 763.
- 12) **5-Oxy-1,2,4-Trimethylbenzol** (Pseudocumenol). *Sm.* 71—72°; *Sd.* 234 bis 235° (*B.* 11, 29; 17, 885, 2976; *J. pr.* [2] 34, 319; *A.* 243, 234). — II, 763.
- 13) **6-Oxy-1,2,4-Trimethylbenzol**. *Sm.* 92° (95°); *Sd.* 230—231° (*B.* 18, 630; 19, 1219; 27, 1431). — II, 764.
- 14) **2-Oxy-1,2,4-Trimethylbenzol**. *Sd.* 216—218° (*B.* 18, 2230). — II, 764.
- 15) **2-Oxy-1,3,5-Trimethylbenzol** (Mesityl). *Sm.* 68—69° (70—71°); *Sd.* 219,5° (*A.* 195, 269; 278, 212; *B.* 8, 57, 250; 15, 1019). — II, 764.
- 16) **4-Oxymethyl-1,3-Dimethylbenzol** (2,4-Dimethylphenyl-Methylalkohol). *Sm.* 22°; *Sd.* 232° (*B.* 21, 3085). — II, 1065.
- 17) **5-Oxymethyl-1,3-Dimethylbenzol** (3,5-Dimethylphenyl-Methylalkohol). *Sd.* 218—221° (*B.* 18, 1577). — II, 1065.
- 18) **Methyläther d. 2-Oxy-1-Aethylbenzol**. *Sd.* 185° (190—192°) (*B.* 12, 1659; *G.* 13, 266). — II, 757.
- 19) **Methyläther d. 4-Oxy-1,3-Dimethylbenzol**. *Sd.* 192° (186°₇₄₂) (*B.* 11, 25; *J. pr.* [2] 35, 25; *A.* 234, 317). — II, 758.
- 20) **Methyläther d. 2-Oxy-1,4-Dimethylbenzol**. *Sd.* 194°₇₇₂ (*B.* 11, 28; *J.* 1880, 663). — II, 759.
- 21) **Aethyläther d. Oxymethylbenzol** (Aethyläther d. Benzylalkohol). *Sd.* 185° (*A.* 181, 330; *B.* 5, 288; 30, 879; 31, 2645; 32, 80; *J.* 1856, 581). — II, 1048.
- 22) **Aethyläther d. 2-Oxy-1-Methylbenzol**. *Sd.* 180—181° (*B.* 14, 898; *A.* 217, 41). — II, 737.
- 23) **Aethyläther d. 3-Oxy-1-Methylbenzol**. *Sd.* 192° (*B.* 8, 887; *A.* 243, 41). — II, 743.
- 24) **Aethyläther d. 4-Oxy-1-Methylbenzol**. *Sd.* 189,8° (*Z.* 1869, 619; *B.* 2, 624; 30, 884; *A.* 243, 44; *J. pr.* [2] 35, 25). — II, 748.
- 25) **norm. Propyläther d. Oxybenzol**. *Sd.* 190,5° (*Bl.* 21, 78; *A.* 243, 35). — II, 653.
- 26) **Isopropyläther d. Oxybenzol**. *Sd.* 176° (*Z.* 1870, 249). — II, 653.
- 27) **Verbindung** (aus 3,6-Dibrom-5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol). *Sm.* 183—184° (*B.* 29, 2342).

 $C_9H_{10}O_2$

- C* 71,1 — *H* 7,9 — *O* 21,0 — *M. G.* 152.
- 1) **$\alpha\beta$ -Dioxy-norm. Propylbenzol**. *Sm.* 52—53° (*B.* 17, 709). — II, 1098.
 - 2) **isom.[β]- $\alpha\beta$ -Dioxy-norm. Propylbenzol**. *Sm.* 92—93° (*B.* 17, 710). — II, 1098.
 - 3) **3,4-Dioxy-1-Propylbenzol?** *Sm.* 56° (*M.* 4, 190). — II, 969.
 - 4) **2,5-Dioxy-1-Isopropylbenzol**. *Sm.* 130—131° (*Bl.* [3] 13, 984).
 - 5) **2,5-Dioxy-4-Aethyl-1-Methylbenzol**. *Sm.* 165° (*Bl.* [3] 13, 898).
 - 6) **3,5-Dioxy-1,2,4-Trimethylbenzol**. *Sm.* 156° (*M.* 12, 203). — II, 970.
 - 7) **3,6-Dioxy-1,2,4-Trimethylbenzol**. *Sm.* 169° (170°) (*B.* 18, 1152; 27, 1430). — II, 970.
 - 8) **2,4-Dioxy-1,3,5-Trimethylbenzol** (Mesorcin). *Sm.* 149—150°; *Sd.* 274,5 bis 275,5° (*A.* 215, 100; 284, 176; *B.* 15, 1377). — II, 970.
 - 9) **5-Oxy-4-Oxymethyl-1,3-Dimethylbenzol**. *Sm.* 108—114° (*A.* 302, 105).
 - 10) **5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol**. *Sm.* bei 165° (*A.* 302, 115).
 - 11) **2,4-Di[Oxymethyl]-1-Methylbenzol**. *Sm.* 77,5° (*B.* 19, 867). — II, 1098.
 - 12) **3,5-Di[Oxymethyl]-1-Methylbenzol**. *Sd.* 190°₂₀ (*Bl.* 40, 110). — II, 1098.
 - 13) **3-Methyläther d. 3,4-Dioxy-1-Aethylbenzol**. *Sd.* 229—230° (*Bl.* [3] 11, 704). — II, 967.
 - 14) **Monomethyläther d. 4,5-Dioxy-1,3-Dimethylbenzol**. *Sd.* 227—228° (*Sec.* 63, 108). — II, 968.

- C₉H₁₀O₂**
- 15) Dimethyläther d. Dioxymethylbenzol (Benzylidendimethyläther). *Sd.* 198—199°₇₆₂ (*A.* 102, 363; *B.* 31, 549). — **III**, 8.
 - 16) Dimethyläther d. 4-Oxy-1-Oxymethylbenzol. *Sd.* 225,5°₇₅₈ (*A.* 137, 246). — **II**, 1110.
 - 17) Dimethyläther d. 2,5-Dioxy-1-Methylbenzol. *Sm.* 15°; *Sd.* 214 bis 218° (*B.* 11, 1279; *A.* 215, 161). — **II**, 955.
 - 18) Dimethyläther d. 3,4-Dioxy-1-Methylbenzol. *Sd.* 218° (*B.* 8, 1137; 14, 2025; *M.* 4, 705; *C.* 1898 [1] 1025). — **II**, 958.
 - 19) Dimethyläther d. 3,5-Dioxy-1-Methylbenzol. *Sd.* 244° (*B.* 14, 2000). — **II**, 961.
 - 20) 1-Aethyläther d. 2-Oxy-1-Oxymethylbenzol. *Sd.* 111—113°₂₀ (*A.* 305, 113).
 - 21) 2-Aethyläther d. 2-Oxy-1-Oxymethylbenzol. *Sd.* 265° (*M.* 1, 621). — **II**, 1109.
 - 22) Monoäthyläther d. 2,3-Dioxy-1-Methylbenzol. *Sd.* 214° (*B.* 24, 4136). — **II**, 954.
 - 23) 3-Aethyläther d. 3,4-Dioxy-1-Methylbenzol. *Sd.* 226—227° u. Zers. (*Bl.* [3] 9, 158). — **II**, 958.
 - 24) 4-Aethyläther d. 3,4-Dioxy-1-Methylbenzol. *Sd.* 227—230° (*C.* 1898 [1] 1025).
 - 25) Monoäthyläther d. 3,5-Dioxy-1-Methylbenzol. *Fl.* (*Z.* 1867, 561). — **II**, 961.
 - 26) Methyläthyläther d. 1,2-Dioxybenzol. *Sd.* 213° (*B.* 14, 2018; *R.* 12, 277). — **II**, 909.
 - 27) Methyläthyläther d. 1,3-Dioxybenzol. *Sd.* 216° (*M.* 5, 489). — **II**, 916.
 - 28) Methyläthyläther d. 1,4-Dioxybenzol. *Sm.* 39° (*M.* 5, 233). — **II**, 939.
 - 29) Monophenyläther d. αγ-Dioxypropan. *Sd.* 249—250° (*B.* 24, 2635). — **II**, 655.
 - 30) 2-Keto-6-Oxy-1,1,4-Trimethyl-1,2-Dihydrobenzol? *Sm.* 204° (*M.* 12, 195). — **II**, 970.
 - 31) 1,2-Dimethyl-2-Dihydrobenzol-4-Carbonsäure. *Sm.* 135—140° (*Soc.* 71, 172).
 - 32) α-Camphylsäure. *Sm.* 148° (*A.* 169, 183; *J.* 1877, 641; 26, 815; *C.* 1895 [1] 693; 1897 [1] 101). — **I**, 905.
 - 33) β-Camphylsäure. *Sm.* 103—104° (99°). *Ca* + 2H₂O, *Ba* + 2H₂O, *Ag* (*B.* 20, 2964; 26, 815; *C.* 1895 [1] 693; 1897 [1] 102; 1898 [1] 106; *Soc.* 73, 826). — **I**, 536.
 - 34) Säure (aus Chlordiparakonsäure). *Sm.* 36—37° (*Soc.* 71, 616).
C 64,3 — H 7,1 — O 28,6 — *M. G.* 168.
- C₉H₁₂O₃**
- 1) αβγ-Trioxypentylbenzol (α-Phenyl-αβγ-Trioxopropan; Stycerin). *Fl.* (*J.* 1863, 404). — **II**, 1107.
 - 2) 3,4,5-Trioxo-1-Propylbenzol. *Sm.* 79—80° (*B.* 8, 67; 11, 332; *M.* 4, 184). — **II**, 1024.
 - 3) 3,4-Dioxy-1-[γ-Oxypropyl]benzol. *Sm.* 53—55° (*Bl.* [3] 15, 983).
 - 4) 1,3,5-Tri[Oxymethyl]benzol (Mesicerin). *Fl.* (*A. ch.* [6] 6, 95). — **II**, 1108.
 - 5) 2,4,6-Trioxo-1,3,5-Trimethylbenzol + 3H₂O. *Sm.* 184°. *Na* (*M.* 9, 1046; 19, 259; *A.* 302, 183). — **II**, 1024.
 - 6) Monomethyläther d. 2,4,6-Trioxo-1,3-Dimethylbenzol. *Sm.* 100 bis 101°; *Sd.* 188°₂₁ (*M.* 19, 244).
 - 7) 2,5-Dimethyläther d. 2,5-Dioxy-1-Oxymethylbenzol. *Sd.* 278—279° (*H.* 20, 220). — **II**, 1113.
 - 8) Dimethyläther d. 2,4,6-Trioxo-1-Methylbenzol. *Sm.* 60—61°; *Sd.* 178—180°₂₀ (*M.* 19, 232).
 - 9) 3,4-Dimethyläther d. 3,4,5-Trioxo-1-Methylbenzol (Iridol). *Sm.* 57°; *Sd.* 239° (*B.* 26, 2018). — **II**, 1023.
 - 10) 3,5-Dimethyläther d. 3,4,5-Trioxo-1-Methylbenzol. *Sm.* 36° (29 bis 30°); *Sd.* 265° (*B.* 12, 1374; *M.* 19, 563). — **II**, 1023.
 - 11) Trimethyläther d. 1,2,3-Trioxo-1-Methylbenzol. *Sm.* 47°; *Sd.* 235° (*B.* 21, 607; *M.* 15, 297). — **II**, 1011.
 - 12) Trimethyläther d. 1,2,4-Trioxo-1-Methylbenzol. *Sd.* 247° (*B.* 21, 606). — **II**, 1017.

- C₉H₁₂O₃**
- 13) Trimethyläther d. 1,3,5-Trioxybenzol. Sm. 52°; Sd. 255,5° (A. 199, 17; 276, 328; B. 21, 603; M. 18, 738). — II, 1019.
 - 14) Trimethyläther d. p-Trioxybenzol. Sm. 14°; Sd. 248° (B. 24, 2610). — II, 1023.
 - 15) 5-Aethyläther d. 2,5-Dioxy-1-Oxymethylbenzol. Sm. 83,5° (J. pr. [2] 22, 473). — II, 1113.
 - 16) Monophenyläther d. αβγ-Trioxypropan (B. 24, 2147). — II, 656.
 - 17) β-[2-Methylphenyl]äther d. ααβ-Trioxyäthan. Sm. 74° (B. 30, 1705).
 - 18) β-[3-Methylphenyl]äther d. ααβ-Trioxyäthan. Sm. 56° (57°) (B. 30, 1441, 1705).
 - 19) β-[4-Methylphenyl]äther d. ααβ-Trioxyäthan (p-Kresoxylacetaldehydhydrat). Sm. 65° (58°) (B. 30, 1440, 1704).
 - 20) Metakrolein. Sm. 50° (45—46°) (A. 112, 6; Bl. 36, 24). — I, 958.
 - 21) Isolauronsäure. Sm. 132° (133°); Sd. 270°₁₇. Ag (B. 27, 3467; C. 1898 [1] 106; Bl. [3] 19, 282; Soc. 73, 839).
 - 22) δ-[2-Furanyl]valeriansäure (Furfurvaleriansäure). Fl. (B. 10, 1364; 12, 1200). — III, 709.
 - 23) Anhydrid d. cis-Pyrocampheensäure. Sm. 178—179° (Soc. 59, 650; 69, 78; 73, 278). — I, 723.
 - 24) Anhydrid d. ε-Methyl-α-Hexen-αβ-Dicarbonsäure (A. d. Isobutylcitronensäure). Sd. 278—283° (A. 304, 299).
 - 25) Anhydrid d. 1-Isopropyl-R-Tetramethylen-1,2-Dicarbonsäure (Anhydrid d. Tanacetogendicarbonsäure). Sd. 55°; Sd. 171,5° (B. 25, 3349). — II, 1732.
 - 26) Aethylester d. 2,5-Dimethylfuran-3-Carbonsäure. Sd. 214° (208—209°) (A. 201, 147; B. 22, 154; J. pr. [2] 50, 142). — III, 708.
 - 27) Isobutylester d. Furan-2-Carbonsäure. Sd. 220,8°₁₁₈ (B. 27 [2] 246; G. 24 [1] 253). — III, 698.
 - 28) Verbindung (aus 1,4-Dioxybenzol u. Dimethylketon) (M. 5, 329). — II, 939.
- C₉H₁₂O₄**
- C 58,7 — H 6,5 — O 34,8 — M. G. 184.
- 1) 1,2,3-Trimethyläther d. 1,2,3,5-Tetraoxybenzol (Antiarol). Sm. 146° (B. 21, 612; C. 1898 [2] 591). — II, 1031.
 - 2) αζ-Heptadien-δδ-Dicarbonsäure (Diallylmalonsäure). Sm. 133°. Na₂, Ca, Ag₂ (A. 204, 172; B. 15, 625; J. 1885, 1436; J. pr. [2] 39, 452). — I, 733.
 - 3) 2,5-Dimethyl-2,3-Dihydro-R-Penten-1,4-Dicarbonsäure. Sm. 180 bis 182° (Soc. 61, 81). — I, 733.
 - 4) Isobutylisacconsäure. Sm. 51°. Ca + 3H₂O, Ba + 4H₂O, Ag (A. 304, 319).
 - 5) 1-Methyl-p-Tetrahydrobenzol-2,5-Dicarbonsäure. Sm. 240—245° (Soc. 71, 178).
 - 6) 2-Methyl-1,2,3,4-Tetrahydrobenzol-4,6-Dicarbonsäure. Sm. 223 bis 224° (A. 305, 146).
 - 7) α-Oxy-α-[2-Furanyl]-β-Methylpropan-β-Carbonsäure. Na, Ca + 3½ H₂O, Ba (C. 1898 [1] 884).
 - 8) α-Tetrahydrouvitinsäure. Sm. 179—180° (A. 305, 147).
 - 9) β-Tetrahydrouvitinsäure. Sm. 168—169° (A. 305, 147).
 - 10) γ-Tetrahydrouvitinsäure. Fl. Ca + H₂O (A. 305, 147).
 - 11) Anhydrid d. δ-Ketoheptan-βζ-Dicarbonsäure. Fl. (B. 31, 685).
 - 12) Anhydrid d. Säure C₉H₁₄O₅ (aus Mesityloxyd). Sm. 135° (A. 304, 16).
 - 13) αγ-Lakton d. γ-Oxy-ε-Methyl-α-Hexen-αβ-Dicarbonsäure (Isobutakonsäure). Sm. 165—170° u. Zers. Ca, Ba, Ag (A. 256, 103). — I, 770.
 - 14) Dilakton d. βζ-Dioxyheptan-δδ-Dicarbonsäure (Dilakton d. Dioxydipropylmalonsäure). Sm. 105—106°; Sd. oberh. 360° (B. 15, 626; A. 216, 67). — I, 806.
 - 15) Dilakton d. Säure C₉H₁₆O₆. Sm. 133° (A. 304, 322).
 - 16) Methylester d. α-Mesityloxydoxalsäure. Sm. 83—84° (A. 291, 129, 137).
 - 17) Methylester d. β-Mesityloxydoxalsäure. Sm. 67°; Sd. 140—150°₁₃ (A. 291, 121, 137).
 - 18) Aethylester d. 1,4-Diketo-hexahydrobenzol-2-Dicarbonsäure? (Aethylester d. Succinylpropionsäure). Fl. (B. 10, 109; A. 211, 320). — I, 732.
 - 19) Verbindung (aus Formaldehyd u. d. 3-Methyläther d. 3,4-Dioxy-1-Oxymethylbenzol). Sm. 110—111° (B. 27, 2411).

$C_9H_{12}O_5$

C 54,0 — H 6,0 — O 40,0 — M. G. 200.

- 1) Angosturin (*B.* 25 [2] 201). — III, 619.
- 2) γ -Keto- α -Hepten- $\alpha\gamma$ -Dicarbonsäure (Butyrofuronsäure). Sm. 140—142° (*B.* 12, 1200). — I, 778.
- 3) δ -Oxy- β -Methyl- $\alpha\gamma$ -Pentadienmethyläther- $\alpha\gamma$ -Dicarbonsäure (Oxy-mesitendicarbonmethyläthersäure). Sm. 73° (*A.* 274, 276).
- 4) Anhydrid d. i-Camphoronsäure. Sm. 135—136° (136—137°). Ag (*M.* 6, 186; *A.* 159, 289; 292, 86; 302, 56, 60; *Soc.* 71, 1191). — I, 814.
- 5) Anhydrid d. γ -Acetoxypentan- $\beta\delta$ -Dicarbonsäure. Sm. 109—110° (*C.* 1898 [2] 886; *B.* 28, 3264).
- 6) Anhydrid d. isom. γ -Acetoxypentan- $\beta\delta$ -Dicarbonsäure. Sm. 132,5° (*C.* 1898 [2] 886).
- 7) Anhydrid d. γ -Acetoxyl- β -Methylbutan- $\beta\gamma$ -Dicarbonsäure. Sm. 67 bis 68° (*B.* 29, 1545, 1622).
- 8) Monomethylester d. 6-Oxy-1, 2, 3, 4-Tetrahydrobenzol-2, 5-Dicarbonsäure. Sm. 75—77° (*B.* 22, 2181). — II, 1917.
- 9) Dimethylester d. 1-Keto-R-Pentamethylen-3, 4-Dicarbonsäure. Sm. 63—64° (*B.* 26, 375).
- 10) Dimethylester d. α -Oxy- $\alpha\gamma$ -Butadienmethyläther- $\beta\delta$ -Dicarbonsäure (D. d. Oxymethylglutakonmethyläthersäure). Sm. 62°; Sd. 280° (*A.* 273, 171).
- 11) Verbindung (aus Akonitsäuretriäthylester). Sm. 114—115° (*Am.* 17, 32).
- 12) Verbindung (aus Kokkelskörnern) (*J. pr.* [1] 91, 155; *A.* 222, 353). — III, 644.

 $C_9H_{12}O_6$

C 50,0 — H 5,6 — O 44,4 — M. G. 216.

- 1) α -Hexen- $\delta\delta\epsilon$ -Tricarbonsäure (Allylpropenyltricarbonsäure). Sm. 140° (*B.* 25, 490). — I, 821.
- 2) Hexahydrobenzol-1, 1, 4-Tricarbonsäure. Sm. 152—153° (*Soc.* 61, 174). — I, 820.
- 3) Hexahydrobenzol-1, 3, 5-Tricarbonsäure + H₂O. Sm. 114° (*C.* 1898 [1] 830).
- 4) Säure (aus Acetbrenztraubensäureäthylester). Sm. 90—91° (*B.* 20, 2190).
- 5) Anhydro- α -Oxycamphoronsäure (Camphoronsäure). Sm. 209—210° (216,5°). K₂, Ca, Pb, Cu, Ag₂ (*M.* 9, 712; *B.* 28, 320; *A.* 299, 150). — I, 843.
- 6) Anhydro- β -Oxycamphoronsäure. Sm. 250,9° (*M.* 9, 720; *A.* 299, 158). — I, 844.
- 7) Lakton d. α -Oxyisocamphoronsäure + H₂O. Sm. 186° (wasserfrei) (*B.* 29, 2792).
- 8) Isocamphoronsäure (Lakton d. Oxyisocamphoronsäure). Sm. 143,5° (*B.* 28, 1350).
- 9) $\beta\delta$ -Lakton d. γ -Acetoxyl- δ -Oxy- β -Methylbutan- $\beta\delta$ -Dicarbonsäure. Sm. 135°. Na (*B.* 32, 144).
- 10) Trimethylester d. Propen- $\alpha\beta\gamma$ -Tricarbonsäure (Tr. d. Akonitsäure). Sd. 270—271° (*B.* 9, 1750; 18, 1954). — I, 817.
- 11) Trimethylester d. R-Trimethylen-1, 1, 2-Tricarbonsäure. Sd. 160°, (*A.* 284, 217). — I, 818.
- 12) Trimethylester d. trans-R-Trimethylen-1, 2, 3-Tricarbonsäure. Sm. 59°; Sd. 267°₇₃₂ (*B.* 21, 2641; *A.* 284, 221). — I, 819.
- 13) Monäthylester d. β -Buten- $\alpha\alpha\beta$ -Tricarbonsäure + 3H₂O. Sm. 70° (*B.* 17, 2834). — I, 819.
- 14) Diacetat d. Holzgummi (*C.* 1895 [1] 373).

 $C_9H_{12}O_7$

C 46,5 — H 5,2 — O 48,3 — M. G. 232.

- 1) β -Ketoheptan- $\delta\epsilon\zeta$ -Tricarbonsäure. Ag (*Soc.* 73, 730).
- 2) Aeskuletinsäure. Ba, Pb (*J.* 1856, 678). — I, 846.
- 3) α -Ketoisocamphoronsäure. Sm. 186—187° u. Zers. Ag₂ (*B.* 29, 2790).
- 4) Säure (aus Campher). Ba + 6H₂O, Cu (*A.* 191, 153). — I, 845.
- 5) Lakton d. α -Glykoheptondimethylenäthersäure. α -Modif. Sm. bei 280°; β -Modif. Sm. bei 230° (*A.* 299, 329).
- 6) Äthylester d. d-Zuckermethylenäthersäurelakton + H₂O. Sm. 192 bis 194° u. Zers. (wasserfrei) (*A.* 292, 51).

 $C_9H_{12}O_8$

C 43,5 — H 4,8 — O 51,6 — M. G. 248.

- 1) Pentan- $\alpha\alpha\epsilon\epsilon$ -Tetracarbonsäure. Zers. bei 125—130° (*Soc.* 51, 241; 59, 824). — I, 860.

- C₉H₁₃O₈** 2) **Pentan- $\alpha\gamma\delta\epsilon$ -Tetracarbonsäure.** Zers. bei 185—187° (*Soc.* 69, 1509).
 3) **Pentan- $\beta\gamma\delta\epsilon$ -Tetracarbonsäure** (Dimethyldicarboxylglutarsäure). Sm. 164° u. Zers. (*A.* 256, 182). — I, 861.
- C₉H₁₁N₃** C 73,0 — H 8,1 — N 18,9 — M. G. 148.
 1) **α -Imido- α -Phenylamidopropan?** Sm. 68°. (2HCl, PtCl₄) (*Am.* 7, 72). — IV, 854.
 2) **α -Aethylimido- α -Amido- α -Phenylmethan** (Aethylbenzenylamidin). Fl. HCl, (2HCl, PtCl₄), HNO₃, HNO₂ (*B.* 11, 7; *A.* 265, 158). — IV, 840.
 3) **α -Imido- α -[4-Methylphenyl]amidoäthan.** Sm. 95,5—96° (2HCl, PtCl₄), Oxalat (*B.* 11, 1757). — II, 488.
 4) **1,2-[$\alpha\gamma$ -Trimethylen]diamidobenzol.** Sm. 102°; Sd. 290—300° (*A.* 287, 227). — IV, 557.
 5) **ϵ -Allylphenylhydrazin.** Sd. 172°₈₀ (*A.* 239, 204). — IV, 659.
 6) **uns-Allylphenylhydrazin.** Sd. 177°_{109,5}. HCl (*B.* 22, 2234). — IV, 659.
 7) **α -Phenylhydrazonpropan.** Sd. 205°₁₈₀ (*A.* 236, 137). — IV, 747.
 8) **β -Phenylhydrazonpropan + H₂O.** Sm. 15—16°. Sd. 165°₉₁. HCl, HBr (*B.* 16, 662; 30, 1015; *A.* 236, 126; 252, 305; *Am.* 21, 25). — IV, 765.
 9) **1-Phenyltetrahydropyrazol.** Sd. 260° u. ger. Zers. HCl, HBr, HJ, Pikrat (*A.* 274, 317). — IV, 479.
 10) **1-Amido-2-Methyl-2,3-Dihydroindol.** Sm. 40—41° (*A.* 239, 245). — IV, 854.
 11) **5-Amido-2-Methyl-2,3-Dihydroindol.** Sm. 93,5° (*B.* 26, 1290). — IV, 853.
 12) **1-Amido-1,2,3,4-Tetrahydrochinolin.** Sm. 55—56°; Sd. bei 255° u. Zers. H₂SO₄ + 2H₂O (*B.* 16, 730). — IV, 854.
 13) **6-Amido-1,2,3,4-Tetrahydrochinolin.** Sm. 97°. 2HCl, (2HCl, PtCl₄), Oxalat, Pikrat (*B.* 21, 863). — IV, 853.
 14) **1-Methyl-1,2,3,4-Tetrahydro-1,4-Benzdiazin** (Methyläthylenphenylen-diamin). Sd. 273—275° (*B.* 21, 381). — IV, 557.
 15) **2-Methyl-1,2,3,4-Tetrahydro-1,4-Benzdiazin** (Propylenphenylen-diamin). Sm. 72°; Sd. 283—284°. 2 + 3HCl, Pikrat (*B.* 21, 382). — IV, 557.
 16) **1-Methyl-1,2,3,4-Tetrahydro-2,3-Benzdiazin.** Fl. HCl, Pikrat (*B.* 30, 3030). — IV, 853.
 17) **Verbindung** (Base aus Amidobenzol u. d. Nitril d. Propionsäure) (*Am.* 7, 73). — I, 1463.
- C₉H₁₁N₄** C 61,3 — H 6,8 — N 31,8 — M. G. 176.
 1) **Hydrocyanaldin.** Sm. 115° (*A.* 91, 349; 200, 132). — I, 920.
 2) **Parahydrocyanaldin.** Sm. 230—232° (*A.* 200, 135). — I, 920.
 3) **6-Dimethylamido-1-Methyl-1,2,3-Benztriazol.** Sm. 90°. (HCl, HgCl₂), Pikrat (*B.* 30, 2855). — IV, 1258.
- C₉H₁₂S** 1) **5-Merkapto-1,2,4-Trimethylbenzol.** Sm. 86—87°; Sd. 235°. Hg (*A.* 137, 322; *B.* 11, 32). — II, 827.
 2) **2-Merkapto-1,3,5-Trimethylbenzol.** Sd. 228—229°. Hg, Ag (*Z.* 1867, 688). — II, 828.
 3) **Aethyläther d. Merkaptomethylbenzol.** Sd. 214—216° (*A.* 140, 88). — II, 1052.
 4) **Aethyläther d. 2-Merkapto-1-Methylbenzol.** Sd. 120° (*G.* 20, 30). — II, 820.
 5) **Aethyläther d. 4-Merkapto-1-Methylbenzol.** Sd. 220—221° (*B.* 13, 1277). — II, 823.
- C₉H₁₂S₂** 1) **Dimethyläther d. Dimerkaptomethylbenzol** (Benzylidendithiodimethyläther). Fl. (*B.* 21, 487). — III, 8.
- C₉H₁₃O₂** 1) **Säure** (aus Bisabolharz) = (C₉H₁₃O₂)_n (*C.* 1897 [2] 429).
C₉H₁₃N C 80,0 — H 9,6 — N 10,4 — M. G. 135.
 1) **norm. Propylamidobenzol.** Sd. 222°. HCl, (2HCl, PtCl₄), Oxalat (*B.* 16, 910—913; 17, 1717; 21, 1111; *J.* 1883, 702). — II, 334.
 2) **Isopropylamidobenzol.** Sd. 212—213° (*B.* 21, 1409; 25, 2334). — II, 335.
 3) **α -Amidopropylbenzol** (α -Phenyl-norm. Propylamin). Sd. 204—206°₇₄₈ (*J. r.* 25, 539). — II, 549.
 4) **β -Amidopropylbenzol** (β -Phenylisopropylamin). Sd. 203° (*B.* 20, 618). — II, 549.
 5) **γ -Amidopropylbenzol** (γ -Phenyl-norm. Propylamin). Sd. 221,5°₇₅₅. HCl, (2HCl, PtCl₄), H₂SO₄, Oxalat, Pikrat (*B.* 19, 1930; 22, 1857; 26, 2160; 27, 2309; 30, 1128; *G.* 22 [1] 142). — II, 549.

$C_9H_{13}N$

- 6) α -Amidoisopropylbenzol. *Sd.* 194—195,5°_{754,5}. (2HCl, PtCl₄) (*J. r.* 26, 74).
- 7) β -Amidoisopropylbenzol (β -Phenyl-norm. Propylamin). *Sd.* 210°. (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (*B.* 26, 2874). — II, 550.
- 8) 2-Amido-1-Propylbenzol. *Sd.* 219°. HCl, Pikrat (*G.* 28 [2] 95).
- 9) 4-Amido-1-Propylbenzol. *Sd.* 224—226°. HCl, HBr, HJ, H₂SO₄, Oxalat (*B.* 16, 105; 17, 1221). — II, 548.
- 10) 2-Amido-1-Isopropylbenzol. *Sd.* 213,5—214,5°₇₃₃. HCl, Oxalat (*G.* 13, 379; *B.* 21, 1158). — II, 550.
- 11) 4-Amido-1-Isopropylbenzol (Cumidin). *Sd.* 225° (216—218°). HCl, (2HCl, PtCl₄), H₂SO₄, HNO₃, Oxalat + H₂O (*A.* 65, 58; *B.* 16, 111; 21, 1158). — II, 550.
- 12) ρ -Amido-1-Isopropylbenzol. *Sd.* 225—226°. (2HCl, PtCl₄) (*B.* 4, 747; 13, 1730). — II, 551.
- 13) Methyläthylamidobenzol. *Sd.* 201°. HCl, (2HCl, PtCl₄) (*A.* 74, 152; *B.* 17, 1325; 19, 2789). — II, 334.
- 14) 2-Aethylamido-1-Methylbenzol. *Sd.* 204—206° (213—214°) (*B.* 16, 31; 32, 73; *Am.* 7, 118). — II, 458.
- 15) 4-Aethylamido-1-Methylbenzol. *Sd.* 217°. (2HCl, PtCl₄) (*A.* 93, 313). — II, 484.
- 16) 2-Amido- ρ -Aethyl-1-Methylbenzol. *Sd.* 229—230°. H₂SO₄, Oxalat (*B.* 15, 1650). — II, 551.
- 17) 2-Dimethylamido-1-Methylbenzol. *Sd.* 183°. (2HCl, PtCl₄), H₂Fe(CN)₆ + 4½ H₂O (*B.* 10, 1586; 11, 2279; 12, 1826; 16, 30). — II, 457.
- 18) 3-Dimethylamido-1-Methylbenzol. *Sd.* 215°. (2HCl, PtCl₄), H₂Fe(CN)₆ + 2H₂O (*B.* 11, 2280; 12, 1797, 1826). — II, 477.
- 19) 4-Dimethylamido-1-Methylbenzol. *Sd.* 208°. (2HCl, PtCl₄) (*B.* 5, 707; 10, 1586; 11, 2281; 12, 1826; 16, 30, 915; *A.* 224, 337). — II, 484.
- 20) 1-Amidomethyl-3,5-Dimethylbenzol. *Sd.* 220—221°₇₅₈. HCl, (2HCl, PtCl₄) (*B.* 28, 1863; 31, 1427).
- 21) 3-Methylamido-1,2-Dimethylbenzol. *Sd.* 222—223°. HCl, (2HCl, PtCl₄), H₂SO₄ (*A.* 263, 321). — II, 540.
- 22) 2-Methylamido-1,3-Dimethylbenzol. *Sd.* 206—207°. (2HCl, PtCl₄) (*M.* 19, 642).
- 23) 4-Methylamido-1,3-Dimethylbenzol. *Sd.* 220,5—221,5°₇₆₀ (*B.* 31, 2930).
- 24) 2-Methylamido-1,4-Dimethylbenzol. *Sd.* 225—227°₇₃₅ (*A.* 255, 172). — II, 546.
- 25) ρ -Methylamido- ρ -Dimethylbenzol (*B.* 5, 714) — II, 548.
- 26) 5-Amido-1,2,3-Trimethylbenzol. *Sm.* 67—68° (75°); *Sd.* 245° (*B.* 18, 2681; 21, 643). — II, 551.
- 27) 3-Amido-1,2,4-Trimethylbenzol. *Sd.* 240° (236°) (*B.* 18, 2680; 20, 971). — II, 551.
- 28) 5-Amido-1,2,4-Trimethylbenzol (*s*-Pseudocumidin). *Sm.* 68° (63°); *Sd.* 234—235°. HCl, (2HCl, SnCl₄), (2HCl, PtCl₄), HNO₃, Citrat (*Z.* 1867, 13; *B.* 15, 2895; 18, 2680; 21, 662). — II, 551.
- 29) 6-Amido-1,2,4-Trimethylbenzol. *Sm.* 36° (*B.* 18, 630). — II, 553.
- 30) 2-Amido-1,3,5-Trimethylbenzol (Mesidin). *Sd.* 227° (229—230°). HCl, (2HCl, SnCl₄), (2HCl, PtCl₄), Oxalat (*A.* 147, 3; 179, 172; *B.* 5, 715; 8, 58, 61; 15, 1011; 18, 2681; 21, 641). — II, 553.
- 31) ρ -Amido- ρ -Trimethylbenzol. *Sd.* 223—224°. HCl (*B.* 18, 2229). — II, 555.
- 32) Aethylbenzylamin. *Sd.* 199° (cor.). (2HCl, PtCl₄) (*A.* 245, 280; *B.* 23, 2781). — II, 515.
- 33) Dimethylbenzylamin. *Sd.* 183—184°_{765,3}. (2HCl, ZnCl₂), (2HCl, PtCl₄), 4HCN. Fe(CN)₆ (*Am.* 9, 79; *B.* 32, 72). — II, 515.
- 34) 2,4-Dimethylbenzylamin. *Sd.* 218—219°. HCl, (HCl, HgCl₂), (2HCl, PtCl₄), HNO₃, Pikrat, + CdJ₂, 2 + CdJ₂ (*B.* 21, 3083; *J. r.* 25, 545). — II, 553.
- 35) 3,5-Dimethylbenzylamin. *Sd.* 217—218°₇₅₆. HCl, (2HCl, PtCl₄), HNO₃, Pikrat (*B.* 25, 3013). — II, 555.
- 36) 2,4-Diäthylpyridin. *Sd.* 187—188°. (2HCl, PtCl₄), Pikrat (*A.* 247, 48). — IV, 138.
- 37) 3,5-Dimethyl-2-Aethylpyridin. *Sd.* 198—200°_{747,5}. (HCl, 3 HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (*M.* 4, 718; 9, 643; *B.* 18, 3097; 21, 833; 23, 685). — IV, 138.

- C₉H₁₃N**
- 38) **2,6-Dimethyl-4-Aethylpyridin.** *Sd.* 186°. (2HCl, PtCl₄), H₂Cr₂O₇, Pikrat (*A.* 231, 44). — IV, 138.
 - 39) **2,3,4,5-Tetramethylpyridin.** *Sd.* 232–234°. (HCl, 2HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (*B.* 28, 796). — IV, 139.
 - 40) **2,3,4,5-Tetramethylpyridin?** *Sd.* 216–217°. (HCl, HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃) (*B.* 23, 692). — IV, 139.
 - 41) **α-Parvolin.** *Sd.* 188° (*J.* 1854, 495; 1861, 502). — IV, 139.
 - 42) **β-Parvolin.** *Sd.* 220°. (2HCl, PtCl₄) (*Bl.* 34, 214). — IV, 139.
 - 43) **isom. Parvolin (aus Pferdefleisch).** *Sd.* unterhalb 200° (*Bl.* 48, 11). — IV, 139.
 - 44) **Hexahydrochinolin.** *Sd.* 226°₇₃₀. HCl, (2HCl, PtCl₄), H₂SO₄ (*B.* 23, 1144; 27, 1478). — IV, 139.
 - 45) **Nitril d. Fenchocamphoronsäure.** *Fl.* (*A.* 300, 316).
 - 46) **Nitril d. Isolauronolsäure.** *Sd.* 205°₆₀ (*Bl.* [3] 17, 845).
C 66,2 — H 8,0 — N 25,8 — M. G. 163.
- C₉H₁₃N₃**
- 1) **1-Dimethylamido-4-Methyldiazobenzol.** *Sm.* 46° (*B.* 22, 937). — IV, 1569.
C 56,6 — H 6,8 — N 36,6 — M. G. 191.
- C₉H₁₃N₅**
- 1) **5-Amido-6-Dimethylamido-1-Methyl-1,2,3-Benzotriazol.** (HCl, ZnCl₂) (*B.* 30, 2858). — IV, 1258.
- C₉H₁₃Cl**
- 1) **5-Chlor-1,1,3-Trimethyl-1,2-Dihydrobenzol.** *Sd.* 62°₁₃ (*A.* 297, 191).
 - 2) **Chlorid d. Campherphoron.** *Sd.* 205° (*A.* 123, 310).
 - 3) **Chlorid d. Isophoron.** *Sd.* 175° (*A.* 100, 353).
- C₉H₁₃Br**
- 1) **Bromcarpen** (*A.* 170, 253).
- C₉H₁₃P**
- 1) **2,4,5-Trimethylphenylphosphin.** *Sd.* 214–218°. (2HCl, PtCl₄) (*A.* 294, 32). — IV, 1677.
 - 2) **2,4,6-Trimethylphenylphosphin.** *Sm.* 40°; *Sd.* 125°₃₅. (2HCl, PtCl₄) (*A.* 294, 45). — IV, 1679.
 - 3) **Dimethyl-4-Methylphenylphosphin.** *Sd.* 210°. + CS₂ (*B.* 15, 2014, 2018). — IV, 1670.
- C₉H₁₄O**
- C 78,2 — H 10,1 — O 11,6 — M. G. 138.
 - 1) **ε-Keto-α,θ-Nonadien?** (ε-Diallylacetone). *Sd.* 185–186° (*A.* 267, 87). — I, 1013.
 - 2) **η-Keto-δ-Methyl-γ,ε-Oktadien.** *Sd.* 97° (*C.* 1895 [2] 286).
 - 3) **δ-Acetyl-α,ζ-Heptadien** (uns-Diallylacetone). *Sd.* 174–175° (*A.* 201, 48). — I, 1013.
 - 4) **δ-Keto-β,ζ-Dimethyl-β,ε-Heptadien** (Phoron; Acetophoron). *Sm.* 28°; *Sd.* 197,2°_{743,5} (*A.* 140, 301; 180, 4; 187, 250; 235, 15; 278, 130; *B.* 10, 855; 15, 64, 591; 26, 827; *J. pr.* [2] 31, 349). — I, 1012.
 - 5) **Isoacetophoron** (Isophoron). *Sd.* 89°₁₀ (*A.* 110, 32; 164, 79; 289, 10; 290, 126, 137; 297, 185; 299, 165, 211). — I, 1012.
 - 6) **2-Keto-3-Isopropyliden-1-Methyl-R-Pentamethylen** (Campherphoron). *Sd.* 200–205°. Na (*A.* 72, 293; 112, 312; 123, 298; 164, 79; 289, 10; 290, 143; 299, 160, 206, 231; *J.* 1857, 483; *B.* 25, 266; 26, 810). — I, 1013.
 - 7) **β-Campherphoron.** *Sd.* 79–80°₁₄ (*A.* 299, 233).
 - 8) **4-Keto-1,1,6-Trimethyl-1,2,3,4-Tetrahydrobenzol** (Isocampherphoron). *Sd.* 217° (*B.* 30, 249).
 - 9) **D-d-Fenchocamphoron.** *Sm.* 109–110°; *Sd.* 202° (*A.* 300, 315; 302, 383).
 - 10) **D-l-Fenchocamphoron.** *Sm.* 62–63°; *Sd.* 201–202° (*A.* 302, 383).
 - 11) **6-Acetyl-5-Methyl-1,2,3,4-Tetrahydrobenzol.** *Sd.* 205–206° (*Soc.* 57, 16). — I, 1014.
 - 12) **4-Acetyl-2,5-Dimethyl-2,3-Dihydro-R-Penten.** *Sd.* 198–200° (*Soc.* 61, 77). — I, 1014.
 - 13) **R-Bitetramethylenketon.** *Sd.* 204–205° (*Soc.* 51, 236). — I, 1013.
 - 14) **Camphenylon.** *Sm.* 36–38°; *Sd.* 195°₇₃₀ (*C.* 1897 [1] 1056).
 - 15) **Nopinon.** *Fl.* (*B.* 29, 1927).
 - 16) **Keton** (aus sulfocamphersäurem Ammoniak). *Sd.* 195–196° (*B.* 20, 2963). — I, 1013.
 - 17) **Barbatin.** *Sm.* 209° (*A.* 284, 169). — III, 620.
 - 18) **Aldehyd d. Isolauronolsäure.** *Sd.* 170°₇₆₀ (*C.* 1897 [1] 763).
C 70,1 — H 9,1 — O 20,8 — M. G. 154.
 - 1) **2-Keto-4-Ketoäthyl-1-Methylhexahydrobenzol.** *Sd.* 152–160°₂₂ (*B.* 28, 2147).
- C₉H₁₄O₂**

$C_9H_{11}O_2$

- 2) Capsaicin. Sm. 59° (*J.* 1876, 894; 1878, 958). — III, 625.
- 3) 1,2-Dimethyl-?-Tetrahydrobenzol-4-Carbonsäure. Sm. 83° (*Soc.* 71, 167).
- 4) 1,3-Dimethyl-?-Tetrahydrobenzol-4-Carbonsäure. Sm. 103° (*Soc.* 71, 173).
- 5) Tanacetogensäure (1,1-Dimethyl-1,2,4,5-Tetrahydrobenzol-6-Carbonsäure). Sd. 113,5°₁₃. Ag (*B.* 25, 3346). — II, 1131.
- 6) Lauronolsäure. Sd. 233—235°. Ca + 3 H₂O, Ag (*A.* 227, 7; *B.* 27, 2113, 3504; 28, 2165; *Am.* 16, 508; *Bl.* [3] 15, 1195; *Soc.* 73, 559; *C.* 1898 [1] 1292). — I, 533.
- 7) 1,1,5-Trimethyl-2,3-Dihydro-R-Penten-4-Carbonsäure? (Isolauronolsäure; Isocampholytische Säure). Sm. 135° (133,5°); Sd. 247—249°. NH₄, Na, K + H₂O, Ca + 3½ H₂O, Mg + 5 H₂O, Ba, Mn, Fe, Co + 5 H₂O, Ni + 5 H₂O, Cd, Pb, Zn, Cu, Ag (*B.* 26, 459, 814; 27, 3467; 27 [2] 594; 28, 549, 552; *Soc.* 63, 504; 67, 347; 73, 828; *Am.* 17, 428; *Bl.* [3] 15, 1193; [3] 17, 844; [3] 19, 281, 535, 700; *C.* 1897 [1] 102, 763; 1898 [1] 106).
- 8) cis-Campholytische Säure. Sd. 255—256° (*Am.* 17, 423; 18, 689).
- 9) cis-trans-Campholytische Säure. Sd. 240—242°. Ba, Zn (*B.* 26, 459; *Soc.* 63, 498; *Am.* 16, 505).
- 10) Allocampholytische Säure. Fl. Ca + 2 H₂O (*Soc.* 67, 341).
- 11) Dihydro-α-Camphylsäure. Sd. 165—170°₅₀ (*C.* 1897 [1] 102).
- 12) Dihydro-β-Camphylsäure. Sm. 130° (*C.* 1897 [1] 102).
- 13) isom. Dihydro-β-Camphylsäure. Fl. (*C.* 1897 [1] 102).
- 14) Säure (aus d. Aethylester d. Allocampholytischen Säure). Sm. 158° (*Soc.* 67, 343).
- 15) Säure (aus d. Säure C₉H₁₁O₃ aus Cineolsäure). Fl. (*C.* 1898 [2] 1055).
- 16) 3,5-Lakton d. 3-Oxy-1,1,2-Trimethyl-R-Pentamethylen-5-Carbonsäure (Campholakton). Sm. 50° (48—49°); Sd. 230—235°. Ba (*A.* 227, 10; *B.* 27, 2114; 28, 553, 2165; *Am.* 17, 434). — I, 610.
- 17) Isocampholakton. Sm. 23° (*B.* 28, 553).
- 18) Pseudocampholakton. Sd. 163—164°₅₀ (*C.* 1898 [2] 109).
- 19) Aldehyd d. ζ-Keto-β-Methyl-β-Hepten-η-Carbonsäure. Sm. 73°. Cu (*C.* 1899 [1] 418).
- 20) Methylester d. 1-Aethyl-2,3-Dihydro-R-Penten-3-Carbonsäure. Sd. 210—220° (*A.* 280, 133). — II, 1130.
- 21) Methylester d. 2-Aethyl-2,3-Dihydro-R-Penten-4-Carbonsäure. Sd. 210—220° (*A.* 280, 140). — II, 1130.
- 22) Aethylester d. 1,2,3,4-Tetrahydrobenzol-1-Carbonsäure (Ae. d. Benzoleinsäure). Sd. 190° (i. CO₂) (*A.* 132, 81; *B.* 27, 2471). — I, 532.
- 23) Acetat d. δ-Oxy-αζ-Heptadien (Diallylcarbinolester d. Essigsäure). Sd. 169,5° (*A.* 185, 136). — I, 413.
C 63,5 — H 8,2 — O 28,2 — M. G. 170.
- 1) Diäthyläther d. 2-Dioxymethylfuran. Sd. 189—191° (*B.* 31, 1015).
- 2) 1-Oxy-1,2,3,4-Tetrahydrobenzyläther-1-Carbonsäure. Sm. 73°. Ag (*A.* 271, 252). — II, 1484.
- 3) δ-Oxy-αζ-Heptadienmethyläther-δ-Carbonsäure (α-Oxydiallylessig-methyläthersäure). Fl. Ca, Ba + 2 H₂O, Zn, Pb + 1½ H₂O, Cu, Ag (*J. r.* 17, 84; *J. pr.* [2] 35, 2). — I, 624.
- 4) ζ-Keto-β-Methyl-β-Hepten-ε-Carbonsäure. Sd. 170—180° (*Bl.* [3] 17, 593).
- 5) Pinononsäure. Sm. 128—129° (*B.* 29, 882).
- 6) Dihydroisalauronsäure. Sm. 88—89° (*C.* 1898 [1] 106; *Soc.* 73, 848).
- 7) Säure (aus Camphersäureorthoäthylester). Sm. 228° (*Soc.* 69, 755).
- 8) Anhydrid d. Azelaissäure. Sm. 52—53° (56—57°) (*U.* 24 [1] 476; *C.* 1896 [2] 1091).
- 9) Anhydrid d. Säure C₉H₁₆O₄ (aus Camphersäure). Sd. 185—190°₃₅ (*Soc.* 73, 44).
- 10) Aethylester d. 2-Ketohexahydrobenzol-1-Carbonsäure. Fl. (*B.* 27, 103, 2747). — II, 1484.
- 11) Aethylester d. 3-Ketohexahydrobenzol-1-Carbonsäure. Sd. 170 bis 180°₁₆ (*A.* 291, 303).
- 12) Aethylester d. 1-Acetyl-R-Tetramethylen-1-Carbonsäure. Sm. 9°; Sd. 226—227°₇₆₀ (*Soc.* 51, 709, 740; *B.* 16, 209). — I, 622.

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13) Aethylester d. ρ -Acetyl-1-Methyl-R-Trimethylen- ρ -Carbonsäure. Sd. 215—217°₇₂₀ (Soc. 47, 851; 61, 68). — I, 623.

14) Aethylester d. ϵ -Keto- α -Hexen- δ -Carbonsäure (Aethylester d. Allyl-acetylessigsäure). Sd. 206° (209°) (A. 187, 33; 201, 46, 79; J. pr. 2 50, 132, 142; B. 28, 2630). — I, 621.

15) Aethylester d. δ -Keto- β -Methyl- β -Penten- γ -Carbonsäure (Ae. d. Isopropylidenacetessigsäure). Sd. 214—216° (B. 30, 483).



16) Aethylisomesityloxydestor d. Kohlensäure. Sd. 114°₃₀ (A. 283, 389). C 58,0 — H 7,5 — O 35,4 — M. G. 186.

1) α -Hepten- $\delta\delta$ -Dicarbonsäure (Propylallylmalonsäure). Sm. 115° (B. 29, 1856).

2) α -Hepten- $\delta\epsilon$ -Dicarbonsäure (α -Para-Aethylallylbernsteinsäure). Sm. 163 bis 166° (B. 25, 489). — I, 722.

3) isom. α -Hepten- $\delta\epsilon$ -Dicarbonsäure (α -Meso-Aethylallylbernsteinsäure). Sm. 108—111° (B. 25, 489). — I, 722.

4) ϵ -Methyl- α -Hexen- $\alpha\beta$ -Dicarbonsäure (Isobutylcitakonsäure). Sm. 75,5 bis 80°. Ca, Ba, Ag₂ (A. 283, 281; 304, 299; 305, 56).

5) ϵ -Methyl- α -Hexen- $\alpha\beta$ -Dicarbonsäure (Isobutylmesakonsäure). Sm. 205 bis 206°. Ca + H₂O, Ba + H₂O, Ag₂ (A. 304, 302; 305, 58).

6) ϵ -Methyl- α -Hexen- $\delta\delta$ -Dicarbonsäure (Allylisopropylmalonsäure). Sm. 112,5° (B. 29, 1856).

7) ϵ -Methyl- β -Hexen- $\alpha\beta$ -Dicarbonsäure (Isobutylitakonsäure). Sm. 170°. Ca, Ba, Ag₂ (A. 255, 107; 256, 97; 305, 52). — I, 722.

8) β -Isopropyl- α -Buten- $\alpha\delta$ -Dicarbonsäure (β -Tanacetogendicarbonsäure). Sm. 116—118° (B. 30, 432).

9) Isobutylitakonsäure. Sm. 88—89° (u. 95°). Ca, Ba, Ag₂ (A. 304, 311).

10) Isobutylisoparakonsäure. Sm. 115°. Ca + 2H₂O, Ba + H₂O, Ag (A. 304, 317).

11) 1-Methylhexahydrobenzol-2,2-Dicarbonsäure. Sm. 147° u. Zers. Ag₂ (Soc. 53, 206). — I, 723.

12) 1-Isopropyl-R-Tetramethylen-2,3-Dicarbonsäure (α -Tanacetogendicarbonsäure). Sm. 141,5°. Ag₂ (B. 25, 3348; 30, 424, 431; 31, 2030). — II, 1732.

13) Homoterpenylsäure. Sm. 100—102,5° (B. 29, 1919, 1928, 2789).

14) Pinsäure. Sm. 101—102,5° (B. 29, 25, 328, 541, 1915).

15) cis-Pyrocampheensäure. Sm. 209°. Ba + H₂O (Soc. 59, 650; 69, 77; 73, 278). — I, 723.

16) trans-Pyrocampheensäure. Sm. 190—191° (Soc. 69, 80).

17) Mesopyrocampheensäure (Isopyrocampheensäure). Sm. 160—170° (Soc. 59, 650; 69, 79). — I, 723.

18) Säure (aus Digitogensäure). Sm. 170°. KH + 7 H₂O (B. 26 2 686).

19) Säure (aus β -Chlorpropionsäurealdehyd). Na (J. 1876, 481). — I, 942.

20) Säure (aus Fenchocamphoron). Sm. 202°. Ag₂ (A. 300, 317).

21) Säure (aus Isoacetophoron). Sm. 99—100°. Ca + 2H₂O (A. 299, 175).

22) Säure (aus β -Thujaketonsäure). Sm. 113—114° (B. 30, 424).

23) Säure (aus d. Säure C₉H₁₆O₅ aus Campholensäure). Sm. 39°; Sd. 275° (Bl. 3 13, 627).

24) $\delta\zeta$ -Lakton d. δ -Oxy- β -Methylhexan- $\epsilon\zeta$ -Dicarbonsäure (L. d. Isobutylitamalsäure; Isobutylparakonsäure). Sm. 124—125°. Ca + 2H₂O, Ba + 3 H₂O, Zn + 1½ H₂O, Ag (A. 255, 97, 99; 304, 304). — I, 758.

25) $\alpha\gamma$ -Lakton d. γ -Oxypentan- $\alpha\beta$ -Dicarbonsäure- β -Aethylester (Aethyl-ester d. Aethylparakonsäure). Sd. 278—279° (A. 304, 179).

26) $\alpha\delta$ -Lakton d. δ -Oxypentan- $\alpha\gamma$ -Dicarbonsäure- γ -Aethylester. Sd. 165 bis 166°_{13—14} (B. 31, 1999).

27) $\beta\delta$ -Lakton d. β -Oxy- β -Methylbutan- $\gamma\delta$ -Dicarbonsäuremonäthylester (Aethylester d. Terebinsäure). Sd. 273—276° (B. 15, 293; A. 220, 255). — I, 754.

28) Methylester d. β -Oxy- δ -Keto- ϵ -Methyl- β -Hexen- ϵ -Carbonsäure. Sd. 228—232°. Na, Cu (B. 31, 1340).

29) Dimethylester d. cis-R-Pentamethylen-1,3-Dicarbonsäure. Sd. 138 bis 138,5°₂₅ (B. 31, 1956).

30) Aethylester d. α -Oxy- γ -Keto- α -Butenäthyläther- β -Carbonsäure (Ae. d. Oxymethylenacetessigäthyläthersäure). Sd. 265—266° (B. 26, 2731; A. 297, 16).

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- 31) Aethylester d. $\beta\epsilon$ -Diketoheptan- γ -Carbonsäure (Ae. d. Acetonylacetessigsäure). Fl. (B. 17, 67). — I, 694.
- 32) Aethylester d. $\beta\delta$ -Diketo- γ -Methylpentan- γ -Carbonsäure (Ae. d. Diacetylmethylessigsäure). Sd. 205—220° u. Zers. (A. 226, 219). — I, 693.
- 33) Monäthylester d. β -Methyl- β -Buten- $\gamma\delta$ -Dicarbonsäure (M. d. Teraconsäure). Fl. Na, Ag (B. 15, 294; A. 208, 53; 220, 255). — I, 920.
- 34) Diäthylester d. Propen- $\alpha\alpha$ -Dicarbonsäure (D. d. Aethylidenmalonsäure). Sd. 115—118°₁₇ (A. 218, 157). — I, 712.
- 35) Diäthylester d. Propen- $\alpha\gamma$ -Dicarbonsäure (D. d. Glutakonsäure). Sd. 236—238° (Soc. 59, 744). — I, 713.
- 36) Diäthylester d. Itakonsäure. Sd. 227,7—227,9° (J. 1873, 579; B. 14, 1634, 2787; 248, 201; Soc. 53, 584). — I, 707.
- 37) polym. Diäthylester d. Itakonsäure (A. 248, 203; B. 14, 2787). — I, 707.
- 38) Diäthylester d. Citrakonsäure. Sd. 231° (230,3°) (B. 14, 1634, 2542, 2736, 2785; A. 248, 198; Soc. 53, 583). — I, 709.
- 39) Diäthylester d. Mesakonsäure. Sd. 229° (B. 14, 1634, 2543, 2736, 2785; A. 78, 145; 248, 196; Soc. 53, 585). — I, 711.
- 40) Diäthylester d. R-Trimethylen-1,1-Dicarbonsäure (D. d. Aethylenmalonsäure). Sd. 213° (Soc. 47, 810; 51, 852, 853; B. 18, 1735). — I, 712.
C 53,5 — H 6,9 — O 39,6 — M. G. 202.

 $C_9H_{14}O_5$

- 1) γ -Ketoheptan- $\alpha\eta$ -Dicarbonsäure (Hydrobutyrofuronsäure). Ag₂ (B. 12, 1201, 1202). — I, 770.
- 2) δ -Ketoheptan- $\gamma\epsilon$ -Dicarbonsäure (s-Diäthylacetondicarbonsäure). Sm. 112° (A. 261, 181). — II, 770.
- 3) Terebentinsäure (A. 41, 296). — I, 770.
- 4) Oxypinsäure. Sm. 193—194° (B. 29, 328, 1908).
- 5) Säure (aus α -Camphylsäure). Sm. 148° (C. 1897 [1] 102).
- 6) Säure (aus Lauronolsäure) (C. 1898 [1] 1292).
- 7) Säure (aus d. Säureanhydrid $C_9H_{12}O_4$ aus Mesityloxyd). Sm. 96°. Ag₂ (A. 304, 17).
- 8) $\beta\gamma$ -Lakton d. $\beta\delta$ -Dioxy- β -Methylbutan- γ -Methylcarbonsäure- δ -Carbonsäuremethylester (Methylester d. Oxyterpenylsäure). Fl. (B. 27, 1221).
- 9) Methylester d. δ -Acetoxyl- γ -Keto- β -Methylbutan- β -Carbonsäure. Sd. 244—246° (B. 30, 857).
- 10) Dimethylester d. γ -Ketopentan- $\alpha\epsilon$ -Dicarbonsäure (D. d. Hydrocheli-donsäure). Sm. 56°; Sd. 276—277° u. Zers. (A. 253, 220). — I, 766.
- 11) Dimethylester d. β -Acetylpropan- $\alpha\gamma$ -Dicarbonsäure (D. d. β -Acetylglutarsäure). Sd. 144°₁₂ (A. 295, 106).
- 12) Monäthylester d. γ -Ketopentan- $\alpha\epsilon$ -Dicarbonsäure (M. d. Hydrocheli-donsäure). Sm. 67—68°. Ag (B. 21, 1402). — I, 766.
- 13) Diäthylester d. α -Oxypropen- $\beta\gamma$ -Dicarbonsäure? (D. d. Formylbernsteinsäure). Sd. 125—126°₁₆ (137°₂₄). Cu (G. 22 [2] 441; B. 26, 2061; 27, 3186; (J. pr. [2] 51, 144).
- 14) Diäthylester d. α -Ketopropan- $\alpha\beta$ -Dicarbonsäure? (D. d. Methyloxal-essigsäure). Sd. 137—138°₂₃ (A. 246, 329, 336; B. 27, 796; 30, 952). — I, 762.
- 15) Diäthylester d. β -Ketopropan- $\alpha\alpha$ -Dicarbonsäure (D. d. Acetylmalon-säure). Sd. 238—240°. Na (B. 7, 892; 20, 1320; A. 214, 35; 266, 110; J. pr. [2] 37, 475; [2] 50, 142; Am. 14, 495; Soc. 65, 821). — I, 763.
- 16) Diäthylester d. β -Ketopropan- $\alpha\gamma$ -Dicarbonsäure (D. d. Aceton-dicarbonsäure). Sd. 250°. K, K₂, Cu, Ag (A. 261, 161, 175; 273, 211; B. 23, 3762; 24, 4100; Soc. 61, 840; J. pr. [2] 50, 142). — I, 764.
- 17) Diäthylester d. Propan- $\alpha\beta$ -Oxyd- $\alpha\beta$ -Dicarbonsäure (D. d. Oxycitra-konsäure). Sd. 244—245° (A. 253, 90). — I, 763.
- 18) Diäthylester d. Acetessigkohlenensäure. Sd. 130—131°₁₄ (B. 25, 1768; A. 266, 105; 276, 213; J. pr. [2] 45, 583; [2] 50, 133, 142; Am. 14, 488). — I, 763.
C 49,5 — H 6,4 — O 44,0 — M. G. 218.

 $C_9H_{14}O_6$

- 1) Trimethylenäther d. Mannit. Sm. 227° (B. 27, 1893; A. 289, 21).
- 2) Trimethylenäther d. Sorbit. Sm. 206° (B. 27, 1893; A. 289, 23).
- 3) γ -Acetoxypentan- $\beta\delta$ -Dicarbonsäure. Sm. 120—121°. Ba + 3H₂O (C. 1898 [2] 886).

$C_9H_{14}O_6$

- 4) isom. γ -Acetoxypentan- $\beta\delta$ -Dicarbonsäure. Sm. 82,5—83,5°. Ba + 2H₂O (C. 1898 [2] 886).
- 5) Hexan- $\alpha\beta\gamma$ -Tricarbonsäure (Propyltricarballysäure). Sm. 151—152°. Ag₃ (B. 24, 311, 2898; Ph. Ch. 10, 565). — I, 812.
- 6) Hexan- $\alpha\delta\delta$ -Tricarbonsäure. Sm. 155—158°. Ag₃ (Soc. 71, 1066).
- 7) Hexan- $\beta\delta\delta$ -Tricarbonsäure (Methyläthylcarboxylglutarsäure). Sm. 166,5° u. Zers. (B. 24, 1053; Ph. Ch. 10, 575). — I, 813.
- 8) Hexan- $\gamma\gamma\delta$ -Tricarbonsäure (B. 21, 2089; 23, 650). — I, 813.
- 9) β -Methylpentan- $\alpha\beta\delta$ -Tricarbonsäure. Fl. (C. 1898 [1] 108; Soc. 73, 69).
- 10) β -Methylpentan- $\alpha\delta\delta$ -Tricarbonsäure? Sm. 180° (B. 28, 555).
- 11) β -Methylpentan- $\gamma\gamma\epsilon$ -Tricarbonsäure. Sm. 165° (C. 1896 [2] 726; Soc. 69, 1507).
- 12) β -Methylpentan- $\gamma\delta\epsilon$ -Tricarbonsäure (Isopropyltricarballysäure). Sm. 161—162°. Ag₃ (B. 24, 311, 2899; Ph. Ch. 10, 565). — I, 813.
- 13) β -Methylpentan- $\gamma\epsilon\epsilon$ -Tricarbonsäure. Sm. 165°. Ag₃ (C. 1896 [2] 703; Soc. 69, 1492).
- 14) β -Methylpentan- $\delta\delta\epsilon$ -Tricarbonsäure. Ca₃ + H₂O, Ba₃ + 4H₂O, Ag₃ (A. 304, 282).
- 15) β -Methylbutan- $\beta\delta$ -Dicarbonsäure- γ -Methylcarbonsäure (Hydroxycamphoronsäure; Isocamphoronsäure). Sm. 164,5° (166—167°). NH₄, Ca + 2H₂O, Ba₃, Cu₃, Ag₃, Ag₃ (J. 1877, 641; A. 191, 149; B. 13, 488; 14, 332; 26, 925, 2340, 3055; 28, 1348, 2173; 29, 2612, 2793, 3018, 3020, 3025; 30, 259; C. 1895 [2] 447; Soc. 73, 711). — I, 814.
- 16) d-Camphoronsäure. Sm. 158—159° u. Zers. Ca₃ + 12H₂O (B. 28, 17).
- 17) $\beta\gamma$ -Dimethylbutan- $\alpha\beta\gamma$ -Tricarbonsäure (l-Camphoronsäure). Sm. 154 bis 158° u. Zers. (136—137°). Salze meist bekannt (A. 159, 286; 162, 262; 226, 251; 292, 73; 302, 52; M. 5, 415; 6, 175; Ph. Ch. 3, 403; B. 26, 2338, 3047; 28, 16, 316, 2163, 2687; C. 1897 [1] 814). — I, 813.
- 18) i-Camphoronsäure ($\beta\gamma$ -Dimethylbutan- $\alpha\beta\gamma$ -Tricarbonsäure). Sm. 169 bis 172° (B. 28, 18, 224; Soc. 71, 1190).
- 19) Suberocarbonsäure. Pb₃, Fe, Ag₃ (M. 1, 510; 4, 341). — I, 813.
- 20) Säure (aus Terpentinöl). Sm. 135° (Soc. 63, 1329).
- 21) Trimethylester d. Propan- $\alpha\beta\beta$ -Tricarbonsäure. Sd. 217°₅₀ (A. ch. [6] 27, 271). — I, 809.
- 22) Trimethylester d. Propan- $\alpha\beta\gamma$ -Tricarbonsäure (Tr. d. Tricarballysäure). Sd. 150°₁₃ (B. 22, 2922; 27 [2] 506). — I, 808.
- 23) Aethylester d. $\alpha\beta$ -Di[Acetoxyl]propionsäure. Sd. 247—249°_{63,1} (Soc. 63, 1422, 1430; 73, 194).
- 24) Diäthylester d. Acetoxylmethandicarbonsäure (D. d. Acetoxylmalonsäure). Sd. 235—245° (B. 24, 2997). — I, 740.
- 25) Triacetat d. $\alpha\beta\gamma$ -Trioxypropan. Sd. 258—259° (172—172,5°₄₀) (A. 102, 340; 263, 359; J. 1851, 444; A. ch. [3] 41, 282; B. 16, 394; 24, 3467; J. pr. [2] 55, 420). — I, 415.

 $C_9H_{14}O_7$

- C 46,1 — H 6,0 — O 47,9 — M. G. 234.
- 1) β -Oxy- β -Methylpentan- $\alpha\beta\delta$ -Tricarbonsäure. Sm. 137° (Soc. 73, 71).
 - 2) α -Oxycamphoronsäure (Camphoronsäure). Sm. 216,5° u. Zers. K, K₂ + $\frac{1}{2}$ H₂O, Ca + 4H₂O, Ba, Pb, Cu, Ag₃ + H₂O (A. 159, 296; J. 1877, 640; Ph. Ch. 3, 403; M. 9, 711; B. 28, 20, 320; 30, 1958). — I, 843.
 - 3) β -Oxycamphoronsäure. Sm. 183—186°; subl. bei 140—150°. K₂ + $\frac{1}{2}$ H₂O, Ba + 4H₂O, Ba₃, Pb₃, Ag₃ + H₂O (A. 191, 152; 299, 157; J. 1877, 642; Ph. Ch. 3, 404; M. 9, 720; B. 28, 21, 320). — I, 844.
 - 4) Oxyisocamphoronsäure. Ag₃ (B. 28, 1350).
 - 5) Trimethylester d. β -Oxypropan- $\alpha\beta\gamma$ -Tricarbonsäure (Trimethylester d. Citronensäure). Sm. 78,5—79°; Sd. 283—287° (A. 40, 325; 80, 302; B. 9, 1749; 17, 2683; 18, 1953; J. pr. [2] 40, 351). — I, 839.
 - 6) Aethylester d. Carbodiglykolsäure. Sd. 280° (A. 154, 258). — I, 550.

 $C_9H_{14}O_8$

- C 43,2 — H 5,6 — O 51,2 — M. G. 250.
- 1) Pektin? (A. 64, 390). — I, 1105.
 - 2) α -Glykoheptondimethylenäthersäure. Na, K, Ba + 3 $\frac{1}{2}$ H₂O (A. 299, 331).
 - 3) Dioxypropylester d. Propan- $\alpha\beta\gamma$ -Tricarbonsäure (Glycerintricarballysäure). Ba (A. 136, 274; J. 1865, 396). — I, 808.

 $C_9H_{14}O_9$

- C 40,6 — H 5,2 — O 54,1 — M. G. 266.
- 1) Uvitonsäure. Pb, Zn (A. 208, 134).

$C_9H_{14}O_2$ 2) Verbindung (aus Glycerin u. Citronensäure) (*A. ch.* [3] 67, 313). — I, 840. $C_9H_{14}N_2$

C 72,0 — H 9,3 — N 18,7 — M. G. 150.

- 1) 2-Diamido-1-Propylbenzol? (Cumylendiamin). Sm. 47° (*J.* 1862, 354). — IV, 645.
- 2) 2-Diamido-1-Methyl-4-Aethylbenzol. Sm. 71—72°; Sd. bei 300° (*G.* 21 [2] 470). — IV, 644.
- 3) 3,5-Diamido-1,2,4-Trimethylbenzol. Sm. 84° (*B.* 20, 970). — IV, 644.
- 4) 3,6-Diamido-1,2,4-Trimethylbenzol. Sm. 78°. 2HCl (*B.* 24, 1647; 27, 1429). — IV, 644.
- 5) 5,6-Diamido-1,2,4-Trimethylbenzol. Sm. 90° (*B.* 18, 630, 1148; *A.* 296, 217). — IV, 645.
- 6) 2,4-Diamido-1,3,5-Trimethylbenzol. Sm. 90°. 2HCl, H_2SO_4 , Oxalat (*A.* 141, 134; 179, 176; 180, 27; *M.* 19, 253). — IV, 645.
- 7) 4-Amido-1-Propylamidobenzol. Sd. 281°. 2HCl (*A.* 243, 295). — IV, 583.
- 8) 4-Amido-2-Aethylamido-1-Methylbenzol. Sd. 274—275° (*Soc.* 67, 247). — IV, 601.
- 9) 5-Amido-2-Aethylamido-1-Methylbenzol. Sd. 272° (264° i. H-Strom). 2HCl, H_2SO_4 (*B.* 25, 1611; *A.* 243, 307). — IV, 609.
- 10) 2-Amido-4-Aethylamido-1-Methylbenzol. Sd. 280—283° (289—291°) (*B.* 19, 549; *Bl.* [3] 21, 20). — IV, 601.
- 11) 3-Amido-4-Aethylamido-1-Methylbenzol. Sm. 54—55°. HCl, Oxalat (*B.* 18, 1484; 26, 199). — IV, 611.
- 12) 5-Amido-4-Methylamido-1,3-Dimethylbenzol. Sd. 260—262° (*B.* 31, 2932).
- 13) 2-Amido-5-Methylamido-1,4-Dimethylbenzol. Sm. 83° (*A.* 255, 173). — IV, 643.
- 14) 3,5-Di[Amidomethyl]-1-Methylbenzol. Sd. 268°. (2HCl, $PtCl_4$), Pikrat (*B.* 25, 3017). — IV, 645.
- 15) 4-Amido-2-Dimethylamido-1-Methylbenzol. Fl. (*A.* 304, 108).
- 16) 5-Amido-2-Dimethylamido-1-Methylbenzol. Sm. 47°; Sd. 253—254°. H_2SO_4 (*B.* 25, 3134). — IV, 609.
- 17) 3-Amido-4-Dimethylamido-1-Methylbenzol. Sd. 234°₇₅₉. 2HCl, (2HCl, $HgCl_2$), Pikrat (*B.* 28, 3042). — IV, 611.
- 18) 2-Amido-5-Dimethylamido-1-Methylbenzol. Sm. 28° (*B.* 12, 1801; 13, 126). — IV, 608.
- 19) 1-Methylamido-3-Dimethylamidobenzol. Sd. 270° (280°) (*A.* 286, 167; *Bl.* [3] 21, 23). — IV, 571.
- 20) 1-Methylamido-4-Dimethylamidobenzol. Sd. 265°. HJ (*B.* 12, 1810; 27, 603). — IV, 582.
- 21) 2-Amido-1-Aethylamidomethylbenzol (o-Amidobenzyläthylamin). Fl. 2HCl, Oxalat (*J. pr.* [2] 51, 133). — IV, 626.
- 22) 4-Amido-1-Dimethylamidomethylbenzol. Sd. oberh. 300° u. ger. Zers. H_2SO_4 (*B.* 28, 1141). — IV, 639.
- 23) α -Amido- γ -Phenylamidopropan (Trimethylenphenyldiamin). Sd. 281 bis 282°. 2HCl, Oxalat, Succinat (*B.* 23, 1169; *G.* 18, 360; 19, 689). — II, 344.
- 24) α -Amido- β -Methylphenylamidoäthan (Aethylenmethylphenyldiamin). Sd. 254—255°. 2HCl, Pikrat (*B.* 24, 2200). — II, 343.
- 25) α -Amido- β -[2-Methylphenyl]amidoäthan (Aethylen-2-Methylphenyldiamin). Sd. 267°. HCl, Pikrat (*B.* 24, 2195). — II, 458.
- 26) α -Amido- β -[4-Methylphenyl]amidoäthan (Aethylen-4-Methylphenyldiamin). Fl. 2HCl (*B.* 24, 2196). — II, 487.
- 27) uns-Propylphenylhydrazin. Sd. 238—240° (247° i. D.). HCl (*B.* 30, 2815). — IV, 659.
- 28) uns-Isopropylphenylhydrazin. Sd. 236° (*B.* 30, 2818; *A.* 252, 278). — IV, 659.
- 29) α -Methyl- β -Aethyl- α -Phenylhydrazin. Sd. 101—102°. HBr (*B.* 27, 702). — IV, 659.
- 30) Trimethylphenylhydrazin. Sd. 93—94° (*B.* 27, 701). — IV, 658.
- 31) 2,4,5-Trimethylphenylhydrazin. Sm. 120° (*B.* 18, 91). — IV, 813.
- 32) 5-[α -Methylamidoäthyl]-2-Methylpyridin. Sd. 223—225°. 2HCl, (2HCl, $PtCl_4$) (*B.* 28, 1760). — IV, 826.

- C₉H₁₄N₂** 33) **5-Methyl-2,4-Diäthyl-1,3-Diazin** (Kyanconiin). *Sd.* 204—205°. (2HCl, ZnCl₂), (2HCl, PtCl₄), + HgCl₂ + 1/2 H₂O (*J. pr.* [2] **22**, 280; [2] **26**, 338; [2] **39**, 273). — **IV**, 828.
- 34) **Jabonin**. *Sd.* 235—240°. (2HCl, PtCl₄), (HCl, AuCl₃), 2 + PtCl₄ + AuCl₃ (*Bl.* **48**, 231). — **III**, 926.
- 35) **Nitril d. Heptan-αη-Dicarbonsäure** (N. d. Azelaänsäure). *Sd.* 195 bis 196°₁₉₋₂₀ (*C.* **1897** [2] 848).
- 36) **Nitril d. Heptan-δδ-Dicarbonsäure**. *Sm.* 46—47°; *Sd.* 223,5° (*G.* **26** [2] 222).
- C₉H₁₄N₄** C 60,7 — H 7,8 — N 31,5 — M. G. 178.
- 1) **Aethylphenylamidoguanidin**. (2HCl, PtCl₄), Pikrat (*G.* **24** [1] 464). — **IV**, 1222.
- C₉H₁₄Br₄** 1) **Tetrabromdihydrocumol?** *Sm.* 186° (*B.* **27**, 2087).
- C₉H₁₅N** C 78,8 — H 10,9 — N 10,2 — M. G. 137.
- 1) **n-Methylgranatenin**. *Sd.* 186°₇₆₁. (HCl, AuCl₃) (*B.* **26**, 2744). — **IV**, 53.
- 2) **α-Methyltropidin** (1-Dimethylamidomethyl-1,2-Dihydrobenzol). *Fl.* (2HCl, PtCl₄), (HCl, AuCl₃) (*B.* **14**, 2130; **24**, 3118; **25**, 3072; *A.* **217**, 131, 135). — **III**, 789.
- 3) **β-Methyltropidin** (1-Dimethylamidomethylen-1,2,3,4-Tetrahydrobenzol). *Sd.* 204—205° u. Zers. (2HCl, PtCl₄) (*B.* **24**, 3123; **25**, 3072). — **III**, 789.
- 4) **1-Isoamylpyrrol**. *Sd.* 180—184° (*B.* **10**, 1866). — **IV**, 66.
- 5) **3,4,5,6-Tetramethyl-1,2-Dihydropyridin** (Dihydroparvolin). *Sd.* bei 160°. (HCl, AuCl₃) (*B.* **21**, 2856). — **IV**, 76.
- 6) **Dehydrotriacetonamin**. *Sd.* 162—163° (168°). HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (*A.* **174**, 166; **183**, 276; *G.* **14**, 342; **15**, 1). — **I**, 985.
- 7) **Triallylamin**. *Sd.* 150—151° (155°). HCl, (2HCl, PtCl₄) (*Bl.* **31**, 390; **50**, 90; *A.* **102**, 304; **214**, 151; *B.* **12**, 2054; **16**, 1641). — **I**, 1143.
- C₉H₁₅N₃** C 65,5 — H 9,1 — N 25,4 — M. G. 165.
- 1) **2,4,6-Triamido-1,3,5-Trimethylbenzol**. *Sm.* 117—119°. 3HCl (*M.* **19**, 251). — **IV**, 1131.
- 2) **3,5-Diamido-4-Aethylamido-1-Methylbenzol**. 2HCl (*R.* **3**, 411). — **IV**, 1129.
- 3) **2,5-Diamido-4-Dimethylamido-1-Methylbenzol**. *Sm.* 60—61°; *Sd.* 193,5°₁₀. Pikrat (*B.* **31**, 2515).
- 4) **3,5-Diamido-4-Dimethylamido-1-Methylbenzol**. *Sm.* 54,5—56,5°; *Sd.* 189°₉₉. 2HCl, 2 Pikrat (*B.* **31**, 2519).
- 5) **p-Amido-4-Methylamido-1-Dimethylamidobenzol?** *Sm.* 90°; *Sd.* 294°. (2HCl, SnCl₂) (*B.* **12**, 1813; *M.* **19**, 253). — **IV**, 1124.
- 6) **6-Amido-5-Methyl-2,4-Diäthyl-1,3-Diazin** (Kyanäthin). *Sm.* 189°; *Sd.* 280° u. Zers. HCl + H₂O, (2HCl, PtCl₄), HNO₃, 2 + AgNO₃ (*A.* **65**, 281; *J. pr.* [2] **22**, 261; [2] **26**, 337, 343; [2] **38**, 584; [2] **39**, 273; [2] **53**, 249; *C.* **1899** [1] 785). — **IV**, 1131.
- 7) **2,4,6-Triäthyl-1,3,5-Triazin** (polym. Nitril d. Propionsäure). *Sm.* 29°; *Sd.* 193—195° (*J. pr.* [2] **36**, 87; [2] **50**, 460; *B.* **23**, 767).
- C₉H₁₆O** C 77,1 — H 11,4 — O 11,4 — M. G. 140.
- 1) **δ-[α-Oxyäthyl]-αζ-Heptadien** (uns-Diallylisopropylalkohol). *Sd.* 184 bis 185° (*B.* **29**, 2002).
- 2) **δ-Oxy-δ-Aethyl-αζ-Heptadien** (Aethyldiallylcarbinol). *Sd.* 175—176°_{743,5} (*J. pr.* [2] **25**, 59). — **I**, 257.
- 3) **δ-Oxy-βζ-Dimethyl-αζ-Heptadien**. *Sd.* 178—179° (*C.* **1898** [2] 157).
- 4) **5-Methyl-6-[α-Oxyäthyl]-1,2,3,4-Tetrahydrobenzol**. *Sd.* 141—143°₅₀ (*Soc.* **57**, 24). — **I**, 257.
- 5) **Fenchocamphorol**. *Sm.* 128—130° (*A.* **300**, 316).
- 6) **Isolauronolalkohol**. *Sd.* 196°₇₈₀ (*C.* **1897** [1] 763).
- 7) **Alkohol** (aus Campherphoron). *Sd.* 77—81°₁₆ (*A.* **290**, 143).
- 8) **Aethyläther d. δ-Oxy-αζ-Heptadien** (Aethyldiallylcarbinoläther). *Sd.* 143—144°₇₅₀ (*J. r.* **11**, 395; *J. pr.* [2] **23**, 272). — **I**, 304.
- 9) **2-Keto-p-Nonen** (Methylheptylenketon). *Sd.* 184—186° (*A.* **272**, 116; **275**, 171; *B.* **30**, 425, 439). — **I**, 1010.
- 10) **5-Keto-1,1,3-Trimethylhexahydrobenzol** (Dihydroisophoron). *Sd.* 189 bis 190°₇₈₂ (*A.* **297**, 198).
- 11) **3-Keto-1,2,4-Trimethylhexahydrobenzol**. *Sd.* 190—191° (*B.* **28**, 2945).
- 12) **Propionylhexahydrobenzol**. *Sd.* 195° (*B.* **30**, 2864).

- $C_9H_{16}O$
- 13) **2-Acetyl-1-Methylhexahydrobenzol.** *Sd.* 197—200° (*Soc.* 53, 214). — I, 1010.
 - 14) **Dihydrocamphoketon.** *Sd.* 180—181° (*Soc.* 73, 27).
 - 15) **Keton** (aus ?-Nitro-1,2,4-Trimethylhexahydrobenzol). *Sd.* 180—182° (*B.* 25 [2] 107; *J. r.* 25, 419). — I, 1010.
 - 16) **Keton** (aus d. Verbindung $C_{10}H_{18}O_2$ aus Pulegensäure). *Sd.* 183° (*A.* 289, 355).
 - 17) **Lycocresin.** *Sm.* 170° u. *Zers.* (*A.* 100, 303). — III, 637.
- $C_9H_{16}O_2$
- 18) **Verbindung** (aus d. Trioxynonan $C_9H_{20}O_3$). *Sd.* 160—165° (*B.* 30, 426). *C* 69,2 — *H* 10,2 — *O* 20,5 — *M. G.* 156.
 - 1) **2-Oxy-4-Ketoäthyl-1-Methylhexahydrobenzol.** *Sm.* 58—59°; *Sd.* 155 bis 156₂₂ (*B.* 28, 2142).
 - 2) **Nonan- $\beta\epsilon$ - δ -Dioxyd?** (Dimethyloxeton). *Sd.* 169,5° (*A.* 256, 130). — I, 1020.
 - 3) **Tanacetogendioxyd.** *Sd.* 72—75°₁₀ (*B.* 30, 441).
 - 4) **$\beta\delta$ -Diketononan** (Diacetylpentan). *Sm.* 48—49°; *Sd.* 212—215°₃₀₀ (*Soc.* 55, 335). — I, 1020.
 - 5) **$\beta\delta$ -Diketo- $\gamma\gamma$ -Diäthylpentan** (Diäthylacetylaceton). *Sd.* 200—205° (*A. ch.* [6] 12, 250). — I, 1020.
 - 6) **α -Okten- α -Carbonsäure?** *Fl.* $Ca + 3H_2O$, *Ba*, *Ag* (*A.* 227, 80). — I, 520.
 - 7) **ζ -Methyl- γ -Hepten- α -Carbonsäure** (Isononensäure; Isovaleralbuttersäure). *Fl.* $Ca + 9H_2O$, $Ba + 1\frac{1}{2}H_2O$, *Ag* (*A.* 282, 353).
 - 8) **ζ -Methyl- γ -Hepten- β -Carbonsäure.** *Sd.* 235—240°. $Ca + 3H_2O$, *Ag* (*A.* 255, 117). — I, 521.
 - 9) **$\beta\epsilon$ -Dimethyl- β -Hexen- α -Carbonsäure?** $Ca + 3H_2O$, *Ag* (*A.* 255, 125). — I, 521.
 - 10) **β -Propyl- α -Penten- α -Carbonsäure** ($\beta\beta$ -Dipropylakrylsäure). *Sm.* 80 bis 81°. $Ca + H_2O$, $Li + 2H_2O$, $Ba + 2H_2O$, *Zn*, *Pb* + $2\frac{1}{2}H_2O$ (*J. pr.* [2] 30, 209). — I, 520.
 - 11) **1,2-Dimethylhexahydrobenzol-4-Carbonsäure.** *Sd.* 251°₄₈ (*Soc.* 71, 169).
 - 12) **1,3-Dimethylhexahydrobenzol-4-Carbonsäure.** *Sm.* 76—78° (60°); *Sd.* 250—255° (*Soc.* 71, 173; *Am.* 18, 691).
 - 13) **Oktonaphtencarbonsäure.** *Sd.* 251—253°. *Ba*, *Ag* (*B.* 24, 2723; *J. r.* 19, 156). — I, 521.
 - 14) **cis-Dihydrocampholytische Säure** (Dihydroisolauronolsäure). *Sd.* 244°. *Ag* (*Am.* 18, 689; *Soc.* 73, 836).
 - 15) **Phoronsäure.** *Sm.* 168—169° (*A. ch.* [5] 14, 82). — I, 521.
 - 16) **Säure** (aus Camphersäure). *Sd.* 240—242°. *Ag* (*Soc.* 73, 36).
 - 17) **Säure** (aus Sebacinsäure). *Fl.* *Ba* (*A.* 274, 62).
 - 18) **Methylester d. 1-Aethyl-R-Pentamethylen-3-Carbonsäure.** *Sd.* 200 bis 202° (*A.* 280, 148). — II, 1128.
 - 19) **Methylester d. 1-Methylhexahydrobenzol-2-Carbonsäure.** *Sd.* 190° (*J. pr.* [2] 49, 69; *J. r.* 25, 636). — II, 1127.
 - 20) **Methylester d. 1-Methylhexahydrobenzol-3-Carbonsäure.** *Sm.* 196 bis 197° (*J. pr.* [2] 49, 74; *J. r.* 25, 641). — II, 1127.
 - 21) **Methylester d. 1-Methylhexahydrobenzol-4-Carbonsäure.** *Sd.* 192 bis 194°₄₈ (*J. pr.* [2] 49, 80; *J. r.* 25, 645). — II, 1128.
 - 22) **Methylester d. α -Oktonaphtensäure.** *Sd.* 185—195° (189—190°) (*J. r.* 19, 156; 25, 650; *J. pr.* [2] 49, 85). — I, 520.
 - 23) **Methylester d. Heptanaphtencarbonsäure.** *Sd.* 190—192° (*B.* 24, 2711). — I, 520.
 - 24) **Aethylester d. β -Methyl- β -Penten- ϵ -Carbonsäure.** *Sd.* 182—184° (*Bl.* [3] 17, 751).
 - 25) **Aethylester d. Hexahydrobenzolcarbonsäure.** *Sd.* 194,5—195,5° (*A.* 271, 264). — II, 1126.
 - 26) **Aethylester d. R-Pentamethylen-1-Methylcarbonsäure** (Ac. d. R-Pentamethenylelessigsäure). *Sd.* 191—192° (*B.* 29, 1998).
 - 27) **Aethylester d. Terakrylsäure.** *Sd.* 189—191° (*J.* 1881, 760). — I, 519.
 - 28) **Isobutylester d. α -Buten- γ -Carbonsäure?** (Isobutylester d. Angelikasäure). *Sd.* 177—177,5° (*A.* 195, 99). — I, 513.
 - 29) **Methyläthylallylcarbinolester d. Essigsäure** (Acetat d. δ -Oxy- δ -Methyl- α -Hexan). *Sd.* 158—160° (*J. pr.* [2] 49, 50).

- $C_9H_{10}O_2$
- 30) Acetat d. *cis*-3-Oxy-1-Methylhexahydrobenzol. *Sd.* 193—194°₁₃₄ (*A.* 297, 152).
- 31) Acetat d. *trans*-3-Oxy-1-Methylhexahydrobenzol. *Sd.* 188—189° (*A.* 289, 143; 291, 175).
- 32) Acetat d. δ -Oxy- ϵ -Methyl- α -Hexen. *Sd.* 160—162° (*Bl.* [3] 11, 360).
- 33) Aethyltetramethylenearbinolester d. Essigsäure (Acetat d. α -Oxypropyl-R-Tetramethylen). *Sd.* 178—179° (*Soc.* 61, 56). — *I.* 412.
- 34) Propionat d. δ -Oxy- α -Hexen. *Sd.* 168—170° (*Bl.* [3] 15, 885).
- $C_9H_{10}O_3$
- 35) Isovalerat d. α -Oxy- β -Buten. *Sd.* 178—179° (*C.* 1896 [2] 576).
C 62,8 — H 9,3 — O 27,9 — M. G. 172.
- 1) $\alpha\gamma$ -Diallyläther d. $\alpha\beta\gamma$ -Trioxypropan. *Sd.* 225—227° (*J. r.* 24, 32; *B.* 10, 556; *A.* 159, 184; *C.* 1898 [1] 238). — *I.* 313.
 - 2) ζ -Keto- β -Methylheptan- β -Carbonsäure (Isogeronsäure). *Fl.* (*B.* 31, 883).
 - 3) ζ -Keto- β -Methylheptan- δ -Carbonsäure (Isobutylävinlinsäure). *Sd.* 190°₃₀ (*C.* 1898 [1] 107; *Soc.* 73, 51).
 - 4) γ -Keto- β -Methylheptan- ζ -Carbonsäure. *Sd.* 166—168°₁₄ (*B.* 31, 2892).
 - 5) ϵ -Keto- $\gamma\gamma$ -Dimethylhexan- α -Carbonsäure (Geronsäure). *Fl.* (*B.* 31, 859).
 - 6) 3-Oxy-1,1,2-Trimethyl-R-Pentamethylen-5-Carbonsäure (Campholaktensäure). *Ba.* (*A.* 227, 10; *B.* 28, 2165). — *I.* 610.
 - 7) Pseudocampholaktensäure. *Fl.* (*C.* 1898 [2] 109).
 - 8) Cineolensäure. *Sm.* 83—84°; *Sd.* 250°₆₀ (*C.* 1898 [2] 1055).
 - 9) Oxylauronsäure. *Fl.* Cu + H₂O (*Am.* 18, 687).
 - 10) Oxydihydrocampholytische Säure. *Sm.* 132° (*B.* 28, 547; *Am.* 17, 424).
 - 11) Oxyäthenylisoönanthensäure. Na₂ + 8H₂O (*A.* 218, 77). — *I.* 610.
 - 12) Säure (aus Cineolsäure). *Sm.* 53—54°; *Sd.* 158—160°₁₃. Mg, Ag (*C.* 1898 [2] 1055; *A.* 258, 322). — *I.* 610.
 - 13) $\alpha\gamma$ -Lakton d. $\alpha\gamma$ -Dioxy- $\beta\beta\delta$ -Trimethylpentan- α -Carbonsäure? *Sm.* 92,5° (95°) (*M.* 19, 520; *A.* 306, 330).
 - 14) Aldehyd d. Heptan- $\alpha\eta$ -Dicarbonsäure (Aldehyd d. Azelaänsäure) (*A.* 140, 68; 190, 297). — *I.* 968.
 - 15) Methylester d. β -Oxy- β -Pentenäthyläther- γ -Carbonsäure. *Sd.* 208 bis 209° (*A.* 249, 323). — *I.* 605.
 - 16) Methylester d. γ -Oxy- β -Butenpropyläther- β -Carbonsäure. *Sd.* 215 bis 216° (*A.* 249, 313). — *I.* 602.
 - 17) Methylester d. β -Oxypropenisobutyläther- α -Carbonsäure. *Sd.* 253,7° (*A.* 256, 208). — *I.* 589.
 - 18) Methylester d. β -Keto- γ -Methylhexan- γ -Carbonsäure (M. d. Methylpropylacetessigsäure). *Sd.* 200—205° (*M.* 12, 590). — *I.* 608.
 - 19) Methylester d. δ -Keto- γ -Methylhexan- γ -Carbonsäure (M. d. α -Aethyl- α -Propionylpropionsäure). *Sd.* 208° (*A.* 245, 92). — *I.* 608.
 - 20) Methylester d. δ -Keto- $\beta\beta$ -Dimethylpentan- α -Carbonsäure. *Sd.* 213 bis 217° (*A.* 304, 20).
 - 21) Methylester d. *trans*-1-Oxymethylhexahydrobenzol-2-Carbonsäure. *Sd.* 155°₁₈ (*A.* 300, 176).
 - 22) Aethylester d. 2-Oxyhexahydrobenzol-1-Carbonsäure. *Sd.* 120—121°₃₀ (*B.* 27, 2474, 2476). — *II.* 1484.
 - 23) Aethylester d. 3-Oxyhexahydrobenzol-1-Carbonsäure. *Sd.* 148—158°₁₄ (*A.* 291, 300).
 - 24) Aethylester d. β -Oxypropenpropyläther- α -Carbonsäure. *Sd.* 228,6° (*A.* 256, 210). — *I.* 589.
 - 25) Aethylester d. β -Ketohehexan- γ -Carbonsäure (Aethylester d. Propylacetyllessigsäure). *Sd.* 208—209° (*Am.* 3, 385; *B.* 28, 2619). — *I.* 606.
 - 26) Aethylester d. β -Ketohehexan- δ -Carbonsäure (Aethylester d. α Aethyl- β -Acetylpropionsäure). *Sd.* 224—226° (*Soc.* 39, 340). — *I.* 607.
 - 27) Aethylester d. γ -Ketohehexan- β -Carbonsäure (Aethylester d. α -Butyrylpropionsäure). *Sd.* 207—209° (*Bl.* [3] 2, 346). — *I.* 607.
 - 28) Aethylester d. δ -Keto- β -Methylpentan- β -Carbonsäure (Aethylester d. Mesitonsäure). *Sd.* 210° (*B.* 15, 579; *M.* 13, 610). — *I.* 608.
 - 29) Aethylester d. δ -Keto- β -Methylpentan- γ -Carbonsäure (Aethylester d. Isopropylacetyllessigsäure). *Sd.* 201°₁₃₈ (*A.* 145, 80; *Bl.* 27, 224; *B.* 28, 2620). — *I.* 607.
 - 30) Aethylester d. β -Keto- γ -Methylpentan- γ -Carbonsäure (Aethylester d. Methyläthylacetyllessigsäure). *Sd.* 200—201° (198°) (*A.* 188, 257; 210, 308; 226, 209). — *I.* 607.

- $C_9H_{16}O_3$ 31) Propylester d. β -Oxypropenäthyläther- α -Carbonsäure. Sm. 18° ; Sd. $205,3^\circ$ (A. [256](#), [213](#)). — [I](#), [582](#).
- 32) Isobutylester d. β -Oxypropenmethyläther- α -Carbonsäure. Sd. $184,5^\circ$ (A. [256](#), [215](#)). — [I](#), [589](#).
- 33) Isoamylester d. β -Ketopropan- α -Carbonsäure (Isoamylester d. Acetyl-essigsäure). Sd. $217-219^\circ$ (223°) (A. [186](#), [228](#); [257](#), [258](#)). — [I](#), [597](#).
- 34) i-Amylenester d. d- α -Oxybuttersäure. Sd. 220° (Bl. [3](#) [15](#), [497](#)).
- 35) Acetat d. β -Oxy- δ -Keto- $\beta\gamma$ -Dimethylpentan. Sd. oberh. 150° (J. r. [26](#), [231](#)).
C [57,4](#) — H [8,5](#) — O [34,0](#) — M. G. [188](#).
- $C_9H_{16}O_4$ 1) Heptan- $\alpha\epsilon$ -Dicarbonsäure. Sd. $260-265^\circ_{82}$ (Soc. [65](#), [991](#)).
- 2) Heptan- $\alpha\eta$ -Dicarbonsäure (Azelaänsäure; Lepargylsäure). Sm. 106° ; Sd. über 360° ($286,5^\circ_{100}$; 158°_{10}). Salze meist bek. (A. [104](#), [265](#); [124](#), [86](#), [95](#); [130](#), [207](#); [199](#), [144](#); B. [14](#), [560](#), [1545](#); [22](#), [818](#); [26](#), [2249](#); [27](#), [3128](#); [29](#), [808](#), [1326](#); [31](#), [1959](#); J. pr. [2](#) [40](#), [216](#); Ph. Ch. [5](#), [401](#); J. [1857](#), [303](#); Z. [1865](#), [296](#); Soc. [65](#), [92](#), [104](#); Bl. [3](#) [19](#), [301](#)). — [I](#), [684](#).
- 3) Heptan- $\alpha\eta$ -Dicarbonsäure (norm. Azelaänsäure). Sm. $117-118^\circ$ (B. [12](#), [1202](#)). — [I](#), [684](#).
- 4) Heptan- $\beta\delta$ -Dicarbonsäure (ϵ -Methylpropylglutarsäure). Sm. $44-52^\circ$ (B. [23](#), [1940](#)). — [I](#), [685](#).
- 5) isom. Heptan- $\beta\delta$ -Dicarbonsäure (ϵ -Methylpropylglutarsäure). Sm. 101 bis 102° (B. [23](#), [1940](#)). — [I](#), [685](#).
- 6) Heptan- $\beta\zeta$ -Dicarbonsäure ($\alpha\epsilon$ -Dimethylpimelinsäure). Sm. $80-81^\circ$ ($74-76^\circ$); Sd. $260-262^\circ_{75}$. Ba, Ag₂ (Soc. [59](#), [577](#), [831](#); [61](#), [701](#); [67](#), [139](#)). — [I](#), [685](#).
- 7) Heptan- $\gamma\epsilon$ -Dicarbonsäure (Diäthylglutarsäure). Sm. $76-80^\circ$. Ag₂ (A. [256](#), [187](#); [292](#), [207](#); Ph. Ch. [5](#), [406](#)). — [I](#), [685](#).
- 8) isom. Heptan- $\gamma\epsilon$ -Dicarbonsäure. Sm. $118-119^\circ$ (A. [256](#), [187](#); [292](#), [206](#); Ph. Ch. [5](#), [406](#)).
- 9) Heptan- $\delta\delta$ -Dicarbonsäure (Dipropylmalonsäure). Sm. 158° (M. [9](#), [318](#)). — [I](#), [685](#).
- 10) β -Methylhexan- $\alpha\alpha$ -Dicarbonsäure (β -Hexylmalonsäure). Sm. $84-86^\circ$ (B. [16](#), [789](#)).
- 11) β -Methylhexan- $\beta\gamma$ -Dicarbonsäure (Dimethylpropylbernsteinsäure). Sm. 140° (B. [24](#), [1056](#), [1059](#)). — [I](#), [685](#).
- 12) β -Methylhexan- $\epsilon\zeta$ -Dicarbonsäure. Sm. $75-76^\circ$. Ca, Ba + $\frac{1}{2}$ H₂O, Ag₂ (A. [304](#), [305](#)).
- 13) $\beta\delta$ -Dimethylpentan- $\beta\delta$ -Dicarbonsäure. Sm. 113° (C. [1898](#) [2](#) [416](#)).
- 14) β -Methylpentan- ϵ -Carbonsäure- δ -Methylcarbonsäure (β -Isobutylglutarsäure). Sm. 48° . Ag₂ (B. [31](#), [2590](#)).
- 15) isom. Dimethylpimelinsäure. Sm. $71-73^\circ$ (B. [24](#), [4004](#)). — [I](#), [686](#).
- 16) isom. Dimethylpimelinsäure. Fl. (B. [24](#), [4004](#)). — [I](#), [686](#).
- 17) Säure (aus Camphersäure). Sd. $254-257^\circ_{60}$. Ag₂ (Soc. [73](#), [43](#)).
- 18) Säure (aus Diallylmalonsäure). Ba (A. [216](#), [72](#)).
- 19) Säure (aus Thujamenthon). Sm. $134,5^\circ$. Ag₂ (B. [30](#), [427](#)).
- 20) Monomethylester d. $\beta\gamma$ -Dimethylbutan- $\beta\gamma$ -Dicarbonsäure. Sm. 68° (A. [292](#), [178](#)).
- 21) Dimethylester d. β -Methylbutan- $\alpha\delta$ -Dicarbonsäure. Sd. $134-135^\circ_{40}$ (Bl. [3](#) [13](#), [8](#)).
- 22) Aethylester d. α -Butyroxylpropionsäure. Sd. 208° (A. [112](#), [235](#)). — [I](#), [556](#).
- 23) Aethylester d. β -Oxy- γ -Ketobutanäthyläther- β -Carbonsäure (Ac. d. Methylacetyloxyessigäthyläthersäure). Sd. $190-195^\circ$ (A. [234](#), [194](#)). — [I](#), [668](#).
- 24) Diäthylester d. Propan- $\alpha\alpha$ -Dicarbonsäure (Diäthylester d. Aethylmalonsäure). Sd. $199-201^\circ$ (207°) (A. [182](#), [334](#); [204](#), [135](#); Am. [14](#), [504](#); B. [26](#), [2358](#); [28](#), [2618](#)). — [I](#), [668](#).
- 25) Diäthylester d. Propan- $\alpha\beta$ -Dicarbonsäure (Diäthylester d. Methylbernsteinsäure). Sd. 218° (A. [25](#), [274](#); Soc. [45](#), [516](#); J. pr. [2](#) [47](#), [277](#); B. [26](#), [338](#)). — [I](#), [664](#).
- 26) Diäthylester d. Propen- $\alpha\gamma$ -Dicarbonsäure (Diäthylester d. norm. Brenzweinsäure). Sd. $236,5-237^\circ$ (A. ch. [5](#) [14](#), [504](#); Soc. [53](#), [567](#)). — [I](#), [667](#).

- C₉H₁₆O₄** 27) Diäthylester d. Propan- $\beta\beta$ -Dicarbonsäure (Diäthylester d. Dimethylmalonsäure). *Sd.* 194—196° (*B.* 14, 1644; *Soc.* 39, 543; 45, 511). — I, 668.
- 28) Aethylpropylester d. Aethan- $\alpha\beta$ -Dicarbonsäure. *Sd.* 231,1° (*A.* 253, 301). — I, 656.
- 29) Dipropylester d. Methandicarbonsäure. *Sd.* 228—229°_{710.3} (*A.* 253, 299; *Ph. Ch.* 1, 381). — I, 651.
- 30) Diacetat d. $\beta\gamma$ -Dioxy- β -Methylbutan. *Sd.* über 200° (*J.* 1858, 424; 1859, 500; *A. ch.* [3] 55, 462). — I, 414.
- 31) Diacetat d. $\delta\delta$ -Dioxy- β -Methylbutan (Valerylendiacetat). *Sd.* 205° (195°) (*Z.* 1867, 174; *A.* 109, 296). — I, 953.
- 32) Diacetat d. $\alpha\gamma$ -Dioxy- $\beta\beta$ -Dimethylpropan. *Sd.* 212°₇₄₀ (*B.* 27, 1089; *A.* 289, 40; *M.* 17, 79).
- 33) Acetoisovalerat d. $\alpha\alpha$ -Dioxyäthan. *Sd.* 194—199° (*A.* 225, 285). — I, 926.
- 34) Acetoisovalerat d. $\alpha\beta$ -Dioxyäthan. *Sd.* 230° (*A.* 114, 125). — I, 428.
- C₉H₁₆O₅** 35) Verbindung (aus Oxypentinaminsäureäthylester) (*A. ch.* [5] 20, 487).
C 52,9 — H 7,8 — O 39,2 — M. G. 204.
- 1) Acetonrhamnosid. *Sm.* 90—91° (*B.* 28, 1162).
- 2) δ -Oxy- β -Methylhexan- $\epsilon\zeta$ -Dicarbonsäure (Isobutylitamalsäure). *Ca*, *Ba*, *Ag*, (*A.* 255, 101; *B.* 25, 3173). — I, 758.
- 3) γ -Oxy- $\beta\delta$ -Dimethylpentan- $\beta\delta$ -Dicarbonsäure. *Sm.* 169—170° (162 bis 163° u. Zers). *Na*₂, *K*₂, *Ca*+H₂O, *Ba*+H₂O, *Pb*+2H₂O, *Ag*₂ (*C.* 1898 [2] 416, 885).
- 4) γ -Oxy- $\beta\gamma$ -Dimethylpentan- $\beta\epsilon$ -Dicarbonsäure. *Sm.* 105—106° (*C.* 1896 [2] 728).
- 5) Oxyazelaänsäure (Azelomalsäure). *Sm.* 91°. *Mg*+2H₂O, *Ca*+H₂O, *Sr*+1½H₂O, *Ba*+½H₂O, *Zn*+2H₂O, *Cd*+2H₂O, *Pb*+½H₂O, *Cu*+1½H₂O, *Ag*, (*B.* 22, 69). — I, 758.
- 6) Säure (aus i-Campholensäure). *Sm.* 85° (*Bl.* [3] 13, 626).
- 7) Diäthylester d. α -Oxypropan- $\alpha\beta$ -Dicarbonsäure (*D.* d. β -Methyläpfelsäure). *Sd.* 250°₇₄₅ (*B.* 25, 202). — I, 749.
- 8) Diäthylester d. γ -Oxypropan- $\alpha\beta$ -Dicarbonsäure (*D.* d. Itamalsäure). *Fl.* (*Z.* 1867, 650). — I, 748.
- 9) Diäthylester d. β -Oxypropan- $\alpha\gamma$ -Dicarbonsäure (*D.* d. β -Oxyglutarsäure). *Sd.* 150°₁₁ (*B.* 25, 1976). — I, 747.
- 10) Diäthylester d. isom. β -Oxypropan- $\alpha\gamma$ -Dicarbonsäure (*D.* d. Oxyproweinsäure). *Sd.* 295—300° u. Zers. (*A.* 133, 77, 78). — I, 747.
- 11) Diäthylester d. 1- α -Oxyäthanmethyläther- $\alpha\beta$ -Dicarbonsäure. *Sd.* 136°₉₈ (*Soc.* 67, 971).
- 12) Diäthylester d. Oxymethanäthyläther- $\alpha\alpha$ -Dicarbonsäure. *Sd.* 228° (*B.* 31, 552).
- 13) Monoisoamylester d. α -Oxyäthan- $\alpha\beta$ -Dicarbonsäure (*M.* d. Aepfelsäure). *NH*₄, *Ca*+H₂O, *Ba* (*A.* 91, 323). — I, 743.
C 49,1 — H 7,3 — O 43,6 — M. G. 220.
- C₉H₁₆O₆** 1) Glykoseaceton. *Sm.* 156—157° (160—161°) (*B.* 28, 2496).
- 2) $\gamma\gamma$ -Dioxypropandiäthyläther- $\alpha\alpha$ -Dicarbonsäure. *Ag*₂ (*Soc.* 75, 154).
- 3) $\alpha\beta$ -Dioxypropandiäthyläther- $\alpha\beta$ -Dicarbonsäure. *Fl.* *Pb*, *Ag*₂ (*Am.* 20, 144).
- 4) Säure (aus Bromisobutylisoparakonsäure). *Ba* (*A.* 304, 323).
- 5) Säure (aus Camphersäure) (*B.* 27 [2] 79).
- 6) Aethylester d. Chinasäure (*A.* 110, 340). — I, 805.
- 7) Monoisoamylester d. d-Weinsäure. *K*+H₂O, *Ca*, *Ba*+2H₂O, *Pb*, *Ag* (*A.* 52, 314; 91, 314). — I, 795.
C 42,8 — H 6,3 — O 50,8 — M. G. 252.
- C₉H₁₆O₈** 1) Raffinose (*Bl.* 26, 365).
- 2) inact. Raffinose (*B.* 9, 351).
- 3) $\alpha\beta\gamma$ -Tetraoxyheptan- $\delta\delta$ -Dicarbonsäure (Tetraoxydipropylmalonsäure). *Ba* (*A.* 216, 65). — I, 856.
- 4) Lakton d. Rhamnooktonsäure. *Sm.* 171—172° (*B.* 23, 3109). — I, 868.
C 40,3 — H 5,9 — O 53,7 — M. G. 268.
- C₉H₁₆O₉** 1) Lakton d. d-Mannonononsäure. *Sm.* 175—177° (*B.* 23, 2236). — I, 870.

$C_9H_{10}N_2$

C 71,1 — H 10,5 — N 18,4 — M. G. 152.

- 1) 2-Hexylimidazol. Sm. 50—51°; Sd. 294—296°₇₃₂. (2HCl, PtCl₄), (2HBr, PtCl₄), Oxalat (B. 16, 748; A. ch. [6] 24, 541; M. 8, 218). — IV, 531.
- 2) 4-Methyl-5-Amylimidazol. Fl. (2HCl, PtCl₄), (HCl, AuCl₃) (B. 30, 1516). — IV, 531.
- 3) 4-Methyl-5-Isoamylimidazol. (2HCl, PtCl₄), (HCl, AuCl₃), HNO₃ (B. 30, 1520). — IV, 531.
- 4) 1-Aethyl-2-Isobutylimidazol. Sd. 224—225°. (2HCl, PtCl₄) (B. 17, 1294). — IV, 529.
- 5) 1,2-Dipropylimidazol. Sd. 226—228°₇₃₆. (2HCl, PtCl₄) (M. 9, 607). — IV, 527.
- 6) 1-Propyl-2-Isopropylimidazol. Sd. 225—227°. (2HCl, PtCl₄) (M. 9, 611). — IV, 528.
- 7) 2,4,5-Triäthylisoimidazol. Sm. 112—113° (111°); Sd. 270—273°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Ag + $\frac{1}{2}$ H₂O, 2 + AgNO₃, 2 + 3AgNO₃ (J. pr. [2] 36, 87; [2] 50, 451, 461). — IV, 532.
- 8) 1-Methyloktahydro-1,8-Benzdiazin. Fl. Pikrat (B. 27, 983). — IV, 530.
- 9) Base (aus α -Dichlorpropionsäurenitril). Sm. 111°; Sd. 273°. HCl, (2HCl, PtCl₄), Ag + $\frac{1}{2}$ H₂O (J. pr. [2] 36, 94). — IV, 532.
- 10) Nitril d. γ -[1-Piperidyl]buttersäure. Sd. 241—245°. (2HCl, PtCl₄), Pikrat (B. 25, 3042). — IV, 21.

 $C_9H_{16}Cl_2$

- 1) Dichlornononaphtylen. Sd. 230—235° (J. r. 23, 447). — I, 163.

 $C_9H_{16}Br_2$

- 1) 1,2-Dibrom-1,2-Dimethyl-R-Heptamethylen. Fl. (Soc. 59, 220). — I, 186.

 $C_9H_{16}Br_4$

- 1) $\alpha\beta\epsilon\zeta$ -Tetrabrom- $\beta\zeta$ -Dimethylheptan. Fl. (B. 26, 2724).

 $C_9H_{17}N$

C 77,7 — H 12,2 — N 10,1 — M. G. 139.

- 1) ϵ -Amido- γ -Allyl- α -Hexen. Sd. 174—176°. (2HCl, PtCl₄), (HCl, AuCl₃) (A. 278, 15).
- 2) Isophorylamin. Sd. 81—85°₁₈. Oxalat (A. 290, 141; 297, 191; 299, 221). — IV, 56.
- 3) 2-Dimethylamidomethyl-1,2,3,4-Tetrahydrobenzol (Methylhydro-tropidin). Sd. 189°. (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 30, 725).
- 4) 2,5-Dimethyl-3-Allyltetrahydropyrrol. Sd. 174—176°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (A. 278, 17). — IV, 54.
- 5) 2-Aethenyl-1-Aethylhexahydropyridin. Sd. 173—178°₇₈₄. (2HCl, PtCl₄) (A. 301, 139).
- 6) 1-Aethyl-2,3-Aethylenhexahydropyridin. Sd. 178—180° (HCl, 3HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃) (A. 304, 61).
- 7) 1-Methyl-2,3-Propylenhexahydropyridin. Sd. 179—184°_{763,7}. (HCl, 7HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃) (A. 304, 83).
- 8) 6-Methyl-1-Propyl-1,2,3,4-Tetrahydropyridin. Sd. 184°₇₆₅. (HCl, 3HgCl₂ + 2H₂O), (2HCl, PtCl₄), (HCl, AuCl₃) (A. 304, 74).
- 9) 2,2,6,6-Tetramethyl-1,2,3,6-Tetrahydropyridin (Triacetoinin). Sd. 146—147°₇₄₀. HCl, (HCl, AuCl₃), HBr, (HBr, Br₂) (B. 16, 1604; 17, 1789; 32, 667). — I, 984.
- 10) Methylparaconiin (Am. 2, 172). — IV, 54.
- 11) Dekahydrochinolin. Sm. 48,2—48,5°; Sd. 204°₇₁₄. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HJ, Pikrat (B. 23, 1145; 27, 1458). — IV, 55.
- 12) n-Methylgranatanin. Sm. 49—50°; Sd. 192—193° (HCl, AuCl₃) (B. 26, 2750). — IV, 52.
- 13) Nitril d. Oktan- α -Carbonsäure (Nitril d. Pelargonsäure). Sd. 214 bis 216° (B. 12, 1888; 24, 985). — I, 1467.
- 14) Nitril d. Oktan- β -Carbonsäure (Nitril d. Isopelargonsäure). Sd. 206° (Z. 1868, 665). — I, 1467.

 $C_9H_{17}N_3$

C 64,7 — H 10,2 — N 25,1 — M. G. 167.

- 1) Diäthylglutarimidin. (2HCl, PtCl₄) (B. 23, 2946). — I, 1165.
- 2) Tetramethylglutarimidin. (2HCl, PtCl₄) (B. 23, 2946). — I, 1165.

 $C_9H_{17}N_5$

C 55,4 — H 8,7 — N 35,9 — M. G. 195.

- 1) 4,6-Diamido-2-Hexyl-1,3,5-Triazin. Sm. 130° (J. pr. [2] 43, 80). — IV, 1318.

 $C_9H_{17}Cl$

- 1) β -Chlor-1,2,4-Trimethylhexahydrobenzol. Sd. 182—188° (J. r. 16 [2] 296). — II, 15.

- $C_9H_{17}Cl$ 2) 2-Chlor-1,3,5-Trimethylhexahydrobenzol. *Sd.* 189—192° (*Bl.* [3] 11, 430).
- 3) Chlornononaphtylen. *Sd.* 185,5° (*J. r.* 22, 119). — I, 162.
- 4) Chlornonen (aus Nonenylalkohol). *Sd.* 175—185° (*B.* 16, 961). — I, 255.
- $C_9H_{17}Br$ 1) Bromnonen (Bromnonylen). *Sd.* 208—212° (*A.* 165, 19). — I, 180.
- $C_9H_{17}Br_2$ 1) β -Dibrom- δ -[α -Bromäthyl]heptan. *Fl.* (*B.* 29, 2003).
- $C_9H_{17}J$ 1) 1-Methyl-2-[β -Jodäthyl]hexahydrobenzol. *Sd.* 178—180°₁₁₀ (*Soc.* 57, 23). — I, 192.
- 2) 5-Jod-1,1,3-Trimethylhexahydrobenzol. *Sd.* 97—98°₁₂ (*A.* 297, 202).
- 3) Jodnononaphten. *Sd.* 108—111°₉₀ (*J. r.* 22, 123). — I, 192.
- 4) Campholenhydrojodid. *Sm.* 52° (*Bl.* [3] 11, 397).
- $C_9H_{15}O$ C 76,0 — H 12,7 — O 11,3 — M. G. 142.
- 1) β -Oxy- β -Methyl- δ -Oktan? (Dimethylisopropyl-Allylcarbinol). *Sd.* 176° (*J. pr.* [2] 27, 364; [2] 30, 408). — I, 254.
- 2) γ -Oxy- β -Dimethyl- β -Hepten. *Sd.* 79°₁₀ (*Bl.* [3] 19, 827).
- 3) γ -Oxy- β -Dimethyl- γ -Hepten? (Methylheptylencarbinol). *Sd.* 185 bis 187° (*A.* 275, 168; *B.* 30, 425).
- 4) δ -Oxy- δ -Trimethyl- α -Hexen. *Sm.* —7°; *Sd.* 167,5° (*J. pr.* [2] 57, 104).
- 5) cis-5-Oxy-1,1,3-Trimethylhexahydrobenzol. *Sd.* 201—203°₇₃₀ (*A.* 297, 196).
- 6) trans-5-Oxy-1,1,3-Trimethylhexahydrobenzol. *Sm.* 37° (34,5°); *Sd.* 196,5°₇₇₀ (*A.* 290, 139; 297, 195; 299, 223).
- 7) 3-Oxy-1,2,4-Trimethylhexahydrobenzol. *Sd.* 193—195°₇₄₇ (*B.* 28, 2945).
- 8) 2-[α -Oxyäthyl]-1-Methylhexahydrobenzol. *Sd.* 195—200° (*Soc.* 57, 21). — I, 255.
- 9) 4-[α -Oxyäthyl]-1,2-Dimethyl-R-Pentamethylen? *Sd.* 158—159° (*B.* 29, 2004).
- 10) 5-[α -Oxyäthyl]-1,3-Dimethyl-R-Pentamethylen. *Sd.* 184—187°₁₀₀ (*Soc.* 61, 79). — I, 255.
- 11) Nononaphtylalkohol. *Sd.* 189—192° (*J. r.* 22, 128). — I, 255.
- 12) Camphelylalkohol. *Sm.* 25—26°; (+ $\frac{1}{2}H_2O$, *Sm.* 36—37°); *Sd.* 179 bis 180° (*G.* 23 [2] 510).
- 13) Alkohol (aus Chlorhexahydrocumol). *Sd.* 185—195° (*J. r.* 16 [2] 296). — II, 15.
- 14) Verbindung (Alkohol). *Sd.* 174—176° (*B.* 16, 960).
- 15) β -Dimethylheptan- β -Oxyd. *Sd.* 132—133° (*Bl.* [3] 19, 827).
- 16) Dimethylisopropylbutylenoxyd. *Sd.* 149—151° (*A.* 275, 170, 174).
- 17) β -Ketononan (Methylheptylketon). *Sd.* 177° (*B.* 16, 789).
- 18) γ -Ketononan (Aethylhexylketon). *Sm.* —8°; *Sd.* 190° (*J. pr.* [2] 44, 267). — I, 1003.
- 19) γ -Keto- β -Methyloktan (Aethylisohexylketon). *Sd.* 185°_{740,3} (*G.* 28 [2] 277; *J. pr.* [2] 58, 399).
- 20) δ -Keto- γ -Aethylheptan (Diäthylmethylpropylketon). *Sd.* 180—190° (*A.* 202, 311). — I, 1003.
- 21) δ -Keto- β -Dimethylheptan (Valeron). *Sd.* 181—182° (*B.* 5, 600). — I, 1003.
- 22) β -Keto- γ -Propylhexan (Dipropylacetone). *Sd.* 173—174° (*Am.* 3, 390). — I, 1003.
- 23) Keton (aus Buttersäure). *Sd.* 192—195° (*M.* 1, 703). — I, 1003.
- 24) Keton (aus $\alpha\gamma$ -Dioxy- $\beta\beta$ -Trimethylhexan). *Sd.* 150° (*M.* 11, 393; 19, 67, 68). — I, 1003.
- 25) Keton (aus $\alpha\gamma$ -Dioxy- $\beta\beta$ -Trimethylhexan) = $(C_9H_{15}O)_2$. *Sd.* 274° (*M.* 11, 393; 19, 70). — I, 1003.
- 26) Verbindung (aus Polyporus officinalis). *Fl.* (*J.* 1886, 1823). — III, 645.
- $C_9H_{15}O_2$ C 68,3 — H 11,4 — O 20,3 — M. G. 158.
- 1) 1,2-Dioxy-1,2-Dimethyl-R-Heptamethylen. *Sd.* 201°₁₈₀. Na + H_2O (*Soc.* 59, 218). — I, 270.
- 2) Aethylenäther d. $\alpha\alpha$ -Dioxyheptan (Oenanthylidenäthylenäther). *Sd.* 200° (*A. ch.* [6] 16, 35). — I, 956.
- 3) Oktan- α -Carbonsäure (Pelargonsäure). *Sm.* 12,5°; *Sd.* 253—254°. Ca, Ba, Zn, Cu, Ag. Lit. bedeutend. — I, 438.
- 4) Oktan- β -Carbonsäure (Isononylsäure). *Sd.* 244—246°. Na + H_2O , K, Ca + H_2O , Cu, Ag (*A.* 173, 319). — I, 439.

$C_2H_{16}O_2$

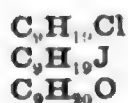
- 5) β -Methylheptan- α -Carbonsäure (Heptylessigsäure). *Sd.* 232°. *Ba*, *Ag* (*B.* 13, 1652). — I, 439.
- 6) β -Methylheptan- ζ -Carbonsäure. *Sd.* 240–242°. *Ag* (*Soc.* 73, 21, 36).
- 7) isom. Oktan- β -Carbonsäure (aus Petroleumsäure) (*B.* 10, 451).
- 8) Aldehyd d. γ -Oxy- $\beta\epsilon$ -Dimethylhexan- β -Carbonsäure. *Fl.* (*M.* 19, 71).
- 9) Methylester d. norm. Caprylsäure. *Sd.* 192,9° (*Bl.* 34, 481; *A.* 233, 286). — I, 437.
- 10) Aethylester d. norm. Heptylsäure. *Sd.* 189,3° (187,1°) (*A.* 187, 141; 233, 282). — I, 435.
- 11) Aethylester d. Isoheptylsäure. *Sd.* 172–173°_{740,5} (*A.* 209, 324). — I, 436.
- 12) Aethylester d. Isoönanthsäure. *Sd.* 181,5–182,5° (*A.* 218, 69). — I, 436.
- 13) Aethylester d. Isoamylelessigsäure. *Sd.* 177° (*B.* 23, 1499). — I, 436.
- 14) Aethylester d. β -Methylpentan- δ -Carbonsäure. *Sd.* 165–166°₇₆₉ (*Soc.* 67, 511).
- 15) Propylester d. norm. Capronsäure. *Sd.* 185,5° (*A.* 233, 279). — I, 432.
- 16) norm. Butylester d. norm. Valeriansäure. *Sd.* 185,8° (*A.* 233, 274; *Bl.* [3] 11, 1110). — I, 426.
- 17) Butylester d. d-Butan- β -Carbonsäure. *Sd.* 173–176°₇₉₀ (*Bl.* [3] 15, 296).
- 18) Isobutylester d. norm. Valeriansäure. *Sd.* 161–165°₇₃₇ (*Bl.* [3] 11, 1110).
- 19) Isobutylester d. Isovaleriansäure. *Sd.* 168,7° (*P.* [2] 12, 42; *A.* 163, 285; 218, 328; 234, 344). — I, 428.
- 20) Isobutylester d. d-Butan- β -Carbonsäure. *Sd.* 165–167°₇₁₅ (*Bl.* [3] 15, 296).
- 21) Trimethylcarbinolester d. Trimethylelessigsäure. *Sd.* 134–135° (*A.* 173, 372). — I, 431.
- 22) Amylester d. norm. Buttersäure. *Sd.* 184,8° (*A.* 233, 269; *Bl.* [3] 11, 1111). — I, 423.
- 23) Isoamylester d. norm. Buttersäure. *Sd.* 178,6° (*A.* 92, 278; 218, 331; 234, 344; *P.* [2] 2, 41). — I, 423.
- 24) Dimethyläthylcarbinolester d. Buttersäure. *Sd.* 164°_{757,2} (*J. pr.* [2] 48, 482; *J. r.* 25, 448).
- 25) β -Methylbutylester d. Buttersäure. *Sd.* 173–176°₇₃₆ (*Bl.* [3] 15, 281).
- 26) norm. Amylester d. Isobuttersäure. *Sd.* 168–171°₇₃₇ (*Bl.* [3] 11, 1111).
- 27) Isoamylester d. Isobuttersäure. *Sd.* 168,8° (*A.* 163, 288; 218, 336; 234, 344; *P.* [2] 12, 42). — I, 425.
- 28) Dimethyläthylcarbinolester d. Isobuttersäure. *Sd.* 153–155°₇₆₂ (*J. pr.* [2] 48, 482; *J. r.* 25, 448).
- 29) norm. Heptylester d. Essigsäure (Acetat d. α -Oxyheptan). *Sd.* 191,5°_{758,5} (*A.* 189, 4; 233, 262). — I, 410.
- 30) Methylpentylcarbinolester d. Essigsäure (Acetat d. β -Oxyheptan). *Sd.* 169–171° (171–173°) (*A.* 188, 254; *B.* 25 [2] 463). — I, 410.
- 31) Dipropylcarbinolester d. Essigsäure (Acetat d. δ -Oxyheptan). *Sd.* 170 bis 172° (*J. pr.* [2] 34, 470). — I, 410.
- 32) Aethylisobutylcarbinolester d. Essigsäure (Acetat d. δ -Oxy- β -Methylhexan). *Sd.* 162–164°₇₅₀ (*J. r.* 16, 287). — I, 410.
- 33) Methylisoamylcarbinolester d. Essigsäure (Acetat d. ϵ -Oxy- β -Methylhexan). *Sd.* 166–168° (*A.* 190, 312). — I, 410.
- 34) Methyläthylpropylcarbinolester d. Essigsäure (Acetat d. γ -Oxy- γ -Methylhexan). *Sd.* 158–159° (*J. pr.* [2] 39, 432). — I, 410.
- 35) Diisopropylcarbinolester d. Essigsäure (Acetat d. γ -Oxy- $\beta\delta$ -Dimethylpentan). *Sd.* 159,7°₇₅₂ (*B.* 24, 1311). — I, 410.
- 36) Triäthylcarbinolester d. Essigsäure (Acetat d. γ -Oxy- γ -Aethylpentan). *Sd.* 160–163° (*J. pr.* [2] 34, 465). — I, 410.
- 37) Heptylester d. Essigsäure (aus Petroleumheptan). *Sd.* 179–180° (*A.* 127, 315). — I, 410.
- 38) norm. Oktylester d. Ameisensäure. *Sd.* 198,1° (*A.* 233, 256). — I, 397.
- 39) Verbindung (aus Chlorameisensäureäthylester u. Aethyljodid). *Sd.* 182,5° (*J. pr.* [2] 6, 167). — I, 609.

 $C_2H_{16}O_3$

- 1) Dimethyläther d. $\alpha\alpha$ -Dioxy- β -Keto- γ -Aethylpentan (D. d. $\alpha\alpha$ -Dioxy- $\beta\beta$ -Diäthyltrimethylketon). *Sd.* 134° (*A.* 231, 243).

- C₉H₁₈O₃**
- 2) Diäthyläther d. $\epsilon\epsilon$ -Dioxy- β -Ketopentan (Lävulinacetal). *Sd.* 92—93°₁₁₋₁₂ (*B.* 31, 43).
 - 3) β -Oxyoktan- α -Carbonsäure. *Sm.* 48—51°. *Ag* (*B.* 27, 2436).
 - 4) ϵ -Oxy- β -Methylheptan- ϵ -Carbonsäure (α -Oxyäthylisoamylessigsäure). *Ba, Ag* (*A.* 142, 6). — *I*, 577.
 - 5) δ -Oxy- β -Methylheptan- ζ -Carbonsäure. *Ba* (*A.* 255, 117). — *I*, 577.
 - 6) γ -Oxy- $\beta\epsilon$ -Dimethylhexan- β -Carbonsäure. *Sm.* 69—70°. *Ag* (*M.* 19, 63).
 - 7) β -Oxy- β -Propylpentan- α -Carbonsäure ($\beta\beta$ -norm. Dipropyl- β -Oxypropionsäure). *Fl.* $\text{Ca} + \text{H}_2\text{O}$, $\text{Ba} + \text{H}_2\text{O}$, Pb , Cu , *Ag* (*J. pr.* [2] 23, 199; *J. r.* 11, 406; 22, 58). — *I*, 577.
 - 8) γ -Oxy- β -Methyl- γ -Propylbutan- δ -Carbonsäure ($\beta\beta$ -Diisopropyl- β -Oxypropionsäure). *Fl.* *Ba, Ag* (*J. pr.* [2] 23, 24; *J. r.* 13, 38). — *I*, 577.
 - 9) Metapropionaldehyd. *Sm.* 180° (*Am.* 12, 353; 16, 645). — *I*, 941.
 - 10) Parapropionaldehyd. *Sd.* 169—170° (*J. r.* 22, 197; *Am.* 12, 353; 16, 645). — *I*, 940.
 - 11) Methylester d. β -Oxyheptan- δ -Carbonsäure. *Fl.* (*B.* 29, 2002).
 - 12) Äthylester d. ϵ -Oxy- β -Methylpentan- ϵ -Carbonsäure. *Sd.* 203° (*Z.* 1866, 491). — *I*, 573.
 - 13) Äthylester d. γ -Oxy- $\beta\gamma$ -Dimethylbutan- β -Carbonsäure. *Sd.* 196 bis 197° (*B.* 28, 2839).
 - 14) Äthylester d. Oxyessigisoamyläthersäure. *Sd.* 212° (*J.* 1861, 451, 452). — *I*, 550.
 - 15) Äthylester d. α -Oxyisovalerianäthyläthersäure (*Bl.* 30, 506).
 - 16) Propylester d. α -Oxypropionpropyläthersäure. *Sd.* 187—188° (*Sec.* 73, 871).
 - 17) Isopropylester d. α -Oxypropionpropyläthersäure (*Bl.* 17, 97). — *I*, 555.
 - 18) *l*- β -Methylbutylester d. *d*- α -Oxybuttersäure. *Sd.* 210° (*Bl.* [3] 15, 486).
 - 19) *l*- β -Methylbutylester d. *l*- α -Oxybuttersäure. *Sd.* 208° (*Bl.* [3] 15, 484).
 - 20) *i*- β -Methylbutylester d. *l*- α -Oxybuttersäure. *Sd.* 209° (*C.* 1895 [1] 826; *Bl.* [3] 15, 483).
 - 21) *l*- β -Methylbutylester d. *i*- α -Oxybuttersäure. *Sd.* 207° (*Bl.* [3] 15, 487).
 - 22) *i*- β -Methylbutylester d. *i*- α -Oxybuttersäure. *Sd.* 210° (*Bl.* [3] 15, 487).
 - 23) Isoamylester d. Oxyessigäthyläthersäure. *Sd.* 180—190° (*J.* 1861, 452). — *I*, 549.
 - 24) Dibutylester d. Kohlensäure. *Sd.* 207°₄₀ (*A.* 185, 112). — *I*, 543.
 - 25) Diisobutylester d. Kohlensäure. *Sd.* 190,3° (*A.* 93, 119; 205, 232). — *I*, 543.
- C₉H₁₈O₄** C 56,8 — H 9,5 — O 33,7 — *M. G.* 190.
- 1) $\alpha\gamma$ -Dioxy- $\beta\beta\delta$ -Trimethylpentan- α -Carbonsäure. *Na, Ca, Ba, Ag* (*M.* 19, 521).
- C₉H₁₈O₅** C 52,4 — H 8,7 — O 38,8 — *M. G.* 206.
- 1) Methylester d. Trioxyessigtriäthyläthersäure. *Sd.* 94,5—96,5°₁₁ (*A.* 254, 36). — *I*, 737.
- C₉H₁₈O₆** C 48,7 — H 8,1 — O 43,2 — *M. G.* 222.
- 1) Digitoxose [oder C₆H₁₂O₄]. *Sm.* 101° (*C.* 1896 [2] 791). — *III*, 582.
 - 2) Propylglykosid (*B.* 27, 2483).
 - 3) Anhydrid d. $\alpha\gamma\epsilon$ -Trioxy- $\beta\beta\delta\delta$ -Tetra[Oxymethyl]pentan (Anhydroenneaheptit). *Sm.* 156° (*B.* 27, 1089; *A.* 289, 46; 290, 153).
 - 4) Tricykloacetonsperoxyd. *Sm.* 97° (*B.* 28, 2266).
- C₉H₁₈O₇** C 45,4 — H 7,5 — O 47,1 — *M. G.* 238.
- 1) Galaktit. *Sm.* 140—142° (*B.* 29, 896). — *III*, 585.
- C₉H₁₈O₈** C 42,5 — H 7,1 — O 50,4 — *M. G.* 254.
- 1) α -Oxypropionsäureglykosid. *Fl.* (*B.* 26, 2411).
- C₉H₁₈O₉** C 40,0 — H 6,7 — O 53,3 — *M. G.* 270.
- 1) Glykononose. *Fl.* (*A.* 270, 104). — *I*, 1058.
 - 2) Mannononose. *Sm.* bei 130° (*B.* 23, 2237). — *I*, 1058.
 - 3) Matezodambose. *Sm.* 235° (*Bl.* 21, 220).
 - 4) Rhamnooktonsäure. *Ba* (*B.* 23, 3109). — *I*, 867.
- C₉H₁₈O₁₀** C 37,7 — H 6,3 — O 55,9 — *M. G.* 286.
- 1) Glykonononsäure. *Ba* (*A.* 270, 102). — *I*, 870.
 - 2) *d*-Mannonononsäure (*B.* 23, 2236). — *I*, 870.

- $C_5H_{10}N_2$ C 70,1 — H 11,7 — N 18,2 — M. G. 154.
 1) Acetonin. $2HCl + H_2O$, Oxalat + $2H_2O$ (A. 76, 295; 168, 228; 201, 102). — I, 985.
- $C_5H_{10}N_6$ 2) Diisobutylecyanamid. Sd. 116—117° (i. V.) (Bl. [3] 7, 548). — I, 1437.
 C 51,4 — H 8,6 — N 40,0 — M. G. 210.
 1) Triäthylmelamin. Sm. 73—74°. ($2HCl$, $PtCl_4$), 2 + $AgNO_3$ (B. 18, 2775; J. pr. [2] 33, 294). — I, 1445.
 2) Isotriäthylmelamin + $4H_2O$. Sm. 90—92°. ($2HCl$, $2AuCl_3$), ($2HCl$, $PtCl_4$) (B. 2, 603; 3, 266; 9, 1010; 18, 2788; 29, 2499). — I, 1445.
 3) Hexamethylmelamin. Sm. 171—172°. ($2HCl$, $PtCl_4$) (B. 18, 2773). — I, 1445.
- $C_5H_{10}Cl_2$ 1) α -Dichlornonan. Sd. 258—262° u. Zers. (C. 1899 [1] 27).
 2) Dichlornonan (Nonylenchlorid). Sd. 240—245° (A. 165, 21).
- $C_5H_{10}Br_2$ 1) α -Dibromnonan. Sd. 285—288° u. Zers. (C. 1899 [1] 26).
 2) Dibromnonan (aus Nonen). Fl. (A. 165, 18). — I, 180.
- $C_5H_{10}S_3$ 1) norm. Tripropylentrisulfid (siehe C_3H_7S , norm. Propylensulfid).
 2) Trithioacetone. Sm. 24°; Sd. 225—230° u. Zers. (B. 22, 1037, 2597; 23, 71). — I, 993.
- $C_5H_{10}N$ 3) Isobutylester d. Mercaptodithioameisenisobutyläthersäure (Diisobutylester d. Perthiokohlensäure). Sd. 285—289° (B. 6, 315). — I, 888.
 C 76,6 — H 13,5 — N 9,9 — M. G. 141.
 1) 5-Amido-1,1,3-Trimethylhexahydrobenzol (Dihydroisophorylamin). Sd. 183—185°. HCl , Oxalat (A. 297, 191; 299, 222).
 2) p-Amido-1,2,4-Trimethylhexahydrobenzol (Amidonononaphten). Sd. 175,5—177,5°₇₅₃. HCl , ($2HCl$, $PtCl_4$) (B. 25 [2] 107; J. r. 25, 409). — I, 1146.
 3) isom. p-Amido-1,2,4-Trimethylhexahydrobenzol (isom. Amidonononaphten). Sd. 173—175°₇₅₁ (J. r. 25, 414).
 4) 1-Isobutylhexahydropyridin. ($2HCl$, $SnCl_4$), ($2HCl$, $PtCl_4$) (J. 1882, 1086; Ph. Ch. 16, 218). — IV, 8.
 5) 2-Isobutylhexahydropyridin (Homoconiin). Sd. 181—182°. HCl , ($2HCl$, $PtCl_4$ + xH_2O), HJ , ($2HJ$, CdJ_2) (B. 26, 949). — IV, 40.
 6) 2-Methyl-1-Propylhexahydropyridin. Sd. 167—167,5°. ($2HCl$, $PtCl_4$), Pikrat (A. 304, 76).
 7) 1-Methyl-2-Propylhexahydropyridin (1-Methylconiin). Sd. 175,5°. HCl , ($2HCl$, $PtCl_4$), (HCl , $AuCl_3$) (A. 89, 144; 298, 142; B. 24, 1678; 27, 2614). — IV, 32.
 8) 1-Methyl-2-Isopropylhexahydropyridin. Sd. 165—167°. ($2HCl$, $PtCl_4$), (HCl , $AuCl_3$), Pikrat (A. 247, 77). — IV, 38.
 9) 1-Methyl-3-Isopropylhexahydropyridin? Sd. 175—180°₇₄₃. (HCl , $5HgCl_2$), ($2HCl$, $PtCl_4$), (HCl , $AuCl_3$), Pikrat (A. 304, 85).
 10) 1,3-Diäthylhexahydropyridin. Sd. 175° (B. 13, 2401). — IV, 30.
 11) 2,4-Diäthylhexahydropyridin. Sd. 174—179° (A. 247, 97). — IV, 40.
 12) 2,5-Diäthylhexahydropyridin. Sd. 190° (B. 25, 2396). — IV, 40.
 13) isom. Diäthylhexahydropyridin. Sd. 165—175°. α -Modif. Pikrat (Sm. 105—107°); β -Modif. Pikrat (Sm. 89—90°); γ -Modif. Pikrat (Sm. 75 bis 76°) (B. 23, 2572). — IV, 7.
 14) isom. Diäthylhexahydropyridin (A. ch. [3] 38, 97). — IV, 7.
 15) 1,2-Dimethyl-5-Aethylhexahydropyridin. Sd. 164—165°. HBr , HJ , Pikrat (A. 247, 92). — IV, 39.
 16) 2,6-Dimethyl-4-Aethylhexahydropyridin (Parpevolin). Sd. 165 bis 167°₇₂₅. ($2HCl$, $PtCl_4$), $H_2Cr_2O_7$ (A. 246, 45). — IV, 41.
 17) 2,3,4,5-Tetramethylhexahydropyridin. Sd. 150—152° (B. 21, 2860). — IV, 41.
 18) Parpevolin. Sd. 176—177°. ($2HJ$, CdJ_2) (B. 23, 685). — IV, 41.
 19) Camphelylamin. Sm. 43°; Sd. 175,5°. HCl (G. 22 [1] 221; 23 [2] 500). — I, 1146.
 20) γ -Dipropylamidopropen (Dipropylallylamin). Sd. 145—150°. ($2HCl$, $PtCl_4$), (HCl , $PtCl_3$) (B. 16, 527). — I, 1142.
 21) $\alpha\gamma$ -Imidononan (α -Hexyltrimethylenimin). Fl. ($2HCl$, $PtCl_4$) (B. 27, 3127). — IV, 41.
 22) Base (aus Dimethylconiin). Sd. 173,5—177° (A. 298, 143).
- $C_5H_{10}Cl$ 1) Chlornonan (aus Petroleum). Sd. 180—184° (196°; 190—198°) (J. 1863, 529; Bl. 41, 164; A. 165, 21). — I, 156.



- 2) Chlornonan (aus Nonylalkohol). *Sd.* 150—160° (*Z.* 1870, 404). — *I*, 156.
- 1) α -Jodnonan (norm. Nonyljodid). *Sd.* 115°₁₅ (*B.* 19, 2221). — *I*, 196.
C 75,0 — H 13,9 — O 11,1 — M. G. 144.
- 1) α -Oxynonan. *Sm.* —5°; *Sd.* 213,5° (*B.* 19, 2221). — *I*, 239.
- 2) γ -Oxynonan (Aethylhexylcarbinol). *Sd.* 194,5—195°₇₅₀ (*J. r.* 18, 306). — *I*, 239.
- 3) δ -Oxy- δ -Aethylheptan (Aethyldipropylcarbinol). *Sd.* 179,5° (*J. pr.* [2] 33, 198). — *I*, 239.
- 4) ρ -Oxynonan (aus Isovaleriansäureisoamylester). *Sd.* 205—212° (*Z.* 1870, 404). — *I*, 239.
- 5) ρ -Oxynonan (aus Petroleumnonan). *Sd.* 186—189° (*Bl.* 41, 164). — *I*, 239.
- 6) ρ -Oxynonan. *Sd.* 183—184° (*B.* 24, 3359). — *I*, 239.
- 7) Methyläther d. α -Oxyoktan (Methyl-norm. Oktyläther). *Sd.* 173° (*A.* 243, 4). — *I*, 300.
- 8) Aethyläther d. α -Oxyheptan (Aethyl-norm. Heptyläther). *Sd.* 165°₇₄₅ (*A.* 189, 5; 243, 5). — *I*, 300.
- 9) Aethyläther d. β -Oxyheptan (Aethyl-sec. Heptyläther). *Sd.* 177° (*J.* 1853, 509). — *I*, 300.
- 10) Butyläther d. α -Oxy- β -Methylbutan. *Sd.* 148—152°_{729,5} (*Bl.* [3] 15, 303).
- 11) Isobutyläther d. α -Oxy- β -Methylbutan. *Sd.* 145—147° (*Bl.* [3] 15, 304).
C 67,5 — H 12,5 — O 20,0 — M. G. 160.



- 1) $\alpha\gamma$ -Dioxy- $\beta\beta\epsilon$ -Trimethylhexan. *Sm.* 79—80°; *Sd.* 231—232° (*M.* 11, 384; 19, 62). — *I*, 266.
- 2) Diäthyläther d. $\delta\delta$ -Dioxy- β -Methylbutan (Amylidendiäthyläther). *Sd.* 168,2° (*J.* 1864, 485). — *I*, 952.
- 3) Dipropyläther d. $\alpha\alpha$ -Dioxypropan? *Sd.* 165,6°₇₄₇ (*M.* 5, 247). — *I*, 911.
- 4) Aethylisoamyläther d. $\alpha\alpha$ -Dioxyäthan. *Sd.* 165—167° (*B.* 19, 3008; *A.* 218, 48). — *I*, 924.
- 5) Diisobutyläther d. Dioxymethan + H₂O. *Sd.* 96° (164° wasserfrei) (*A.* 240, 199; *J. r.* 19, 455; *Bl.* [3] 11, 755, 881). — *I*, 912.
C 61,3 — H 11,3 — O 27,3 — M. G. 176.



- 1) ρ -Trioxynonan. *Sd.* 160—165°₁₀ (*B.* 30, 425).
- 2) $\gamma\epsilon\zeta$ -Trioxy- $\beta\beta\gamma$ -Trimethylhexan. *Sm.* 87—88° (*J. pr.* [2] 57, 107).
- 3) Triäthyläther d. $\alpha\alpha\beta$ -Trioxypropan? *Sd.* 186° (*J.* 1864, 495; *Am.* 12, 522; *B.* 30, 3056; 31, 1014). — *I*, 963.
- 4) Triäthyläther d. $\alpha\beta\gamma$ -Trioxypropan. *Sd.* 185° (*A.* 119, 238; 276, 179). — *I*, 313.
- 5) $\alpha\beta$ -Dipropyläther d. $\alpha\alpha\beta$ -Trioxypropan. *Sd.* 111—114°_{26—28} (*J. pr.* [2] 48, 238).
- 6) $\alpha\gamma$ -Dipropyläther d. $\alpha\beta\gamma$ -Trioxypropan. *Sd.* 215—217° (*C.* 1898[1] 238).
- 7) Aethyldipropyläther d. Trioxymethan (Orthoameisensäureäthyldipropyläther). *Sd.* 185—187° (*B.* 16, 1647). — *I*, 312.
C 56,3 — H 10,4 — O 33,3 — M. G. 192.



- 1) Tetraäthyläther d. Tetraoxymethan (Orthokohlensäuretetraäthyläther). *Sd.* 158—159° (*A.* 132, 54; 152, 166; 205, 249; *B.* 30, 159). — *I*, 316.
C 45,0 — H 8,3 — O 46,7 — M. G. 240.



- 1) Triglycerin. *Sd.* 275—285°₁₀ (*A. ch.* [3] 67, 302). — *I*, 315.



- 1) Glykononit. *Sm.* 191—194° u. Zers. (*A.* 270, 107).



- 1) Glykononit. *Sm.* 191—194° u. Zers. (*A.* 270, 107).
C 69,2 — H 12,8 — N 17,9 — M. G. 156.

- 1) α -Methylimido- α -Methylamidoheptan (s-Dimethylheptenylamidin). (2HCl, PtCl₄) (*B.* 28, 475).

- 2) α -Imido- α -Dimethylamidoheptan (uns-Dimethylheptenylamidin). HCl. (2HCl, PtCl₄) (*B.* 28, 475).

- 3) Tetraäthylammoniumcyanid. + 2Hg(CN)₂ (*B.* 31, 2289).

- 4) 1-[δ -Amidobutyl]hexahydropyridin. *Sd.* 225°₇₄₃. (2HCl, PtCl₄) (*B.* 25, 3043). — *IV*, 8.



- 1) Triäthyläther d. $\alpha\beta\beta$ -Trimerkaptopropan. *Fl.* (*B.* 24, 167). — *I*, 353.

- 2) Tetraäthyläther d. Tetramerkaptoethan (Orthothiokohlensäuretetraäthyläther). *Fl.* (*J. pr.* [2] 15, 212). — *I*, 888.



- 1) α -Amidononan (norm. Nonylamin). *Sd.* 190—192° (195°). (2HCl, PtCl₄) (*J.* 1863, 529; *B.* 15, 773; 29, 808; *Am.* 21, 234). — *I*, 1138.

- C₉H₂₁N** 2) α -Amido- β -Methyloktan. Sm. 185—186°. HCl, (2HCl, PtCl₄) (B. 24, 3355). — I, 1138.
 3) δ -Amido- β -Dimethylheptan (Diisobutylcarbinamin). Sd. 166—167°. HCl, (2HCl, PtCl₄) (Am. 15, 543).
 4) β -Butylamidopentan (Butyl-tert. Amylamin?) HJ (J. r. 11, 171). — I, 1136.
 5) δ -Diäthylamido- β -Methylbutan (Diäthylisoamylamin). Sd. 154°. (2HCl, PtCl₄), Pikrat (A. 78, 282; Bl. [3] 17, 407). — I, 1134.
 6) α -Dipropylamidopropan (norm. Tripropylamin). Sd. 156,5°. (2HCl, PtCl₄), (HBr, Br) (A. 214, 171; A. ch. [6] 13, 482; Bl. [3] 7, 405; B. 6, 1101; 27 [2] 579; Am. 20, 62). — I, 1130.
 C 63,2 — H 12,3 — N 24,5 — M. G. 171.
- C₉H₂₁N₃** 1) R-Trimethylentriäthyltriamin. Sd. 207—208° (B. 26 [2] 934; siehe auch B. 28, 937).
- C₉H₂₁P** 1) Diäthylisoamylphosphin. Sd. 185—187°. HCl (Soc. 53, 722). — I, 1505.
 2) Äthylisopropylisobutylphosphin. Sd. 190°. HJ (B. 6, 300). — I, 1504.
 3) Triisopropylphosphin. Fl. HJ (B. 6, 295). — I, 1503.
- C₉H₂₁Al** 1) Aluminiumtripropyl. Sd. 248—252° (J. 1873, 518). — I, 1526.
C₉H₂₁As 1) Arsentripropyl (J. 1873, 520). — I, 1513.
C₉H₂₁N₂ C 68,4 — H 13,9 — N 17,7 — M. G. 158.
 1) $\alpha\alpha$ -Diamidononan. Sm. 37,5°; Sd. 258—259°. 2HCl, (2HCl, PtCl₄) (C. 1897 [2] 849).
 2) Di[Diäthylamido]methan. Sd. 168°. + CS₂ (B. 26 [2] 934; J. r. 17, 244; J. pr. [2] 36, 119; Bl. [3] 13, 158). — I, 1151.
- C₉H₂₁Si** 1) Siliciumpropylwasserstoff. Sd. 170—171° (A. 222, 359; B. 14, 1873). — I, 1520.
- C₉OCl₆** 1) Hexachlor-1-Ketoinden. Sm. 148—149° (A. 272, 253; B. 26, 521). — III, 168.
- C₉OCl₅** 1) Oktochlor-i-Keto-2,3-Dihydroinden. Sm. 112—113° (A. 272, 267). — III, 159.
- C₉O₂Cl₆** 1) Hexachlor-1,3-Diketo-2,3-Dihydroinden. Sm. 155—156° (A. 272, 263). — III, 275.
- C₉Br₄S₄** 1) Verbindung (aus Perbrommethyltrisulfid) + 2 (3) H₂O (B. 16, 1146). — I, 357.

C₉-Gruppe mit drei Elementen.

- C₉HO₂Cl₅** 1) 2,4,5,6,7-Pentachlor-3-Oxy-1-Ketoinden. Sm. 177°. Anilinsalz (A. 272, 257). — III, 169.
- C₉HO₂Cl₇** 1) 3,4,5,6-Tetrachlor-1-[$\alpha\beta\beta$ -Trichloräthenyl]benzol-2-Carbonsäure. Sm. 158—159° (A. 272, 269). — II, 1423.
- C₉HO₂Cl₇** 1) 3,4,5,6-Tetrachlor-2-[Trichloracetyl]benzol-1-Carbonsäure. Sm. 240 bis 241° (A. 272, 265). — II, 1649.
- C₉HNBr₆** 1) Hexabromchinolin. Sm. 88—90° (A. 173, 95). — IV, 262.
- C₉H₂O₂Cl₄** 1) β -Tetrachlor-1,2-Benzpyron (Tetrachloreumarin). Sm. 144—145° (Z. 1871, 178). — II, 1631.
- C₉H₂O₃Cl₆** 1) 3,4,5,6-Tetrachlor-2-[Dichloracetyl]benzol-1-Carbonsäure. Sm. 192—193° (A. 272, 264). — II, 1649.
- C₉H₃O₃Cl₅** 1) 2,4,5,6,7-Pentachlor-1,1,3-Trioxyminden. Na + H₂O (A. 272, 259). — III, 170.
- C₉H₃O₃Br₃** 1) 5,6,8-Tribrom-7-Oxy-1,2-Benzpyron (Tribromumbelliferon). Sm. 194° (B. 14, 2746; A. 119, 261). — II, 1775.
- C₉H₃O₄Br₃** 1) Tribromäskuletin. Sm. 240° u. Zers. (B. 13, 1592; 14, 477). — III, 568.
 2) Tribromderivat d. Verbindung C₉H₆O₄ (aus Brasilin). Sm. 257—258° (B. 25, 23). — III, 656.
 C 36,3 — H 1,0 — O 48,5 — N 14,1 — M. G. 297.
- C₉H₃O₄N₃** 1) 5,6,8-Trinitro-7-Oxy-1,2-Benzpyron (Trinitroumbelliferon). Sm. 216° (B. 14, 2747). — II, 1775.
- C₉H₃NCl₄** 1) Tetrachlorchinolin. Sm. 121° (J. pr. [2] 56, 281).
- C₉H₃NBr₄** 1) 3,5,6,8-Tetrabromchinolin. Sm. 205° (J. pr. [2] 49, 539; [2] 51, 488). — IV, 261.

- $C_9H_3NBr_4$ 2) isom. Tetrabromchinolin (aus Chinolin). Sm. 119° (B. 15, 820). — IV, 261.
3) isom. Tetrabromchinolin (aus 4-Bromchinolin). Sm. 197—198° (J. pr. [2] 42, 246, 339). — IV, 261.
4) isom. Tetrabromchinolin. Sm. 207° (J. r. 18, 434). — IV, 261.
- $C_9H_4OCl_3$ 1) 2,3-Dichlor-1-Ketoinden. Sm. 90—91° (A. 247, 146; 267, 340; 283, 359). — III, 167.
- $C_9H_4OCl_4$ 1) 2,2,3,3-Tetrachlor-1-Keto-2,3-Dihydroinden. Sm. 107—108° (104,5 bis 105,5°) (B. 20, 2053; A. 275, 346; 283, 355). — III, 158.
- $C_9H_4OBr_2$ 1) 2,3-Dibrom-1-Ketoinden. Sm. 123° (A. 247, 140). — III, 168.
- $C_9H_4OBr_4$ 1) 2,2,3,3-Tetrabrom-1-Keto-2,3-Dihydroinden. Sm. 214° u. Zers. (A. 247, 142). — III, 159.
- $C_9H_4O_2Cl_2$ 1) 2,2-Dichlor-1,3-Diketo-2,3-Dihydroinden. Sm. 124—125° (B. 21, 498, 2390; 27, 738 Anm.; 27, 744). — III, 275.
2) Lakton d. 1-[$\beta\beta$ -Dichlor- α -Oxyäthenyl]benzol-2-Carbonsäure (Dichlormethylenphtalyl). Sm. 128—129° (A. 255, 383; 268, 294; 300, 202). — II, 1648.
- $C_9H_4O_2Cl_4$ 1) Lakton d. 1-[$\alpha\beta\beta\beta$ -Tetrachlor- α -Oxyäthyl]benzol-2-Carbonsäure. Sm. 93—94° (90—91°) (A. 255, 386; B. 29, 2541). — II, 1648.
- $C_9H_4O_2Br_2$ 1) 2,2-Dibrom-1,3-Diketo-2,3-Dihydroinden. Sm. 176—177° (B. 17, 720; 20, 3221; 21, 2392; A. 246, 354; 247, 150). — III, 275.
2) β -Dibrom-1,2-Benzpyron (α -Dibromcumarin). Sm. 179° (183°) (A. 157, 117; 226, 350; Z. 1871, 178). — II, 1631.
3) β -Dibrom-1,2-Benzpyron (β -Dibromcumarin). Sm. 176° (Z. 1871, 178). — II, 1631.
- $C_9H_4O_2J_2$ 1) 6,8-Dijod-1,2-Benzpyron (Dijodecumarin). Sm. 192° (J. pr. [2] 57, 496; [2] 58, 122).
- $C_9H_4O_4Cl_4$ 1) 2,4,5,6-Tetrachlor-3-Acetoxybenzol-1-Carbonsäure. Sm. 150—151° (A. 261, 244). — II, 1519.
2) Monomethylester d. 3,4,5,6-Tetrachlorbenzol-1,2-Dicarbonsäure. Sm. 142°. Ag (B. 27, 3149). — II, 1819.
- $C_9H_4O_4Br_2$ 1) Dibromäskuletin. Sm. 233° (B. 13, 1594). — III, 568.
2) Anhydrid d. 4,6-Dibrom-5-Oxy-1-Methylbenzol-2,3-Dicarbonsäure. Sm. 196—196,5° (165°) (B. 18, 3187; 26, 2664). — II, 1947.
3) Dibromderivat d. Verbindung $C_9H_6O_4$ (aus Brasilin). Sm. 235° (B. 25, 22). — III, 656.
- $C_9H_4O_4Br_4$ 1) Monomethylester d. 3,4,5,6-Tetrabrombenzol-1,2-Dicarbonsäure. Sm. 267°. Ag (B. 29, 1633).
- $C_9H_4O_4J_4$ 1) Monomethylester d. 3,4,5,6-Tetrajodbenzol-1,2-Dicarbonsäure. Sm. 298°. Ag (B. 29, 1634).
- $C_9H_4O_6N_4$ C 40,9 — H 1,5 — O 36,4 — N 21,2 — M. G. 264.
1) Resorcinindophan. Na_2 , K_2 + H_2O , Ba + H_2O (A. 163, 298, 301). — II, 926.
- $C_9H_4O_6N_4$ C 36,5 — H 1,4 — O 43,2 — N 18,9 — M. G. 296.
1) Trinitrostrychol. Sm. 215—218° u. Zers. Na (A. 301, 346).
- $C_9H_4NCl_3$ 1) 2,3,4-Trichlorchinolin. Sm. 107,5° (B. 17, 737). — IV, 256.
2) 5,7,8-Trichlorchinolin. Sm. 150° (J. pr. [2] 51, 421).
3) 5,8, β -Trichlorchinolin. Sm. 68° (J. pr. [2] 41, 39). — IV, 256.
4) β -Trichlorchinolin. Sm. 160,5° (B. 15, 1425). — IV, 256.
5) β -Trichlorchinolin. Sm. 186° (J. pr. [2] 54, 353). — IV, 256.
6) Trichlorisochinolin. Sm. 124° (J. pr. [2] 56, 282).
- $C_9H_4NBr_3$ 1) 3,5,6-Tribromchinolin. Sm. 149°. (2HCl, PtCl₄) (J. pr. [2] 49, 538; [2] 53, 27, 116). — IV, 260.
2) 3,5,8-Tribromchinolin. Sm. 168°. (2HCl, PtCl₄) (J. pr. [2] 42, 335; [2] 51, 493). — IV, 260.
3) 3,6,7-Tribromchinolin. Sm. 116,5°. (2HCl, PtCl₄) (J. pr. [2] 53, 37). — IV, 260.
4) 3,6,8-Tribromchinolin. Sm. 169,5°. (2HCl, PtCl₄) (J. pr. [2] 40, 388, 462; [2] 42, 240, 331; [2] 51, 482; B. 19, 2885). — IV, 260.
5) 4,5,7-Tribromchinolin. Sm. 125—126° (J. pr. [2] 50, 31). — IV, 260.
6) 4,6,8-Tribromchinolin. Sm. 169° (A. 155, 318; J. r. 18, 216; J. pr. [2] 40, 377; [2] 42, 328; [2] 49, 536). — IV, 261.
7) 5,6,7-Tribromchinolin. Sm. 124° (J. pr. [2] 53, 37). — IV, 261.

- C₉H₄NBr₃** 8) **5,6,8-Tribromchinolin**. Sm. 159°. HCl, (2HCl, PtCl₄) (*J. pr.* [2] 50, 37; [2] 51, 481; [2] 53, 30). — IV, 261.
 9) **5,7,8-Tribromchinolin**. Sm. 141°. (2HCl, PtCl₄) (*J. pr.* [2] 50, 35). — IV, 261.
 10) **6,7,8-Tribromchinolin**. Sm. 84°. (2HCl, PtCl₄) (*J. pr.* [2] 53, 34). — IV, 261.
 11) **isom. Tribromchinolin** (aus Chinolin u. S₂Br₂). Sm. 166° (*B.* 29, 2460; *J. pr.* [2] 54, 356). — IV, 261.
 12) **isom. Tribromchinolin** (aus Chinolin-5-Sulfonsäure). Sm. 198° (*B.* 19, 2882). — IV, 261.
 13) **isom. Tribromchinolin** (aus Chinolin-7-Sulfonsäure). Sm. 199° (*J. pr.* [2] 37, 264). — IV, 261.
 14) **isom. Tribromchinolin** (aus 3-Brom-2-Oxychinolin). Sm. 174° (*J. pr.* [2] 45, 54). — IV, 261.
 15) **isom. Tribromchinolin** (aus 2-Bromchinolin-?-Sulfonsäure). Sm. 247 bis 248°. + C₄H₄O₂ (*J. pr.* [2] 41, 47). — IV, 261.
 16) **Tribromchinolin** (aus ?-Bromchinolin-8-Sulfonsäure). Sm. 205° (*J. pr.* [2] 37, 268). — IV, 261.
- C₉H₄N₂Cl₄** 1) **4,?,?,?-Tetrachlor-2-Methyl-1,3-Benzdiazin**. Sm. 125° (*J. pr.* [2] 42, 352). — IV, 900.
- C₉H₃ON₃** C 63,2 — H 2,9 — O 9,4 — N 24,5 — M. G. 171.
 1) **Anhydro-5,6-Dioximido-5,6-Dihydrochinolin**. Sm. 134° (*B.* 24, 159). — IV, 282.
 2) **Nitril d. 4-Keto-1,4-Dihydro-1,3-Benzdiazin-2-Carbonsäure** (Dicyanamidobenzoyl) (*B.* 11, 1986). — II, 1254.
- C₉H₅OCl** 1) **Chlorid d. Phenylpropionsäure**. Sd. 130—133°_{25–30} (*B.* 25, 3537). — II, 1439.
- C₉H₅OCl₃** 1) **2,2,3-Trichlor-1-Keto-2,3-Dihydroinden**. Sm. 58–59° (*B.* 20, 2894). — III, 158.
- C₉H₅OBr** 1) **3-Brom-1-Ketoinden**. Sm. 127–128° (*Soc.* 57, 396; *B.* 32, 548). — III, 168.
- C₉H₅O₂N** C 67,9 — H 3,1 — O 20,1 — N 8,8 — M. G. 159.
 1) **5,6-Diketo-5,6-Dihydrochinolin**. HCl (*B.* 21, 1887). — IV, 290.
 2) **5,8-Diketo-5,8-Dihydrochinolin**. Zers. bei 110–120° (*B.* 17, 1644). — IV, 291.
- C₉H₅O₂Cl** 1) **?-Chlor-1,2-Benzpyron** (α -Chloreumarin). Sm. 122–123° (*Z.* 1871, 178). — II, 1631.
 2) **?-Chlor-1,2-Benzpyron** (β -Chloreumarin). Sm. 162° (*A.* 154, 84). — II, 1631.
 3) **2-Chlor-3-Oxy-1-Ketoinden**. Sm. 114° (*B.* 20, 1271; 21, 2384; *A.* 247, 149). — III, 169.
 4) **Verbindung** (aus 1,1,2,3,4-Pentachlor-2-Acetylamido-1,2,3,4-Tetrahydronaphtalin). Sm. oberh. 120° (*J. pr.* [2] 57, 6).
- C₉H₅O₂Cl₃** 1) **β -[2,3,4-Trichlorphenyl]akrylsäure**. Sm. 185° (*A.* 237, 151). — II, 1411.
 2) **β -[2,4,5-Trichlorphenyl]akrylsäure**. Sm. 200–201° (*A.* 237, 151). — II, 1410.
 3) **1-[$\alpha\beta\beta$ -Trichloräthenyl]benzol-2-Carbonsäure**. Sm. 160° (163°) (*B.* 20, 2055; 21, 499; *A.* 275, 347; 283, 356). — II, 1423.
- C₉H₅O₂Cl₂** 1) **Pentachlorphenylester d. Propionsäure**. Sm. 78,5° (*Bl.* [3] 13, 342).
- C₉H₅O₂Br** 1) **?-Brom-1,2-Benzpyron** (α -Bromcumarin). Sm. 110° (*A.* 157, 118). — II, 1631.
 2) **?-Brom-1,2-Benzpyron** (β -Bromcumarin). Sm. 160° (*Z.* 1871, 178). — II, 1613.
 3) **2-Brom-3-Oxy-1-Ketoinden**. Sm. 119° (*A.* 247, 149; *B.* 21, 2395). — III, 170.
 4) **3-Brom-1-Oxy-2-Ketoinden**. Sm. 191–192°. Ba + 7 H₂O (*Soc.* 57, 400). — III, 170.
 5) **Lakton d. 1-[β -Brom- α -Oxyäthenyl]benzol-2-Carbonsäure**. Sm. 132 bis 133° (*B.* 11, 1011; 17, 2525). — II, 1649.
- C₉H₅O₂Br₃** 1) **1-[$\alpha\beta\beta$ -Tribromäthenyl]benzol-2-Carbonsäure**. Sm. 196–198° (*A.* 247, 144). — II, 1423.
 2) **Lakton d. 1-[$\alpha\beta\beta$ -Tribrom- α -Oxyäthyl]benzol-2-Carbonsäure**. Sm. 117,5–118,5° (*B.* 11, 1013). — II, 1649.

- $C_9H_5O_2Br$ 3) Dibrommethylenäther d. 3,4-Dioxy-1-[α]Bromäthenylbenzol. Sm. 185,5° (Soc. 59, 161). — II, 972.
- $C_9H_5O_2J$ 1) 6-Jod-1,2-Benzpyron (6-Jodeumarin). Sm. 164—165° (J. pr. [2] 57, 496; [2] 58, 123).
- $C_9H_5O_2N$ C 61,7 — H 2,9 — O 27,4 — N 8,0 — M. G. 175.
- 1) 2-Oxy-3,4-Diketo-3,4-Dihydrochinolin. Sm. 255—260° (B. 16, 2220). — II, 1861.
- 2) 2-Oximido-1,3-Diketo-2,3-Dihydroinden. Sm. 197—198° u. Zers. (A. 246, 353). — III, 275.
- $C_9H_5O_2Cl$ 1) 2-Trichloracetylbenzol-1-Carbonsäure. Sm. 144° (142°) (B. 10, 1556; 21, 2399; A. 255, 390; 300, 200). — II, 1648.
- 2) $\beta\beta$ -Trichloräthylidenester d. 2-Oxybenzol-1-Carbonsäure. Sm. 124 bis 125° (A. 193, 41). — II, 1497.
- $C_9H_5O_2Br$ 1) α -[p-Brom-2-Oxyphenyl]äthin- β -Carbonsäure (Bromcumarilsäure). Sm. über 250° (Z. 1871, 179). — II, 1675.
- $C_9H_5O_2Br$ 1) 2-[Tribromacetyl]benzol-1-Carbonsäure. Sm. 159,5—160° (B. 10, 1555; 21, 2400). — II, 1649.
- $C_9H_5O_2N$ C 56,6 — H 2,6 — O 33,5 — N 7,3 — M. G. 191.
- 1) 6-Nitro-1,2-Benzpyron (6-Nitrocumarin). Sm. 183°. 2 + 3PbO, + Ag₂O (A. 45, 337; 59, 190; B. 20, 2110). — II, 1632.
- 2) 8-Nitro-1,2-Benzpyron (8-Nitrocumarin). Sm. 191° (B. 22, 1706). — II, 1632.
- 3) 2-Cyanbenzol-1,4-Dicarbonsäure (B. 19, 1635). — II, 1838.
- 4) 2-Nitrophenylpropionsäure. Zers. bei 155—156°. Ag (B. 13, 2258; A. 212, 142; H. 7, 178; Ph. Ch. 3, 280). — II, 1439.
- 5) 4-Nitrophenylpropionsäure. Sm. 181° u. Zers. (198°). K, Ag (A. 212, 139, 155; Soc. 49, 441). — II, 1441.
- 6) Isatincarbonsäure. Zers. bei 260°. Ba (B. 28, 1642). — II, 1960.
- 7) Isatogensäure (B. 14, 1741; 15, 780). — II, 1439.
- 8) 1-Keto-2,3-Benzoxazin-4-Carbonsäure. Sm. 167—168° (B. 31, 373).
- 9) Lakton d. 1-[β -Nitro- α -Oxyäthenyl]benzol-1-Carbonsäure. Sm. 194° (A. 268, 290). — II, 1650.
- 10) Imid d. 4,5-Dioxybenzoldimethylenäther-1,2-Dicarbonsäure (l. d. Hydrastsäure). Sm. 275—277° (A. 271, 381). — II, 2000.
- 11) 1,2-Imid d. Benzol-1,2,3-Tricarbonsäure. Sm. 247°. Ca + 1½H₂O, Ag (A. 290, 228).
- $C_9H_5O_2N_2$ C 49,3 — H 2,3 — O 29,2 — N 19,2 — M. G. 219.
- 1) 5,7-Dinitrochinolin. Sm. 179°. HCl, (2HCl, PtCl₄) (J. pr. [2] 53, 208). — IV, 263.
- 2) 5,8-Dinitrochinolin. Sm. 182°. (2HCl, PtCl₄), HBr (J. pr. [2] 53, 199; B. 18, 1246). — IV, 264.
- 3) 6,8-Dinitrochinolin. Sm. 144°. (2HCl, PtCl₄) (B. 15, 561; 18, 1244; J. pr. [2] 53, 205). — IV, 264.
- 4) p-Dinitroisochinolin. Sm. 238,5°. (2HCl, PtCl₄) (J. pr. [2] 47, 265). — IV, 302.
- $C_9H_5O_2N_2$ C 45,9 — H 2,1 — O 34,0 — N 17,9 — M. G. 235.
- 1) 5,8-Dinitro-7-Oxychinolin. Zers. bei 255° (Soc. 61, 784). — IV, 284.
- 2) 5,7-Dinitro-8-Oxychinolin. Sm. 276° u. Zers. NH₄, Na + ½H₂O, K + ½H₂O, Cu + H₂O, K + 2CaCl₂ + 6H₂O, K + 2BaCl₂ + 3H₂O, K + Pb(NO₃)₂, K + HgCl₂, K + AgNO₃, (2HCl, PtCl₄) (J. pr. [2] 53, 533; B. 14, 1368; 20, 2692; 24, 155; M. 3, 543). — IV, 284.
- $C_9H_5O_2Cl$ 1) 1,2-Anhydrid d. 3-Oxy-4-Chlormethoxybenzol-1,2-Dicarbonsäure. Sm. 130—135° (B. 27, 334). — II, 1994.
- $C_9H_5O_2N_3$ C 43,0 — H 2,0 — O 38,3 — N 16,7 — M. G. 251.
- 1) Dinitrostrychol. Sm. 284° u. Zers. K, Ba + H₂O (A. 301, 343; B. 26, 334).
- 2) Säure (aus Strychnin). K (B. 26, 334). — III, 944.
- $C_9H_5O_2Cl$ 1) 2-Chlorbenzol-1,3,5-Tricarbonsäure + H₂O. Sm. 278°. Ba₂ + 7H₂O (J. pr. [2] 15, 310). — II, 2011.
- $C_9H_5O_2Br$ 1) 6-Brombenzol-1,2,4-Tricarbonsäure. Sm. 237° (A. 293, 149).
- $C_9H_5O_2N$ C 42,3 — H 2,0 — O 50,2 — N 5,5 — M. G. 255.
- 1) Pyridin-2,3,4,5-Tetracarbonsäure + 2 (3) H₂O. Zers. bei 160°. Ba₂ + 4H₂O, Ag₄ + Ag₃ + H₂O (A. 241, 22; B. 28, 798). — IV, 181.

- C₅H₅O₂N** 2) Pyridin-2,3,4,6-Tetracarbonsäure + 2H₂O. Sm. 222° u. Zers. Ba₂ + 2½H₂O, Cu₂ + 2½H₂O, Ag₄ + H₂O (A. 225, 142; B. 17, 2927). — IV, 182.
- 3) Pyridin-2,3,5,6-Tetracarbonsäure + 2H₂O. Zers. bei 150°. Ca + 2H₂O, Cu₂ + 5H₂O, Ag₄ + 2H₂O (B. 19, 284; A. 241, 4). — IV, 181.
- C₅H₅NCl₂** 4) Säure (aus Nitrocannabinolaktone). Sm. 228–230° (Soc. 75, 31).
- 1) 2,3-Dichlorchinolin. Sm. 104–105° (B. 12, 1320; 13, 115). — IV, 255.
- 2) 2,4-Dichlorchinolin. Sm. 67°; Sd. 280–282° (B. 15, 2149, 2152, 2684). — IV, 255.
- 3) 5,6-Dichlorchinolin. Sm. 85°. (2HCl, PtCl₄) (J. pr. [2] 49, 365). — IV, 255.
- 4) 5,7-Dichlorchinolin. Sm. 116–117°. HCl, (2HCl, PtCl₄), H₂Cr₂O₇ (J. pr. [2] 51, 415). — IV, 255.
- 5) 5,8-Dichlorchinolin. Sm. 92–93°. (2HCl, PtCl₄) (B. 15, 561; J. pr. [2] 48, 147, 260). — IV, 256.
- 6) 6,8-Dichlorchinolin. Sm. 103–104°. (2HCl, PtCl₄) (B. 15, 561; J. pr. [2] 49, 370; [2] 56, 280). — IV, 256.
- 7) 7,8-Dichlorchinolin. Sm. 85,5°. (2HCl, PtCl₄) (J. pr. [2] 48, 279). — IV, 256.
- 8) 1,3-Dichlorisochinolin. Sm. 122–123°; Sd. 305–307°; subl. (B. 19, 1655, 2355). — IV, 300.
- C₅H₅NCl₃** 1) Verbindung (aus Benzoylamidoessigsäure). Sm. 133–134,5° (B. 19, 1172). — II, 1185.
- C₅H₅NBr₂** 1) 2,3-Dibromchinolin. Sm. 97°; subl. (J. pr. [2] 45, 50). — IV, 258.
- 2) 2,4[?]-Dibromchinolin. Sm. 166° (B. 20, 2874). — IV, 258.
- 3) 2,5-Dibromchinolin. Sm. 86° (J. pr. [2] 43, 503). — IV, 258.
- 4) 2,6-Dibromchinolin. Sm. 166–167° (J. pr. [2] 43, 499). — IV, 258.
- 5) 2,7-Dibromchinolin. Sm. 134° (J. pr. [2] 43, 501). — IV, 258.
- 6) 3,4-Dibromchinolin. Sm. 82° (J. pr. [2] 50, 235). — IV, 258.
- 7) 3,5-Dibromchinolin. Sm. 86°. HCl, (2HCl, PtCl₄), HNO₃ (J. pr. [2] 39, 312; [2] 40, 391; [2] 53, 117). — IV, 258.
- 8) 3,6-Dibromchinolin. Sm. 130°. HCl, (2HCl, PtCl₄) (B. 14, 917; J. pr. [2] 40, 389; [2] 53, 112). — IV, 258.
- 9) 4,5-Dibromchinolin. Sm. 108° (B. 20, 2882). — IV, 259.
- 10) 4,6[?]-Dibromchinolin. Sm. 124° (B. 19, 2885; 20, 2877). — IV, 260.
- 11) 4,7-Dibromchinolin. Sm. 126–127°. (2HCl, PtCl₄) (B. 20, 2874; J. pr. [2] 40, 393). — IV, 259.
- 12) 4,8-Dibromchinolin. Sm. 101–102°. HCl, (2HCl, PtCl₄), H₂SO₄, H₂Cr₂O₇ (B. 20, 2878; J. pr. [2] 42, 233; [2] 48, 159). — IV, 259.
- 13) 5,6-Dibromchinolin. Sm. 135°. HCl, (2HCl, PtCl₄) (J. pr. [2] 40, 381; [2] 48, 268; [2] 53, 27). — IV, 259.
- 14) 5,7-Dibromchinolin. Sm. 112° (110°). HCl, (2HCl, PtCl₄), HBr, (HBr, Br₂) (J. pr. [2] 40, 379; [2] 50, 29; [2] 53, 403). — IV, 259.
- 15) 5,8-Dibromchinolin. Sm. 127–128°. HCl, (2HCl, PtCl₄), H₂Cr₂O₇ (B. 17, 187; J. pr. [2] 40, 384; [2] 48, 157; [2] 53, 406). — IV, 259.
- 16) 6,7-Dibromchinolin. Sm. 68–69°. (2HCl, PtCl₄) (J. pr. [2] 40, 381; [2] 53, 31, 122). — IV, 260.
- 17) 6,8-Dibromchinolin. Sm. 101°. HCl, (2HCl, PtCl₄) (J. pr. [2] 40, 378; [2] 51, 477; [2] 53, 409; B. 15, 559). — IV, 260.
- 18) 7,8-Dibromchinolin. Sm. 112° (J. pr. [2] 40, 383). — IV, 260.
- 19) isom. Dibromchinolin. Sm. 255°. subl. (J. pr. [2] 37, 264). — IV, 260.
- 20) ?-Dibromisochinolin. Sm. 138° (J. pr. [2] 43, 199). — IV, 301.
- C₅H₅NBr₃** 1) 5,6-Dibromchinolindibromid. HBr (J. pr. [2] 53, 27). — IV, 259.
- 2) 5,7-Dibromchinolindibromid. HCl (Sm. 215°) (J. pr. [2] 50, 31). — IV, 594.
- C₅H₅NJ₂** 1) ?-Dijodchinolin. Sm. 164–165°. H₂SO₄ (B. [3] 21, 92).
- C₅H₅N₂Br₃** 1) Tribrom-1-Phenylpyrazol. Sm. 106,5–107°. — IV, 497.
- 2) 4,6,8-Tribrom-5-Amidochinolin. Sm. 196° (J. pr. [2] 42, 244). — IV, 911.
- C₅H₅ON₂** C 68,3 — H 3,8 — O 10,1 — N 17,7 — M. G. 158.
- 1) Verbindung (aus d. Azid d. Benzoylamidoessigsäure). Sm. 98° (J. pr. [2] 52, 264, 265).
- C₅H₅OCl₂** 1) ?-Dichlor-1-Keto-2,3-Dihydroinden. Sm. 74–74,5° (A. 275, 346; Soc. 65, 503). — III, 158.

- $C_9H_7OBr_2$ 1) **p-Dibrom-1-Keto-2,3-Dihydroinden.** Sm. 133—134° (B. 22, 2025; Soc. 65, 501). — III, 159.
 2) **Verbindung** (aus 3,6-Dibrom-5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol). Sm. 200—205° (B. 28, 2917).
- C_9H_7OS 1) **1,2-Benzthiopyron** (Thiocumarin). Sm. 101° (B. 19, 1661). — II, 1633.
 $C_9H_7OS_2$ 1) **2,2'-Dithiänylketon.** Sm. 87—88°; Sd. 326° (B. 18, 3013). — III, 766.
 2) **Inn. Anhydrid d. Thiobenzoylthiolessigsäure.** Sm. 117° (B. 30, 115).
 C 62,1 — H 3,4 — O 18,4 — N 16,1 — M. G. 174.
- $C_9H_6O_2N_2$ 1) **4-Methyl-1,3-Phenylendicarbonimid.** Sm. 95° (B. 8, 291; Soc. 49, 257). — IV, 603.
 2) **5-Nitrochinolin.** Sm. 72° (wasserfrei). HNO_3 (B. 18, 1243; 32, 718; Soc. 61, 783; J. pr. [2] 53, 390). — IV, 262.
 3) **6-Nitrochinolin + xH₂O.** Sm. 149—150°. (2HCl, PtCl₄), HBr, (HBr, Br₂) (J. pr. [2] 53, 106; B. 16, 669; 29, 705; M. 10, 645). — IV, 263.
 4) **7-Nitrochinolin.** Sm. 132—133°. HCl, (2HCl, PtCl₄) (B. 20, 3095; 29, 706; J. pr. [2] 48, 170). — IV, 263.
 5) **8-Nitrochinolin.** Sm. 88—89°. (2HCl, PtCl₄) (B. 12, 449; 14, 99; 16, 673; 18, 1245; 19, 2887; 22, 1716; 29, 705; J. pr. [2] 42, 237; [2] 53, 390). — IV, 263.
 6) **5 [oder 8]-Nitroisochinolin + H₂O.** Sm. 110°. HCl, (2HCl, PtCl₄), HNO_3 , H_2SO_4 , $H_2Cr_2O_7$, Pikrat (M. 14, 146; J. pr. [2] 47, 253). — IV, 301.
 7) **5-Nitroso-6-Oxychinolin** (B. 21, 1886). — IV, 282.
 8) **5-Nitroso-8-Oxychinolin.** Zers. bei 245°. (2HCl, PtCl₄) (M. 10, 794; B. 24, 152). — IV, 282.
 9) **Nitril d. α -Oximidobenzoylessigsäure.** Sm. 122°. Ag (J. pr. [2] 52, 109).
 10) **Nitril d. β -(2-Nitrophenyl)akrylsäure.** Sm. 92° (B. 31, 1295).
- $C_9H_6O_2Cl_2$ 1) **Cumarinchlorid.** Fl. (Z. 1871, 178). — II, 1630.
 2) **$\alpha\beta$ -Dichlor- β -Phenylakrylsäure.** Sm. 120—121°. NH_4 , Ag (B. 25, 2665). — II, 1410.
 3) **1-[$\alpha\beta$ -Dichloräthenyl]benzol-2-Carbonsäure.** Sm. 120—121° (B. 20, 2895; 21, 3556). — II, 1423.
- $C_9H_4O_2Cl_4$ 1) **Aethylester d. 2,3,4,5-Tetrachlorbenzol-1-Carbonsäure.** Sm. 34,5° (B. 20, 2440). — II, 1221.
- $C_9H_4O_2Br_2$ 1) **Cumarinbromid.** Sm. 105° (A. 157, 116; 216, 163). — II, 1630.
 2) **3,4-Dibrom-3,4-Dihydro-1,2-Isobenzpyron** (Isocumarindibromid). Sm. 135° (B. 27, 208). — II, 1641.
 3) **Dibrommethylenäther d. 3,4-Dioxy-1-Aethenylbenzol.** Sm. 85° (Soc. 54, 163). — II, 972.
 4) **$\alpha\beta$ -Dibrom- β -Phenylakrylsäure.** Sm. 139° (A. 247, 139). — II, 1413.
 5) **isom. $\alpha\beta$ -Dibrom- β -Phenylakrylsäure.** Sm. 100° (A. 247, 139; B. 25, 2665). — II, 1413.
 6) **Lakton d. 1-[$\alpha\beta$ -Dibrom- α -Oxyäthyl]benzol-2-Carbonsäure** (Methylenphthalidbromid). Sm. 98—99° (B. 17, 2523). — II, 1647.
- $C_9H_4O_2J_2$ 1) **$\alpha\beta$ -Dijod- β -Phenylakrylsäure.** Sm. 171°. Na + 3H₂O, Ca (B. 24, 4113; G. 22 [2] 77). — II, 1413.
- $C_9H_4O_2S$ 1) **Verbindung** (aus Carbamidothioacetophenon). Sm. 75° (A. 261, 19). — III, 129.
- $C_9H_4O_2N_2$ C 56,8 — H 3,2 — O 25,3 — N 14,7 — M. G. 190.
 1) **1,3-Oximido-2-Keto-2,3-Dihydroinden.** Sm. 233° u. Zers. (B. 32, 32).
 2) **5-Nitro-2-Oxychinolin** (Nitrocarbostyryl). Sm. 304° (J. pr. [2] 41, 44; [2] 53, 392). — IV, 283.
 3) **p-Nitro-2-Oxychinolin.** Sm. 163°. HCl, (2HCl, PtCl₄ + H₂O) (J. pr. [2] 41, 44). — IV, 283.
 4) **p-Nitro-2-Oxychinolin.** Sm. 168° (B. 22, 1711). — IV, 284.
 5) **p-Nitro-2-Oxychinolin.** Sm. 260° (A. 229, 243). — IV, 283.
 6) **p-Nitro-2-Oxychinolin.** Sm. 280° (A. 229, 245). — IV, 283.
 7) **p-Nitro-2-Oxychinolin.** Sm. 283°. subl. (J. pr. [2] 41, 44). — IV, 283.
 8) **p-Nitro-2-Oxychinolin.** Sm. noch nicht bei 320° (A. 229, 243). — IV, 283.
 9) **5-Nitro-6-Oxychinolin.** Sm. 139—140°; subl. Ba, HNO_3 + H₂O (M. 3, 552; B. 20, 2697; 21, 1887). — IV, 282.
 10) **p-Nitro-7-Oxychinolin.** Sm. 255° u. Zers. HNO_3 (M. 3, 564). — IV, 283.

- C₉H₅O₃N₂** 11) **5-Nitro-8-Oxychinolin**. Sm. 178° (173°). (2HCl, PtCl₄ + 3H₂O) (B. 20, 2693; 24, 154; J. pr. [2] 45, 537). — IV, 282.
 12) **2-Nitro-2-Oxychinolin**. subl. Sm. oberh. 300° u. Zers. (2HCl, PtCl₄) (M. 3, 773). — IV, 284.
 13) **3-Oximido-2-Oxy-4-Keto-3,4-Dihydrochinolin** (Chinisatoxim). Sm. 208° u. Zers. (B. 16, 2216; 17, 985; A. 251, 381). — IV, 286.
 14) **Phenyloxallylharnstoff**. Sm. 208° (J. pr. [2] 32, 20). — II, 411.
 15) **1,2-Phtalureid**. Zers. bei 185—190°. Ag (A. 214, 23). — II, 1808.
 16) **3-Phenyl-1,2,4-Oxdiazol-5-Carbonsäure**. Sm. 98°. K, Cu + H₂O, PbOH, Cu, Ag (B. 22, 3132). — II, 1203.
 17) **3-Phenyl-1,2,5-Oxdiazol-4-Carbonsäure**. Sm. 110° (B. 25, 2163). — IV, 306.
 18) **4-Oxy-1,2-Benzdiazin-3-Carbonsäure**. Sm. 260—265° u. Zers. (B. 16, 680). — IV, 944.
 19) **3-Oxy-1,4-Benzdiazin-2-Carbonsäure**. Sm. 265° u. Zers. Ba (A. 292, 248; B. 24, 2368). — IV, 944.
 20) **4-Keto-1,4-Dihydro-1,3-Benzdiazin-2-Carbonsäure** + 1/2 H₂O. Ba + 3H₂O (B. 18, 2418). — II, 1255.
 21) **1-Keto-1,2-Dihydro-2,3-Benzdiazin-4-Carbonsäure**. Sm. oberh. 250°. Cu + H₂O, Ag (J. pr. [2] 51, 150). — IV, 945.
 22) **3-[Cyanformyl]amidobenzol-1-Carbonsäure** (B. 18, 2415). — II, 1268.
 23) **Säure** (aus Pyridylglycerincarbonsäureanhydrid). Sm. 321° (B. 26, 1510). — IV, 945.
 24) **Acetylimid d. Pyridin-2,3-Dicarbonsäure**. Sm. 161—162° (B. 27, 1789). — IV, 161.
- C₉H₅O₃Cl₂** 1) **2-Dichloracetyl]benzol-1-Carbonsäure**. Sm. 124—126° (B. 21, 2399; A. 255, 384; 268, 295). — II, 1648.
 2) **Chlorid d. 5-Oxy-1-Methylbenzol-2,4-Dicarbonsäure** (B. 8, 885, 886). — II, 1948.
 3) **Chlorid d. 2-Oxy-1-Methylbenzol-3,5-Dicarbonsäure**. Sm. 67—68° (B. 30, 222).
- C₉H₅O₃J₂** 1) **β-[3,5-Dijod-4-Oxyphenyl]akrylsäure**. Sm. 245° u. Zers. Ag (B. 29, 2306).
- C₉H₅O₄N₂** C 52,4 — H 2,9 — O 31,1 — N 13,6 — M. G. 206.
 1) **2-Nitro-2-Dioxychinolin** (Chinolsäure). subl. HCl, (2HCl, PtCl₄), Ag (A. 173, 91; B. 12, 1152). — IV, 289.
 2) **6-Oxy-2-Furanyl-1,3-Diazin-4-Carbonsäure** + H₂O. Sm. oberh. 300° u. Zers. Ag₂ (B. 25, 1419). — IV, 945.
 3) **1-Nitroindol-2-Carbonsäure**. Sm. 189° u. Zers. (B. 29, 661). — IV, 296.
 4) **Benzimidazol-2,5-Dicarbonsäure**. (2HCl, PtCl₄) (A. 273, 335). — IV, 891.
 5) **2,4-Diketo-1,2,3,4-Tetrahydro-1,3-Benzdiazin-7-Carbonsäure** + 1 1/2 H₂O. Zers. bei 405° (B. 29, 1357).
 6) **Nitril d. 3-Nitro-4-Acetoxybenzol-1-Carbonsäure**. Sm. 113—114° (B. 30, 997).
- C₉H₅O₄N₃** C 46,2 — H 2,6 — O 27,3 — N 23,9 — M. G. 234.
 1) **2-Dinitro-4-Amidochinolin**. Zers. bei 203°. (2HCl, PtCl₄) (J. pr. [2] 56, 197). — IV, 910.
 2) **5,7-Dinitro-8-Amidochinolin**. Sm. 187—188° (J. pr. [2] 53, 546). — IV, 915.
 3) **1-[2-Nitrophenyl]-1,2,4-Triazol-3-Carbonsäure**. Sm. 202° u. Zers. + 1/2 C₂H₄O₂ (B. 25, 742). — IV, 1113.
 4) **1-[2-Nitrophenyl]-1,2,5-Triazol-3-Carbonsäure**. Sm. 236° (A. 262, 315). — IV, 1112.
- C₉H₅O₄Cl₂** 1) **2-Dichlor-3,4-Dioxybenzoläthylenäther-1-Carbonsäure**. Sm. 118 bis 121° (A. 168, 109). — II, 1743.
 2) **αα-Dichlorphenylmethan-α,2-Dicarbonsäure**. Sm. 141° (A. 300, 203).
- C₉H₅O₄Cl₃** 1) **Methylester d. 1,1,3,3,4,5-Hexachlor-2-Acetoxy-2,3-Dihydro-R-Penten-2-Carbonsäure**. Sm. 119° (B. 23, 827). — I, 621.
- C₉H₅O₄Br₂** 1) **Säure** (aus α-Oxybromkarmin). Sm. 243—244° (B. 18, 3185). — II, 1779.
- C₉H₅O₅N₂** C 48,6 — H 2,7 — O 36,0 — N 12,6 — M. G. 222.
 1) **2-Nitroso-5-Keto-3-Phenyl-2,5-Dihydroisoxazol**? Sm. 143° u. Zers. (B. 24, 142; 25, 2161). — IV, 306.

- $C_9H_5O_5N_2$ 2) **p-Nitro-1-Methyl-4-Anthranil-3-Carbonsäure**. Sm. 175° (*J. pr.* [2] 33, 60). — II, 1339.
- $C_9H_5O_5N_4$ C 43,2 — H 2,4 — O 32,0 — N 22,4 — M. G. 250.
- 1) **5-Keto-1-[p-Nitrophenyl]-4,5-Dihydro-1,2,4-Triazol-3-Carbonsäure**. Sm. 307—310° u. Zers. — IV, 1114.
- 2) **1-Triazo-5-Oxalamidobenzol-3-Carbonsäure** (*B.* 21, 1562). — IV, 1153.
- $C_9H_5O_5Br_2$ 1) **4,6-Dibrom-5-Oxy-1-Methylbenzol-2,3-Dicarbonsäure** (*B.* 18, 3188; 26, 2663). — II, 1947.
- $C_9H_6O_5S$ 1) **1,2-Benzpyron-p-Sulfonsäure** + 2H₂O (Cumarin-p-Sulfonsäure). Sr + H₂O, Ba + 5H₂O (*Z.* 1871, 94, 179). — II, 1634.
- $C_9H_6O_6N_2$ C 45,4 — H 2,5 — O 40,3 — N 11,8 — M. G. 238.
- 1) **α-Nitro-β-[4-Nitrophenyl]akrylsäure** (*A.* 229, 224; *B.* 14, 2577; 16, 850). — II, 1415.
- 2) **1,2-Lakton d. 6-Nitro-3,4-Dioxy-1-Oximidomethylbenzol-4-Methyläther-2-Carbonsäure** (Normethylnitrohemipinimid). Sm. 252° u. Zers. (*B.* 19, 2311). — II, 1944.
- $C_9H_6O_6N_4$ C 40,6 — H 2,3 — O 36,1 — N 21,0 — M. G. 266.
- 1) **5-Keto-2-Methyl-4-[p-Dinitrophenyl]-4,5-Dihydro-1,3,4-Oxdiazol**. Sm. 127° (*B.* 26, 1317). — IV, 672.
- 2) **p-Dinitro-2,4-Diketo-7-Methyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin**. Sm. 294° u. Zers. NH₄ + 3H₂O (*J. pr.* [2] 51, 514).
- $C_9H_6O_6N_6$ C 36,7 — H 2,0 — O 32,7 — N 28,6 — M. G. 294.
- 1) **3-Methyl-1-[p-Trinitrophenyl]-1,2,5-Triazol**. Sm. 138° (*A.* 262, 281). — IV, 1104.
- $C_9H_6O_8S_2$ 1) **1,2-Benzpyron-p-Disulfonsäure** (Cumarin-p-Disulfonsäure). Ba + H₂O (*Z.* 1871, 94, 179). — II, 1634.
- $C_9H_6O_9S$ 1) **Benzol-1,2,4-Tricarbonsäure-5-Sulfonsäure**. K + 3H₂O (*B.* 16, 192). — II, 2010.
- C_9H_6NCl 1) **2-Chlorchinolin**. Sm. 37—38°; Sd. 275°₅₁ (266—267°). HCl, (2HCl, PtCl₄ + 2H₂O) (*B.* 15, 333; 31, 612; *A.* 282, 376; *Ph. Ch.* 16, 218). — IV, 254.
- 2) **3-Chlorchinolin**. Sd. 255°₄₈. HCl, (2HCl, PtCl₄ + 2H₂O), H₂SO₄, H₂Cr₂O₇ (*J. pr.* [2] 54, 348). — IV, 254.
- 3) **4-Chlorchinolin**. Sm. 34°; Sd. 260—261°₄₄. (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃) (*M.* 2, 78; 10, 730; 15, 459; *J. pr.* [2] 56, 192). — IV, 254.
- 4) **5-Chlorchinolin**. Sm. 31—32°; Sd. 267—268°. (2HCl, PtCl₄), Dichromat, 2 + AgNO₃ (*B.* 18, 2941; *M.* 8, 582; *J. pr.* [2] 48, 254). — IV, 254.
- 5) **6-Chlorchinolin**. Sm. 40—41°; Sd. 261—262°₄₀ (256°). (2HCl, PtCl₄ + 2H₂O), (HBr, Br₂) (*B.* 15, 559; *J. pr.* [2] 49, 356). — IV, 255.
- 6) **7-Chlorchinolin**. Sm. 45°; Sd. 256°. (2HCl, PtCl₄), Dichromat, 2 + AgNO₃ (*B.* 17, 926; 18, 2941; *J. pr.* [2] 48, 270). — IV, 255.
- 7) **8-Chlorchinolin**. Sd. 288°. (2HCl, PtCl₄ + 2H₂O), H₂Cr₂O₇ (*J. pr.* [2] 48, 141). — IV, 255.
- 8) **3-Chlorisochinolin**. Sm. 47—48° (45°); Sd. 280—281°₅₂. Pikrat (Sm. 177°) (*B.* 19, 1656, 2356; 28, 1532). — IV, 300.
- 9) **8-Chlorisochinolin**. Sm. 55°. (2HCl, PtCl₄) (*M.* 18, 4). — IV, 300.
- C_9H_6NBr 1) **2-Bromchinolin**. Sm. 48—49°. (2HCl, PtCl₄ + 2H₂O) (*J. pr.* [2] 41, 41). — IV, 256.
- 2) **3-Bromchinolin**. Sm. 25°; Sd. 270° u. Zers. HCl, (2HCl, PtCl₄ + 2H₂O), HBr, HNO₃, H₂SO₄, H₂Cr₂O₇, Oxalat, Pikrat, 2 + AgNO₃ (*B.* 14, 916; 15, 1919 Anm.; 19, 2763; 20, 2872; 29, 2459; *J. pr.* [2] 50, 235; [2] 54, 356). — IV, 256.
- 3) **4-Bromchinolin**. Sm. 29—30° (*J. pr.* [2] 56, 192).
- 4) **5-Bromchinolin**. Sm. 52°; Sd. 280°. HCl + H₂O, (2HCl, PtCl₄), HNO₃, H₂Cr₂O₇, Oxalat (*B.* 20, 2879; *J. pr.* [2] 38, 388; [2] 40, 384). — IV, 257.
- 5) **6-Bromchinolin**. Sm. 24° (18—19°); Sd. 284° (278°). HCl + H₂O, (2HCl, PtCl₄ + 2H₂O), HBr, HNO₃, H₂SO₄ + H₂O, H₂Cr₂O₇, Oxalat + H₂O, Pikrat (*B.* 15, 558; 20, 2874; *A.* 230, 11). — IV, 257.
- 6) **7-Bromchinolin**. Sm. 34° (52°); Sd. 290°. HCl + H₂O, (2HCl, PtCl₄), HNO₃ (*J. pr.* [2] 38, 388; [2] 39, 314; [2] 48, 178). — IV, 258.
- 7) **8-Bromchinolin**. Sd. 302—304°. HCl + H₂O, (2HCl, PtCl₄ + 3H₂O), H₂Cr₂O₇ (*B.* 20, 2877; *J. pr.* [2] 48, 151). — IV, 258.

- C₉H₆NBr** 8) 8-Bromisochinolin. Sm. 80,5°. HNO₃ (*J. pr.* [2] 47, 262). — IV, 301.
9) ?-Bromisochinolin. Sm. 40°; Sd. 280–285°. (2HCl, PtCl₄ + 2H₂O) (*J. pr.* [2] 43, 191). — IV, 300.
- C₉H₆NJ** 1) 2-Jodchinolin. Sm. 52–53°. (2HCl, PtCl₄ + H₂O) (*B.* 18, 1531). — IV, 262.
2) 3-Jodchinolin. Sm. 62–63°. HCl + ½ H₂O, (2HCl, PtCl₄ + 2H₂O), H₂Cr₂O₇ (*B.* 18, 781; *J. pr.* [2] 56, 196). — IV, 262.
3) 4-Jodchinolin. Sm. 97° (100°). (2HCl, PtCl₄) (*J. pr.* [2] 56, 193).
4) 5-Jodchinolin. Sm. 100°. (2HCl, PtCl₄) (*J. pr.* [2] 48, 167). — IV, 262.
5) 6-Jodchinolin. Sm. 88°. (2HCl, PtCl₄) (*J. pr.* [2] 48, 165). — IV, 262.
6) 7-Jodchinolin? Sm. 103° (*J. pr.* [2] 48, 161).
7) 8-Jodchinolin. Sm. 136°. (2HCl, PtCl₄) (*J. pr.* [2] 48, 161). — IV, 262.
8) isom. Jodchinolin. Sm. 101–102° (*Bl.* [3] 21, 92).
9) 5 [oder 8]-Jodisochinolin. Sm. 98°. (2HCl, PtCl₄), H₂Cr₂O₇, Pikrat (*J. pr.* [2] 53, 379). — IV, 301.
10) ?-Jodisochinolin. Sm. 99°. (2HCl, PtCl₄ + 2H₂O), HJ, Pikrat, Bichromat (*J. pr.* [2] 51, 207). — IV, 301.
- C₉H₆NJ₂** 1) ?-Jodisochinolindijodid. Sm. 101° (*J. pr.* [2] 51, 207). — IV, 301.
- C₉H₆N₂Cl₂** 1) 3,5-Dichlor-1-Phenylpyrazol. Sm. 25–26°; Sd. 170–172°₁₆ (*B.* 31, 3010).
2) 5,7-Dichlor-8-Amidochinolin. Sm. 125°. HCl, (2HCl, PtCl₄) (*J. pr.* [2] 51, 419). — IV, 914.
3) 2,3-Dichlor-6-Methyl-1,4-Benzdiazin. Sm. 114–115° (*B.* 16, 1532). — IV, 902.
- C₉H₆N₂Cl₄** 1) 1,4,6,7-Tetrachlor-2,5-Dimethylbenzimidazol. Sm. noch nicht bei 310° (*A.* 273, 299). — IV, 881.
- C₉H₆N₂Br₂** 1) ?-Dibrom-1-Phenylpyrazol. Sm. 83,5–84° (*G.* 19, 132). — IV, 497.
2) 3-Brom-1-[?-Bromphenyl]pyrazol. Sm. 74° (*G.* 23 [1] 359). — IV, 497.
3) 6,7-Dibrom-5-Amidochinolin. Sm. 119° (*J. pr.* [2] 53, 36). — IV, 911.
4) 6,8-Dibrom-5-Amidochinolin. Sm. 178–180°. HCl, (2HCl, PtCl₄), HBr (*J. pr.* [2] 40, 379; [2] 51, 479; [2] 53, 407). — IV, 911.
5) 3,5-Dibrom-6-Amidochinolin. Sm. 146°. HBr (*J. pr.* [2] 53, 114). — IV, 913.
6) 5,8-Dibrom-6-Amidochinolin. Sm. 162°. (2HCl, PtCl₄) (*J. pr.* [2] 40, 377; [2] 51, 491). — IV, 913.
7) ?-Dibrom-6-Amidochinolin. Sm. 170° (*J. pr.* [2] 53, 125). — IV, 913.
8) 5,7-Dibrom-8-Amidochinolin. Sm. 127°. HCl, (2HCl, PtCl₄), HBr (*J. pr.* [2] 50, 34; [2] 53, 401). — IV, 914.
9) 6,7-Dibrom-8-Amidochinolin. Sm. 86° (*J. pr.* [2] 53, 34). — IV, 914.
- C₉H₆N₂S** 1) Nitril d. 1-Rhodanmethylbenzol-2-Carbonsäure. Sm. 86° (*B.* 23, 2479). — II, 1333.
- C₉H₆N₂S₂** 1) 4-Methyl-1,2-Phenylsensenföhl. Sm. 42° (*B.* 20, 231). — IV, 615.
2) 4-Methyl-1,3-Phenylsensenföhl. Sm. 56°; Sd. bei 300° u. Zers. (*B.* 8, 669; 18, 3294; 20, 230). — IV, 604.
- C₉H₆N₂Se** 1) 2-Cyanbenzylselenocyanid. Sm. 121° (*B.* 24, 2565). — II, 1061.
- C₉H₆N₂Cl₃** 1) ?-Trichlor-4-Amido-2-Methyl-1,3-Benzdiazin. Sm. 183–184°. HCl (*J. pr.* [2] 42, 355). — IV, 1161.
- C₉H₆ON** C 74,5 — H 4,8 — O 11,0 — N 9,7 — M. G. 145.
1) 4-Phenylloxazol. Sm. 6°; Sd. 220–222°. HCl, (2HCl, PtCl₄ + 2H₂O) (*B.* 17, 2580; 20, 2578). — IV, 305.
2) 5-Phenylisoxazol. Sm. 22–23°; Sd. 246–248° (*B.* 24, 134). — III, 95.
3) 2-Oxychinolin (Carbostyryl). Sm. 199–200°. Na, K, Ba, Ag (*Z.* 1865, 1; *J.* 1877, 788; *A.* 83, 119; *B.* 13, 115, 2069; 14, 1916; 15, 335, 1421, 2103; 16, 2153; 17, 2012; 18, 2395, 3295; 19, 53; 20, 2012). — IV, 267.
4) 4-Oxychinolin + 3 H₂O (Kynurin). Sm. 52° (201° wasserfrei); Sd. oberh. 300° u. Zers.; subl. bei 205°. HCl + H₂O, HCl + 2 H₂O, (2HCl, PtCl₄ + 2 H₂O) (*A.* 164, 158; *M.* 2, 68; 9, 821; 10, 726; 15, 465; *B.* 18, 1618). — IV, 269.
5) 5-Oxychinolin. Sm. 224°. HCl, (2HCl, PtCl₄ + 4 H₂O) (*B.* 16, 721; 20, 2174; *M.* 5, 533; *J. pr.* [2] 47, 432). — IV, 270.
6) 6-Oxychinolin. Sm. 193°; Sd. oberh. 360°. HCl + H₂O, (2HCl, PtCl₄ + 2 H₂O), Pikrat, 2 + Cu-Acetat (*M.* 2, 575; 3, 545; 4, 696; *B.* 17, 440). — IV, 270.

C_9H_7ON

- 7) 7-Oxychinolin. Sm. 235—238° u. Zers. $HCl + \frac{1}{2}H_2O$, (2HCl, $PtCl_4 + 2H_2O$), Pikrat, + Cu-Acetat (B. 15, 893, 1979; 16, 721; M. 3, 559; J. pr. [2] 45, 237; [2] 48, 176). — IV, 272.
- 8) 8-Oxychinolin (Chinophenol). Sm. 75—76° (73—74°); Sd. 266,6°₇₃₂. $HCl + H_2O$, (2HCl, $PtCl_4 + 2H_2O$), $H_2SO_4 + 2H_2O$, Pikrat, Cu, AgH (M. 1, 862; 3, 536; B. 14, 443, 1366; 15, 683, 893, 1979; 16, 712, 720; J. pr. [2] 45, 530). — IV, 272.
- 9) 7-Oxyisochinolin. Sm. 226—227°. HCl , (2HCl, $PtCl_4$) (A. 286, 12). — IV, 303.
- 10) 8-Oxyisochinolin. Sm. 130°. HCl , (2HCl, $PtCl_4 + 2H_2O$), H_2SO_4 (J. pr. [2] 45, 244; [2] 52, 9). — IV, 303.
- 11) 8-Oxyisochinolin. Sm. 184° (J. pr. [2] 45, 244). — IV, 303.
- 12) 4-Keto-1,4-Dihydrochinolin. Sm. 235° (B. 20, 3109; 21, 1376). — IV, 269.
- 13) 1-Keto-1,2-Dihydroisochinolin (Isocarbostyrl; 1-Oxyisochinolin). Sm. 208—209°. subl. (2HCl, $PtCl_4$) (B. 25, 1145; 27, 208; M. 14, 60). — IV, 302.
- 14) Methylpyridintricarbonsäure (unbek. Const.). Sm. 208°. Ag_3 (C. 1897 [2] 133).
- 15) Acetylanhydro-2-Amidobenzol-1-Carbonsäurealdehyd. Sm. 210° (B. 31, 660).
- 16) Amid d. Phenylpropionsäure. Sm. 99—100° (102°) (B. 25, 3537; R. 15, 124). — II, 1439.
- 17) Nitril d. β -Oxy- α -Phenylakrylsäure. Sm. 165—166° (157—158°) (A. 291, 202; B. 30, 964; J. pr. [2] 55, 332).
- 18) Nitril d. Benzoylessigsäure (Cyanacetophenon). Sm. 80,5°. Ag (J. pr. [2] 39, 243; [2] 58, 134; Bl. 45, 271; 48, 23; G. 21 [2] 238; B. 24, 133; 30, 1127). — II, 1645.
- 19) Nitril d. 4-Acetylbenzol-1-Carbonsäure. Sm. 60—61° (B. 20, 2955). — II, 1650.
- 20) Nitril d. 1-Methylbenzol-4-Ketocarbonsäure. Sm. 52° (B. 25, 3462). — II, 1653.
- 21) Verbindung (aus salzs. 3-Amido-2-Methylindol). Sm. 225° u. Zers. (A. 242, 387). — IV, 883.

 $C_9H_7ON_3$

- C 62,4 — H 4,0 — O 9,2 — N 24,3 — M. G. 173.
- 1) 1-Benzoyl-1,2,3-Triazol. Sm. 111—111,5° (B. 26, 2738). — IV, 1098.
 - 2) 1-Benzoyl-1,2,5-Triazol. Sm. 100° (A. 262, 323). — IV, 1098.
 - 3) 3-Acetyl-1,2,4-Benzotriazin. Sm. 121,5—122,5° (B. 25, 3540). — IV, 1165.
 - 4) Aldehyd d. Phenylhydrazoncyanessigsäure. Sm. 161° u. Zers. (B. 21, 2997). — IV, 756.
 - 5) Aldehyd d. 1-Phenyl-1,2,5-Triazol-3-Carbonsäure. Sm. 70° (A. 262, 294). — IV, 1118.

 C_9H_7OCl

- 1) 5-Chlor-1-Keto-2,3-Dihydroinden. Sm. 95°; Sd. 274° (B. 23, 1892). — III, 158.
- 2) 6-Chlor-1-Keto-2,3-Dihydroinden. Sm. 79—80° (B. 25, 2112). — III, 158.
- 3) Aldehyd d. α -Chlor- β -Phenylakrylsäure. Sm. 34—36° (B. 24, 246). — III, 59.
- 4) Chlorid d. β -Phenylakrylsäure. Sm. 35—36°; Sd. 170—171°₅₈ (B. 13, 2124; 21, 3372; A. 178, 214). — II, 1407.

 C_9H_7OBr

- 1) Methyläther d. 2-Brom-4-Oxyphenyläthin. Sm. 75° (B. 20, 2538). — II, 856.
- 2) 2-Brom-1-Keto-2,3-Dihydroinden. Sm. 38—39° (Soc. 65, 500). — III, 159.
- 3) 4-Brom-1-Keto-2,3-Dihydroinden. Sm. 95,5—96,5° (B. 25, 2110). — III, 159.
- 4) 5-Brom-1-Keto-2,3-Dihydroinden. Sm. 122—123° (B. 23, 1891). — III, 159.
- 5) 6-Brom-1-Keto-2,3-Dihydroinden. Sm. 111—112° (B. 23, 1892). — III, 159.
- 6) Aldehyd d. α -Brom- β -Phenylakrylsäure. Sm. 72—73° (B. 17, 1815). — III, 59.

 $C_9H_7OBr_3$

- 1) Allyläther d. 2,4,6-Tribrom-1-Oxybenzol. Sm. 77° (G. 23 [2] 494). — II, 674.

- C_9H_7OJ 1) **6-Jod-1-Keto-2,3-Dihydroinden.** Sm. 126—127° (B. 25, 2113). — III, 159.
- $C_9H_7O_2N$ C 67,1 — H 4,3 — O 19,9 — N 8,7 — M. G. 161.
- 1) **2,3-Dioxychinolin.** Sm. oberh. 300°. subl. Ag (B. 15, 2681). — IV, 285.
- 2) **2,4-Dioxychinolin.** Sm. noch nicht bei 320°. subl. Ag (B. 15, 2151, 2683; 22, 387; A. 251, 377). — IV, 285.
- 3) **2,6-Dioxychinolin.** Sm. oberh. 300° (B. 27, 1936). — IV, 287.
- 4) **2,8-Dioxychinolin.** Sm. oberh. 260° u. Zers. $HCl + H_2O$ (M. 16, 761). — IV, 287.
- 5) **2,9-Dioxychinolin.** Sm. 189°. Ag (B. 15, 2684). — IV, 287.
- 6) **2,9-Dioxychinolin.** Sm. 190,5°. subl. Ba (B. 14, 1918; 15, 333). — IV, 287.
- 7) **3,4-Dioxychinolin.** Sm. bei 340° (J. pr. [2] 50, 236). — IV, 287.
- 8) **4,6-Dioxychinolin.** Zers. oberh. 230°. ($HCl, AuCl_3$) (M. 17, 339). — IV, 287.
- 9) **5,6-Dioxychinolin.** Sm. bei 310° u. Zers. (J. pr. [2] 55, 518).
- 10) **5,8-Dioxychinolin.** Zers. oberh. 270°. H_2SO_4 (B. 17, 1645; J. pr. [2] 41, 40). — IV, 287.
- 11) **5,9-Dioxychinolin.** Zers. bei 260° (B. 20, 2174). — IV, 288.
- 12) **9-Dioxychinolin.** Sm. 68° (B. 20, 3200). — IV, 289.
- 13) **9-Dioxychinolin.** Sm. 130—136°. $HCl + H_2O$, ($2HCl, PtCl_4 + 2H_2O$), Pikrat (B. 19, 997; 20, 1820). — IV, 288.
- 14) **5-Keto-3-Phenyl-2,5-Dihydroisoxazol.** Sm. 152°. $NH_4, K, Ca, Sr + H_2O, Ba, Cd + 5H_2O, Ag, Methylaminsalz, Aethylaminsalz, Anilinsalz, p-Toluidinsalz, Phenylhydrazinsalz$ (B. 24, 141, 502; J. pr. [2] 47, 124; A. 266, 334; 296, 37). — IV, 305.
- 15) **2-Oximido-1-Keto-2,3-Dihydroinden.** Sm. 218—220° u. Zers. (210°). Na, K (Soc. 65, 492; 71, 248; B. 29, 2604). — III, 159.
- 16) **2,3-Diketo-1-Methyl-2,3-Dihydroindol (Methylpseudoisatin).** Sm. 134° (B. 17, 564; A. 248, 116). — II, 1603.
- 17) **2,3-Diketo-5-Methyl-2,3-Dihydroindol (p-Methylisatin).** Sm. 184° (187°) (B. 16, 2265; J. pr. [2] 33, 58). — II, 1650.
- 18) **Methyläther d. 2-Oxy-3-Ketopseudoindol (M. d. Isatin).** Sm. 101 bis 102° (B. 15, 2093). — II, 1603.
- 19) **6-Amido-1,2-Benzpyron (6-Amidocumarin).** Sm. 168—170°. ($2HCl, PtCl_4$) (A. 95, 253; B. 27, 1937). — II, 1632.
- 20) **Oxim d. Cumarin (2-Oximido-1,2-Benzpyron).** Sm. 131° (B. 19, 1662). — II, 1630.
- 21) **2-Amidophenylpropionsäure.** Zers. bei 123° (B. 15, 2147; 16, 679). — II, 1441.
- 22) **4-Cyanphenyllessigsäure.** Sm. 152°. Ag (B. 22, 3212). — II, 1317.
- 23) **1-Cyanmethylbenzol-2-Carbonsäure.** Sm. 116° u. Zers. $Ca + 2H_2O$ (A. 233, 102). — II, 1333.
- 24) **1-Cyanmethylbenzol-4-Carbonsäure.** Sm. 201°. Ag (B. 22, 3213). — II, 1347.
- 25) **Indol-2-Carbonsäure.** Sm. 200—201° u. Zers. (203°). Ba, Pikrat (B. 21, 1930, 1938; 26, 2007; 29, 665; 30, 1045; A. 236, 142; G. 22 [2] 16). — IV, 235.
- 26) **Indol-3-Carbonsäure.** Sm. 218° u. Zers. (B. 21, 1933; 23, 2296; G. 20 [2] 17). — IV, 236.
- 27) **Inn. Anhydrid d. 1- α -Oximidoäthylbenzol-2-Carbonsäure.** Sm. 157—159° (B. 16, 1995). — II, 1650.
- 28) **Methylester d. 2-Cyanbenzol-1-Carbonsäure.** Sm. 50—51° (R. 11, 91). — II, 1228.
- 29) **Methylester d. 3-Cyanbenzol-1-Carbonsäure.** Sm. 65° (B. 20, 526). — II, 1228.
- 30) **Imid d. 1-Methylbenzol-2,3-Dicarbonsäure.** Sm. 183—184° (B. 25, 2107). — II, 1845.
- 31) **Imid d. 1-Methylbenzol-3,4-Dicarbonsäure.** Sm. 196° (M. 12, 627). — II, 1846.
- 32) **Imid d. Benzol-1-Carbonsäure-2-Methylcarbonsäure.** Sm. 233°. Na (B. 19, 1654, 2355; 20, 1203). — II, 1842.

- C₉H₇O₂N** 33) **Methylimid d. Benzol-1,2-Dicarbonsäure (Methylphthalimid).** Sm. 132°; subl.; Sd. 285° (A. 247, 302; B. 28, 859; 29, 2530; 31, 1228, 3234). — II, 1799.
- 34) **Methylisimid d. Benzol-1,2-Dicarbonsäure.** Sm. 76,5—78,5° (B. 13, 98). — II, 1799.
- 35) **Nitril d. 3,4-Dioxybenzol-3,4-Aethylenäther-1-Carbonsäure.** Sm. 105° (Bl. [3] 19, 510).
- 36) **Nitril d. 2-Acetoxybenzol-1-Carbonsäure.** Sd. 252—254° (B. 17, 1572). — II, 1501.
- 37) **Nitril d. 3-Acetoxybenzol-1-Carbonsäure.** Sm. 60° (B. 24, 827). — II, 1518.
- 38) **Nitril d. 4-Acetoxybenzol-1-Carbonsäure.** Sm. 57°; Sd. 265—266° (B. 17, 1572). — II, 1530.
- 39) **Verbindung (aus Inden).** Sm. 141° u. Zers. (B. 28, 1333).
- C₉H₇O₂N₂** C 57,1 — H 3,7 — O 16,9 — N 22,2 — M. G. 189.
- 1) **p-Nitro-5-Phenylpyrazol.** Sm. 192—193° (B. 28, 698). — IV, 906.
- 2) **4-Oximido-5-Keto-1-Phenyl-4,5-Dihydropyrazol.** Sm. 160° u. Zers. (B. 28, 39). — IV, 499.
- 3) **4-Oximido-5-Keto-3-Phenyl-4,5-Dihydropyrazol.** Sm. 184°. Ag (J. pr. [2] 50, 228, 517; [2] 52, 27; B. 27, 783, 791). — IV, 905.
- 4) **3-Nitro-4-Amidochinolin + H₂O.** Zers. bei 207°. Na, HCl, (2HCl, PtCl₄) (J. pr. [2] 56, 201). — IV, 910.
- 5) **5-Nitro-8-Amidochinolin.** Sm. 184°. (2HCl, PtCl₄) (J. pr. [2] 53, 201). — IV, 914.
- 6) **6-Nitro-8-Amidochinolin.** Sm. 194°. (2HCl, PtCl₄) (J. pr. [2] 53, 206). — IV, 915.
- 7) **5,6[p]-Dioximido-5,6-Dihydrochinolin.** Zers. bei 190° (B. 24, 158). — IV, 282.
- 8) **5,8-Dioximido-5,8-Dihydrochinolin.** Zers. oberh. 200° (B. 24, 157). — IV, 282.
- 9) **3-[Cyanimidomethyl]amidobenzol-1-Carbonsäure + 1/2 H₂O** (B. 11, 1986; 16, 336). — II, 1268.
- 10) **1-Phenyl-1,2,4-Triazol-3-Carbonsäure.** Sm. 184—185°. HCl, Cu, Ag + 1 1/2 H₂O (B. 23, 1812, 3789; 25, 229; 26, 2395). — IV, 1112.
- 11) **1-Phenyl-1,2,5-Triazol-3-Carbonsäure.** Sm. 191—192°. K + H₂O, Ba + 4H₂O, Cd + 4H₂O, Ag (B. 21, 2761; A. 262, 285). — IV, 1112.
- 12) **1-Phenyl-1,2,4-Triazol-1³-Carbonsäure.** Sm. 264°. Ba, Cu (G. 26 [2] 427). — IV, 1100.
- 13) **1-Phenyl-1,2,4-Triazol-1⁴-Carbonsäure.** Sm. noch nicht bei 270°. Ba (G. 26 [2] 428). — IV, 1100.
- 14) **3-Amido-1,4-Benzdiazin-2-Carbonsäure.** Sm. 210° u. Zers. (B. 28, 1657). — IV, 1163.
- 15) **Amid d. 3-Phenyl-1,2,4-Oxdiazol-5-Carbonsäure.** Sm. 173° (B. 22, 3137). — II, 1203.
- 16) **Amid d. 4-Keto-1,4-Dihydro-1,3-Benzdiazin-2-Carbonsäure** (B. 18, 2417). — II, 1255.
- 17) **Verbindung (aus Dibenzoylglyoximsuperoxyd).** Sm. 135° (R. 11, 265). — III, 298.
- C₉H₇O₂Cl** 1) **p-Chlor-α-Phenylakrylsäure.** Sm. 85° (B. 12, 948). — II, 1403.
- 2) **α-Chlor-β-Phenylakrylsäure.** Sm. 136—137° (138—139°). K, Ba + H₂O (A. 70, 7; B. 15, 788, 1946; 16, 854; 24, 249; J. pr. [2] 40, 46; J. 1882, 364). — II, 1410.
- 3) **β-Chlor-β-Phenylakrylsäure.** Sm. 110—111° (114°). K (B. 15, 788, 1945; J. pr. [2] 40, 64; J. 1882, 346). — II, 1410.
- 4) **isom. β-Chlor-β-Phenylakrylsäure.** Sm. 132,5°. K, Ba + 1 1/2 H₂O (J. pr. [2] 40, 65). — II, 1410.
- 5) **Allo-β-Chlor-β-Phenylakrylsäure.** Sm. 142°. K, Ba + H₂O (J. pr. [2] 40, 65; Soc. 47, 256). — II, 1410.
- 6) **β-[2-Chlorphenyl]akrylsäure.** Sm. 200° (B. 16, 2037). — II, 1410.
- 7) **β-[3-Chlorphenyl]akrylsäure.** Sm. 167° (B. 16, 2038). — II, 1410.
- 8) **β-[4-Chlorphenyl]akrylsäure.** Sm. 240—242° (B. 16, 2039). — II, 1410.
- 9) **1-[β-Chloräthenyl]benzol-2-Carbonsäure.** Sm. 151—152° (B. 27, 2761). — II, 1423.

- C₉H₇O₂Cl₃** 1) Aethylester d. 2,4,5-Trichlorbenzol-1-Carbonsäure. Sm. 65° (A. 152, 237). — II, 1220.
 2) Aethylester d. 3,4,5-Trichlorbenzol-1-Carbonsäure. Sm. 86° (A. 163, 32). — II, 1221.
 3) 2,4,6-Trichlorphenylester d. Propionsäure. Sd. 262,5—264,5° (B. 18, 1163). — II, 671.
 4) Benzylester d. Trichloressigsäure. Sd. 178,5°₅₀ (B. 21, 283). — II, 1051.
- C₉H₇O₂Br** 1) ?-Brom- α -Penylakrylsäure. Sm. 130° (A. 195, 162). — II, 1403.
 2) α -Brom- β -Phenylakrylsäure. Sm. 130—131°. NH₄, Ba, Ag (A. 143, 333; 287, 23; J. pr. [2] 20, 182; [2] 35, 357; B. 15, 16; 28, 135; Am. 4, 26; 5, 385; Ph. Ch. 3, 278; R. 15, 131; Soc. 73, 86). — II, 1411.
 3) Allo- α -Brom- β -Phenylakrylsäure. Sm. 120°. K, Ba, Ag (A. 143, 330; 287, 23; J. pr. [2] 20, 182; Am. 4, 26; 20, 91; B. 15, 16; 28, 136; Ph. Ch. 3, 278; J. 1883, 1176; R. 15, 131; Soc. 73, 86). — II, 1412.
 4) β -Brom- β -Phenylakrylsäure. Sm. 133—134°. Ba (B. 20, 552; A. 287, 19; Soc. 73, 87). — II, 1413.
 5) Allo- β -Brom- β -Phenylakrylsäure. Sm. 159—160°. Ba + H₂O (B. 19, 1379; 20, 552; A. 287, 19; Soc. 73, 87). — II, 1412.
 6) β -[2-Bromphenyl]akrylsäure. Sm. 212—212,5° (B. 15, 2295; 25, 2109). — II, 1411.
 7) β -[3-Bromphenyl]akrylsäure. Sm. 178—179° (B. 15, 2297; 23, 1890). — II, 1411.
 8) β -[4-Bromphenyl]akrylsäure. Sm. 251—253° (B. 15, 2300).
 9) Lakton d. β -[?-Brom-2-Oxyphenyl]propionsäure. Sm. 106° (A. 226, 362). — II, 1563.
- C₉H₇O₂Br₃** 1) Acetat d. 3,5-Dibrom-2-Oxy-1-Brommethylbenzol. Sm. 120—121° (A. 302, 150).
 2) Acetat d. ?-Tribrom-3-Oxy-1-Methylbenzol. Sm. 68° (J. pr. [2] 39, 59). — II, 745.
 3) $\alpha\beta\beta$ -Tribrom- α -Phenylpropionsäure. Sm. 150° (A. 195, 163). — II, 1371.
 4) $\alpha\alpha\beta$ -Tribrom- β -Phenylpropionsäure. Sm. 151° (A. 143, 335; Am. 4, 26; 5, 384; J. 1883, 1176). — II, 1360.
 5) $\alpha\beta\beta$ -Tribrom- β -Phenylpropionsäure. Sm. 138° (148°) u. Zers. (B. 19, 1380). — II, 1360.
 6) β -[2,4,6-Tribromphenyl]propionsäure. Sm. 150° (B. 28, 1268).
 7) Aethylester d. 3,4,5-Tribrombenzol-1-Carbonsäure. Sm. 126° (Soc. 67, 596).
 8) 2,4,6-Tribromphenylester d. Propionsäure. Sm. 65° (B. 18, 1174). — II, 674.
- C₉H₇O₂J** 1) β -[2-Jodphenyl]akrylsäure. Sm. 212—214° (B. 16, 2037). — II, 1413.
 2) β -[3-Jodphenyl]akrylsäure. Sm. 181—182° u. Zers. (B. 16, 2037). — II, 1413.
 3) β -[4-Jodphenyl]akrylsäure. Zers. bei 255° (B. 16, 2037). — II, 1413.
- C₉H₇O₂F** 1) β -[2-Fluorphenyl]akrylsäure (B. 18, 961). — II, 1410.
- C₉H₇O₂N** C 61,0 — H 3,9 — O 27,1 — N 7,9 — M. G. 177.
 1) ?-Nitro-1-Keto-2,3-Dihydroinden. Sm. 77—78° (Soc. 65, 495). — III, 160.
 2) 5-Nitro-2-Keto-2,3-Dihydroinden. Sm. 141—141,5° (B. 32, 33).
 3) 2,4-Diketo-3-Phenyltetrahydrooxazol. Sm. 121° (Bl. [3] 19, 784).
 4) 5-Keto-3-Methyl-4-[2-Furanoyl]-4,5-Dihydroisoxazol. Sm. 112 bis 113° (B. 30, 1340).
 5) 1-Keto-2-Acetyl-1,2-Dihydrobenzoxazol. Sm. 95° (B. 16, 1828; 19, 2269). — II, 707.
 6) Methyläther d. 1-Oxy-2,3-Diketo-2,3-Dihydroindol. Sm. 110° (B. 29, 658).
 7) 2,3,4-Trioxychinolin. Sm. noch nicht bei 310° (B. 16, 2218; 24, 2030). — IV, 289.
 8) 2,8,?-Trioxychinolin. Sm. 310° u. Zers. HCl + 2H₂O (M. 16, 768). — IV, 289.
 9) Piperonalhydrocyanid (B. 14, 793). — III, 102.
 10) 1-Oxyindol-2-Carbonsäure. Sm. 159,5° u. Zers. (B. 29, 646; 30, 1045). — IV, 236.

- C₉H₇O₃N**
- 11) 3-Oxyindol-2-Carbonsäure. subl. bei 122—123° u. Zers. (B. 14, 1743; 17, 976; J. r. 13, 559). — II, 1440.
 - 12) 2-Keto-2,3-Dihydroindol-6-Carbonsäure. Sm. 313°. NH₃ + 2H₂O, Ba + 3 $\frac{1}{2}$ H₂O (G. 22 [2] 392). — II, 1845.
 - 13) m-Homolsatosäure. Sm. 226° u. Zers. (B. 22, 1676). — II, 1352.
 - 14) 1-Methyl-4-Anthranil-3-Carbonsäure (Methylisatosäure). Sm. oberh. 300° u. Zers. (J. pr. [2] 33, 58). — II, 1338.
 - 15) Aldehyd d. β -[2-Nitrophenyl]akrylsäure. Sm. 127° (B. 16, 2207; 18, 2336). — III, 59.
 - 16) Aldehyd d. β -[3-Nitrophenyl]akrylsäure. Sm. 116° (B. 18, 484, 720). — III, 59.
 - 17) Aldehyd d. β -[4-Nitrophenyl]akrylsäure. Sm. 141—142° (B. 18, 372, 2336). — III, 59.
 - 18) Methylenmonamid d. Benzol-1,2-Dicarbonsäure (Methylenphtalamidsäure). Sm. 144°. Ag (B. 26, 957). — II, 1797.
 - 19) Oxymethylimid d. Benzol-1,2-Dicarbonsäure. Sm. 139—140°; Zers. bei 184°. HJ (B. 31, 1231, 3232).
 - 20) Verbindung (aus 2-Phenylhydrazonmethylphenoxylessigsäure). Sm. 108° (B. 17, 3005). — IV, 760.
- C₉H₇O₃N₂**
- C 52,7 — H 3,4 — O 23,4 — N 20,5 — M. G. 205.
- 1) 4[oder 5]-Nitro-3-Keto-1-Phenyl-2,3-Dihydropyrazol. Sm. 190 bis 192° (B. 29, 520). — IV, 499.
 - 2) 4-Oximido-3-Oxy-5-Keto-1-Phenyl-4,5-Dihydropyrazol. Sm. 182° (B. 25, 1511). — IV, 702.
 - 3) 1-Nitro-2-Keto-4-Phenyl-2,3-Dihydroimidazol? Sm. 203—207° u. Zers. (B. 28, 256). — IV, 916.
 - 4) 5-Methyl-3-[3-Nitrophenyl]-1,2,4-Oxdiazol. Sm. 109° (B. 18, 1066). — II, 1235.
 - 5) 5-Methyl-3-[4-Nitrophenyl]-1,2,4-Oxdiazol. Sm. 144° (B. 22, 2420). — II, 1237.
 - 6) 6-Nitro-2-Acetylindol. Sm. 139—140° (B. 23, 3639). — IV, 867.
 - 7) 6-Nitro-4-Oxy-2-Methyl-1,3-Benzdiazin. Sm. oberh. 280° u. Zers. Ag (J. pr. [2] 42, 347; [2] 43, 473). — II, 1283; IV, 901.
 - 8) 8-Nitro-4-Keto-2-Methyl-3,4-Dihydro-1,3-Benzdiazin. Sm. 264° u. Zers. Ag (J. pr. [2] 43, 441). — II, 1281.
 - 9) 1,2,3-Trioximido-2,3-Dihydroinden. Sm. 197° u. Zers. (A. 252, 75). — III, 275.
 - 10) Phenylisocyanursäure. Sm. 285—289°. Ag (B. 20, 1070; 21, 868). — II, 375.
 - 11) isom. p-Phenylisocyanursäure. Sm. oberh. 240°. Ba + 3H₂O, Ag, Ag₂ (M. 11, 8). — II, 375.
 - 12) 3-Oxy-1-Phenyl-1,2,4-Triazol-5-Carbonsäure (C. 1897 [1] 648; Soc. 71, 312). — IV, 1113.
 - 13) 5-Keto-1-Phenyl-4,5-Dihydro-1,2,4-Triazol-3-Carbonsäure. Sm. 174—180° u. Zers. Ag₂. — IV, 1114.
 - 14) 1-Acetyl-1,2,3-Benzotriazol-5-Carbonsäure. Sm. 232° u. Zers. (A. 291, 340). — IV, 1154.
 - 15) 2-Nitrosoindazol-3-Methylcarbonsäure. Zers. bei 96° (A. 227, 328). — IV, 891.
- C₉H₇O₃Cl**
- 1) 2-[Chloracetyl]benzol-1-Carbonsäure. Sm. 118—119° (A. 255, 378, 389). — II, 1648.
 - 2) β -Chlor- α -[2-Furanyl]- $\alpha\gamma$ -Butadien- δ -Carbonsäure. Sm. 168°. Cu (B. 21, 427). — III, 712.
- C₉H₇O₃Br**
- 1) α -Oxy- β -Bromakrylphenyläthersäure. Sm. 138°. K, Ca + 5H₂O, Ba + 5H₂O, Ag (Am. 6, 190). — II, 665.
 - 2) Verbindung (aus polym. Bromakrolein). Sm. 140° (Bl. 36, 137). — I, 959.
- C₉H₇O₃Br₂**
- 1) $\alpha\beta$ -Dibrom- β -[p-Brom-4-Oxyphenyl]propionsäure. Sm. 188° (B. 20, 2534). — II, 1565.
- C₉H₇O₃J**
- C₉H₇O₄N**
- 1) β -[p-Jod-2-Oxyphenyl]akrylsäure. Sm. 200° u. Zers. (J. pr. [2] 58, 139). C 56,0 — H 3,6 — O 33,2 — N 7,2 — M. G. 193.
 - 1) Nitrohomococacasäure. Sm. 226° (A. 271, 199). — II, 1404.
 - 2) β -[2-Nitrophenyl]akrylsäure. Sm. 240° (237°). Ca + 2H₂O, Ba + 4H₂O (A. 163, 129; 212, 122, 151; 221, 265; B. 13, 2059, 2257; 14, 830; 31, 2609; J. 1877, 788; Soc. 67, 231). — II, 1413.

- $C_9H_7O_4N$ 3) β -[3-Nitrophenyl]akrylsäure. Sm. 196—197°. Ag (B. 11, 1782; 13, 2060; 31, 2610; Ph. Ch. 1, 101). — II, 1414.
- 4) β -[4-Nitrophenyl]akrylsäure. Sm. 285—286°. K, Mg + 6H₂O, Ca + 2H₂O, Sr + 5H₂O, Ba + 3H₂O, Hg, 2Hg + HgCl₂ + H₂O, Ag (A. 163, 127; 212, 150; B. 13, 2059; 14, 2576; 31, 2612; J. 1861, 419; C. r. 53, 634; J. pr. [1] 22, 192; Ph. Ch. 1, 101; Soc. 67, 230). — II, 1414.
- 5) α -[2-Amidophenyl]- $\alpha\beta$ -Diketoäthan- β -Carbonsäure (Chinisatinsäure) (B. 16, 2219). — II, 1861.
- 6) Phenylimidoessigsäure-2-Carbonsäure. Sm. oberh. 260° (C. 1895 [2] 84).
- 7) Phenylimidoessigsäure-3-Carbonsäure (C. 1895 [2] 84).
- 8) Phenylimidoessigsäure-4-Carbonsäure (C. 1895 [2] 84).
- 9) Lakton d. β -Oxy- β -[2-Nitrophenyl]propionsäure. Sm. 124° u. Zers. (B. 16, 2209). — II, 1573.
- 10) Lakton d. β -Oxy- β -[3-Nitrophenyl]propionsäure. Sm. 98° (B. 17, 597). — II, 1574.
- 11) Lakton d. β -Oxy- β -[4-Nitrophenyl]propionsäure. Sm. 91,9° (B. 16, 3004). — II, 1574.
- 12) Lakton d. 4-Nitro-1-[α -Oxyäthyl]benzol-2-Carbonsäure (Methyl-m-Nitrophtalid). Sm. 104° (B. 29, 2542).
- 13) Aldehyd d. β -[3-Nitro-2-Oxyphenyl]akrylsäure. Sm. 133° (B. 20, 1933). — III, 94.
- 14) Aldehyd d. β -[5-Nitro-2-Oxyphenyl]akrylsäure. Sm. 200° u. Zers. (B. 20, 1932). — III, 94.
- 15) Verbindung (aus NH₃ u. Phtalonsäure). Sm. 90—100° u. Zers. (B. 31, 372). C 48,9 — H 3,2 — O 28,9 — N 19,0 — M. G. 221.
- $C_9H_7O_4N_2$ 1) 5-Keto-2-Methyl-4-[4-Nitrophenyl]-4,5-Dihydro-1,3,4-Oxdiazol. Sm. 124° (B. 26, 1316). — IV, 672.
- 2) ?-Dinitro-2-Methylindol (G. 19, 260). — IV, 220.
- 3) ?-Nitro-2,4-Diketo-7-Methyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 326° u. Zers. (J. pr. [2] 51, 512). C 43,4 — H 2,8 — O 25,7 — N 28,1 — M. G. 249.
- $C_9H_7O_4N_3$ 1) ?-Nitro-3-Semicarbazon-2-Oxypseudoindol (B. 29, 1034).
- $C_9H_7O_4Cl$ 1) 3-Chlorbenzoyloxyessigsäure. (A. 122, 164). — II, 1218.
- 2) Gem. Anhydrid d. Essigsäure u. 5-Chlor-2-Oxybenzol-1-Carbonsäure. Sm. 149° (B. 11, 1227). — II, 1504.
- $C_9H_7O_4Cl_2$ 1) ?-Pentachlor-2-Acetoxy-1-Methyl-?-Dihydro-R-Penten-2-Carbonsäure. Sm. 160° u. Zers. (A. 296, 188).
- 2) Pentachlor-3-Acetoxy-1-Methyl-?-Dihydro-R-Penten-3-Carbonsäure. Sm. 161° (A. 296, 166).
- $C_9H_7O_4Br$ 1) ?-Brom-3,4-Dioxyphenylessig-3,4-Methylenäthersäure (Bromhomopiperonylsäure). Sm. 190—191° (G. 25 [2] 206).
- 2) 2-Aldehyd d. Oxyessig-?-Bromphenyläthersäure-2-Carbonsäure. Sm. 163° (B. 17, 2992). — III, 68.
- 3) 3-Aldehyd d. Oxyessig-?-Bromphenyläthersäure-3-Carbonsäure. Sm. 154° (B. 19, 3043). — III, 79.
- 4) 4-Aldehyd d. Oxyessig-?-Bromphenyläthersäure-4-Carbonsäure. Sm. 185° (B. 19, 3042). — III, 83.
- $C_9H_7O_4J$ 1) 5-Jod-1-Methylbenzol-3,4-Dicarbonsäure? Sm. 298°. Ba + 6H₂O (Am. 20, 804).
- 2) 2-Acetyljodosobenzol-1-Carbonsäure. Sm. 166—167° (B. 26, 1364). — II, 1227.
- 3) Monomethylester d. 2-Jodbenzol-1,4-Dicarbonsäure. Sm. 286° (B. 26, 2952). — II, 1838.
- $C_9H_7O_5N$ C 51,7 — H 3,3 — O 38,3 — N 6,7 — M. G. 209.
- 1) Aeskorcein (Z. 1867, 531). — III, 569.
- 2) 2-Oxalylamidobenzol-1-Carbonsäure + H₂O (Benzol-1-Carbonsäure-2-Amidoketocarbonsäure). Sm. 188—189° u. Zers. (wasserfrei). NH₄, K + $\frac{1}{2}$ H₂O, Ca + $2\frac{1}{2}$ H₂O, Ba + H₂O, (2Cu + CuO + 4H₂O), Ag₂ (M. 4, 157; 5, 21, 30; B. 15, 332; 16, 734; 19, 2767). — II, 1252.
- 3) 3-Oxalylamidobenzol-1-Carbonsäure (Benzol-1-Carbonsäure-3-Amidoketocarbonsäure). Ba + 2H₂O (B. 18, 2412; A. 232, 142). — II, 1264.
- 4) β -[3-Nitro-2-Oxyphenyl]akrylsäure (3-Nitro-2-Cumarsäure). Sm. 150°. Na₂, Ba + $3\frac{1}{2}$ H₂O, Ag₂ (B. 22, 1706). — II, 1631.

- C₉H₇O₅N**
- 5) isom. β -[3-Nitro-2-Oxyphenyl]akrylsäure. Sm. 241—241° u. Zers. (B. 22, 1710). — II, 1632.
 - 6) β -[2-Nitro-3-Oxyphenyl]akrylsäure. Sm. 218° (B. 22, 293). — II, 1634.
 - 7) β -[4-Nitro-3-Oxyphenyl]akrylsäure. Sm. 248° (B. 22, 296). — II, 1634.
 - 8) β -[5-Nitro-3-Oxyphenyl]akrylsäure. Zn (B. 22, 293). — II, 1634.
 - 9) β -[6-Nitro-3-Oxyphenyl]akrylsäure (B. 22, 292). — II, 1635.
 - 10) β -[3-Nitro-4-Oxyphenyl]akrylsäure. Sm. 198°. K₂ (A. 243, 374). — II, 1636.
 - 11) α -[2-Nitrophenyl]äthanoxyd- β -Carbonsäure + H₂O (2-Nitrophenylglycidsäure). Sm. 124,5—125° (94° wasserhaltig). NH₄ + H₂O, Ba + H₂O, Ag (B. 13, 2262; 17, 219; 19, 2649; A. 284, 135). — II, 1639.
 - 12) α -[4-Nitrophenyl]äthanoxyd- β -Carbonsäure. Sm. 186—188° u. Zers. (B. 14, 1868; 19, 2644). — II, 1639.
 - 13) 4-Nitrobenzoylessigsäure. Sm. 135° u. Zers. (Soc. 49, 443). — II, 1645.
 - 14) α -Keto- β -[2-Nitrophenyl]äthan- α -Carbonsäure. Sm. 121° (B. 30, 1036).
 - 15) α -Keto- β -[4-Nitrophenyl]äthan- α -Carbonsäure. Sm. 194°. + C₂H₄O₂, Ca (B. 30, 1047).
 - 16) α -Oximido- α -[3,4-Dioxyphenylmethylenäther]essigsäure. Sm. 150 bis 151° (O. 21 [2] 179). — II, 1946.
 - 17) Essig-[3-Nitrobenzol-1-Carbonsäure]anhydrid. Sm. 45° (B. 10, 863; Am. 11, 415). — II, 1233.
 - 18) 1,6-Anhydro-6-Amido-3,4-Dioxybenzol-4-Methyläther-1,2-Dicarbonsäure. Sm. 174—175° u. Zers. (B. 19, 2307). — II, 1997.
 - 19) Lakton d. $\alpha\beta$ -Dioxy- β -[2-Pyridyl]propionsäure-3-Carbonsäure. Zers. bei 210°. Ca, Ag (B. 26, 1507). — IV, 175.
 - 20) Aldehyd d. 3-Nitro-2-Acetoxybenzol-1-Carbonsäure. Sm. 110° (B. 20, 2110). — III, 70.
 - 21) Aldehyd d. 5-Nitro-2-Acetoxybenzol-1-Carbonsäure. Sm. 112° (B. 20, 2110). — III, 70.
- C₉H₇O₅Cl**
- 1) 1-Aldehyd d. p-Chlor-3,4-Dioxybenzolmonomethyläther-1,2-Dicarbonsäure (Chloruoropianmethyläthersäure). Sm. 206° (J. pr. [2] 24, 370). — II, 1943.
- C₉H₇O₅J**
- 1) Monomethylester d. 2-Jodosobenzol-1,4-Dicarbonsäure (B. 26, 2954). — II, 1838.
- C₉H₇O₆N**
- C 48,0 — H 3,1 — O 42,7 — N 6,2 — M. G. 225.
- 1) Acetyl-3-Nitrobenzoylsuperoxyd. Sm. 68° (A. 298, 286).
 - 2) p-Nitro-3,4-Dioxyphenylessigmethylenäthersäure. Sm. 188° (B. 24, 2884). — II, 1749.
 - 3) p-Nitro-1-Methylbenzol-3,5-Dicarbonsäure + 2H₂O. Sm. 226—227°. K₂ + H₂O, Ca + 3H₂O, Ba + H₂O (A. 189, 171). — II, 1847.
 - 4) isom. p-Nitro-1-Methylbenzol-3,5-Dicarbonsäure + $\frac{1}{2}$ H₂O. Sm. 249 bis 250° (A. 189, 180). — II, 1847.
 - 5) 4-Nitrobenzol-1-Carbonsäure-2-Methylcarbonsäure. Sm. 184,5° (B. 32, 34).
 - 6) 3-Nitrobenzol-1-Carbonsäure-4-Methylcarbonsäure. Sm. 222—223° (G. 22 [2] 389). — II, 1844.
 - 7) 2-Methylpyridin-3,5,6-Tricarbonsäure + H₂O. Sm. 226° u. Zers. K + 6H₂O, Ag + 2H₂O (A. 241, 6; Ph. Ch. 2, 903; 3, 393). — IV, 180.
 - 8) 4-Methylpyridin-2,5,6-Tricarbonsäure + 2H₂O. Sm. 238°. Cu₂, Ba₃, Pb₃, Ag₃ (B. 16, 71; 17, 2926; 24, 1913; A. 225, 140). — IV, 180.
 - 9) 4-Methylpyridin-3,5,6-Tricarbonsäure + 1—2H₂O. Zers. bei 258 bis 260° (A. 241, 25; Ph. Ch. 3, 393). — IV, 180.
 - 10) Methylpyridintricarbonsäure. Zers. bei 210—220°. Cu₂ + 5H₂O (B. 24, 1919). — IV, 181.
 - 11) isom. Methylpyridintricarbonsäure. Sm. 208°. Pb₃, Ag₃ (Soc. 71, 665).
- C₉H₇O₆N₅**
- C 38,4 — H 2,5 — O 34,2 — N 24,9 — M. G. 281.
- 1) m-Kresylpurpursäure. NH₄, K, Ca, Ba (Z. 1870, 657). — II, 747.
- C₉H₇O₆Cl**
- 1) Monäthylester d. Chlormekensäure. Sm. 148° (J. pr. [2] 32, 138). — II, 1993.
- C₉H₇O₆Br**
- 1) 3[p]-Bromacetoxy-4,5-Dioxybenzol-1-Carbonsäure (B. 3, 644). — II, 1922.

- $C_9H_7O_2N$ C 44,8 — H 2,9 — O 46,5 — N 5,8 — M. G. 241.
 1) 1-Aldehyd d. 6-Nitro-3,4-Dioxybenzol-4-Methyläther-1,2-Dicarbonsäure + H_2O (Nitronoropiamethyläthersäure). Sm. 203° wasserfrei (*J. pr.* [2] 24, 353; *B.* 19, 2307). — II, 1943.
- $C_9H_7O_2N_3$ C 40,1 — H 2,6 — O 41,6 — N 15,6 — M. G. 269.
 1) β -Keto- α -[2,4,6-Trinitrophenyl]propan. Sm. 89° (*B.* 23, 2723). — III, 144.
 2) 3,5-Dinitro-4-Acetylamidobenzol-1-Carbonsäure. Sm. 270° u. Zers (*B.* 10, 1696). — II, 1287.
- $C_9H_7O_2N$ C 42,0 — H 2,7 — O 49,8 — N 5,5 — M. G. 257.
 1) 6-Nitro-3,4-Dioxybenzol-4-Methyläther-1,2-Dicarbonsäure. Sm. 220°. K, Ba (*B.* 19, 2311). — II, 1997.
- $C_9H_7O_2N_3$ C 37,9 — H 2,5 — O 44,9 — N 14,7 — M. G. 285.
 1) Aethylester d. 2,4,6-Trinitrobenzol-1-Carbonsäure. Sm. 155° (*Soc.* 67, 660).
- $C_9H_7NCl_2$ 1) 2,3-Dichlor-1-Methylindol. Sm. 58–59° (*B.* 15, 786). — IV, 218.
 $C_9H_7NBr_2$ 1) Chinolindibromid. Sm. 92–100°. HBr (*J. r.* 18, 434; *Bl.* 38, 124). — IV, 248.
 2) Isochinolindibromid. Sm. 82°. HBr (*J. pr.* [2] 43, 191). — IV, 300.
 3) Nitril d. $\alpha\beta$ -Dibrom- β -Phenylpropionsäure. Fl. (*A. ch.* [6] 29, 468). — II, 1359.
- $C_9H_7NBr_4$ 1) 2-Tetrabrom-2-Methyl-2,3-Dihydroindol. Sm. 195° (*A.* 272, 208). — IV, 220.
 2) Chinolintetrabromid (*Bl.* 38, 124). — IV, 248.
- $C_9H_7NJ_2$ 1) Chinolindijodid. Sm. 90°. HJ (*B.* 15, 824; *M.* 4, 509). — IV, 249.
 $C_9H_7NJ_4$ 1) 2-Jodisochinolintetrajodid. Sm. 130° (*J. pr.* [2] 51, 205). — IV, 301.
 C_9H_7NS 1) 2-Phenylthiazol. Sd. 267–269°₁₃₃. HCl + H_2O , (2HCl, PtCl₄ + 2H₂O), Pikrat (*A.* 259, 234). — IV, 306.
 2) 4-Phenylthiazol. Sm. 52°; Sd. 273°. (2HCl, PtCl₄ + 2H₂O), Pikrat (*A.* 250, 279). — IV, 306.
 3) 2-Merkaptochinolin. Sm. 174° (*B.* 21, 620). — IV, 291.
- $C_9H_7NS_2$ 1) 2-Merkapto-4-Phenylthiazol. Sm. 168° (*G.* 23 [1] 580). — IV, 307.
 $C_9H_7N_2Cl$ 1) 4-Chlor-1-Phenylpyrazol. Sm. 75–75,5° (*G.* 23 [1] 285). — IV, 497.
 2) 6-Chlor-5-Amidochinolin + H_2O . Sm. 115–119° (132–136° wasserfrei). HCl, (2HCl, PtCl₄ + 2H₂O) (*J. pr.* [2] 49, 363). — IV, 910.
 3) 8-Chlor-5-Amidochinolin. Sm. 152°. (2HCl, PtCl₄ + 2H₂O) (*J. pr.* [2] 48, 146). — IV, 910.
 4) 5-Chlor-8-Amidochinolin. Sm. 69°. HCl, (2HCl, PtCl₄) (*J. pr.* [2] 48, 258). — IV, 913.
 5) 6-Chlor-8-Amidochinolin. Sm. 73°. HCl, 2HCl, (2HCl, PtCl₄) (*J. pr.* [2] 49, 368). — IV, 914.
 6) 7-Chlor-8-Amidochinolin. Sm. 114°. HCl, (2HCl, PtCl₄) (*J. pr.* [2] 48, 277). — IV, 914.
 7) 3-Chlor-6-Methyl-1,4-Benzdiazin. Sm. 77° (*B.* 20, 29). — IV, 902.
 8) 4-Chlor-1-Methyl-2,3-Benzdiazin. Sm. 130°. (2HCl, PtCl₄), (HCl, AuCl₃), Ferrocyanat, Pikrat (*B.* 26, 709; 30, 3025). — IV, 904.
- $C_9H_7N_2Cl_3$ 1) 5,6,7-Trichlor-2,4-Dimethylbenzimidazol. Sm. 300–310° (*A.* 237, 145). — IV, 600.
 2) 4,6,7-Trichlor-2,5-Dimethylbenzimidazol. Sm. 304–306°. HCl, (2HCl, PtCl₄), Ag (*A.* 273, 296). — IV, 881.
- $C_9H_7N_2Br$ 1) 4-Brom-1-Phenylpyrazol. Sm. 81°; Sd. 293–296° u. Zers. (2HCl, PtCl₄ + 1½ H₂O) (*G.* 19, 128; *B.* 23, 1452). — IV, 497.
 2) 2-Brom-5-Phenylpyrazol. Sm. 116–117° (*B.* 28, 698). — IV, 906.
 3) 7-Brom-2-Amidochinolin. Sm. 62° (*J. pr.* [2] 38, 391). — IV, 909.
 4) 3-Brom-4-Amidochinolin. Sm. 203° (199°) (*J. pr.* [2] 50, 237; *M.* 15, 457). — IV, 909.
 5) 6-Brom-5-Amidochinolin + H_2O . Sm. 164° (wasserfrei). (2HCl, PtCl₄), HNO₃ (*B.* 15, 1920). — IV, 910.
 6) 8-Brom-5-Amidochinolin. Sm. 136°. (2HCl, PtCl₄) (*J. pr.* [2] 39, 311; [2] 48, 154; [2] 53, 411). — IV, 911.
 7) 3-Brom-6-Amidochinolin. Sm. 106° (*J. pr.* [2] 53, 112). — IV, 912.
 8) 7-Brom-6-Amidochinolin. Sm. 67° (*J. pr.* [2] 53, 120). — IV, 912.
 9) 4-Brom-8-Amidochinolin. Sm. 107° (*J. pr.* [2] 48, 158). — IV, 914.

- $C_6H_7N_2Br$ 10) 5-Brom-8-Amidochinolin. Sm. 104°. (2HCl, PtCl₄) (*J. pr.* [2] 40, 386; [2] 48, 269; [2] 53, 405). — IV, 914.
 11) 6-Brom-8-Amidochinolin. Sm. 76–77°. HCl + 2H₂O, (2HCl, PtCl₄) (*J. pr.* [2] 49, 529). — IV, 914.
 12) 7-Brom-8-Amidochinolin. Sm. 62°. (2HCl, PtCl₄) (*J. pr.* [2] 40, 383). — IV, 914.
 13) 8-Brom-5 oder 8-Amidoisochinolin. Sm. 136°. (2HCl, PtCl₄ + 2 $\frac{1}{2}$ H₂O) (*J. pr.* [2] 43, 198). — IV, 915.
- $C_6H_7N_2J$ 1) 8-Jod-1-Phenylpyrazol. Sm. 76,5°. — IV, 497.
 2) 3-Jod-4-Amidochinolin + H₂O. Sm. 197° (wasserfrei) (*J. pr.* [2] 56, 192). — IV, 909.
 3) 4-Jod-1-Methyl-2,3-Benzdiazin. Sm. 116°. (2HCl, PtCl₄) (*B.* 30, 3026). — IV, 904.
- $C_6H_7N_2P$ 1) 4-Methylphenyldicyanphosphin. Sd. 145°₉₀ (*A.* 293, 261). — IV, 1667.
 $C_6H_7N_2Cl_2$ 1) 5-Chlor-3-Methyl-1-[2-Chlorphenyl]-1,2,4-Triazol. Sm. 95° (*C.* 1897 [1] 594). — IV, 1104.
- $C_6H_7N_2Cl_2$ 1) Phenylhydrazinocyanchlorid (*B.* 19, 2059). — IV, 743.
 C_6H_7ON 1) Verbindung (aus 2-Oxychinolin). = (C₆H₅ON)_x (*B.* 20, 2012). — IV, 268.
 $C_6H_7ON_2$ C 67,5 — H 5,0 — O 10,0 — N 17,5 — M. G. 160.
 1) Di[1-Pyrryl]keton (Carbonylpyrrol; Ditetrolharnstoff). Sm. 62–63°; Sd. 238° (*B.* 18, 415). — IV, 68.
 2) Dipyrrylketon (Pyrrol). Sm. 160°. Ag₂ (*B.* 18, 419, 1829). — IV, 100.
 3) 1-[2-Pyrroyl]pyrroyl. Sm. 62–63° (*B.* 18, 1831). — IV, 100.
 4) 3-Keto-1-Phenyl-2,3-Dihydropyrazol. Sm. 153° (155°). HCl (*B.* 27, 407, 947; 28, 35, 623; 29, 519; *A.* 239, 201; *J. pr.* [2] 51, 159). — IV, 499.
 5) 5-Keto-1-Phenyl-4,5-Dihydropyrazol. Sm. 118°. HCl (*B.* 27, 407, 947, 1091; 28, 38, 41, 623; *Soc.* 61, 799). — IV, 499.
 6) 5-Keto-3-Phenyl-4,5-Dihydropyrazol. Sm. 236° u. Zers. HCl, NH₄, Na, Ca, Ag (*J. pr.* [2] 50, 227, 515; [2] 51, 61; [2] 52, 23; *B.* 27, 783, 791; 28, 623). — IV, 905.
 7) 2-Keto-4-Phenyl-2,3-Dihydroimidazol. Sm. bei 300° u. Zers. (*B.* 27, 582; 28, 254). — IV, 915.
 8) 5-Methyl-3-[2-Pyridyl]isoxazol? Sm. 37,5° (*M.* 17, 454). — IV, 185.
 9) 3-Methyl-5-[2-Pyridyl]isoxazol? Sm. 48° (*M.* 17, 452). — IV, 185.
 10) 5-Imido-3-Phenyl-4,5-Dihydroisoxazol. Sm. 111° (*J. pr.* [2] 47, 123; *A.* 266, 329). — II, 1645.
 11) 3-Methyl-5-Phenyl-1,2,4-Oxiazol. Sm. 57°; subl. bei 70–80° (*B.* 17, 2754; 27 [2] 261). — II, 1201.
 12) 5-Methyl-3-Phenyl-1,2,4-Oxiazol. Sm. 41°; Sd. 244° (*B.* 17, 1696; 18, 1083; 22, 2413; 27 [2] 261). — II, 1201.
 13) 3-Imido-2-Keto-5-Methyl-2,3-Dihydroindol (p-Methylmesatin) (*B.* 16, 2264). — II, 1652.
 14) 1-Acetylisoindazol (*B.* 29, 1261). — IV, 868.
 15) 8-Amido-5-Oxychinolin. H₂SO₄ (*B.* 27, 1940). — IV, 915.
 16) 5-Amido-6-Oxychinolin. Sm. 185°. H₂SO₄ (*A.* 290, 364; *B.* 21, 1645, 1887, 2255). — IV, 911.
 17) 8-Amido-6-Oxychinolin + 2H₂O. Sm. 185° wasserfrei (*B.* 21, 1645, 1887, 2255). — IV, 915.
 18) 5-Amido-8-Oxychinolin. Sm. 143°. 2HCl, H₂SO₄ + 2H₂O (*B.* 17, 1643; 24, 1155; 27, 1939; *M.* 10, 796). — IV, 911.
 19) 5-Amido-2-Keto-1,2-Dihydrochinolin (Amidocarbostryl). Sm. 250° (*J. pr.* [2] 53, 396). — IV, 911.
 20) 1-Amido-2-Keto-1,2-Dihydrochinolin. Sm. 127° (*A.* 221, 278). — II, 1421.
 21) 6-Amido-2-Keto-1,2-Dihydrochinolin. Sm. noch nicht bei 320°. HCl (*A.* 29, 246). — IV, 911.
 22) 3-Imido-1-Keto-1,2,3,4-Tetrahydroisochinolin? HCl + H₂O, Pikrat (*B.* 27, 837). — II, 1843.
 23) 4-Oxy-2-Methyl-1,3-Benzdiazin. Sm. 232–233°; Sd. oberh. 360°. HCl (2HCl, PtCl₄), HNO₃, H₂Cr₂O₇, + CrO₃ (*J. pr.* [2] 31, 125; [2] 36, 143; [2] 51, 567; *B.* 26, 1350; 27 [2] 516; 28, 282; 29, 1359). — IV, 901.
 24) 3-Oxy-2-Methyl-1,4-Benzdiazin. Sm. 245° (*A.* 292, 249). — IV, 903.
 25) 2-Oxy-6-Methyl-1,4-Benzdiazin. Sm. 241° (*A.* 237, 357). — IV, 902.

- C₉H₇ON,** 26) 3-Oxy-6-Methyl-1,4-Benzdiazin. Sm. 266–267° (B. 18, 2872; 19, 484; A. 248, 75). — IV, 902.
 27) Methyläther d. 6-Oxy-1,4-Benzdiazin. Sm. 58° (J. 1887, 2576). — IV, 952.
 28) Methyläther d. 1-Oxy-2,3-Benzdiazin. Sm. 60–61° (B. 26, 525; J. pr. [2] 51, 148). — IV, 900.
 29) 4-Keto-3-Methyl-3,4-Dihydro-1,3-Benzdiazin. Sm. 71°. (2 HCl, PtCl₄) (J. pr. [2] 43, 216). — IV, 896.
 30) 4-Keto-7-Methyl-3,4-Dihydro-1,3-Benzdiazin. Sm. 237–238° (J. pr. [2] 40, 12; [2] 51, 566; B. 27 [2] 516). — II, 1352.
 31) 1-Keto-2-Methyl-1,2-Dihydro-2,3-Benzdiazin (Methylphtalazon). Sm. 114° (111–112°); Sd. 301° (B. 26, 524, 708; 28, 1832; J. pr. [2] 51, 148). — II, 1626.
 32) 1-Keto-4-Methyl-1,2-Dihydro-2,3-Benzdiazin (Methylphtalazon). Sm. 222°; Sd. 347–348° (B. 26, 705; 30, 3029). — II, 1647.
 33) Inn. Anhydrid d. 2-Amidobenzoylamidoessigsäurealdehyd. Zers. oberh. 300° (B. 27, 3095). — II, 1247.
 34) Amid d. 4-Cyanphenylessigsäure. Sm. 196,5° (B. 22, 3210). — II, 1317.
 35) Amid d. 1-Cyanmethylbenzol-4-Carbonsäure. Sm. 182° (B. 22, 3211). — II, 1347.
 36) Phenylamid d. Cyanessigsäure. Sm. 199° (C. 1895 [2] 442). — II, 363.
 37) Nitril d. 2-Acetylamidobenzol-1-Carbonsäure. Sm. 133° (B. 29, 631; M. 19, 636).
 38) 1-Nitril d. Benzol-1-Carbonsäure-4-Methylcarbonsäureamid. Sm. 196° (B. 22, 2983). — II, 1844.
 39) Nitril d. β-Oxamido-α-Phenylakrylsäure. Sd. 98° (J. pr. [2] 55, 342).
 40) Verbindung (aus Acetallylphenylharnstoff). Sm. oberh. 280° (B. 26, 427). — II, 377.
 41) Verbindung (aus d. Verb. C₈H₅O₂N₂). Sm. 62–63° (B. 26, 2216). — IV, 852.

C₉H₇ON,

- C 57,4 — H 4,3 — O 8,5 — N 29,8 — M. G. 188.
 1) Phenylharnstoffcyanid. — II, 449.
 2) Dicyanbenzenylamidoxim. Sm. 116° u. Zers. (B. 23, 1462). — II, 1205.
 3) 4-Phenylhydrazon-5-Keto-4,5-Dihydropyrazol. Sm. 196° (185°) (J. pr. [2] 51, 47; B. 29, 257). — IV, 1488.
 4) 5-Benzoylamido-1,2,4-Triazol (A. 303, 47).
 5) 3-Oximidomethyl-1-Phenyl-1,2,5-Triazol. Sm. 115° (B. 21, 2992; A. 262, 294). — IV, 1118.
 6) Nitril d. β-Oximido-α-Phenylhydrazonpropionsäure (Glyoxylecyanid-phenylhydrazoxim). Sm. 240° u. Zers. (B. 21, 3001). — IV, 756.
 7) Nitril d. Formylamidophenylhydrazonessigsäure. Sm. 192,5–193,5° (B. 18, 1549). — IV, 742.
 8) Amid d. Phenylhydrazoncyanessigsäure. Sm. 245° (J. pr. [2] 49, 328). — IV, 1454.
 9) Amid d. 1-Phenyl-1,2,4-Triazol-3-Carbonsäure + 1½ H₂O. Sm. 194° (B. 23, 1815). — IV, 1113.
 10) Amid d. 1-Phenyl-1,2,5-Triazol-3-Carbonsäure. Sm. 143,5° (A. 262, 293). — IV, 1112.
 11) Verbindung (aus Diäsonitrosoacetonacetat) (B. 21, 2992).
 12) Verbindung (aus Mesoxalsäurenitrilphenylhydrazon). Sm. 244–245° (B. 21, 3001). — IV, 756.

C₉H₅OCl₂

- 1) αβ-Dichlorallylphenyläther. Sd. 115–117°₂₅ (Am. 9, 212). — II, 654.
 2) Aldehyd d. αβ-Dichlor-β-Phenylpropionsäure (B. 24, 247). — III, 54.

C₉H₅OBr₂

- 1) Methyläther d. β-Brom-2-Oxy-1-[β]Bromäthenylbenzol. Fl. (Soc. 39, 418). — II, 849.
 2) α-Bromäthyl-4-Bromphenylketon. Sm. 84–84,5° (Bl. [3] 19, 830).
 3) Dibrommethyl-4-Methylphenylketon. Sm. 100° (97°) (B. 15, 186; J. pr. [2] 41, 401; Bl. [3] 17, 909). — III, 146.
 4) Aldehyd d. αβ-Dibrom-β-Phenylpropionsäure. Sm. bei 100° (B. 17, 1814). — III, 54.

C₉H₇OS

- 1) β-Phenylthiolakrylsäure. K (Z. 1868, 359). — II, 1421.

C₉H₅O₂N₂

C 61,3 — H 4,5 — O 18,2 — N 15,9 — M. G. 176.

- 1) 3-Oxy-5-Keto-1-Phenyl-4,5-Dihydropyrazol. Sm. 192°. + Phenylhydrazin (B. 24, 1801; 25, 1506; 30, 1018; 31, 3007). — IV, 702.

- $C_9H_8O_2N_2$
- 2) **2,4-Diketo-1-Phenyltetrahydroimidazol** (5-Phenylhydantoïn). Sm. 191 bis 192° (B. 10, 2048). — II, 383.
 - 3) **2,5-Diketo-1-Phenyltetrahydroimidazol** (2-Phenylhydantoïn). Sm. 154 bis 154,5°. — II, 383.
 - 4) **2,5-Keto-4-Phenyltetrahydroimidazol** (α -Phenylhydantoïn). Sm. 178° K (B. 20, 2355; 21, 2321). — II, 1325.
 - 5) **2-Imido-4-Keto-5-Phenyltetrahydrooxazol**. Zers. oberh. 300° (B. 21, 2324). — II, 1325.
 - 6) **5-Methyl-3-[2-Oxyphenyl]-1,2,4-Oxdiazol**. Sm. 77° (B. 22, 2781). — II, 1502.
 - 7) **5-Methyl-3-[3-Oxyphenyl]-1,2,4-Oxdiazol**. Sm. 117° (B. 24, 833). — II, 1518.
 - 8) **5-Methyl-3-[4-Oxyphenyl]-1,2,4-Oxdiazol**. Sm. 185° (B. 24, 838). — II, 1531.
 - 9) **5-Keto-3-[4-Methylphenyl]-4,5-Dihydro-1,2,4-Oxdiazol**. Sm. 220° (B. 22, 2436). — II, 1343.
 - 10) **5-Keto-2-Methyl-4-Phenyl-4,5-Dihydro-1,3,4-Oxdiazol** (Acetylphenylcarbizin). Sm. 93–94°; Sd. 280° (B. 21, 1244, 2459; 32, 10). — IV, 672.
 - 11) **6-Oxy-2-Furanyl-4-Methyl-1,3-Diazin**. Sm. 225° (B. 25, 1418). — IV, 916.
 - 12) **3-Keto-5-Phenyl-3,4-Dihydro-1,4,6-Oxdiazin** (Anhydrid d. Benzenylamidoximessigsäure). Sm. 148° (B. 22, 3162). — II, 1202.
 - 13) **1,3-Dioximido-2,3-Dihydroinden**. Zers. bei 225° (A. 252, 74). — III, 275.
 - 14) **2-[oder 3-]Oximido-3-[oder 2-]Keto-1-Methyl-2,3-Dihydroindol** (Methylpseudoisatinoxim). Sm. 180–183° (A. 248, 118). — II, 1603.
 - 15) **2-[oder 3-]Oximido-3-[oder 2-]Keto-5-Methyl-2,3-Dihydroindol**. Sm. 225–226° (B. 16, 2268). — II, 1651.
 - 16) **2,4-Diketo-1-Methyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin**. Sm. 147 bis 148° (J. pr. [2] 39, 149). — IV, 897.
 - 17) **2,4-Diketo-3-Methyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin**. Sm. 234° Na (J. pr. [2] 39, 147; B. 23, 2184). — IV, 897.
 - 18) **2,4-Diketo-7-Methyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin**. Sm. 317°; subl. (J. pr. [2] 40, 21; [2] 51, 510). — II, 1352.
 - 19) **2,3-Dioxy-6-Methyl-1,4-Benzdiazin** + $\frac{1}{2}H_2O$ (o-Toluylenoxamid). Sm. 346–347° u. Zers. Na, Ba, Ag, Acetat (B. 15, 2692; 18, 670; 24, 3032; 29, 2641; 30, 768; A. 237, 248). — IV, 903.
 - 20) **1,4-Diketo-2-Methyl-1,2,3,4-Tetrahydro-2,3-Benzdiazin** (Methylphtalhydrazid). Sm. 235° (J. pr. [2] 51, 382). — II, 1814.
 - 21) **Benzoylamidoacetylmethylcarbonimid?** (Hippenylcarbanil). Sm. 233° HCl (J. pr. [2] 52, 263, 270).
 - 22) **Indazol-3-Methylcarbonsäure** (Indazolessigsäure). Sm. 168–170°. Cu + 2H₂O (A. 227, 324). — IV, 891.
 - 23) **5-Methylindazol-3-Carbonsäure**. Sm. 285–286° (B. 26, 218). — IV, 890.
 - 24) **2-Methylbenzimidazol-5-Carbonsäure**. Sm. 301–302° u. Zers. (305°). HCl + H₂O, (2HCl, PtCl₄ + 2H₂O) (B. 18, 2944, 2948; A. 273, 324). — II, 1275; IV, 891.
 - 25) **5-Methylbenzimidazol-2-Carbonsäure** + $\frac{1}{2}H_2O$ (Glyoxyltoluylen-diamin). Zers. bei 160°. Ag (A. 237, 358; 273, 330). — IV, 615, 891.
 - 26) **4-Cyanamidophenylelessigsäure**. Sm. 134° u. Zers. Cu (B. 15, 2121). — II, 1322.
 - 27) **Benzylidenamid d. Oxalsäure** + $\frac{1}{2}H_2O$ (A. 157, 51). — III, 35.
 - 28) **4-Methyl-1,3-Phenylenamid d. Oxalsäure** (A. 268, 312). — IV, 605.
 - 29) **Phenylhydrazid d. Malonsäure**. Sm. 128° (B. 22, 2735). — IV, 702.
 - 30) **Nitril d. 6-Nitro-1,3-Dimethylbenzol-4-Carbonsäure**. Sm. 108 bis 109° (A. 271, 18). — II, 1377.
 - 31) **Nitril d. 1-[α -Oximidoäthyl]benzol-4-Carbonsäure**. Sm. 160° (B. 20, 2956). — II, 1650.
 - 32) **Nitril d. Phenylamidoformoxylessigsäure** (Glykolsäurenitrilphenylurethan). Sm. 74–75° (Bl. [3] 19, 774).
 - 33) **Verbindung** (3-Keto-1,3-Acetyldihydroindazol?). Sm. 175° (B. 27, 1140). — III, 290.

$C_8H_6O_2N_4$

C 52,9 — H 3,9 — O 15,7 — N 27,5 — M. G. 204.

- 1) 1,2-Benzyliden-3,6-Diketoheptahydro-1,2,4,5-Tetrazin (Benzyliden-diharnstoff). Sm. 253°. Ag (B. 27, 2685; J. pr. [2] 52, 485). — III, 40.
- 2) 3-Semicarbazon-2-Oxypseudindol (S. d. Isatin). Sm. 260° u. Zers.
- 3) 1-[*p*-Amidophenyl]-1,2,4-Triazol-3-Carbonsäure. Sm. 212° u. Zers. (B. 25, 743). — IV, 1113.
- 4) 1-[*p*-Amidophenyl]-1,2,5-Triazol-3-Carbonsäure. Sm. 252° u. Zers. (A. 262, 316). — IV, 1112.
- 5) Methylester d. 1-Phenyl-1,2,3,5-Tetrazol-4-Carbonsäure. Sm. 116° (B. 18, 2909). — IV, 1239.
- 6) Azid d. Benzoylamidoessigsäure. Sm. 98° (B. 23, 3031; 24, 3343; J. pr. [2] 52, 252).

 $C_8H_6O_2Cl_2$

- 1) Methyläther d. *p*-Chlormethyl-4-Chlor-1-Oxyphenylketon. Sm. 71° (B. 31, 170).
- 2) Methyläther d. Dichlormethyl-4-Oxyphenylketon. Sm. 75—76° (B. 31, 171).
- 3) *i*- $\alpha\beta$ -Dichlor- β -Phenylpropionsäure. Sm. 162—164° u. Zers. (167 bis 168°). Anilinsalz (A. 147, 91; B. 14, 1867; 15, 2159; 27, 890; 28, 2235, 2245; J. 1882, 363). — II, 1357.
- 4) *d*- $\alpha\beta$ -Dichlor- β -Phenylpropionsäure (B. 26, 833; 27, 456). — II, 1358.
- 5) *l*- $\alpha\beta$ -Dichlor- β -Phenylpropionsäure (B. 26, 833; 27, 889). — II, 1358.
- 6) isom. $\alpha\beta$ -Dichlor- β -Phenylpropionsäure (Allozimmtsäuredichlorid). Fl. (B. 27, 2040; 28, 2241). — II, 1358.
- 7) isom. $\alpha\beta$ -Dichlor- β -Phenylpropionsäure. Sm. 84—86° (B. 28, 2238, 2244).
- 8) Äthylester d. 2,5-Dichlorbenzol-1-Carbonsäure. Sd. 271° (A. 179, 290). — II, 1219.
- 9) Äthylester d. 3,4-Dichlorbenzol-1-Carbonsäure. Sd. 262—263° (A. 152, 227). — II, 1220.
- 10) 2,4-Dichlorphenylester d. Propionsäure. Sd. 255—257° (B. 25 [2] 120). — II, 670.
- 11) Benzylester d. Dichloressigsäure. Sd. 179°₀₀ (B. 21, 283). — II, 1051.
- 12) Acetat d. *p*-Dichlorbenzylalkohol. Sm. 259° (A. 147, 350). — II, 1057.

 $C_8H_4O_2Cl_4$

- 1) Methyläthyläther d. 2,3,5,6-Tetrachlor-1,4-Dioxybenzol. Sm. 101° (M. 6, 912). — II, 943.

 $C_8H_4O_2Br_2$

- 1) 1,2-Phenylenäther d. $\alpha\beta$ -Dibrom- $\alpha\beta$ -Dioxypropan (Bl. [3] 21, 301).
- 2) Äthyl-*p*-Dibrom-4-Oxyphenylketon. Sm. 100° (J. pr. [2] 43, 100).
- 3) $\alpha\beta$ -Dibrom- α -Phenylpropionsäure. Sm. 115—116° (A. 195, 159; 206, 30). — II, 1370.
- 4) *i*- $\alpha\beta$ -Dibrom- β -Phenylpropionsäure. Sm. 201° (195°). Na, Ba, Anilinsalz (A. 127, 320; 143, 331; 147, 91; 195, 140; 206, 33; B. 15, 2159; 25, 3121; 27, 885; 28, 2243; J. pr. [2] 52, 292). — II, 1358.
- 5) *d*- $\alpha\beta$ -Dibrom- β -Phenylpropionsäure (B. 25, 3122; 26, 246, 830, 1664; 27, 887). — II, 1359.
- 6) *l*- $\alpha\beta$ -Dibrom- β -Phenylpropionsäure (B. 25, 3122; 26, 246, 829, 1664; 27, 888). — II, 1359.
- 7) isom. $\alpha\beta$ -Dibrom- β -Phenylpropionsäure (Allozimmtsäuredibromid). Sm. 91—93° (B. 27, 2040, 2046). — II, 1359.
- 8) isom. *d*- $\alpha\beta$ -Dibrom- β -Phenylpropionsäure (*d*-Allozimmtsäuredibromid) (B. 27, 2043).
- 9) isom. *l*- $\alpha\beta$ -Dibrom- β -Phenylpropionsäure (*l*-Allozimmtsäuredibromid) (B. 27, 2043).
- 10) isom. *p*-Dibrom- β -Phenylpropionsäure (A. 143, 343). — II, 1359.
- 11) 1-[$\alpha\beta$ -Dibromäthyl]benzol-3-Carbonsäure. Sm. 146° (B. 26 [2] 677). — II, 1373.
- 12) *p*-Dibrom-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 194—195°. Ca + 7 H₂O, Ba + 3½ H₂O (A. 215, 249). — II, 1379.
- 13) Äthylester d. 3,4-Dibrombenzol-1-Carbonsäure. Sm. 38—38,5° (A. 222, 187; B. 8, 560, 561). — II, 1224.
- 14) 2,4-Dibromphenylester d. Propionsäure. Sd. 220—225°₁₄ (B. 25 [2] 120). — II, 673.
- 15) Acetat d. 5-Brom-2-Oxy-1-Brommethylbenzol. Sm. 63—64° (A. 302, 145).

- $C_9H_8O_2J_2$ 1) Acetat d. β -Dijod-2-Oxy-1-Methylbenzol. Sm. 56° (*J. pr.* [2] 39, 295). — II, 739.
2) Acetat d. 3,5-Dijod-4-Oxy-1-Methylbenzol. Sm. $62-62,5^\circ$ (*B.* 17, 2534). — II, 751.
- $C_9H_8O_2S$ 1) α -Merkapto- β -Phenylakrylsäure. Sm. 119° . Ag₂ (*M.* 8, 350; 10, 81). — II, 1638.
- $C_9H_8O_3N_2$ C 56,3 — H 4,1 — O 25,0 — N 14,6 — M. G. 192.
1) γ -Oximido- α -[4-Nitrophenyl]propen. Sm. $178-179^\circ$ (*A.* 253, 349). — III, 62.
2) 2-[3-Nitrophenyl]-4,5-Dihydrooxazol. Sm. $118,5-119,5^\circ$. (2HCl, PtCl₄), Pikrat (*B.* 24, 3219). — II, 1233.
3) Methyläther d. 5-Keto-3-[4-Oxyphenyl]-4,5-Dihydro-1,2,4-Ox-diazol. Sm. 208° (*B.* 22, 2794). — II, 1531.
4) 5,6-Dioxy-4-Keto-3-Methyl-3,4-Dihydro-2,3-Benzdiazin. Sm. 310° (*B.* 27, 1422). — II, 1939.
5) 6-Methyläther d. 5,6-Dioxy-4-Keto-3,4-Dihydro-2,3-Benzdiazin. Sm. 226° (*B.* 27, 1420; 29, 178). — II, 1939.
6) α -Formylbenzoylharnstoff. Sm. 161° (*B.* 28, 255).
7) α -Indennitrosit. Sm. $107-109^\circ$ u. Zers. (*B.* 28, 1332).
8) β -Indennitrosit. Sm. $136-137^\circ$ (*B.* 28, 1332).
9) β -[2-Diazophenyl]akrylsäure. Salze, siehe (*A.* 221, 272; *B.* 15, 2295). — IV, 1556.
10) β -[3-Diazophenyl]akrylsäure. Nitrat (*B.* 15, 2296). — IV, 1556.
11) β -[4-Diazophenyl]akrylsäure. Chlorid + H₂O (*B.* 15, 2300). — IV, 1556.
12) Säure (aus Anilinalloxan). Zers. bei 180° . Ag (*G.* 17, 413). — II, 421.
13) Methylester d. 2-Keto-2,3-Dihydrobenzimidazol-5-Carbonsäure (*A.* 291, 328).
14) Amid d. β -2-Nitrophenyl]akrylsäure. Sm. 185° (*B.* 31, 1295).
15) Amid d. β -[4-Nitrophenyl]akrylsäure. Sm. $155-160^\circ$; Sd. 260° u. Zers. (*J.* 1853, 433). — II, 1415.
16) Nitril d. 6-Nitro-2-Oxybenzoläthyläther-1-Carbonsäure. Sm. 137° (*R.* 2, 210). — II, 1510.
17) Verbindung (aus d. Amid d. β -Oxy- β -[2-Nitrophenyl]propionsäure). Sm. bei 80° (*B.* 16, 2649). — II, 1574.
- $C_9H_8O_3N_4$ C 49,1 — H 3,6 — O 21,8 — N 25,4 — M. G. 220.
1) 5-Keto-3-Methyl-1-[β -Nitrophenyl]-4,5-Dihydro-1,2,4-Triazol. Sm. $298-299^\circ$. — IV, 1105.
2) 6-Nitro-4-Keto-3-Aethyl-3,4-Dihydro-1,2,3-Benztriazin. Sm. 105° (*J. pr.* [2] 53, 217). — IV, 1555.
3) Imid d. 3-Diazobenzoylamidoessigsäure (*Z.* 1867, 165). — II, 1188.
- $C_9H_8O_3Cl_2$ 1) Aethylester d. 3,5-Dichlor-2-Oxybenzol-1-Carbonsäure. Sm. 47° (*B.* 11, 1226). — II, 1504.
- $C_9H_8O_3Br_2$ 1) 4-Methyläther d. Brommethyl- β -Brom-2,4-Dioxyphenylketon. Sm. $178-180^\circ$ (*B.* 30, 301).
2) $\beta\beta$ -Dibrom- α -Oxy- α -Phenylpropionsäure. Sm. 167° (*B.* 14, 1236). — II, 1578.
3) $\alpha\beta$ -Dibrom- β -Oxy- β -Phenylpropionsäure. Sm. 184° (*Am.* 5, 386). — II, 1573.
4) α -[β -Dibrom-4-Oxyphenyl]propionsäure? Ba (*A.* 102, 161). — II, 1570.
5) β -[β -Dibrom-2-Oxyphenyl]propionsäure. Sm. 115° . Ba + 5 H₂O (*A. Spl.* 5, 116). — II, 1563.
6) β -[3,5(β)-Dibrom-4-Oxyphenyl]propionsäure. Sm. $107-108^\circ$. NH₄, Ag (*A.* 225, 65). — II, 1565.
7) 3,5-Dibrom-6-Oxy-1,2-Dimethylbenzol-4-Carbonsäure. Sm. 204 bis 205° (*Soc.* 75, 191).
8) 2,5-Dibrom-6-Oxy-1,3-Dimethylbenzol-4-Carbonsäure. Sm. 205° (*B.* 27 [2] 595).
9) β -Dibrom-3-Oxy-1-Methylbenzylmethyläther-4-Carbonsäure. Sm. $193-194^\circ$ (*J.* 1880, 664). — II, 1550.
10) 3,5-Dibrom-2-Oxybenzoläthyläther-1-Carbonsäure. Sm. $155-156^\circ$ (*G.* 16, 419). — II, 1506.

- $C_9H_5O_3Br$ 11) Aldehyd d. *p*-Dibrom-3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 122° (*B.* 28, 2087). — III, 99.
 12) Methylester d. 3,5-Dibrom-2-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 53° (*G.* 16, 418). — II, 1506.
 13) Methylester d. 3,5-Dibrom-4-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 91,5—92° (*G.* 13, 66). — II, 1537.
 14) Äthylester d. 3,5-Dibrom-2-Oxybenzol-1-Carbonsäure. Sm. 100 bis 101° (*J. pr.* [2] 47, 241). — II, 1505.
 15) Äthylester d. α -Brom- β -[5-Brom-2-Furanyl]akrylsäure. Sm. 55—56° (*Am.* 12, 324). — III, 711.
 16) 1-Acetat d. 3,5-Dibrom-2-Oxy-1-Oxymethylbenzol. Sm. 110—112° (*A.* 302, 151).
- $C_9H_5O_3J_2$ 1) Diäthylester d. *p*-Dijod-2-Oxybenzol-1-Carbonsäure. Sm. 132° (*C.* 1898 [1] 228).
- $C_9H_5O_4N_2$ C 51,9 — H 3,8 — O 30,8 — N 13,5 — M. G. 208.
 1) α -[*p*-Dinitrophenyl]propen. Sm. 118° (*B.* 20, 622). — II, 169.
 2) β -Nitro- α -[2-Nitrophenyl]propen. Sm. 76—77° (*A.* 225, 363). — II, 169.
 3) β -Nitro- α -[4-Nitrophenyl]propen. Sm. 114—115° (*A.* 225, 363). — II, 169.
 4) *p*-Nitro-2-Oxy-2-Methyl-1,3-Benzoxazin. Zers. bei 75° (*B.* 31, 1599).
 5) β -[3-Nitro-4-Amidophenyl]akrylsäure. Sm. 224,5° (*B.* 16, 2042). — II, 1420.
 6) *p*-Nitro- β -[2-Amidophenyl]akrylsäure. Sm. 240° (*A.* 229, 242). — II, 1420.
 7) *p*-Nitro- β -[2-Amidophenyl]akrylsäure. Sm. 254° (*A.* 229, 243). — II, 1420.
 8) 4-Nitrosamido-1-Methylbenzol-3-Carbonsäure. Sm. 107° u. Zers. (*B.* 26, 218). — II, 1650.
 9) *p*-Dinitroso-1,3-Dimethylbenzol-4-Carbonsäure. Sm. 166° (*J. pr.* [2] 41, 490). — II, 1377.
 10) Benzoylharnstoff-2-Carbonsäure (Phtalursäure). Zers. über 150° (Sm. 140° u. Zers.). Na + 2H₂O, Ba, Ag (*A.* 214, 19; *Ph. Ch.* 3, 379; *B.* 21 [2] 353). — II, 1626, 1798.
 11) Phenylhydrazonmethan- $\alpha\alpha$ -Dicarbonsäure. Sm. 158—164° (174° bei raschem Erhitzen). Ag₂ (*A.* 227, 355; *B.* 24, 1242; 31, 1451 Anm., 2161; *Bl.* [3] 11, 696). — IV, 720.
 12) Benzenylamidoximketocarbonsäure (*B.* 22, 3131). — II, 1203.
 13) Aldehyd d. 2-Nitrobenzoylamidoessigsäure (*B.* 27, 3093). — II, 1231.
 14) Aldehyd d. 4-Nitrobenzoylamidoessigsäure (*B.* 27, 3096). — II, 1237.
 15) 3-Amid d. Benzol-1-Carbonsäure-3-Amidoketocarbonsäure. Ba + 5H₂O, Ag (*A.* 232, 133; *B.* 18, 2411). — II, 1264.
 16) Acetylamid d. 3-Nitrobenzol-1-Carbonsäure. Sm. 198° (*B.* 28, 483).
 17) Acetylamid d. 4-Nitrobenzol-1-Carbonsäure. Sm. 165° (*A.* 298, 49).
 18) Benzoxylidamid d. Oxalsäure. Sm. 157° (*R.* 15, 149).
 19) Nitril d. *p*-Nitro-2,6-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 111° (*R.* 2, 219). — II, 1739.
 20) Acetat d. syn-3-Nitrobenzaldoxim. Sm. 75° (*Ph. Ch.* 13, 525). — III, 48.
 21) Acetat d. syn-4-Nitrobenzaldoxim. Sm. 75—76° (*Ph. Ch.* 13, 523). — III, 50.
 22) Benzoat d. α -Nitro- α -Oximidoäthan. Sm. 137° (135°) (*B.* 27, 1600; *A.* 280, 284). — II, 1139.
- $C_9H_5O_4N_4$ C 45,8 — H 3,4 — O 27,1 — N 23,7 — M. G. 236.
 1) *p*-Dinitro-2,5-Dimethylbenzimidazol. Sm. 219° (*B.* 25, 1992). — IV, 881.
- $C_9H_5O_3Br_2$ 1) Dibromapion (1,2-Methylen-3,4-Dimethyläther d. 5,6-Dibrom-1,2,3,4-Tetraoxybenzol?). Sm. 99—100° (*B.* 21, 2131; 24, 2609). — II, 1030.
 2) isom. Dibromapion. Sm. 92° (*B.* 29, 1808).
 3) *p*-Dibrom-3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 182°. Zn, Ag (*B.* 21, 1396). — II, 1745.
 4) Methylester d. 2,6-Dibrom-3,5-Dioxy-1-Methylbenzol-4-Carbonsäure (*A.* 125, 355). — II, 1753.

- $C_9H_6O_4Br_2$ 5) Verbindung (aus Brasilin). Sm. 225—227° u. Zers. (B. 25, 26). — III, 656.
- $C_9H_6O_4Br_4$ 1) Anhydrid d. $\beta\gamma\delta\epsilon$ -Tetrabrom- δ -Ketoheptan- $\beta\gamma$ -Dicarbonsäure. Sm. 178° (B. 31, 686).
- $C_9H_6O_4J_2$ 1) Methylester d. 2,6-Dijod-3,5-Dioxy-1-Methylbenzol-4-Carbonsäure (A. 149, 295). — II, 1754.
- $C_9H_6O_5N_2$ C 48,2 — H 3,6 — O 35,7 — N 12,5 — M. G. 224.
- 1) Methyläther d. 3-Nitro-4-Oxy-1-[β]Nitroäthenylbenzol. Sm. 162 bis 163° (A. 243, 369). — II, 850.
- 2) Allyläther d. 2,4-Dinitro-1-Oxybenzol. Sm. 46—47° (B. 12, 765). — II, 685.
- 3) 4-Nitro-2-Acetylamidobenzol-1-Carbonsäure. Sm. 215°. Ag (Am. 20, 219).
- 4) 5-Nitro-2-Acetylamidobenzol-1-Carbonsäure. Sm. 152° (B. 30, 1097).
- 5) 2-Nitrobenzoylamidoessigsäure. Sm. 188° (B. 27, 3094). — II, 1187.
- 6) 3-Nitrobenzoylamidoessigsäure. Sm. 162°. Ca + 3H₂O, Ba + H₂O, Zn + 6H₂O, Pb + 5H₂O, Cu + 5H₂O, Ag (A. 78, 103; 112, 69; J. pr. [2] 15, 254; H. 17, 286). — II, 1187.
- 7) 4-Nitrobenzoylamidoessigsäure. Sm. 129°. Ba + 4H₂O, Ag (B. 7, 1678; 27, 3096; M. 8, 90). — II, 1188.
- 8) Benzenylnitritoximessigsäure. Sm. 95—96° (B. 26, 1570). — II, 1202.
- 9) 2-Nitro-4-Methylphenyloxaminsäure + H₂O. Zers. bei 150°. Na + H₂O, Ba + 3H₂O (B. 15, 2691). — II, 501.
- 10) 3-Nitro-4-Methylphenyloxaminsäure. Sm. 179°. Na (B. 31, 395).
- 11) 2-Nitro-3-Acetylamidobenzol-1-Carbonsäure. Sm. 240—241° u. Zers. Ca + 6H₂O, Ba + H₂O (B. 18, 2950). — II, 1284.
- 12) 4-Nitro-3-Acetylamidobenzol-1-Carbonsäure. Sm. 205—206°. Ca + 7H₂O, Ba + 7H₂O (B. 18, 2946). — II, 1284.
- 13) 3-Nitro-4-Acetylamidobenzol-1-Carbonsäure. Sm. 220—221°. Ca + 2H₂O, Ba + 6½H₂O (B. 18, 2943). — II, 1286.
- 14) 3-Amido-5-Oxallylamidobenzol-1-Carbonsäure (B. 21, 1562). — II, 1276.
- 15) β -Nitroso- β -Nitro-1,3-Dimethylbenzol-4-Carbonsäure. Sm. 256° (J. pr. [2] 41, 491). — II, 1377.
- $C_9H_6O_5N_4$ C 42,8 — H 3,2 — O 31,7 — N 22,2 — M. G. 252.
- 1) 2-Nitrophenylhydrazonacetylamidoameisensäure. Sm. 194—196° u. Zers. (B. 31, 1975).
- 2) 4-Nitrophenylhydrazonacetylamidoameisensäure. Sm. 193—194° u. Zers. (B. 31, 1976).
- $C_9H_6O_5Br_2$ 1) Aethylester d. 2,6-Dibrom-3,4,5-Trioxybenzol-1-Carbonsäure. Sm. 137° (Bl. [3] 7, 625). — II, 1923.
- $C_9H_6O_5S$ 1) β -[2-Sulfophenyl]akrylsäure + 3H₂O. Zers. bei 80°. Ca + 1½H₂O, Ba + 3H₂O, BaH + 1½H₂O, Ag₂ (J. pr. [1] 16, 60; [1] 29, 51; A. 173, 17). — II, 1422.
- 2) β -[3-Sulfophenyl]akrylsäure. Ba (B. 24, 796). — II, 1422.
- 3) β -[4-Sulfophenyl]akrylsäure + 5H₂O. K₂ + ½H₂O, CaH + ½H₂O, Ba + 3H₂O, BaH + H₂O, Cu + 6H₂O (J. pr. [1] 16, 60; [1] 29, 51; Am. 4, 161; A. 173, 12). — II, 1422.
- $C_9H_6O_6N_2$ C 45,0 — H 3,3 — O 40,0 — N 11,7 — M. G. 240.
- 1) Aethyl- β -Dinitro-4-Oxyphenylketon. Sm. 180° (J. pr. [2] 43, 100).
- 2) β -[2,4-Dinitrophenyl]propionsäure. Sm. 126,5° (B. 12, 600; 13, 1680; R. 17, 195). — II, 1361.
- 3) β -Dinitro-3-Methylphenylessigsäure. Sm. 173—174° u. Zers. (M. 9, 855). — II, 1374.
- 4) 3,5-Dinitro-4-Methylphenylessigsäure. Sm. 158°. Na + 5H₂O, Ca (J. pr. [2] 44, 92). — II, 1375.
- 5) 2,6-Dinitro-1,3-Dimethylbenzol-4-Carbonsäure. Sm. 197° (199 bis 200°). Ca, Ba + 1½H₂O, Ag (J. pr. [2] 41, 502; [2] 43, 120). — II, 1378.
- 6) β -Dinitro-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 209—211° u. Zers. (B. 29, 2203).
- 7) isom. β -Dinitro-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 204° u. Zers. (B. 29, 2203).
- 8) Dinitrit d. β -Phenylakrylsäure (B. 18, 2438). — II, 1406.

- $C_9H_8O_6N_2$ 9) Methylester d. 2,4-Dinitrophenyllessigsäure. Sm. 82° (B. 21, 1307). — II, 1319.
- 10) Methylester d. 4,6-Dinitro-1-Methylbenzol-2-Carbonsäure. Sm. 73 bis 74° (A. 239, 77). — II, 1333.
- 11) Aethylester d. 2,4-Dinitrobenzol-1-Carbonsäure. Sm. 41° (J. pr. [2] 52, 428 Anm.).
- 12) Aethylester d. 2,5-Dinitrobenzol-1-Carbonsäure. Sm. 69,5–70° (J. pr. [2] 52, 428 Anm.).
- 13) Aethylester d. 3,5-Dinitrobenzol-1-Carbonsäure. Sm. 91° (94°) (A. 99, 105; 202, 223; 217, 196; B. 14, 902). — II, 1239.
- $C_9H_8O_6N_4$ 14) Acetat d. 3,5-Dinitro-2-Oxy-1-Methylbenzol. Sm. 95° (Bl. [3] 17, 205). C 40,3 — H 3,0 — O 35,8 — N 20,9 — M. G. 268.
- 1) 2,4,6-Trinitro-1-Allylamidobenzol. Sm. 80° (R. 4, 192). — II, 337.
- 2) 5-Nitro-3-Di[Amidoformyl]amidobenzol-1-Carbonsäure + 2H₂O. Ba + 7 $\frac{1}{2}$ H₂O (B. 17, 2186). — II, 1263.
- $C_9H_8O_6Cl_3$ 1) Aethylester d. $\alpha\beta$ -Di[Trichloracetoxyl]propionsäure. Sd. 202°₁₅ (Soc. 73, 184).
- $C_9H_8O_7N_2$ C 42,2 — H 3,1 — O 43,7 — N 10,9 — M. G. 256.
- 1) 1-Methyläther-2-Acetat d. 3,5-Dinitro-1,2-Dioxybenzol. Sm. 114° (C. 1838 [2] 1169).
- 2) 2-Acetat d. 4,6-Dinitro-2,5-Dioxy-1-Methylbenzol. Sm. 144–146° K (J. pr. [2] 39, 385). — II, 957.
- 3) α -[2-Dinitro-4-Oxyphenyl]propionsäure. K₂, Ba (A. 102, 155). — II, 1570.
- 4) isom. α -[2-Dinitro-4-Oxyphenyl]propionsäure. (NH₄)₂, Ba (A. 102, 158). — II, 1570.
- 5) β -[2-Dinitro-2-Oxyphenyl]propionsäure. Sm. 155°. Ba + H₂O, Ag₂ (A. Spl. 5, 118). — II, 1564.
- 6) β -[3,5-Dinitro-4-Oxyphenyl]propionsäure. Sm. 137,5°. NH₄, (NH₄)₂, Ag (A. 225, 68). — II, 1565.
- 7) 3,5-Dinitro-6-Oxy-1,2-Dimethylbenzol-4-Carbonsäure. Sm. 203 bis 205° u. Zers. Ag₂ (Soc. 75, 190).
- 8) 2,5-Dinitro-6-Oxy-1,3-Dimethylbenzol-4-Carbonsäure. Sm. 203 bis 205° (B. 27 [2] 595).
- 9) 3,5-Dinitro-4-Oxybenzoläthyläther-1-Carbonsäure. Sm. 192°. Na (Am. 19, 214).
- 10) 6-Nitro-3,4-Dioxy-1-Oximidomethylbenzol-4-Methyläther-2-Carbonsäure. Zers. bei 252° (B. 19, 2310). — II, 1943.
- 11) Methylester d. Oxyessaig-2,4-Dinitrophenyläthersäure. Sm. 73° (G. 23 [1] 213). — II, 685.
- 12) Methylester d. 3,5-Dinitro-2-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 69° (A. 173, 47). — II, 1511.
- 13) Aethylester d. 3,5-Dinitro-2-Oxybenzol-1-Carbonsäure. Sm. 99°. NH₄, Ag (A. 69, 235; 173, 49; 195, 53). — II, 1510.
- 14) Aethylester d. 3,5-Dinitro-4-Oxybenzol-1-Carbonsäure. Sm. 87°. K, Ag (A. 163, 44; J. pr. [2] 43, 460). — II, 1539.
- $C_9H_8O_7S$ 1) 1-Methylbenzol-3,5-Dicarbonsäure-2-Sulfonsäure. K + 2H₂O, Ba₂ (A. 206, 185). — II, 1847.
- $C_9H_8O_8N_2$ C 39,7 — H 2,9 — O 47,1 — N 10,3 — M. G. 272.
- 1) 1,2-Methylen-3,4-Dimethyläther d. 5,6-Dinitro-1,2,3,4-Tetraoxybenzol. Sm. 117–118° (B. 22, 2489; 23, 2289). — II, 1030.
- 2) Dinitroeverninsäure^p K₂ + 3H₂O (A. 117, 300). — II, 1766.
- $C_9H_8O_8N_4$ C 36,0 — H 2,7 — O 42,7 — N 18,6 — M. G. 300.
- 1) Methylalloxanthin + 3H₂O (M. 3, 431). — I, 1402.
- 2) Aethylester d. 2,4,6-Trinitrophenylamidoameisensäure. Sm. 144°. K (R. 10, 138). — II, 373.
- $C_9H_8O_8N_6$ C 32,9 — H 2,4 — O 39,0 — N 25,6 — M. G. 328.
- 1) Verbindung (aus Uracilcarbonsäureäthylester). Sm. 240°. Ag₂ (J. pr. [2] 56, 500).
- $C_9H_8N_2J$ 1) Nitril d. 5-Jod-1,3-Dimethylbenzol-4-Carbonsäure. Sm. 135° (B. 26, 2800).
- $C_9H_8N_2Cl_2$ 1) 1,2-Dichlor-2,5-Dimethylbenzimidazol (A. 273, 292). — IV, 880.
- 2) 2-Dichlor-2,5-Dimethylbenzimidazol. Sm. 238° (A. 273, 293). — IV, 880.

- C₉H₅N₃Br** 1) **p-Dibrom-1-Phenyl-4,5-Dihydropyrazol**. Sm. 92—93° (A. 239, 199). — IV, 487.
 2) **p-Dibrom-2-Aethylbenzimidazol**. Sm. 224—226°. HCl + H₂O, (2HCl, PtCl₄), HNO₃ (Am. 6, 175). — IV, 879.
 3) **6-Amidochinolindibromid**. Sm. 230° (J. pr. [2] 53, 121).
 4) **Dibromid d. 6-Methyl-1,4-Benzdiazin**. Zers. bei 170° (A. 237, 338). — IV, 902.
- C₉H₅N₃S** 1) **2-Amido-4-Phenylthiazol**. Sm. 147° (A. 249, 38). — IV, 616.
 2) **2-Phenylimido-2,3-Dihydrothiazol**. Sm. 126° (124°) (A. 249, 47; 265, 126). — IV, 505.
 3) **2-Merkapto-1-Phenylimidazol**. Sm. 181°. Ag, 2 + PtCl₄ (B. 22, 569). — IV, 503.
- C₉H₅N₃S₂** 1) **5-Merkapto-3-[4-Methylphenyl]-1,2,4-Thiodiazol**. Sm. 166°. 4-Tolensylamidinsalz (B. 22, 2441; 24, 391). — II, 1343; IV, 851.
 2) **2-Thiocarbonyl-5-Methyl-4-Phenyl-2,4-Dihydro-1,3,4-Thiodiazol**. Sm. 216° (B. 28, 2642). — IV, 747.
- C₉H₅N₃S₃** 1) **Methyläther d. 5-Merkapto-2-Thiocarbonyl-3-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol**. Sm. 108—109° (B. 27, 2513). — IV, 683.
- C₉H₅N₃Se** 1) **2-Amido-4-Phenylselenazol**. Sm. 132°. HBr (A. 250, 307). — IV, 917.
- C₉H₅N₃Cl** 1) **3-Methyl-1-[p-Chlorphenyl]-1,2,4-Triazol**. Sm. 123° (C. 1897 [1] 594). — IV, 1104.
 2) **5-Chlor-3-Methyl-1-Phenyl-1,2,4-Triazol**. Sm. 84°; Sd. 271° (C. 1897 [1] 594). — IV, 1104.
- C₉H₅N₃Br** 1) **anti-6-Brom-2,4-Dimethyl-1-Diazobenzolcyanid**. Sm. 64—65° (B. 30, 2545). — IV, 1457.
 2) **syn-6-Brom-2,4-Dimethyl-1-Diazobenzolcyanid**. Sm. 49—50° (B. 30, 2545). — IV, 1457.
- C₉H₅N₃S** 1) **Amid d. 1-Phenyl-1,2,5-Triazol-3-Thiocarbonsäure**. Sm. 131—132° (A. 262, 299). — IV, 1112.
- C₉H₅ON** C 73,5 — H 6,1 — O 10,9 — N 9,5 — M. G. 147.
 1) **Anti-γ-Oximido-α-Phenylpropen** (Antizimmtaloxim). Sm. 64—65° (B. 27, 3428). — III, 62.
 2) **Syn-γ-Oximido-α-Phenylpropen** (Synzimmtaloxim). Sm. 138,5° (134 bis 136°). 2 + Cu₂Br₂ (B. 19, 1512; 27, 3429; Am. 19, 489). — III, 62.
 3) **3,5-Dimethylphenylisocyanat**. Sd. 205° (B. 25, 1089). — II, 545.
 4) **p-Dimethylphenylisocyanat**. Sd. 200° (B. 3, 657). — II, 548.
 5) **2-Phenyl-4,5-Dihydrooxazol**. Sd. 242—243°. (2HCl, PtCl₄), H₂Cr₂O₇, Pikrat (B. 23, 2495; 25, 2385; 28, 2933; 29, 2382). — II, 1160.
 6) **1,4-Dimethylbenzoxazol**. Sd. 218—219°₁₀₀. (2HCl, PtCl₄) (B. 17, 361). — II, 753.
 7) **2-Amido-1-Keto-2,3-Dihydroinden**. HCl, (2HCl, PtCl₄), Pikrat (B. 29, 2606).
 8) **1-Oximido-2,3-Dihydroinden**. Sm. 146° (144—144,5°) (A. 275, 344; B. 22, 2021; 27 [2] 598; Soc. 65, 489). — III, 158.
 9) **2-Oximido-2,3-Dihydroinden**. Sm. 155° (152°) u. Zers. (A. 275, 353; B. 26, 222). — III, 160.
 10) **2-Keto-1-Methyl-2,3-Dihydroindol**. Sm. 86—88° (89°) (A. 248, 120; B. 27, 3257). — II, 1320; IV, 219.
 11) **2-Keto-3-Methyl-2,3-Dihydroindol** (Atroxindol). Sm. 113° (123°) (A. 227, 274; M. 18, 533). — II, 1371.
 12) **2-Keto-5-Methyl-2,3-Dihydroindol**. Sm. 168° (B. 31, 393).
 13) **1-Keto-2-Methyl-1,3-Dihydroisindol** (Methylphtalimidin). Sm. 120°; Sd. 300°. (HCl, AuCl₃) (A. 247, 303). — II, 1558.
 14) **2-Keto-1,2,3,4-Tetrahydrochinolin** (Hydrocarbostyryl). Sm. 163°. (2HCl, PtCl₄ + 2H₂O) (Z. 1869, 194; Soc. 65, 491; B. 13, 1682; 15, 1424; 16, 1453; 27 [2] 598; 29, 667; J. pr. [2] 38, 300). — II, 1363; IV, 222.
 15) **1-Keto-1,2,3,4-Tetrahydroisochinolin**. Sm. 70—71° (B. 26, 1219). — II, 1372.
 16) **3-Methyl-1,4-Benzoxazin**. Fl. (2HCl, PtCl₄) (B. 30, 1641).
 17) **3-Methyl-2,4-Benzoxazin** (Methylphenpentoxazol). Fl. HBr, Pikrat (B. 27, 3514). — IV, 223.
 18) **Inn. Anhydrid d. α-Amido-β-Phenylpropionsäure** (Phenylaktimid). Sm. 290—291° (A. 219, 206). — II, 1365.

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- 19) Inn. Anhydrid d. β -Amido- β -Phenylpropionsäure (Phenylaktimid). Sm. 146—147° (A. 200, 97). — II, 1364.
- 20) Inn. Anhydrid d. 1-[α -Amidoäthyl]benzol-2-Carbonsäure? (Methylphthalimidin). Sm. 110—111° (B. 26, 706). — II, 1648.
- 21) Amid d. β -Phenylakrylsäure. Sm. 141,5°. Hg (Z. 1866, 362). — II, 1407.
- 22) Vinylamid d. Benzolcarbonsäure (Benzoylamidoäthen). Fl. (B. 28, 2933).
- 23) Phenylamid d. Akrylsäure. Sm. 104—105° (Bl. [3] 9, 421). — II, 370.
- 24) Nitril d. α -Oxy- α -Phenylpropionsäure. Fl. (B. 14, 235, 1980). — II, 1578.
- 25) Nitril d. α -Oxy- β -Phenylpropionsäure. Sm. 57—58° (A. 219, 187). — II, 1576.
- 26) Nitril d. β -Oxy- β -Phenylpropionsäure. Fl. (B. 30, 1128).
- 27) Nitril d. 4-Methoxyphenylessigsäure. Sd. 286—287°₇₆₁ (B. 22, 2139). — II, 1544.
- 28) Nitril d. Oxyessig-3-Methylphenyläthersäure. Sd. 254° (B. 30, 1705).
- 29) Nitril d. Oxyessig-4-Methylphenyläthersäure. Sm. 40°; Sd. 250 bis 260° (B. 30, 1705).
- 30) Nitril d. 4-Oxy-1-Methylbenzolmethyläther-3-Carbonsäure. Sd. 270° (B. 22, 351). — II, 1547.
- 31) Nitril d. 2-Oxybenzoläthyläther-1-Carbonsäure. Sd. 258° (B. 23, 2952; M. 12, 399). — II, 1501.
- 32) Nitril d. 4-Oxybenzoläthyläther-1-Carbonsäure. Sm. 69°; Sd. 258° (B. 23, 2953). — II, 1530.
- 33) Base (aus Bromphenylacetou). Sm. 89—90° (A. 291, 273).
- 34) Verbindung (aus α -Amido- β -Phenylpropionsäure). Sm. 280° (J. pr. [2] 27, 346). — II, 1366.
- 35) Verbindung (aus Benzaldehyd). Sm. oberh. 300° (B. 22, 1599). — III, 28.
- 36) Verbindung (aus Methylphthalimid). Sm. 120°; Sd. 300° (B. 17, 1174). — II, 1799.

 $C_9H_9ON_3$

- C 61,7 — H 5,1 — O 9,1 — N 24,0 — M. G. 175.
- 1) o-Homophthalenamimidimidoxim + 2H₂O. Sm. 95° (158° wasserfrei). HCl, Pikrat (B. 22, 2973). — II, 1843.
 - 2) 4-Amido-5-Keto-3-Phenyl-4,5-Dihydropyrazol (J. pr. [2] 52, 29). — IV, 1162.
 - 3) 4 [oder 5]-Oximido-1-Phenyl-4,5-Dihydropyrazol. Sm. 148° (J. pr. [2] 50, 551). — IV, 487.
 - 4) 1-Nitroso-2-Phenyl-4,5-Dihydroimidazol. Sm. 66—67° (B. 25, 2136). — IV, 840.
 - 5) 5-Methyl-3-[2-Amidophenyl]-1,2,4-Oxdiazol. Sm. 87°. HCl (B. 29, 629). — IV, 1138.
 - 6) 5-Imido-2-Methyl-4-Phenyl-4,5-Dihydro-1,3,4-Oxdiazol. Sm. 112° (B. 23, 2838). — IV, 672.
 - 7) 3-Keto-1-Methyl-2-Phenyl-2,3-Dihydro-1,2,4-Triazol. Sm. 95°. AgH. — IV, 1100.
 - 8) 5-Keto-3-Methyl-1-Phenyl-4,5-Dihydro-1,2,4-Triazol. Sm. 167°. Na, Ag, (2HCl, PtCl₄ + 4H₂O), PtCl₄. — IV, 1104.
 - 9) 5-Keto-4-Methyl-1-Phenyl-4,5-Dihydro-1,2,4-Triazol. Fl. — IV, 1101.
 - 10) 4-Oxy-1-Phenyl-3-Methyl-1,2,5-Triazol. Sm. 140—142° (B. 28, 1286). — IV, 1104.
 - 11) 3-Oxymethyl-1-Phenyl-1,2,5-Triazol. Sm. 67° (A. 262, 296). — IV, 1104.
 - 12) 5-Oxy-1-Phenyl-1,6-Dihydro-1,2,4-Triazin. Zers. bei 203—204° (B. 28, 1229). — IV, 1106.
 - 13) 2-[4-Methylphenyl]-1,2,3,5-Oxtriazin. Sm. 138° u. Zers. K, Ag, Ag + NH₃ (R. 16, 345). — IV, 1101.
 - 14) 6-Acetylamidoindazol. Sm. 248° (B. 25, 3150). — IV, 1147.
 - 15) 5,7-Diamido-8-Oxychinolin. 2(3)HCl, (2HCl, PtCl₄) (J. pr. [2] 53, 538). — IV, 1160.
 - 16) 3-Oximido-5,7-Dimethyl-1,2-Benzisodiazol. Sm. 181,5 — 182,5° u. Zers. (J. pr. [2] 58, 349).
 - 17) 1-Acetyl-5-Methyl-1,2,3-Benztriazol. α -Derivat, Sm. 132°; β -Derivat, Sm. 93—94° (B. 19, 1758; A. 240, 119). — IV, 1146.

- C₉H₉ON₃** 18) **2-Imido-4-Keto-1-Methyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin.** HCl + H₂O, (2HCl, PtCl₄ + 2H₂O) (B. 13, 978). — II, 1255.
 19) **2-Methylimido-4-Keto-1,2,3,4-Tetrahydro-1,3-Benzdiazin.** HCl, (2HCl, PtCl₄) (B. 13, 979). — II, 1256.
 20) **4-Oxy-6,8-Dimethyl-1,2,3-Benztriazin.** Sm. 219—220° (A. 305, 333).
 21) **3-Acetyl-3,4-Dihydro-1,2,3-Benztriazin.** Sm. 138° u. Zers. HCl, (2HCl, PtCl₄) (J. pr. [2] 51, 277). — IV, 629.
 22) **Apokotin.** Sm. 160°. Cu + H₂O (B. 26, 769). — IV, 859.
 23) **Nitril d. 1-[β-Oximido-β-Amidoäthyl]benzol-4-Carbonsäure** (p-Cyanphenyläthenylamidoxim). Sm. 168° (B. 22, 2981). — II, 1844.
 24) **α-Cyanbenzylharnstoff** (Nitril d. α-Phenylhydantoin-säure). Sm. 178° u. Zers. (B. 20, 2355; 21, 2321). — II, 1325.
 25) **Verbindung** (aus 3,4-Toluylendiamincyanid). Sm. bei 240° (Bl. 42, 106). — IV, 622.
 26) **isom. Verbindung** (aus 3,4-Toluylendiamincyanid). Zers. bei 230—240° (Bl. 42, 107). — IV, 623.
- C₉H₉ON₅** C 53,2 — H 4,4 — O 7,9 — N 34,5 — M. G. 203.
 1) **1-Phenylammelin.** HCl, (2HCl, PtCl₄), H₂SO₄ + $\frac{1}{2}$ H₂O, 2 + AgNO₃ (M. 11, 4). — II, 451.
- C₉H₉OC1** 2) **Phenylammelin.** Sm. 245° (B. 20, 2240). — II, 664.
 1) **Indenoxychlorid.** Sm. 128—129° (B. 26, 1541). — II, 170.
 2) **Aethyl-4-Chlorphenylketon.** Sm. 35—36° (Bl. [3] 19, 830).
 3) **Methyl-4-Chlor-2-Methylphenylketon.** Sd. 239—240° (J. pr. [2] 43, 361). — III, 145.
 4) **Methyl-4-Chlor-3-Methylphenylketon.** Sd. 238—242° (J. pr. [2] 43, 356). — III, 145.
 5) **Methyl-6-Chlor-3-Methylphenylketon.** Sd. 239—240° (J. pr. [2] 46, 26). — III, 145.
 6) **Chlormethyl-4-Methylphenylketon.** Sm. 67° (55,5—56°); Sd. 260 bis 263° (B. 30, 578; 31, 2132; Bl. [3] 17, 507).
 7) **Aldehyd d. β-[3-Chlorphenyl]propionsäure.** Sd. bei 240° (B. 23, 1082). — III, 54.
 8) **Chlorid d. β-Phenylpropionsäure.** Sd. 225° (154—155°₇₅) (B. 26 [2] 747; Soc. 65, 484; Bl. [3] 13, 834). — II, 1357.
 9) **Chlorid d. 1-Aethylbenzol-2-Carbonsäure.** Sd. 219°_{74,5} (B. 29, 2535).
 10) **Chlorid d. 1,3-Dimethylbenzol-4-Carbonsäure.** Sm. 25,5—26,5°; Sd. 234—236° (B. 12, 1970). — II, 1376.
- C₉H₉OBr** 1) **β-Bromallylphenyläther.** Sd. 240° (Bl. 40, 324). — II, 654.
 2) **Methyläther d. 4-Oxy-1-[β]-Bromäthenylbenzol.** Sm. 54,5° (B. 20, 2537). — II, 849.
 3) **α-Bromäthylphenylketon.** Sd. 245—250°₇₆ (Bl. [3] 15, 716; [3] 17, 69).
 4) **β-Bromäthylphenylketon.** Fl. (B. 19, 2897). — III, 140.
 5) **Aethyl-4-Bromphenylketon.** Sm. 44—45° (Bl. [3] 19, 830).
 6) **Methyl-4-Brom-2-Methylphenylketon.** Sd. 257—258° (J. pr. [2] 43, 362). — III, 145.
 7) **Methyl-4-Brom-3-Methylphenylketon.** Sd. 269—270° (262—264°) (J. pr. [2] 43, 358; B. 24, 3768). — III, 145.
 8) **Methyl-6-Brom-3-Methylphenylketon.** Sm. 257° (J. pr. [2] 46, 21). — III, 145.
 9) **Brommethyl-4-Methylphenylketon.** Sm. 49—51° (B. 30, 577, 1713; Bl. [3] 17, 909).
 10) **Indenoxybromid.** Sm. 130—131° (B. 23, 3280). — II, 170.
- C₉H₉OBr₃** 1) **1,4-Anhydrid d. 1,2,6-Tribrom-4-Oxy-3,5-Trimethyl-1-Oxymethyl-1,4-Dihydrobenzol.** Sm. 146—147° (A. 302, 78).
 2) **1,4-Anhydrid d. 1,3,6-Tribrom-4-Oxy-2,5-Dimethyl-1-Oxymethyl-1,4-Dihydrobenzol.** Sm. 126° (B. 28, 2888, 2902, 2910, 3125; 29, 1095, 2329; 30, 744; A. 302, 120).
 3) **isom. Pseudocumenoltribromid.** Sm. 128° (B. 32, 22).
 4) **Methyläther d. 2,5,6-Tribrom-4-Oxy-1,3-Dimethylbenzol.** Sm. 120° (B. 11, 26). — II, 759.
 5) **Aethyläther d. p-Tribrom-3-Oxy-1-Methylbenzol.** Sm. 36° (J. pr. [2] 39, 59). — II, 745.
 6) **Propyläther d. 2,4,6-Tribrom-1-Oxybenzol.** Sm. 33—34° (G. 23 [2] 494). — II, 674.

C_9H_9OJ
 $C_9H_9O_2N$

- 1) **Methyl-4-Jod-3-Methylphenylketon.** Sm. 39° (B. 18, 2700). — III, 145.
C 66,3 — H 5,5 — O 19,6 — N 8,6 — M. G. 163.
- 1) **Bilirubin,** siehe $C_{42}H_{58}O_6N_4$. — III, 662.
- 2) **β -Nitro- α -Phenylpropen.** Sm. 64° (A. 225, 354; B. 24, 2773). — II, 169.
- 3) **Oximidomethyl-4-Methylphenylketon.** Sm. 100° (B. 22, 2560). — III, 146.
- 4) **β -Oximido- α -Keto- α -Phenylpropan** (α -Oximidoäthylphenylketon). Sm. 115° (113°) (B. 21, 2119; 22, 529, 562; A. 291, 292). — III, 140.
- 5) **γ -Oximido- α -Keto- α -Phenylpropan.** Sm. 86—87° (B. 24, 132). — III, 95.
- 6) **α -Oximido- β -Keto- α -Phenylpropan** (A. 291, 280). — III, 268.
- 7) **Aethyläther d. 4-Oxyphenylisocyanat.** Sd. 230—235° (B. 25, 1090). — II, 719.
- 8) **Zimmthydroxamsäure.** Sm. 110°. Na, K, Ba, Pb (A. 178, 214). — II, 1408.
- 9) **2-[$\alpha\gamma$ -Diketobutyl]pyridin.** Sm. 49—50°; Sd. 137—143°₁₅. HCl, (HCl, $HgCl_2 + 2H_2O$), (2HCl, $PtCl_4 + 2H_2O$), + $HgCl_2$ (M. 17, 442). — IV, 185.
- 10) **3-[$\alpha\gamma$ -Diketobutyl]pyridin.** Sm. 85°; Sd. 171°₁₅. HCl, (HCl, $HgCl_2$), (2HCl, $PtCl_4$), + $HgCl_2$, Na (M. 18, 674).
- 11) **Methyläther d. 3-Oxy-2-Keto-2,3-Dihydroindol** (Methyldioxindol). Sm. 149—151° (A. 248, 121). — II, 1612.
- 12) **1-Keto-2-Aethyl-1,2-Dihydrobenzoxazol.** Sm. 29°; Sd. 300° (B. 19, 2269, 2952). — II, 706.
- 13) **5-Oxy-1,3-Dimethylbenzoxazol.** Sm. 210° (M. 19, 509).
- 14) **Aethyläther d. 1-Oxybenzoxazol.** Sd. 225—230° (B. 19, 2655). — II, 707.
- 15) **2-Oximido-3,4-Dihydro-1,2-Benzpyron** (Hydrocumaroxim). Fl. (B. 19, 1664). — II, 1563.
- 16) **2,4-Dioxy-3,4-Dihydrochinolin + 2H₂O.** Sm. 95—97° (149° wasserfrei) (B. 17, 2011). — IV, 286.
- 17) **3-Oxy-2-Keto-1,2,3,4-Tetrahydrochinolin** (Oxyhydrocarbostyryl). Sm. 197—198° (A. 219, 230). — II, 1577.
- 18) **2-Oxy-2-Methyl-1,3-Benzoxazin** (Methyloxyecumarazin). Zers. bei 150°. Ba + H₂O (B. 31, 1596).
- 19) **Methyläther d. 3-Oxy-1,4-Benzoxazin.** Sd. 135—136°₂₁ (Am. 20, 563).
- 20) **2-Keto-3-Methyl-3,4-Dihydro-1,4-Benzoxazin** (Methylphenmorpholon). Sm. 109—111° (B. 30, 2927).
- 21) **3-Keto-4-Methyl-3,4-Dihydro-1,4-Benzoxazin.** Sm. 58—59°; Sd. 156°₁₄ (Am. 20, 560).
- 22) **β -Phenylamidoakrylsäure.** Sm. 160° u. Zers. Na (B. 20, 3106; 26, 1761). — II, 436.
- 23) **α -Amido- β -Phenylakrylsäure.** Zers. bei 240—250°. HCl, Cu + 2H₂O (B. 17, 1620). — II, 1419.
- 24) **β -[2-Amidophenyl]akrylsäure.** Sm. 158—159° u. Zers. HCl, Ba (B. 13, 2061; 15, 1422, 2244; A. 224, 266; 225, 241). — II, 1417.
- 25) **β -[3-Amidophenyl]akrylsäure.** Sm. 180—181°. HCl, HNO₃, Ba + 2H₂O, Cu (B. 13, 2064; 15, 2296; 16, 2038; J. 1879, 712). — II, 1419.
- 26) **β -[4-Amidophenyl]akrylsäure.** Sm. 175—176° u. Zers. HCl, Ba (B. 13, 2066; 14, 2360; 15, 2299; 18, 3234). — II, 1419.
- 27) **α -Phenylimidopropionsäure** (Anilbrenztraubensäure). Sm. 126°. Ba (A. 188, 336; 263, 126; 279, 183; Bl. [3] 13, 337). — II, 405.
- 28) **4-Methylphenylimidoessigsäure.** Sm. 193° (B. 28 [2] 613).
- 29) **2-Aethylidenamidobenzol-1-Carbonsäure** (B. 28, 2811).
- 30) **3-Aethylidenamidobenzol-1-Carbonsäure** (A. 210, 117). — II, 1270.
- 31) **β -[6-Methyl-2-Pyridyl]akrylsäure.** Sm. 169,5°. HCl, (2HCl, $PtCl_4$) (B. 26, 1419). — IV, 212.
- 32) **α -[6-Methyl-3-Pyridyl]akrylsäure.** Fl. + AuCl₃ (B. 28, 1768). — IV, 150.
- 33) **Lakton d. 4-Amido-1-[α -Oxyäthyl]benzol-2-Carbonsäure** (Methyl-m-Amidophtalid). Sm. 126—127° (B. 29, 2542).
- 34) **Aldehyd d. Benzoylamidoessigsäure.** HCl (B. 26, 465). — II, 1190.
- 35) **Aldehyd d. 2-Acetylamidobenzol-1-Carbonsäure.** Sm. 70—71° (B. 15, 2574; 17, 456). — III, 17.

- C₉H₉O₂N**
- 36) Aldehyd d. 4-Acetylamidobenzol-1-Carbonsäure. Sm. 154,5—155° (B. 18, 2003). — III, 18.
 - 37) Methylester d. β -[2-Pyridyl]akrylsäure. HCl (Sm. 185—186°) (A. 265, 226). — IV, 212.
 - 38) Amid d. Benzoylessigsäure. Sm. 111—113° (A. 266, 332). — II, 1644.
 - 39) Amid d. 1-Methylbenzol-4-Ketocarbonsäure. Sm. 160° (B. 20, 2050). — II, 1653.
 - 40) Methylamid d. Benzolketocarbonsäure. Sm. 74° (A. 280, 292). — II, 1598.
 - 41) polym. Methylamid d. Benzolketocarbonsäure. Sm. 143° (A. 280, 293).
 - 42) Phenylamid d. Brenstraubensäure. Sm. 104° (A. 270, 299; 279, 74). — II, 405.
 - 43) 2-Oxyphenylamid d. Akrylsäure. Sm. 123—124° (Bl. [3] 9, 423). — II, 705.
 - 44) Acetylamid d. Benzolcarbonsäure. Sm. 120° (115°) (B. 11, 9; 25, 1436; 27, 307; 28, 2355; Am. 13, 6). — II, 1170.
 - 45) Formylacetylamidobenzol. Sm. 56—57°; Sd. 157—158°₂₅ (Am. 18, 698; 19, 134).
 - 46) Nitril d. $\alpha\beta$ -Dioxy- α -Phenylpropionsäure (N. d. Atroglycerinsäure). Sm. 55—57° (B. 16, 1292). — II, 1764.
 - 47) Nitril d. α -Oxy- α -[2-Methoxylphenyl]essigsäure. Sm. 71° (B. 15, 2025). — II, 1750.
 - 48) Nitril d. α -Oxy- α -[4-Methoxylphenyl]essigsäure. Sm. 63° (B. 14, 1976). — II, 1750.
 - 49) Nitril d. 2,6-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 118°; Sd. 310° (R. 2, 219). — II, 1739.
 - 50) Nitril d. 3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 67 bis 68° (G. 20, 700; Bl. [3] 15, 650). — II, 1742.
 - 51) Acetat d. anti-Benzaldoxim. Sm. 14—16° (B. 24, 37; G. 22 [2] 178; Soc. 69, 188). — III, 42.
 - 52) Acetat d. syn-Benzaldoxim. Sm. 55—56° (B. 24, 38). — III, 44.
 - 53) Verbindung (aus d. Chloräthylester d. Phenylamidoameisensäure). Sm. 124° (J. pr. [2] 31, 175). — II, 372.
- C₉H₉O₂N₂**
- C 56,6 — H 4,7 — O 16,7 — N 22,0 — M. G. 191.
 - 1) γ -Nitro- γ -Phenylhydrazonpropen. Sm. 95—96° u. Zers. (B. 25, 1704). — IV, 1376.
 - 2) 5-Amido-2-Keto-3-[2-Methylphenyl]-2,3-Dihydro-1,3,4-Oxiazol. Sm. 131° (B. 26, 2876). — IV, 802.
 - 3) 2-Keto-5-Methyl-3-[4-Amidophenyl]-2,3-Dihydro-1,3,4-Oxiazol. Sm. 125°. HCl, (2HCl, PtCl₄), HNO₃, H₂SO₄, Oxalat (B. 26, 1318). — IV, 1126.
 - 4) 3,5-Diketo-4-Phenyl-1-Methyltetrahydro-1,2,4-Triazol. Sm. 188° (B. 29, 2927).
 - 5) 3,5-Diketo-1-[2-Methylphenyl]tetrahydro-1,2,4-Triazol (o-Tolylurazol). Sm. 170° (B. 21, 1221). — IV, 802.
 - 6) 3,5-Diketo-1-[4-Methylphenyl]tetrahydro-1,2,4-Triazol. Sm. 274° u. Zers. (B. 21, 1222). — IV, 805.
 - 7) 4,6-Diketo-2-Phenylhexahydro-1,3,5-Triazin (Benzylidenbiuret). Sm. 272—273° (258° u. Zers.) (Am. 13, 115; G. 24 [1] 294; A. 291, 367). — III, 34.
 - 8) 1,5-Dinitroso-2-Methyl-2,3-Dihydroindol. Sm. 105—106° (B. 26, 1293). — IV, 188.
 - 9) 7-Nitro-2,5-Dimethylbenzimidazol. Sm. 246°. HCl (B. 21, 2402). — IV, 881.
 - 10) 2-Nitro-2,5-Dimethylbenzimidazol + H₂O. Sm. 201—202°. HNO₃ (B. 8, 677; 19, 724; 25, 1993). — IV, 881.
 - 11) 1,6-Dinitroso-1,2,3,4-Tetrahydrochinolin. Sm. 98° (B. 21, 864). — IV, 191.
 - 12) 2-Amido-2,4-Diketo-7-Methyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 308° u. Zers. (J. pr. [2] 51, 513).
 - 13) Lakton d. 1-Oxy-1,1-Dimethyl-1,1-Dihydro-1,2,3-Benztriazol-5 [oder 6]-Carbonsäure (Benzoësäuredimethylazammoniumbetaïn). Sm. 247° (A. 291, 339). — IV, 1154.
 - 14) Nitril d. α -[4-Nitrophenyl]amidopropionsäure. Sm. 120° (A. 302, 354).

- $C_9H_9O_2N_3$ 15) Benzylidenhydrazid d. Oxaminsäure (Semioxamazid d. Benzaldehyd). Sm. 264° u. Zers. (B. 30, 589).
- 16) Verbindung (aus 2-Amidophenylamidoameisensäureäthylester). Sm. 73° (B. 12, 1297; 15, 1879, 1880). — IV, 559.
- $C_9H_9O_2N_3$ C 49,3 — H 4,1 — O 14,6 — N 32,0 — M. G. 219.
- 1) Nitril d. Kaffeincarbonsäure. Sm. 151°; subl. bei 166° (Am. 17, 405). — III, 962.
- $C_9H_9O_2Cl$ 1) Methyläther d. Chlormethyl-4-Oxyphenylketon. Sm. 102° (B. 30, 1715).
- 2) 5-Chlor-3,4,6-Trimethyl-1,2-Benzochinon. Sm. 96–97° (A. 296, 218).
- 3) 6-Chlor-2,3,5-Trimethyl-1,4-Benzochinon. Sm. 72–73° (B. 27, 1428). — III, 364.
- 4) α -Chlor- α -Phenylpropionsäure. Sm. 73–74° (88,5°) (A. 209, 20; 217, 77; B. 12, 948). — II, 1370.
- 5) β -Chlor- α -Phenylpropionsäure. Sm. 87–88° (B. 14, 237, 331; A. 209, 4; 217, 77). — II, 1370.
- 6) β -Chlor- β -Phenylpropionsäure. Sm. 126° (B. 12, 1610; 14, 1867; A. 147, 95). — II, 1357.
- 7) β -[2-Chlorphenyl]propionsäure. Sm. 96,5° (B. 16, 2037). — II, 1357.
- 8) β -[3-Chlorphenyl]propionsäure. Sm. 77–78° (B. 16, 2039; 23, 1892). — II, 1357.
- 9) β -[4-Chlorphenyl]propionsäure. Sm. 122° (124°) (B. 16, 2040; 25, 2112). — II, 1357.
- 10) 2-Chlor-1,3-Dimethylbenzol-5-Carbonsäure. Zers. bei 220°. Ca + 5H₂O, Ba + 4H₂O (A. 150, 325). — II, 1378.
- 11) Chlordiparakonsäure. Sm. 220° u. Zers. Ca + 4H₂O, Ba + 4H₂O (Soc. 71, 614).
- 12) Methylester d. Phenylchloroessigsäure. Sd. 248° u. ger. Zers. (A. 220, 44; B. 14, 2392). — II, 1316.
- 13) Methylester d. d-Phenylchloroessigsäure. Sd. 178°₄₀ (C. 1898 [2] 918).
- 14) β -Chloräthylester d. Benzolcarbonsäure. Sd. 254–255°₇₄₉ (A. 113, 121; B. 25, 2384). — II, 1139.
- 15) Aethylester d. 2-Chlorbenzol-1-Carbonsäure. Sd. 237–241° (243°) (A. 117, 153; 143, 196; B. 8, 883). — II, 1217.
- 16) Aethylester d. 3-Chlorbenzol-1-Carbonsäure. Sd. 245° (A. 102, 262). — II, 1218.
- 17) Phenylester d. β -Chlorpropionsäure. Sd. 154–157°₉₀ (Bl. [3] 9, 417). — II, 662.
- 18) Benzylester d. Chloroessigsäure. Sd. 147,5° (B. 21, 282). — II, 1051.
- 19) 4-Chlorbenzylester d. Essigsäure. Sd. 240° (A. 147, 345). — II, 1056.
- $C_9H_9O_2Cl_3$ 1) Verbindung (aus Chloral u. 4-Oxy-1-Methylbenzol). Sm. 52–56° (G. 13, 272). — II, 748.
- $C_9H_9O_2Br$ 1) Methyläther d. Brommethyl-4-Oxyphenylketon. Sm. 73° (B. 31, 173).
- 2) α -Brom- α -Phenylpropionsäure. Sm. 93–94° (A. 195, 152; 209, 13). — II, 1370.
- 3) β -Brom- α -Phenylpropionsäure. Sm. 93–94° (A. 209, 10; B. 14, 331). — II, 1370.
- 4) β -Brom- β -Phenylpropionsäure. Sm. 137° (A. 147, 96; 195, 132; B. 11, 1221; 12, 537). — II, 1358.
- 5) β -[2-Bromphenyl]propionsäure. Sm. 98–99° (B. 15, 2296). — II, 1358.
- 6) β -[3-Bromphenyl]propionsäure. Sm. 74,5–75° (B. 15, 2294, 2298). — II, 1358.
- 7) β -[4-Bromphenyl]propionsäure. Sm. 136°; Sd. 250°₃₀. Ba, Ag (A. 143, 341; J. 1877, 858; Z. 1869, 197; B. 13, 1683; 15, 2300). — II, 1358.
- 8) α -Brom- α -[4-Methylphenyl]essigsäure. Sm. 125°. Ba + 3H₂O (J. pr. [2] 44, 95). — II, 1374.
- 9) β -Brom-1,2-Dimethylbenzol-4-Carbonsäure. Sm. 189° (B. 17, 1609). — II, 1375.
- 10) 5-Brom-1,3-Dimethylbenzol-4-Carbonsäure. Sm. 183–184° (Am. 20, 802).
- 11) 6-[β]Brom-1,3-Dimethylbenzol-4-Carbonsäure. Sm. 174° (172–173°). K + xH₂O, Ca + 2H₂O, Ba + 6H₂O (A. 215, 244; B. 17, 1608). — II, 1377.

- C₉H₇O₂Br** 12) **2-Brom-1,3-Dimethylbenzol-5-Carbonsäure.** Sm. 214—215°. K, Ca + 5H₂O, Ba (A. 147, 8; 193, 174; 215, 246). — II, 1378.
 13) **4-Brom-1,3-Dimethylbenzol-5-Carbonsäure.** Sm. 146—147°. Ca + 2H₂O, Ba + 4H₂O (A. 193, 172). — II, 1378.
 14) **Aldehyd d. 5-Brom-2-Oxybenzoläthyläther-1-Carbonsäure.** Sm. 67—68°. + NaHSO₃ (A. 145, 308; B. 29, 245 Anm.). — III, 70.
 15) **Methylester d. d-α-Bromphenylessigsäure** (B. 31, 1420).
 16) **Methylester d. 4-Brom-1-Methylbenzol-2-Carbonsäure.** Sm. 44—46° (A. 239, 75). — II, 1332.
 17) **Aethylester d. 2-Brombenzol-1-Carbonsäure.** Sd. 254—255° (A. 198, 109). — II, 1221.
 18) **Aethylester d. 3-Brombenzol-1-Carbonsäure.** Sd. 259° (B. 4, 707). — II, 1222.
 19) **Aethylester d. 4-Brombenzol-1-Carbonsäure.** Sd. 262°_{787,4} (G. 17, 211). — II, 1222.
 20) **5-Brom-3-Methylphenylester d. Essigsäure.** Sm. 83° (J. pr. [2] 39, 62). — II, 745.
 21) **4-Brombenzylester d. Essigsäure.** Sm. 32°; Sd. 260—263° (B. 10, 1209; J. pr. [2] 39, 173; Bl. [3] 21, 289). — II, 1058.
- C₉H₇O₂Br₃** 1) **2-Methyläther d. 3,4,6-Tribrom-5-Oxy-2-Oxymethyl-1-Methylbenzol.** Sm. 122—123° (A. 302, 102).
 2) **3-Methyläther d. 2,4,5-Tribrom-6-Oxy-3-Oxymethyl-1-Methylbenzol.** Sm. 100° (B. 29, 1131, 2351).
- C₉H₇O₂J** 3) **Verbindung (aus Pseudotolylessigsäure).** Sm. 80—85° (B. 29, 107).
 1) **β-Jod-β-Phenylpropionsäure.** Sm. 119—120° u. Zers. (A. 147, 97; 195, 133). — II, 1360.
 2) **β-[2-Jodphenyl]propionsäure.** Sm. 102—103° (B. 16, 2037). — II, 1360.
 3) **β-[3-Jodphenyl]propionsäure.** Sm. 65—66° (B. 16, 2039). — II, 1360.
 4) **β-[4-Jodphenyl]propionsäure.** Sm. 140—141° (B. 16, 2040). — II, 1360.
 5) **5-Jod-1,3-Dimethylbenzol-4-Carbonsäure?** Sm. 196—197°. Cu + xH₂O (Am. 20, 805).
 6) **p-Jod-1,3-Dimethylbenzol-4-Carbonsäure.** Sm. 172—173°. Ba + 6H₂O (Am. 20, 806).
 7) **Aethylester d. 2-Jodbenzol-1-Carbonsäure.** Sd. 275° (B. 26, 1744). — II, 1226.
 8) **Aethylester d. 3-Jodbenzol-1-Carbonsäure.** Fl. (A. 135, 110). — II, 1227.
 9) **Aethylester d. 4-Jodbenzol-1-Carbonsäure.** Fl. (A. 207, 333). — II, 1227.
- C₉H₇O₂F** 1) **Aethylester d. 4-Fluorbenzol-1-Carbonsäure** (G. 11, 91; J. pr. [2] 1, 400). — II, 1216.
- C₉H₇O₂N** C 60,3 — H 5,0 — O 26,8 — N 7,8 — M. G. 179.
 1) **Methyläther d. 3-Nitro-4-Oxy-1-Aethenylbenzol.** Sm. 89° (A. 243, 368). — II, 850.
 2) **Aethylnitrophenylketon.** (2 Isomere.) Fl. u. fest (Sm. 100°) (B. 6, 1007). — III, 140.
 3) **Methyl-3-Nitro-4-Methylphenylketon.** Sm. 61° (G. 21, 92). — III, 147.
 4) **3,4-Aethylenäther d. 3,4-Dioxy-1-Oximidomethylbenzol.** Sm. 75 bis 75,5° (Bl. [3] 19, 510).
 5) **Acetat d. 4-Oximido-1-Keto-2-Methyl-1,4-Dihydrobenzol.** Sm. 112° (u. 85—87°) (Am. 20, 769).
 6) **Acetat d. 4-Oximido-1-Keto-3-Methyl-1,4-Dihydrobenzol.** Sm. 92° (B. 12, 1799; Am. 20, 775). — II, 745.
 7) **Aethyläther d. p-Oxy-1-Keto-1,2-Dihydrobenzoxazol.** Sm. 150,5 bis 151° (M. 19, 542).
 8) **Aethyläther d. isom. p-Oxy-1-Keto-1,2-Dihydrobenzoxazol.** Sm. 125° (M. 19, 546).
 9) **3-Formylamido-1-Methylbenzol-4-Carbonsäure.** Sm. 183—187° (J. pr. [2] 40, 18). — II, 1351.
 10) **2-Acetylamidobenzol-1-Carbonsäure.** Sm. 185°. Pb, Ag (B. 14, 885; 15, 2108, 3077; 28, 2820; 31, 663; Soc. 37, 752; J. pr. [2] 33, 31; Ph. Ch. 1, 101; 3, 263; Am. 20, 222; C. 1898 [1] 295). — II, 1250.

- C₉H₉O₃N**
- 11) 3-Acetylamidobenzol-1-Carbonsäure. Sm. 248° u. Zers.; subl. Na, Ca + 3H₂O, Ba + 3H₂O, Ag (A. 117, 165; H. 12, 315; 17, 287; 18, 134; Ph. Ch. 3, 263; G. 26 [2] 484). — II, 1259.
 - 12) 4-Acetylamidobenzol-1-Carbonsäure. Sm. 250° u. Zers. Cu, Ag (B. 9, 1302; 18, 2942; Ph. Ch. 3, 263). — II, 1272.
 - 13) β-[6-Amido-3-Oxyphenyl]akrylsäure + H₂O (B. 27, 1936). — II, 1635.
 - 14) Benzoylamidoessigsäure (Hippursäure). Sm. 187,5°. Salze meist bekannt; Lit. bedeutend. — II, 1182.
 - 15) Phenylformylamidoessigsäure. Sm. 123—124°. Na (B. 23, 2592). — II, 429.
 - 16) α-Oximido-β-Phenylpropionsäure. Zers. bei 159—160°. Ag (A. 271, 167). — II, 1641.
 - 17) anti-Benzaldoximessigsäure. Sm. 98°. K + H₂O (A. 289, 305). — III, 43.
 - 18) Isobenzaldoximessigsäure. Sm. 183° u. Zers. (A. 289, 307). — III, 44.
 - 19) Phenylmalonaminsäure. Sm. 132°. Ca + 4½H₂O, Ag (B. 17, 136, 737; 18, 1359; Ph. Ch. 3, 370). — II, 412.
 - 20) Methylphenyloxaminsäure. Sm. 82—83,5° (wasserfrei bei 120° u. Zers.). — II, 408.
 - 21) 2-Methylphenyloxaminsäure. Sm. 83—84° (130° wasserfrei). Ca, Ba + H₂O, Ag (M. 7, 234; 9, 737; Ph. Ch. 3, 288; J. pr. [2] 47, 188). — II, 466.
 - 22) 4-Methylphenyloxaminsäure. Sm. 168—170°. Ba (A. 184, 285). — II, 501.
 - 23) Benzyloxaminsäure. Sm. 128—129°. Ag, Benzylaminsalz (R. 13, 414; A. 295, 364). — II, 529.
 - 24) Acetylphenylamidoameisensäure. Na (B. 18, 1358). — II, 374.
 - 25) Chinolinsäure. Sm. 143°. Ag (J. 1880, 949). — IV, 290.
 - 26) Leukolinsäure. Sm. 162° (J. 1877, 445; 1880, 949). — IV, 290.
 - 27) Aldehyd d. 2-Oxybenzoylamidoessigsäure. Fl. HCl (B. 27, 3102). — II, 1499.
 - 28) Aldehyd d. 4-Nitro-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 102 bis 103° (J. pr. [2] 58, 360).
 - 29) Methylester d. Phenyloxaminsäure. Sm. 114° (A. 254, 10). — II, 407.
 - 30) Methylester d. syn-α-Oximido-α-Phenylessigsäure. Sm. 138—139° (B. 16, 2987). — II, 1599.
 - 31) Benzylester d. Oxaminsäure. Sm. 134—135° (B. 13, 507). — II, 1052.
 - 32) Amid d. 3,4-Dioxyphenylessigmethylenäthersäure. Sm. 172—173° (B. 24, 2885). — II, 1749.
 - 33) 2-Amid d. Benzol-1-Carbonsäure-2-Methylcarbonsäure (o-Homophthalamidsäure). Sm. 185—187° u. Zers. (B. 20, 1203; 27, 2504). — II, 1842.
 - 34) 1-Amid d. Benzol-1-Carbonsäure-4-Methylcarbonsäure. Sm. 229°. Ag (B. 22, 3215). — II, 1844.
 - 35) 4-Amid d. Benzol-1-Carbonsäure-4-Methylcarbonsäure. Sm. 261°. Ag (B. 22, 3214). — II, 1844.
 - 36) Acetat d. Benzhydroxamsäure. Sm. 125° (B. 25, 43; 27, 1256). — II, 1197.
 - 37) N-Benzoat d. Acethydroxamsäure. Sm. 69—70° (u. 98—99°). Na (B. 29, 1219; Am. 20, 4; C. 1898 [2] 478).
 - 38) 1-Acetat d. 3-Oxybenzaldoxim. Sm. 122° (B. 25, 1924). — III, 81.
 - 39) 1-Acetat d. 4-Oxybenzaldoxim. Sm. 114—115° (B. 25, 1925). — III, 86.
- C₉H₉O₃N₃**
- 1) Aethenylnitrooxytoluylendiamin. Sm. 255—256° (B. 21, 2404). — IV, 881.
 - 2) 5-Methyl-3-[4-Nitrophenyl]-4,5-Dihydro-1,2,4-Oxdiazol. Sm. 153° (B. 22, 2424). — II, 1238.
 - 3) 5-Nitro-1-Nitroso-2-Methyl-2,3-Dihydroindol. Sm. 133,5° (B. 26, 1293; 31, 2540). — IV, 188.
 - 4) 2-Nitro-1-Nitroso-2-Methyl-2,3-Dihydroindol. Sm. 108° (B. 31, 2540).
 - 5) 6-Nitro-1-Nitroso-1,2,3,4-Tetrahydrochinolin. Sm. 154—155° (B. 16, 730; 31, 2536). — IV, 191.
 - 6) 8-Nitro-1-Nitroso-1,2,3,4-Tetrahydrochinolin. Sm. 99—100° (B. 16, 730; 31, 2536). — IV, 191.

- C₉H₉O₃N₃** 7) Benzoylbiuret (Benzoylamid d. Harnstoffcarbonsäure). Sm. 228—229° (222—224°) (B. 6, 1392; A. 291, 379; G. 26 [2] 538).
 8) 1-Semicarbazonmethylbenzol-2-Carbonsäure. Sm. 202° (B. 29, 179).
 9) Phenylhydrazonacetylamidoameisensäure. Sm. 165° (169°) (B. 24, 4144; 31, 1973). — IV, 700.
 10) Benzol-1-Carbonsäure-3-Amidoimidoessigsäureamid. (HCl, AuCl₃ + 1½ H₂O) (B. 18, 2411). — II, 1268.
 11) Monoguanid d. Benzol-1,2-Dicarbonsäure. Sm. 202—203° (J. pr. [2] 49, 43). — II, 1798.
 12) Oxaluranilid? (A. 68, 25). — II, 411.
 13) 2-Oxybenzylidenhydrazid d. Oxaminsäure. Sm. 255° u. Zers. (B. 30, 590).
 14) Verbindung (aus Phtalsäureanhydrid u. Guanidintrhodanid). Sm. 202° (Ann. 9, 220). — II, 1807.
- C₉H₉O₃Cl** 1) α-Chloräthyl-3,4-Dioxyphenylketon (J. r. 25, 160). — III, 143.
 2) Chloracetat d. 1,2-Dioxybenzolmonomethyläther. Sm. 50°; Sd. 258 bis 259° (J. r. 25, 161). — II, 910.
 3) p-Chlor-β-Oxy-α-Phenylpropionsäure. Sm. 128—130° (A. 217, 110). — II, 1579.
 4) β-Chlor-α-Oxy-β-Phenylpropionsäure. Sm. 141—142° (A. 271, 151, 153). — II, 1576.
 5) α-Chlor-β-Oxy-β-Phenylpropionsäure + H₂O. Sm. 78—80° (56,5°; wasserfrei bei 104° (86°). Ag (A. 147, 79; 219, 185; J. 1882, 364; B. 22, 3140). — II, 1572.
 6) Methylester d. 3-Chlor-4-Oxybenzolmethyläther-1-Carbonsäure. Sm. 94,5—95,5° (B. 30, 1478).
 7) Äthylester d. 5-Chlor-2-Oxybenzol-1-Carbonsäure. Sm. 110° (B. 11, 1227). — II, 1504.
- C₉H₉O₃Cl₃** 1) Trimethyläther d. 4,5,6-Trichlor-1,2,3-Trioxybenzol. Sm. 54° (G. 27 [1] 291).
 2) Trimethyläther d. 2,4,6-Trichlor-1,3,5-Trioxybenzol. Sm. 130—131° (B. 24, 2980; 25, 1119; G. 27 [1] 289). — II, 1020.
- C₉H₉O₃Br** 1) α-Bromäthyl-3,4-Dioxyphenylketon. Sm. 141° (J. r. 25, 160). — III, 143.
 2) 4-Methyläther d. Methyl-p-Brom-2,4-Dioxyphenylketon. Sm. 171° (B. 30, 301).
 3) β-Brom-α-Oxy-β-Phenylpropionsäure. Sm. 164—165° u. Zers. (B. 16, 1290; 30, 1605; J. 1882, 364). — II, 1577.
 4) isom. β-Brom-α-Oxy-β-Phenylpropionsäure. Sm. 156—157° u. Zers. (B. 30, 1603).
 5) α-Brom-β-Oxy-β-Phenylpropionsäure + H₂O. Sm. 120—122° (125° wasserfrei). Ag (A. 147, 83; B. 13, 309, 310; 24, 2831; J. 1882, 364). — II, 1573.
 6) β-[p-Brom-2-Oxyphenyl]propionsäure. Sm. 141—142° (A. 226, 362). — II, 1563.
 7) α-Oxypropion-4-Bromphenyläthersäure. Sm. 105—106°. Na (J. pr. [2] 21, 157). — II, 673.
 8) p-Brom-4-Methoxyphenylessigsäure. Sm. 114—115°. Ag (B. 22, 1241). — II, 1544.
 9) 5-Brom-2-Oxybenzoläthyläther-1-Carbonsäure. Sm. 130—131°. Ca + 2 H₂O, Ba + 4 H₂O (G. 16, 412; B. 29, 245 Ann.). — II, 1505.
 10) Methylester d. 5-Brom-2-Oxybenzolmethyläther-1-Carbonsäure. Sm. 39—40°; Sd. 295—296° (G. 16, 407). — II, 1505.
 11) Methylester d. 3-Brom-4-Oxybenzolmethyläther-1-Carbonsäure (A. 56, 314). — II, 1536.
 12) Äthylester d. 5-Brom-2-Oxybenzol-1-Carbonsäure. Sm. 49—50° (J. pr. [2] 47, 242). — II, 1505.
 13) Äthylester d. β-[5-Brom-2-Furanyl]akrylsäure. Sm. 42°; Sd. 151 bis 152°₁₄ (Ann. 12, 322). — III, 711.
 14) 1-Acetate d. 5-Brom-2-Oxy-1-Oxymethylbenzol. Sm. 100—101° (A. 302, 146).
- C₉H₉O₃Br₃** 1) Trimethyläther d. 4,5,6-Tribrom-1,2,3-Trioxybenzol. Sm. 81,5° (B. 21, 607). — II, 1013.
 2) Trimethyläther d. 2,4,6-Tribrom-1,3,5-Trioxybenzol. Sm. 145° (B. 21, 603). — II, 1020.

- $C_3H_5O_3Br_3$ 3) polym. Bromakrolein = $(C_3H_5OBr_3)_n$. Sm. 77—78° (Bl. 36, 137). — I, 959.
- $C_3H_5O_3J$ 1) α -Jod- β -Oxy- β -Phenylpropionsäure + H_2O . Sm. 137—139° u. Zers. (140—142°) (B. 19, 2464; A. 289, 276). — II, 1573.
 2) Methylester d. 3-Jod-4-Oxybenzolmethyläther-1-Carbonsäure. Sm. 95° (J. pr. [2] 57, 496; [2] 58, 147).
 3) Aethylester d. 5-Jod-2-Oxybenzol-1-Carbonsäure. Sm. 70—71° (J. 1864, 385). — II, 1507.
- $C_3H_5O_3N$ C 55,4 — H 4,6 — O 32,8 — N 7,2 — M. G. 195.
 1) Methyläther d. Methyl-3-Nitro-4-Oxyphenylketon. Sm. 99,5° (B. 25, 3524). — III, 135.
 2) 2-Nitrophenyläther d. α -Oxy- β -Ketopropan. Sm. 69° (B. 30, 1634).
 3) 4-Nitrophenyläther d. α -Oxy- β -Ketopropan. Sm. 81° (B. 30, 1633).
 4) 6-Nitro-2,3,5-Trimethyl-1,4-Benzochinon. Sm. 113° (A. 237, 17). — III, 364.
 5) Phenylamidoformoxylessigsäure (Glykolsäurephenylurethan). Sm. 134 bis 135° (Bl. [3] 19, 773).
 6) 2-Carboxylphenylamidoessigsäure (Benzol-1-Carbonsäure-2-Amidoessigsäure). Sm. 207° u. Zers. K, Ca, Ba + $2H_2O$ (M. 9, 728; B. 27, 3254). — II, 1252.
 7) 4-Carboxylphenylamidoessigsäure (Benzol-1-Carbonsäure-4-Amidoessigsäure). Sm. 219—221° u. Zers. Ca + $3H_2O$, Ba + $4H_2O$, Cu (M. 11, 380). — II, 1272.
 8) 2-Oxybenzoylamidoessigsäure. Sm. 160°. Ba (A. 97, 251). — II, 1501.
 9) 3-Oxybenzoylamidoessigsäure (3-Oxybenzursäure) (H. 1, 260; B. 1, 190; J. pr. [2] 15, 259). — II, 1517, 1518.
 10) 4-Oxybenzoylamidoessigsäure. Sm. 228° u. Zers. (H. 1, 260; 7, 26). — II, 1529.
 11) 5-Acetylamido-2-Oxybenzol-1-Carbonsäure + $\frac{1}{2}H_2O$. Sm. 218° (A. 195, 19). — II, 1513.
 12) β -[2-Furanyl]akrylamidoessigsäure (Furfurakrylglycin; Furfurakrylsäure). Sm. 213—215°. Ag (B. 20, 2315). — III, 710.
 13) 4-Oxy-1-[α -Oximidoäthyl]benzol-3-Carbonsäure. Sm. 175° (B. 30, 1777).
 14) Oxyessig-2-Oximidomethylphenyläthersäure (Aldoximphenoxyessigsäure). Sm. 138° (B. 19, 3051; 31, 2811). — III, 77.
 15) Oxyessig-3-Oximidomethylphenyläthersäure. Sm. 145° (B. 19, 3052). — III, 81.
 16) Oxyessig-4-Oximidomethylphenyläthersäure (p-Aldoximphenoxyessigsäure). Sm. 168° (B. 19, 3052). — III, 86.
 17) α -[2-Nitrophenyl]propionsäure. Sm. 110°. Ca + $2H_2O$ (A. 227, 262). — II, 1371.
 18) α -[4-Nitrophenyl]propionsäure. Sm. 87—88°. Ca + $2H_2O$, Ba + $2H_2O$ (A. 227, 264). — II, 1371.
 19) β -[2-Nitrophenyl]propionsäure. Sm. 113° (115°). Ag (B. 13, 1681; 29, 635). — II, 1361.
 20) β -[3-Nitrophenyl]propionsäure. Sm. 117—118° (B. 15, 846). — II, 1361.
 21) β -[4-Nitrophenyl]propionsäure. Sm. 163—164°. Ca + $2H_2O$, Ba + $2H_2O$ (Z. 1869, 193; A. 163, 132). — II, 1361.
 22) 6-Nitro-3-Methylphenylessigsäure. Sm. 149° (B. 31, 391).
 23) 3-Nitro-4-Methylphenylessigsäure. Sm. 102°. Na + $2\frac{1}{2}H_2O$, Ba + $2H_2O$ (J. pr. [2] 44, 90). — II, 1374.
 24) 4-Nitro-1-Aethylbenzol-2-Carbonsäure. Sm. 164° (B. 29, 2536).
 25) 5-Nitro-1-Aethylbenzol-2-Carbonsäure. Sm. 126° (B. 29, 2536).
 26) 2,2-Nitro-1-Aethylbenzol-4-Carbonsäure. Sm. 155—156°. Na + $2H_2O$, Ca + $2H_2O$, Sr + $4H_2O$, Ba + $4H_2O$ (A. 216, 220). — II, 1373.
 27) 2-Nitro-1,3-Dimethylbenzol-4-Carbonsäure. Sm. 135°. Ba (J. pr. [2] 41, 500). — II, 1377.
 28) 6-Nitro-1,3-Dimethylbenzol-4-Carbonsäure. Sm. 195°. Ca + $6H_2O$, Ba + $9H_2O$ (Z. 1867, 13; J. pr. [2] 41, 495; A. 271, 18). — II, 1377.
 29) 2-Nitro-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 174—176° (179°) (u. 223° aus Alkohol). Mg + $11H_2O$, Ca + $6H_2O$, Ba + $4H_2O$, Ag (A. 141, 149; 147, 48; 193, 168; B. 11, 2054; Am. 8, 269). — II, 1379.

- $C_9H_7O_4N$ 30) 4-Nitro-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 210—212°. Ca, Ba + 4H₂O (A. 193, 162, 166). — II, 1379.
- 31) α -Oximido- α -[4-Methoxyphenyl]essigsäure. Sm. 145—146° u. Zers. (G. 21 [2] 186). — II, 1771.
- 32) α -Amido- α -[3,4-Dioxyphenyl]essigmethylenäthersäure. Sm. 210°. Ba (B. 14, 794). — II, 1749.
- 33) *p*-Amido-1-Methylbenzol-3,5-Dicarbonsäure. Sm. 240° u. Zers. (A. 189, 176; B. 13, 1934). — II, 1847.
- 34) isom. *p*-Amido-1-Methylbenzol-3,5-Dicarbonsäure. Sm. 255° u. Zers. (A. 189, 181). — II, 1847.
- 35) Phenylamidomethan- $\alpha\alpha$ -Dicarbonsäure (Anilidomalonsäure). Sm. 121°. Anilinalz (B. 31, 383).
- 36) 2,4-Dimethylpyridin-3,5-Dicarbonsäure + 2H₂O. Sm. 254—255° (wasserfrei). Pb, HCl + $\frac{1}{2}$ (1)H₂O, (2HCl, PtCl₄) (A. 241, 20; B. 23, 1112; Ph. Ch. 3, 391). — IV, 167.
- 37) 2,6-Dimethylpyridin-3,4-Dicarbonsäure. Zers. bei 250° (Soc. 69, 303).
- 38) 2,6-Dimethylpyridin-3,5-Dicarbonsäure + $\frac{1}{2}$ H₂O. Sm. 316°. Ba + 2H₂O, Pb + 2H₂O, HCl + 2H₂O (A. 231, 50; 241, 31; B. 21, 2740; G. 27 [2] 78). — IV, 167.
- 39) Lutidincarbonsäure + $1\frac{1}{2}$ H₂O. Sm. 245°. Mg + 3H₂O, Ca, (2HCl, PtCl₄ + 6H₂O) (A. 225, 136). — IV, 168.
- 40) 1,3-Aethylbetaïn d. Pyridin-3,4-Dicarbonsäure. Sm. 198°. Ag, HCl (M. 16, 698; 18, 239). — IV, 164.
- 41) Aldehyd d. β -Oxy- β -[2-Nitrophenyl]propionsäure + Essigsäurealdehyd. Sm. 125° (B. 16, 2205). — III, 89.
- 42) Aldehyd d. β -Oxy- β -[3-Nitrophenyl]propionsäure + Essigsäurealdehyd. Zers. bei 100° (B. 18, 720). — III, 89.
- 43) Aldehyd d. β -Oxy- β -[4-Nitrophenyl]propionsäure + Essigsäurealdehyd. Sm. 115° (B. 18, 372). — III, 89.
- 44) Methylester d. Anthranilcarbonsäure. Sm. 176° (J. pr. [2] 36, 374). — II, 1251.
- 45) Methylester d. 4-Nitrophenylessigsäure. Sm. 54° (B. 12, 1765). — II, 1318.
- 46) Methylester d. 6-Nitro-1-Methylbenzol-3-Carbonsäure. Sm. 72° (B. 28, 597).
- 47) Methylester d. 2-Nitro-1-Methylbenzol-4-Carbonsäure (A. 63, 302). — II, 1347.
- 48) Dimethylester d. Pyridin-2,3-Dicarbonsäure (D. d. Chinolinsäure). Sm. 53—54° (B. 27, 1788). — IV, 161.
- 49) Dimethylester d. Pyridin-2,5-Dicarbonsäure. Sm. 117,5° (J. 1877, 437). — IV, 163.
- 50) Dimethylester d. Pyridin-*p*-Dicarbonsäure (J. 1878, 439). — IV, 166.
- 51) Monoäthylester d. Pyridin-3,4-Dicarbonsäure. Sm. 131—133° (M. 10, 157; II, 136; Ph. Ch. 5, 417). — IV, 164.
- 52) Äthylester d. 2-Nitrobenzol-1-Carbonsäure. Sm. 30° (A. 163, 137; J. 1877, 736; B. 27, 1933). — II, 1230.
- 53) Äthylester d. 3-Nitrobenzol-1-Carbonsäure. Sm. 47°; Sd. 296° (A. 72, 275; 133, 202; J. 1847/48, 737; 1877, 736). — II, 1232.
- 54) Äthylester d. 4-Nitrobenzol-1-Carbonsäure. Sm. 57° (J. 1877, 736; A. 128, 262; 217, 211). — II, 1236.
- 55) Äthylester d. 1-Cyan-2,5-Diketo-*R*-Pentamethylen-1-Carbonsäure (Ä. d. Succinyleyanessigsäure). Sm. 125—126° (B. 24 [2] 558; 26 [2] 6). — I, 1226.
- 56) 4-Nitrosophenyläthylester d. Kohlensäure. Sm. 109° (B. 17, 678). — II, 678.
- 57) Acetat d. 2-Nitrobenzylalkohol. Sm. 35—36° (B. 25, 2962). — II, 1059.
- 58) Acetat d. 4-Nitrobenzylalkohol. Sm. 78° (85°) (Z. 1867, 562; A. 147, 341). — II, 1060.
- 59) Acetat d. 3-Nitro-2-Oxy-1-Methylbenzol. Sm. 74° (B. 26, 2351). — II, 739.
- 60) Monacetat d. 2-Nitroso-3,5-Dioxy-1-Methylbenzol. Sm. 76—77° u. Zers. (M. 18, 171).

- C₉H₇O₄N** 61) 4-Acetat d. 4-Oximido-2-Methoxyl-1-Keto-1,4-Dihydrobenzol. Sm. 156—158° u. Zers. (M. 18, 472).
 62) Bensoat d. α -Nitro- α -Oximidoäthan (Benzoyläthylnitrolsäure). Sm. 133° (B. 29, 1221).
 63) 4-Methoxylphenylmonamid d. Oxalsäure. Sm. 166—167° (G. 25 [2] 534).
 64) Oxyamid d. 3,4-Dioxyphenylessig-3,4-Methylenäthersäure (Homopiperonyloxamsäure). Sm. 166° (G. 25 [2] 202).
- C₉H₇O₄N₂** 65) Verbindung (Ptolein aus Harn) (B. 27 [2] 25). — III, 890.
 C 48,4 — H 4,0 — O 28,7 — N 18,8 — M. G. 223.
 1) 2,4-Dinitro-1-Allylamidobenzol. Sm. 75—76° (R. 4, 192). — II, 337.
 2) α -[2-Nitrophenyl]azo- β -Ketopropan. Sm. 123—124° (B. 17, 2418). — IV, 1477.
 3) β -Dinitro-1,2,3,4-Tetrahydrochinolin. Sm. 161° (R. 10, 151). — IV, 191.
 4) 7-Nitro-4-Nitroso-3-Methyl-3,4-Dihydro-1,4-Benzoxazin. Sm. 159° (B. 30, 1639).
 5) 1-Methylpyrrolalloxan (B. 19, 1710). — IV, 83.
 6) 3-Uramidophenyloxaminsäure. Sm. 230° (A. 293, 386). — IV, 577.
 7) α -[4-Nitrophenyl]hydrazonpropionsäure (A. 253, 64). — IV, 689.
 8) 3-Diazobenzoylamidoessigsäure. HNO₂ (Z. 1867, 165). — II, 1188.
 9) Oxim d. 3-[Cyanformyl]amidobenzol-1-Carbonsäure. Ba + 4H₂O (B. 18, 2416). — II, 1268.
 10) Nitrit d. 4-Nitrophenyloximidomethanäthyläther. Sm. 55° u. Zers. (B. 22, 2427). — II, 1237.
 C 43,0 — H 3,6 — O 35,5 — N 27,9 — M. G. 251.
- C₉H₇O₄N₃** 1) Amid d. β -Nitrophenylhydrazonmethandicarbonsäure. Zers. bei 235° (Soc. 67, 1004). — IV, 720.
- C₉H₇O₄Cl** 1) Methylester d. Säure C₉H₇O₄Cl. Sm. 81,5° (A. 296, 216).
- C₉H₇O₄Cl₂** 1) 2,2,4-Trimethyläther d. 3,5,6-Trichlor-2,2,4-Trioxyl-1-Keto-1,2-Dihydrobenzol. Sm. 78° (B. 27, 553). — III, 112.
- C₉H₇O₄Br** 1) 2-Brom-3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 201 bis 202° (A. 293, 187).
 2) 5-Brom-3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 191° (A. 293, 183).
 3) 6-Brom-3,4-Dioxybenzoldimethyläther-1-Carbonsäure (Bromveratricsäure). Sm. 183—184° (A. 159, 244; 293, 185; B. 11, 136). — II, 1744.
- C₉H₇O₄Br₂** 1) Verbindung (aus 2,3-Dibrom-1,2,3,4-Tetrahydrobenzol-2,5-Dicarbonsäure-dimethylester). Sm. 187—188° (A. 245, 157). — II, 1833.
- C₉H₇O₅N** C 51,2 — H 4,3 — O 37,9 — N 6,6 — M. G. 211.
 1) 1-Methyläther-2-Acetat d. 5-Nitro-1,2-Dioxybenzol. Sm. 101—102° (C. 1896 [2] 350).
 2) β -[3-Nitro-4-Oxyphenyl]propionsäure. Sm. 90,5° (A. 225, 92). — II, 1565.
 3) α -Oxy- β -[2-Nitrophenyl]propionsäure (A. 219, 228). — II, 1577.
 4) α -Oxy- β -[4-Nitrophenyl]propionsäure (A. 219, 229). — II, 1577.
 5) β -Oxy- β -[2-Nitrophenyl]propionsäure. Sm. 127° (126°). Ba + 2H₂O (B. 15, 2861—2862; 16, 2206, 2214; 17, 2013). — II, 1573.
 6) β -Oxy- β -[3-Nitrophenyl]propionsäure. Sm. 105° (B. 17, 596). — II, 1574.
 7) β -Oxy- β -[4-Nitrophenyl]propionsäure. Sm. 130—132° (B. 16, 3006). — II, 1574.
 8) β -Nitro-3-Oxy-1-Methylbenzoldimethyläther-4-Carbonsäure. Sm. 173 bis 175°. Ba + 2H₂O (J. 1879, 519; 1880, 663). — II, 1550.
 9) 3-Nitro-2-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 96—97° (J. pr. [2] 43, 435). — II, 1508.
 10) 5-Nitro-2-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 163° (161,2°). Ba + 2H₂O, Ag (A. 145, 312; 150, 4). — II, 1509.
 11) 4-Nitro-3-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 216,5° (J. pr. [2] 43, 464). — II, 1520.
 12) 4-Keto-2,6-Dimethyl-1,4-Dihydropyridin-3,5-Dicarbonsäure (Lutidondicarbonsäure). Sm. 267° u. Zers. Ca + 2H₂O, Cu + 1½H₂O (B. 20, 155). — II, 2005.

- C₉H₉O₅N**
- 13) **2-Keto-6-Methyl-1,2-Dihydropyridin-4-Methylcarbonsäure-5-Carbonsäure.** Sm. 200—201° u. Zers. Ag₂ (A. 261, 203). — IV, 174.
 - 14) **Methylester d. α-Oxy-α-[2-Nitrophenyl]essigsäure.** Sm. 74,5° (B. 22, 208). — II, 1554.
 - 15) **Methylester d. α-Oxy-α-[4-Nitrophenyl]essigsäure.** Sm. 87° (B. 22, 209). — II, 1555.
 - 16) **Methylester d. Oxyessig-2-Nitrophenyläthersäure.** Sm. 58° (B. 20, 1944). — II, 681.
 - 17) **Methylester d. Oxyessig-4-Nitrophenyläthersäure.** Sm. 100—101° (C. 1898 [1] 1252).
 - 18) **Methylester d. 3-Nitro-4-Oxybenzolmethyläther-1-Carbonsäure.** Sm. 108° (A. 56, 315; B. 20, 2411). — II, 1538.
 - 19) **Dimethylester d. Pyrrol-2-Carbonsäure-5-Ketocarbonsäure.** Sm. 144—145° (B. 19, 1958). — IV, 97.
 - 20) **Aethylester d. 3-Nitro-2-Oxybenzol-1-Carbonsäure.** Sm. 45° (118°). Na, Ag (A. 195, 34; Am. 8, 100; J. pr. [2] 43, 434). — II, 1508.
 - 21) **Aethylester d. 5-Nitro-2-Oxybenzol-1-Carbonsäure.** Sm. 96°. Na (A. 195, 14; Am. 8, 99; J. pr. [2] 43, 469; B. 28, 598). — II, 1509.
 - 22) **Aethylester d. 2-Nitro-3-Oxybenzol-1-Carbonsäure.** Sm. 124° (J. pr. [2] 43, 468). — II, 1520.
 - 23) **Aethylester d. 4-Nitro-3-Oxybenzol-1-Carbonsäure.** Sm. 84° (J. pr. [2] 43, 462; C. 1898 [2] 526). — II, 1520.
 - 24) **Aethylester d. 3-Nitro-4-Oxybenzol-1-Carbonsäure.** Sm. 69° (75 bis 76° (J. pr. [2] 43, 453; Z. 1866, 647; C. 1898 [2] 526). — II, 1538.
 - 25) **Aethyl-2-Nitrophenylester d. Kohlensäure.** Sd. 275—285° (B. 19, 2268). — II, 680.
 - 26) **Aethyl-4-Nitrophenylester d. Kohlensäure.** Sm. 67—68° (B. 31, 1064).
 - 27) **Monacetat d. p-Nitro-2,5-Dioxy-1-Methylbenzol.** Sm. 118—120° (B. 28, 1542).
 - 28) **Diacetat d. 2,4,5-Trioxypyridin (Diacetylpyromekazonsäure).** Sm. 153 bis 155° (J. pr. [2] 23, 442; [2] 27, 259). — IV, 121.
 - 29) **Verbindung (aus Mesitenlaktonecarbonsäureäthylester).** Sm. 98° (G. 22 [2] 329). — I, 776.
- C₉H₉O₅N₂**
- C 45,2 — H 3,7 — O 33,5 — N 17,6 — M. G. 239.
- 1) **2,4-Dinitrophenyläther d. β-Oximidopropan (D. d. Acetoxim).** Sm. 90° (B. 27, 1656).
 - 2) **4-Nitrobenzyläther d. α-Oximido-α-Nitroäthan.** Sm. 72—73° (B. 31, 2875).
 - 3) **Methylester d. 2-Nitrophenylharnstoff-3-Carbonsäure.** Sm. 189° (A. 291, 334).
 - 4) **Methylester d. 6-Nitrophenylharnstoff-3-Carbonsäure.** Sm. 184° (A. 291, 326).
 - 5) **Dinitro-4-Methylphenylamid d. Essigsäure.** Sm. 190,5° (195°) (B. 11, 1976; A. 158, 341; 217, 187). — II, 492.
 - 6) **Verbindung (aus β-Keto-α-[2,4,6-Trinitrophenyl]propan).** Sm. 214° u. Zers. (B. 23, 2724). — III, 144.
- C₉H₉O₆N**
- C 47,6 — H 3,9 — O 42,3 — N 6,2 — M. G. 227.
- 1) **αβ-Dioxy-β-[4-Nitrophenyl]propionsäure.** Sm. 167—168° (B. 19, 2645). — II, 1762.
 - 2) **2-Nitro-3,4-Dioxybenzoldimethyläther-1-Carbonsäure.** Sm. 200 bis 202° (B. 11, 134; A. 293, 179). — II, 1745.
 - 3) **5-Nitro-3,4-Dioxybenzoldimethyläther-1-Carbonsäure.** Sm. 194° (A. 293, 190).
 - 4) **6-Nitro-3,4-Dioxybenzoldimethyläther-1-Carbonsäure + 1/2 H₂O.** Sm. 187—188°. NH₄, Ag (A. 108, 59; 293, 177; B. 9, 938; M. 15, 230; Ph. Ch. 5, 396). — II, 1745.
 - 5) **4-Nitro-3,5-Dioxybenzoldimethyläther-1-Carbonsäure.** Sm. 225°. Pb, Cu + 2 1/2 H₂O, Ag (M. 8, 431). — II, 1747.
 - 6) **αβ-Dioxy-β-[2-Pyridyl]propionsäure-3-Carbonsäure.** Ag₂ (B. 26, 1505). — IV, 175.
 - 7) **2,6-Dioxypyridin-2-Aethyläther-3,5-Dicarbonsäure.** Sm. 181—182° u. Zers. Ag₂ (B. 22, 1427; A. 262, 106). — IV, 174.
 - 8) **Monoäthylester d. 2,6-Dioxypyridin-3,5-Dicarbonsäure.** Na + 2 H₂O (G. 27 [2] 403; B. 31, 1244).

- C₉H₅O₆N₃** C 42,3 — H 3,5 — O 37,6 — N 16,5 — M. G. 255.
- 1) **2,4,6-Trinitro-1-Isopropylbenzol.** Sm. 109° (A. 149, 328). — II, 102.
 - 2) **p-Trinitro-4-Aethyl-1-Methylbenzol.** Sm. 92° (A. 136, 314; B. 7, 1515; 27, 2084). — II, 102.
 - 3) **4,5,6-Trinitro-1,2,3-Trimethylbenzol.** Sm. 209° (B. 19, 2517). — II, 102.
 - 4) **3,5,6-Trinitro-1,2,4-Trimethylbenzol.** Sm. 185° (A. 151, 261; 290, 147). — II, 102.
 - 5) **2,4,6-Trinitro-1,3,5-Trimethylbenzol.** Sm. 230—232° (A. 141, 134; 290, 148; B. 16, 966; J. 1879, 396). — II, 103.
 - 6) **p-Dinitro-1-Nitromethyl-3,5-Dimethylbenzol.** Sm. 117,5—118,5° (B. 29, 2203).
 - 7) **isom. p-Dinitro-1-Nitromethyl-3,5-Dimethylbenzol.** Sm. 69—73° (B. 29, 2203).
 - 8) **Methyläther d. p-Dinitro-2-Acetylamido-1-Oxybenzol.** Sm. 157° (A. 207, 243). — II, 732.
 - 9) **Methyläther d. 2,6-Dinitro-4-Acetylamido-1-Oxybenzol.** Sm. 220° (G. 19, 220). — II, 735.
 - 10) **β-[3,5-Dinitro-4-Amidophenyl]propionsäure.** Sm. 194°. NH₄, Ba + 1½ H₂O (A. 225, 87). — II, 1368.
 - 11) **Aethylester d. 2,4-Dinitrophenylamidoameisensäure.** Sm. 110 bis 111° (B. 17, 2629). — II, 373.
 - 12) **Aethylester d. p-Dinitrophenylamidoameisensäure.** Sm. 210° (B. 10, 691). — II, 373.
 - 13) **Aethylester d. 3,5-Dinitro-2-Amidobenzol-1-Carbonsäure.** Sm. 135° (A. 173, 47). — II, 1286.
 - 14) **Aethylester d. 3,5-Dinitro-4-Amidobenzol-1-Carbonsäure.** Sm. 114° (A. 163, 11). — II, 1287.
 - 15) **1,2,3-Trioxybenzolester d. Amidoameisensäure.** Sm. 178° (A. 244, 46). — II, 1012.
 - 16) **Triacetylisocyanursäure.** Sm. 170° u. Zers. (B. 18, 3273). — I, 1270.
- C₉H₅O₆N₃** C 38,2 — H 3,2 — O 33,9 — N 24,7 — M. G. 283.
- 1) **β-[2,4,6-Trinitrophenyl]hydrazonpropan.** Sm. 125° u. Zers. (G. 24 [1] 579; J. pr. [2] 50, 274). — IV, 766.
- C₉H₅O₆P** 1) **Phosphortriäthylhydrobenzotraubensäure.** subl. (B. 21, 2919). — I, 1507.
- C₉H₅O₇N₃** C 39,8 — H 3,3 — O 41,3 — N 15,5 — M. G. 271.
- 1) **Aethyläther d. 2,4,6-Trinitro-3-Oxy-1-Methylbenzol.** Sm. 75° (72°) (B. 14, 988; 15, 1864; A. 259, 227). — II, 746.
 - 2) **Propyläther d. 2,4,6-Trinitro-1-Oxybenzol.** Sm. 43°. + Natriumpropylat (Am. 20, 451).
 - 3) **α-Amido-β-[p-Dinitro-4-Oxyphenyl]propionsäure.** Ca + 3 H₂O, Ba + 2 H₂O (A. 116, 82; Z. 1869, 669). — II, 1568.
 - 4) **Aethylester d. 3,5-Dinitro-2-Oxyphenylamidoameisensäure.** Sm. 152—153°. NH₄, K, Ag (J. pr. [2] 48, 440). — II, 733.
- C₉H₅O₇P** 1) **2 [oder 4]-Methylphenylphosphinsäure-4,6 [oder 2,6]-Dicarbonsäure.** Sm. 255°. Ag₄ (A. 294, 44). — IV, 1680.
- 2) **4-Methylphenylphosphinsäure-2,5-Dicarbonsäure.** Sm. 185—190°. Ag₄ (A. 294, 24). — IV, 1679.
- C₉H₅O₈N₃** C 37,6 — H 3,1 — O 44,6 — N 14,6 — M. G. 287.
- 1) **Dimethyläther d. 2,4,6-Trinitro-3,5-Dioxy-1-Methylbenzol.** Sm. 69,5° (Z. 1871, 229). — II, 964.
- C₉H₅O₈N₃** C 34,3 — H 2,8 — O 40,6 — N 22,2 — M. G. 315.
- 1) **p-Trinitro-1-Isopropylnitramidobenzol.** Sm. 97° (R. 4, 191). — II, 335.
- C₉H₅O₈N₃** C 35,8 — H 3,0 — O 47,5 — N 13,9 — M. G. 303.
- 1) **Aethyläther d. 2,4,6-Trinitro-3-Nitroamido-1-Oxybenzol.** Sm. 98° (R. 8, 276). — II, 736.
- C₉H₅NBr₂** 1) **p-Dibrom-1,2,3,4-Tetrahydrochinolin.** Fl. HCl, (2 HCl, PtCl₄) (B. 16, 737, 738). — IV, 190.
- 2) **isom. p-Dibrom-1,2,3,4-Tetrahydrochinolin.** Sm. 65—66°. HCl, (2 HCl, PtCl₄ + 2 H₂O), H₂SO₄, Oxalat (B. 15, 823). — IV, 190.
- C₉H₅NJ₂** 1) **γ-Dijod-γ-Amido-α-Phenylpropen (Zimmtsäureamidjodid).** Sm. 105 bis 110° u. Zers. (B. 25, 2544). — II, 1408.
- 2) **p-Dijod-1,2,3,4-Tetrahydrochinolin?** (B. 18, 1619). — IV, 190.

- C₉H₇NS**
- 1) 2-Aethylphenylsenföf. Sd. 240—245° u. Zers. (B. 17, 2802). — II, 536.
 - 2) 4-Aethylphenylsenföf. Sd. 255,5—256° (B. 16, 2020). — II, 537.
 - 3) β -Phenyläthylsenföf. Fl. (B. 19, 1825; J. pr. [2] 50, 559). — II, 539.
 - 4) 3-Methylbenzylsenföf. Fl. (B. 21, 2702). — II, 545.
 - 5) 2,4-Dimethylphenylsenföf. Sm. 31,5° (24°) (B. 9, 1296; 32, 1084 Ann.; Soc. 59, 405). — II, 544.
 - 6) 2-Phenyl-4,5-Dihydrothiazol. Sd. 275—277°. 2 + 3HCl, (2HCl, PtCl₄), H₂Cr₂O₇, Pikrat (B. 23, 158; 24, 1123; 29, 2610; 31, 2834). — II, 1292.
 - 7) 1-Aethylbenzthiazol. Sd. 252°. (2HCl, PtCl₄) (B. 13, 21). — II, 797.
 - 8) 1,5-Dimethylbenzthiazol. Sd. 265°. (2HCl, PtCl₄), (HCl, AuCl₃) (B. 14, 493; 22, 907). — II, 820.
 - 9) 3,5-Dimethylbenzthiazol. Fl. HCl, (2HCl, PtCl₄) (B. 21, 2550). — II, 827.
 - 10) 3-Methyl-2,4-Benzthiazin (Methylphenpentthiazol). Sm. 45—46°; Sd. 265—267°₇₁₁. (2HCl, PtCl₄), H₂Cr₂O₇, Pikrat (B. 27, 3518, 3519). — IV, 223.
 - 11) Methylthiophtalimidin. Fl. (2HCl, PtCl₄), Pikrat (B. 23, 2483). — II, 1560.
 - 12) Amid d. β -Phenylthioakrylsäure. Sm. 112° (Z. 1866, 362; B. 17, 1768). — II, 1421.
 - 13) Nitril d. 1-Merkaptomethylbenzolmethyläther-2-Carbonsäure. Sd. 278° (B. 23, 2484). — II, 1560.
- C₉H₇NS₂**
- 1) 3-Thiocarbonyl-1[β]-Methyl-3,4-Dihydro-2,4-Benzthiazin (Thiocumothiazonmethyläther). Sm. 73° (B. 27, 2431). — IV, 220.
 - 2) Aethylenester d. Phenylamidodithioameisensäure. Sm. 128° (134°) (B. 15, 345; 21, 1866, 1871). — II, 387.
- C₉H₇NSe**
- 1) Methyläther d. 2-Cyanphenyl-Methylselenmerkaptan. Sd. 180—200° (B. 24, 2568). — II, 1061.
- C₉H₇N₂Cl**
- 1) 3-Chlor-5,7-Dimethylindazol. Sm. 174° (A. 305, 332).
 - 2) 5-Chlor-1,2-Dimethylbenzimidazol. Sm. 130—131° (B. 31, 2985).
 - 3) 1-Chlor-2,5-Dimethylbenzimidazol. Sm. 92° (A. 273, 289). — IV, 880.
 - 4) 2-Chlor-2,5-Dimethylbenzimidazol. Sm. 223°. Ag, HCl, (2HCl, PtCl₄) (A. 273, 291). — IV, 880.
 - 5) Nitril d. β -Chlor- α -Phenylamidopropionsäure. Sm. 83—84° (A. 302, 356).
 - 6) Nitril d. α -[4-Chlorphenyl]amidopropionsäure. Sm. 114,5° (A. 302, 355).
- C₉H₇N₂Br**
- 1) 2-Brom-1-Aethylisoindazol. Sm. 48° (A. 227, 339). — IV, 868.
 - 2) 6-Brom-2,4-Dimethylbenzimidazol. Sm. 244—246° u. Zers. HCl + H₂O, HNO₃ (B. 25, 871). — IV, 879.
 - 3) 4-Brom-2,5-Dimethylbenzimidazol. Sm. 216°. HCl + 2H₂O, HNO₃ (B. 25, 864). — IV, 881.
 - 4) 7-Brom-2,5-Dimethylbenzimidazol. Sm. 197—198° (B. 23, 1049). — IV, 881.
 - 5) β -[4-Bromphenyl]azopropen. Sm. 33°. + 4Br, + 5Br (Am. 21, 32).
- C₉H₇N₂J**
- 1) Jodmethylat d. 1,2-Benzdiazin (J. d. Cinnolin). Sm. 168° (B. 30, 527). — IV, 894.
 - 2) Jodmethylat d. 1,4-Benzdiazin. Sm. 175° u. Zers. (A. 292, 245). — IV, 898.
 - 3) Jodmethylat d. 2,3-Benzdiazin (J. d. Phtalazin). Sm. 235—240° (B. 28, 1831). — IV, 900.
- C₉H₇N₂Cl₃**
- 1) 2,4,6-Tri[$\alpha\alpha$ -Dichloräthyl]-1,3,5-Triazin (polym. Nitril d. $\alpha\alpha$ -Dichlorpropionsäure). Sm. 73,5° (A. 116, 199; 132, 182; B. 10, 263; J. pr. [2] 36, 79, 97; [2] 46, 357; [2] 50, 446, 460; [2] 57, 357). — I, 1464.
- C₉H₇N₂S**
- 1) β -Cyan- α -Methyl- α -Phenylthioharnstoff. Sm. 210° (B. 28, 1307).
 - 2) 3-Amido-2-Thiocarbonyl-1-Phenyl-2,3-Dihydroimidazol. Sm. 89°. HCl (B. 27, 2205).
 - 3) 2-Phenylimido-3-Methyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 258°. HJ (B. 27, 619). — IV, 1103.
 - 4) 2-Phenylimido-5-Methyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 193 bis 194°. HCl (B. 27, 619). — IV, 1107.
 - 5) 3-Thiocarbonyl-1-[4-Methylphenyl]-2,3-Dihydro-1,2,4-Triazol. Sm. 218°. 2 + C₆H₆ (G. 28 [2] 558).

- C₉H₉N₃S** 6) **Methylcyanamid d. Phenylamidothioameisensäure.** Sm. 186° u. Zers. (B. 23, 1664). — II, 399.
- C₉H₉N₃S₂** 1) **Methylphenylthiuret.** HCl, HBr, HJ (B. 28, 1100).
2) **4,6-Dithiocarbonyl-2-Phenylhexahydro-1,3,5-Triazin^p** (Benzyliden-thiobiuret). Sm. 237° u. Zers. Ag₂ (M. 8, 28). — III, 34.
- C₉H₉N₃S₃** 1) **5-Methylhydrosulfamin-2-Thiocarbonyl-3-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol.** Sm. 85° (B. 29, 2139). — IV, 684.
2) **2,4,6-Tri[Thioacetyl]-1,3,5-Triazin** (J. pr. [2] 57, 361). — IV, 1136.
- C₉H₉ClBr₂** 1) **γ-Chlor-αβ-Dibrom-norm. Propylbenzol.** Sm. 96,5° (B. 20, 122). — II, 1070.
- C₉H₉Cl₂Br** 1) **p-Brom-1,3,5-Dichlortrimethylbenzol** (CH₃Cl : CH₃Cl : CH₃ : Br = 1 : 3 : 5 : ?). Sm. 75—76° (A. ch. [6] 6, 101). — II, 68.
- C₉H₉Cl₂F** 1) **p-Dichlor-p-Fluor-1,2,4-Trimethylbenzol.** Sm. 150° (B. 26, 1110). — II, 54.
- C₉H₉Br₂F** 1) **p-Dibrom-p-Fluor-1,2,4-Trimethylbenzol.** Sm. 143—144° (B. 26, 1112). — II, 67.
- C₉H₁₀ON₂** C 66,7 — H 6,1 — O 9,9 — N 17,3 — M. G. 162.
1) **α-Oximido-β-Phenylimidopropan** (Isonitrosoanilacetone). Sm. 171° u. Zers. (180°) (R. 10, 223; B. 17, 1637). — II, 446.
2) **α-Vinyl-β-Phenylharnstoff.** Sm. 82—83° (B. 28, 2936).
3) **β-Phenyläthenylharnstoff.** Sm. 173—174° (B. 26 [2] 677). — II, 584.
4) **1-Aethenyl-3-Phenylharnstoff** (m-Styrylharnstoff). Sm. 142—143° (B. 26 [2] 677). — II, 584.
5) **α-Phenylallenylamidoxim.** Sm. 93°. HCl, (2HCl, PtCl₄) (B. 19, 1507). — II, 1408.
6) **α-Acetyl-β-Benzylidenhydrazin.** Sm. 134° (J. pr. [2] 51, 185). — III, 39.
7) **α-Phenylhydrazon-β-Ketopropan.** Sm. 148—149° (B. 17, 1928; A. 247, 218). — IV, 757.
8) **Oxäthyldiamidotoluol.** Sm. 232—234° u. Zers. HCl, (2HCl, PtCl₄) (B. 22, 1398). — IV, 1341.
9) **2-Phenylamido-4,5-Dihydrooxazol.** Sm. 119—120° (B. 28, 2938).
10) **3-Keto-1-Phenyltetrahydropyrazol.** Sm. 119—121°. HCl (B. 29, 517). — IV, 488.
11) **5-Keto-1-Phenyltetrahydropyrazol.** Sm. 78° (B. 26, 2994; 28, 630). — IV, 488.
12) **2-Keto-1-Phenyltetrahydroimidazol** (Aethylenphenylharnstoff). Sm. 160—161° (B. 24, 2192; 28, 2938). — II, 378.
13) **2-Methyl-4-Phenyl-4,5-Dihydro-1,3,4-Oxdiazol.** Sm. 140° (B. 23, 2838). — IV, 672.
14) **Aethyläther d. 2-Oxybensimidazol.** Sm. 160° (B. 19, 2654). — IV, 559.
15) **5-Methyl-3-Phenyl-4,5-Dihydro-1,2,4-Oxdiazol.** Sm. 82° (B. 22, 2412). — II, 1205.
16) **γ-Amido-α-Keto-α-[2-Pyridyl]-β-Buten.** Sm. 149—150° u. ger. Zers. (M. 17, 455). — IV, 185.
17) **5-[α-Cyan-α-Oxyäthyl]-2-Methylpyridin** (Nitril d. α-Oxy-α-[2-Methylpyridyl(5)]propionsäure). Sm. 103—104° (B. 28, 1765). — IV, 156.
18) **1-Nitroso-2-Methyl-2,3-Dihydroindol.** Sm. 54—55° (B. 14, 884; 26, 1291). — IV, 188.
19) **5-Nitroso-2-Methyl-2,3-Dihydroindol.** Sm. 103—105°. HCl (B. 26, 1292). — IV, 188.
20) **2-Nitroso-1-Methyl-1,3-Dihydroisindol.** Sm. 98° (B. 26, 712). — IV, 189.
21) **1-Nitroso-1,2,3,4-Tetrahydrochinolin.** Fl. (B. 16, 730; 20, 1251; 21, 862). — IV, 190.
22) **6-Nitroso-1,2,3,4-Tetrahydrochinolin.** Sm. 134° (B. 20, 1251). — IV, 190.
23) **2-Nitroso-1,2,3,4-Tetrahydroisochinolin.** Sm. 53° (B. 26, 1211). — IV, 201.
24) **1-Amido-2-Keto-1,2,3,4-Tetrahydrochinolin.** Sm. 143°. HCl (A. 221, 283). — II, 1368.
25) **7-Amido-2-Keto-1,2,3,4-Tetrahydrochinolin.** Sm. 211°. HCl (B. 12, 602). — II, 1366.

- $C_9H_{10}ON$, 26) 3-Methylimido-3,4-Dihydro-2,1-Benzoxazin. Sm. 119—120°. (2HCl, $PtCl_4$), (HCl, $AuCl_3$) (B. 22, 2936). — IV, 877.
- 27) 3-Keto-2-Methyl-1,2,3,4-Tetrahydro-1,4-Benzdiazin. Sm. 177° (B. 25, 957). — IV, 885.
- 28) 3-Keto-6-Methyl-1,2,3,4-Tetrahydro-1,4-Benzdiazin. Sm. 100—130°. $Na + 3H_2O$ (A. 237, 361; 248, 73; B. 20, 27). — IV, 885.
- 29) Nitril d. α -Amido- α -[4-Methoxyphenyl]essigsäure. Fl. (B. 14, 1979). — II, 1544.
- 30) Nitril d. 2-Aethoxyphenylamidoameisensäure. Sm. 94°. Na, Ag (J. pr. [2] 30, 99). — II, 712.
- 31) Nitril d. 4-Aethoxyphenylamidoameisensäure. Sm. 78°. Ag (J. pr. [2] 30, 102). — II, 720.
- 32) Nitril d. 2-Keto-1,4,6-Trimethyl-1,2-Dihydropyridin-3-Carbonsäure. Sm. 203—204° (C. 1899 [1] 289).
- 33) Nitril d. 2-Keto-4,5,6-Trimethyl-1,2-Dihydropyridin-3-Carbonsäure. Sm. 305—306° (C. 1899 [1] 289).
- 34) Amid d. α -Amido- β -Phenylakrylsäure. Sm. 172° (R. 15, 132).
- 35) Amid d. β -Amido- β -Phenylakrylsäure. Sm. 164,5—165° (C. 1896 [1] 603).
- $C_9H_{10}ON$, 36) Allylamid d. Pyridin-3-Carbonsäure. Sd. 315—316° (C. 1898 [1] 677). C 56,9 — H 5,3 — O 8,4 — N 29,5 — M. G. 190.
- 1) Methyläther d. 1-Methyl-5-[4-Oxyphenyl]-1,2,3,4-Tetrazol. Sm. 93° (A. 298, 110). — IV, 1272.
- 2) Methyläther d. Phenyläthenyloxytetrazotsäure. Fl. (A. 298, 87). — IV, 1270.
- 3) Methyläther d. 4-Methylbenzenyloxytetrazotsäure. Sm. 44° (A. 298, 78). — IV, 1272.
- 4) Äthyläther d. Benzenyloxytetrazotsäure. Fl. (A. 298, 64). — IV, 1267.
- 5) 3-Diazo-5,7-Dimethylindazol. Zers. bei 130° (A. 305, 327).
- 6) 5-Acetylamido-1-Methyl-1,2,3-Benzotriazol. Sm. 237° (B. 30, 2853). — IV, 1259.
- 7) Verbindung (aus Diacetonitril u. Cyanamid). Sm. 145° u. Zers. (J. pr. [2] 52, 92).
- $C_9H_{10}OBr_2$, 1) $\alpha\beta$ -Dibrom- γ -Oxy- α -Phenylpropan ($\beta\gamma$ -Dibrom- γ -Phenyl-norm. Propylalkohol; Styceindibromhydrin). Sm. 74° (Bl. 20, 120). — II, 1070.
- 2) 3,5-Dibrom-2-Oxy-1-Isopropylbenzol. Fl. (G. 16, 119). — II, 762.
- 3) 3,6-Dibrom-5-Oxy-1,2,4-Trimethylbenzol. Sm. 149—150° (B. 11, 30; 18, 2657; 28, 2923; A. 302, 160). — II, 763.
- 4) 3,5-Dibrom-6-Oxy-1,2,4-Trimethylbenzol. Sm. 152° (B. 18, 630; 19, 1220). — II, 764.
- 5) 4,6-Dibrom-2-Oxy-1,3,5-Trimethylbenzol. Sm. 150° (155°) (A. 195, 271; 302, 160). — II, 764.
- 6) 1,2-Anhydrid d. 1,3-Dibrom-2-Oxy-4,5-Dimethyl-1-Oxymethyl-1,2-Dihydrobenzol. Sm. 66—67° (A. 302, 106).
- 7) 1,4-Anhydrid d. 1,3-Dibrom-4-Oxy-2,5-Dimethyl-1-Oxymethyl-1,4-Dihydrobenzol. Sm. 81° (B. 30, 753; A. 302, 119).
- 8) Bromid (aus Methyl- γ -Tolylketon). Sm. 55° (B. 14, 1598). — III, 145.
- $C_9H_{10}OS$, 1) Phenyläther d. Merkaptodimethylketon. Sm. 34—35°; Sd. 268—269°. + $NaHSO_3$, + $KHSO_3$ (A. 260, 252; B. 24, 163). — II, 790.
- 2) Äthylester d. Benzolthiolcarbonsäure. Sd. 242—243° (J. 1863, 483—484; Z. 1868, 356; J. pr. [2] 17, 463; [2] 31, 471). — II, 1290.
- $C_9H_{10}OS_2$, 1) Phenylester d. Äthoxyldithioameisensäure (Phenylester d. Äthylxanthogensäure). Fl. (J. pr. [2] 41, 186). — II, 785.
- $C_9H_{10}O_2N_2$, C 60,7 — H 5,6 — O 18,0 — N 15,7 — M. G. 178.
- 1) α -Acetylphenylharnstoff. Sm. 183° (B. 8, 1181; 17, 2882; Soc. 73, 365). — II, 381.
- 2) $\alpha\beta$ -Dioximido- α -Phenylpropan (Methylphenylglyoxim). Sm. 231—233° (239—240°) (B. 22, 562, 2129; A. 291, 293; Bl. [3] 17, 71). — III, 140, 268.
- 3) $\alpha\beta$ -Dioximido- α -[4-Methylphenyl]äthan. Sm. 165°. — III, 95.
- 4) Acetylbenzenylamidoxim. Sm. 96° (B. 18, 1082). — II, 1200.
- 5) 2-Acetylamidobenzaldoxim. Sm. 194° (B. 26, 1891). — III, 51.
- 6) 4-Acetylamidobenzaldoxim. Sm. 205—206° (B. 16, 2004). — III, 51.

- $C_8H_{10}O_2N_2$ 7) α -Formyl- β -Acetyl- α -Phenylhydrazin. Sm. 86° (B. 28, 945). — IV, 665.
- 8) α -Acetylbenzoylhydrazin. Sm. 170° (J. pr. [2] 50, 298). — II, 1308.
- 9) Monoxim d. 2-[$\alpha\gamma$ -Diketobutyl]pyridin. Sm. 78° (M. 17, 451). — IV, 185.
- 10) 5-Nitro-2-Methyl-2,3-Dihydroindol. Sm. 82° (B. 31, 2540).
- 11) 6-Nitro-1,2,3,4-Tetrahydrochinolin. Sm. $163-164^\circ$ (B. 31, 2537).
- 12) 8-Nitro-1,2,3,4-Tetrahydrochinolin. Sm. $82-83^\circ$ (B. 31, 2537).
- 13) 1-Nitroso-6-Oxy-1,2,3,4-Tetrahydrochinolin (B. 16, 723). — IV, 197.
- 14) 1-Nitroso-8-Oxy-1,2,3,4-Tetrahydrochinolin. Sm. $67-68^\circ$ (B. 14, 1369). — IV, 199.
- 15) 4-Nitroso-3-Methyl-3,4-Dihydro-1,4-Benzoxazin. Fl. (B. 30, 1638).
- 16) α -Phenylhydrazonpropionsäure. Sm. 192° ($178-183^\circ$) u. Zers. (J. pr. [2] 52, 39; B. 16, 2241; 17, 578; 19, 2968; A. 247, 208; 283, 227). — IV, 688.
- 17) Benzylidenhydrazidoessigsäure. Sm. $156,5^\circ$ (B. 23, 3030). — III, 41.
- 18) β -[3,4-Diamidophenyl]akrylsäure. Sm. $167-168^\circ$. 2HCl (B. 16, 2042). — II, 1420.
- 19) β -[2-Hydrazidophenyl]akrylsäure. Sm. 171° u. Zers. HCl (A. 221, 276; 227, 309). — II, 1421.
- 20) Aldehyd d. α -Methyl- β -Phenylharnstoff-2-Carbonsäure. Sm. 180° u. Zers. (B. 28, 1038). — III, 17.
- 21) Aethylester d. Diazobenzolcarbonsäure. Fl. (B. 28, 1927). — IV, 737.
- 22) Aethylester d. Säure $C_7H_5O_2N_2$ (A. ch. [6] 18, 493). — I, 1223.
- 23) Nitril d. 6-Oxy-2-Keto-4-Methyl-1-Aethyl-1,2-Dihydropyridin-3-Carbonsäure. Sm. bei 242° . Ba + $2H_2O$, Cu + $4NH_3$ (C. 1896 [1] 602; 1897 [1] 369).
- 24) Nitril d. 6-Oxy-2-Keto-5-Methyl-4-Aethyl-2,5-Dihydropyridin-3-Carbonsäure. Sm. $261-262^\circ$ u. Zers. NH_4 , Na, Ba, Cu, Ag (C. 1897 [1] 905).
- 25) Nitril d. 6-Oxy-2-Keto-4-Methyl-5-Aethyl-2,5-Dihydropyridin-3-Carbonsäure. Sm. $234-235^\circ$. NH_4 , Cu (C. 1896 [1] 602).
- 26) Nitril d. 6-Oxy-2-Keto-1,4,5-Trimethyl-1,2-Dihydropyridin-3-Carbonsäure. Sm. $264-265^\circ$ (C. 1896 [1] 603).
- 27) Amid d. Benzoylamidoessigsäure. Sm. 183° (J. 1857, 368; J. pr. [2] 15, 248; [2] 52, 256). — II, 1186.
- 28) Amid d. 2-Acetylamidobenzol-1-Carbonsäure. Sm. $170-171^\circ$ (J. pr. [2] 31, 124; [2] 36, 142). — II, 1250.
- 29) Amid d. 2-Methylformylamidobenzol-1-Carbonsäure. Sm. 113° (J. pr. [2] 43, 226). — II, 1249.
- 30) Diamid d. 1-Methylbenzol-2,4-Dicarbonsäure (J. pr. [2] 42, 511). — II, 1845.
- 31) Diamid d. 1-Methylbenzol-3,4-Dicarbonsäure. Sm. 188° u. Zers. (M. 12, 629). — II, 1846.
- 32) Diamid d. Benzol-1-Carbonsäure-4-Methylcarbonsäure. Sm. 235° (B. 22, 3214). — II, 1844.
- 33) Methylamid d. 2-Formylamidobenzol-1-Carbonsäure. Sm. $111-112^\circ$ (J. pr. [2] 43, 222). — II, 1249.
- 34) Monophenylamid d. Malonsäure. Sm. 163° (B. 17, 135). — II, 412.
- 35) α -Methylphenylamid d. Oxalsäure. Sm. $179-186^\circ$ (A. 184, 70). — II, 409.
- 36) Mono[2-Methylphenyl]diamid d. Oxalsäure. subl. (Bl. 41, 129). — II, 466.
- 37) Mono[4-Methylphenyl]diamid d. Oxalsäure. Sm. $236-237^\circ$ (Bl. 41, 127). — II, 501.
- 38) Benzylnitrosamid d. Essigsäure. Fl. (B. 30, 879; 32, 79).
- 39) 4-Methylphenylnitrosamid d. Essigsäure. Sm. 80° u. Zers. (B. 10, 959; 27, 653). — II, 491.
- 40) Benzylidenamid d. Ameisensäure. Sm. $149-150^\circ$ (B. 26, 1972). — III, 33.
- 41) Diimid d. Acetondibrenztraubensäure. subl. bei 280° ; Zers. oberh. 300° (B. 31, 685).
- 42) Benzylidenhydrazid d. Oxyessigsäure (J. pr. [2] 51, 367). — III, 40.
- 43) Verbindung (aus Aethylamidocyanocrotonsäureäthylester). Ba + $2H_2O$ (A. ch. [6] 18, 515). — I, 1223.



C 52,4 — H 4,8 — O 15,5 — N 27,2 — M. G. 206.

- 1) 1,2-[$\alpha\gamma$ -Trimethylen]dinitrosodiamidobenzol. Sm. bei 120° (A. 287, 228). — IV, 557.
- 2) $\alpha\beta$ -Dioximido- β -Phenylhydrazonpropan. Sm. 145° u. Zers. (B. 21, 2993). — IV, 762.
- 3) 2-Keto-5-Methyl-3-[4-Hydrazidophenyl]-2,3-Dihydro-1,3,4-Oxidiazol. HCl (B. 26, 1321). — IV, 1127.
- 4) 2-Nitro-5-Amido-1,2-Dimethylbenzimidazol. Sm. 251—252° (B. 29, 1056). — IV, 1150.
- 5) 2-Diamido-2,4-Diketo-7-Methyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 333° (J. pr. [2] 51, 515).
- 6) Amid d. Phenylhydrazonmethandicarbonsäure. Sm. 232—233° (Soc. 67, 1004). — IV, 720.
- 7) Amid d. β -Benzylidenamidoharnstoff- α -Carbonsäure (Benzylidenamidobiuret). Sm. 202° (A. 303, 99).



- 1) Dimethyläther d. 2,5-Dichlor-1-Dioxymethylbenzol. Sm. 15°; Sd. 257—258°₇₅₀ (B. 31, 546).



- 1) 4,6-Dibrom-2-Oxy-5-Oxymethyl-1,3-Dimethylbenzol. Sm. 191—192° (A. 302, 94).
- 2) 3,6-Dibrom-5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol. Sm. 166° (B. 28, 2915; 29, 2329, 2333, 2345).
- 3) Alkohol (aus d. isom. Pseudocumenoltribromid). Sm. 154—155° (B. 32, 24).
- 4) Dimethyläther d. 2-Dibrom-3,5-Dioxy-1-Methylbenzol. Sm. 160° (B. 14, 2001). — II, 963.
- 5) Methyläthyläther d. 2,5-Dibrom-1,4-Dioxybenzol. Sm. 88° (M. 6, 913). — II, 944.
- 6) Oxyderivat (aus 4,6-Dibrom-2-Oxy-1,3,5-Trimethylbenzol). Sm. 132° (A. 302, 167).
- 7) Verbindung (aus Dibrompseudocumenol). Sm. 160—161° (158—159°) (B. 28, 3125; 30, 757).
- 8) Verbindung (aus Dibrompseudocumenolbromid). Sm. 240—245° (B. 29, 1117).
- 9) Verbindung (aus d. Dibromanhydro-p-Oxymesitylalkoholhydrobromid). Sm. 252° (A. 302, 94).



- 1) Sulfo-4-Toluylenäthylen. Sm. 75—76° (A. 143, 216). — II, 110.
- 2) Allylphenylsulfon. Fl. (A. 283, 185).
- 3) Merkaptoessigbenzyläthersäure. Sm. 58—59° (60°). Ag (B. 12, 1641; M. 18, 88). — II, 1054.
- 4) 1-Merkaptomethylbenzyläther-2-Carbonsäure. Sm. 138° (B. 23, 2485). — II, 1560.
- 5) 4-Merkaptobenzoläthyläther-1-Carbonsäure. Sm. 146° (B. 27, 1739). — II, 1541.
- 6) Aethylester d. Merkaptoameisenphenyläthersäure. Sd. 259—261° (B. 19, 1229). — II, 785.



- 1) Acetat d. Quecksilber-3-Methylphenyloxydhydrat. Sm. 83—84° (B. 28, 590). — IV, 1710.
- 2) Acetat d. Quecksilber-4-Methylphenyloxydhydrat. Sm. 153° (A. 173, 174). — IV, 1711.
- 3) Propionat d. Quecksilberphenyloxydhydrat. Sm. 165—166° (A. 154, 118). — IV, 1705.



C 55,7 — H 5,1 — O 24,7 — N 14,4 — M. G. 194.

- 1) 4-Nitro-1-Acetylmethylamidobenzol. Sm. 152—153° (B. 31, 2529).
- 2) Methyläther d. α -Oximido- α -[3-Nitrophenyl]äthan. Sm. 63—64° (B. 15, 3063). — III, 132.
- 3) N-Aethyl-syn-3-Nitrobenzaldoxim. Sm. 97° (B. 24, 2810). — III, 48.
- 4) N-Aethyl-syn-4-Nitrobenzaldoxim. Sm. 122—123° (119°) (B. 24, 2553; 31, 2066; A. 257, 239). — III, 49.
- 5) Aethyläther d. anti-4-Nitrobenzaldoxim. Sm. 107—108° (B. 24, 2549). — III, 49.
- 6) Aethyläther d. syn-4-Nitrobenzaldoxim. Sm. 70—71° (B. 24, 2554). — III, 49.
- 7) 3-Nitrobenzimidooäthyläther. Fl. HCl, (2HCl, PtCl₄), Bioxalat (B. 23, 1551; A. 265, 144). — II, 1234.
- 8) 4-Nitrobenzimidooäthyläther. Sm. 78°. HCl, H₂SO₄ (A. 298, 47).

- $C_9H_{10}O_3N_2$ 9) **N-Acetat d. 2-Oxybenzenylamidoxim.** Sm. 117° (B. 22, 2780). — II, 1502.
- 10) **N-Acetat d. 3-Oxybenzenylamidoxim.** Sm. 90° (B. 24, 832). — II, 1518.
- 11) **N-Acetat d. 4-Oxybenzenylamidoxim.** Sm. 122,5° (B. 24, 837). — II, 1531.
- 12) **Methylderivat d. 5-Keto-3-Methyl-4,5-Dihydroisoxazol.** Sm. 74—75° (A. 296, 55).
- 13) **7-Nitro-3-Methyl-3,4-Dihydro-1,4-Benzoxazin.** Sm. 132° (B. 30, 1639).
- 14) **3-Aethylnitrosamidobenzol-1-Carbonsäure.** Ag (B. 5, 1040). — II, 1259.
- 15) **2-Nitroso-4-Dimethylamidobenzol-1-Carbonsäure.** Sm. 224°. HCl, Oxalat, Pikrat (B. 22, 342). — II, 1281.
- 16) **α -Phenylhydantoinsäure.** Sm. 178° u. Zers. (B. 21, 2326). — II, 1325.
- 17) **α -Methylphenylharnstoff- α -Carbonsäure (Phenylureidoessigsäure).** Sm. 195°. Ag (B. 27, 975).
- 18) **α -Methylphenylharnstoff-3-Carbonsäure** (B. 18, 2415). — II, 1261.
- 19) **α -Methylphenylharnstoff-4-Carbonsäure.** — II, 1272.
- 20) **4-Harnstoffphenylessigsäure + 1 $\frac{1}{2}$ H₂O.** Sm. 174° u. Zers. (wasserfrei) (B. 15, 2122). — II, 1323.
- 21) **α -Phenylnitrosamidopropionsäure.** Sm. 88,5° (B. 25, 2704). — II, 432.
- 22) **Benzoyldiamidoessigsäure.** Sm. 227°. — II, 1191.
- 23) **3-Amidobenzoylamidoessigsäure.** Sm. 194°. HCl (A. 112, 70; H. 7, 100; J. pr. [2] 15, 257). — II, 1188.
- 24) **Benzenylamidoximessigsäure.** Sm. 123—124°. Na (B. 22, 3161; 26, 1569). — II, 1202.
- 25) **β -[2-Oxybenzyliden]hydrazidoessigsäure.** α -Modif. Sm. 78°; β -Modif. Sm. 105° (B. 29, 2729).
- 26) **Methylester d. Phenylharnstoff-3-Carbonsäure.** Sm. 185° (A. 291, 323).
- 27) **Methylester d. Phenylharnstoff-4-Carbonsäure.** Sm. 252° (A. 291, 331).
- 28) **Aethylester d. 1-Diazobenzol-3-Carbonsäure.** 2 Chlorid + AuCl₃, Nitrat (A. 120, 127). — IV, 1554.
- 29) **Benzylester d. Harnstoffcarbonsäure (Benzylester d. Allophansäure).** Sm. 183° (B. 22, 1573). — II, 1051.
- 30) **Diamid d. Methylphenyläther- α -Carbonsäure-2-Carbonsäure.** Sm. 158° (B. 17, 2997). — II, 1497.
- 31) **Amid d. β -[4-Nitrophenyl]propionsäure.** Sm. 174—175° (R. 16, 255).
- 32) **Amid d. 6-Nitro-1,3-Dimethylbenzol-4-Carbonsäure.** Sm. 183° (A. 271, 19).
- 33) **Methylamid d. 4-Nitrophenylessigsäure.** Sm. 156—157° (R. 16, 35).
- 34) **2-Nitrophenylamid d. Propionsäure.** Sm. 63° (Am. 6, 172). — II, 369.
- 35) **Methyl-3-Nitrophenylamid d. Essigsäure.** Sm. 94—95°. HBr, 2 + HBr + Br₂, 2 + HBr + J₄ (Soc. 53, 777; Am. 19, 681). — II, 367.
- 36) **Methyl-4-Nitrophenylamid d. Essigsäure.** Sm. 153° (Soc. 53, 777). — II, 367.
- 37) **2-Nitrobenzylamid d. Essigsäure.** Sm. 97—99° (B. 20, 2229). — II, 524.
- 38) **3-Nitrobenzylamid d. Essigsäure.** Sm. 91° (B. 20, 2869). — II, 524.
- 39) **4-Nitrobenzylamid d. Essigsäure.** Sm. 133° (B. 19, 286; 23, 339). — II, 524.
- 40) **3-Nitro-2-Methylphenylamid d. Essigsäure.** Sm. 158° (A. 228, 241). — II, 456.
- 41) **4-Nitro-2-Methylphenylamid d. Essigsäure.** Sm. 150—151° (B. 17, 269). — II, 462.
- 42) **5-Nitro-2-Methylphenylamid d. Essigsäure.** Sm. 196—197° (A. 158, 345). — II, 462.
- 43) **6-Nitro-2-Methylphenylamid d. Essigsäure.** Sm. 157,5—158° (155,5°) (A. 172, 226; B. 17, 1959). — II, 462.
- 44) **4-?-Nitro-3-Methylphenylamid d. Essigsäure.** Sm. 101—102° (A. 158, 348). — II, 478.
- 45) **6-Nitro-3-Methylphenylamid d. Essigsäure.** Sm. 136° (B. 18, 1402). — II, 478.

- $C_9H_{10}O_3N_2$ 46) **2-Nitro-4-Methylphenylamid d. Essigsäure.** Sm. 144,5° (160°) (A. 173, 229; 234, 354; B. 17, 264). — II, 492.
 47) **3-Nitro-4-Methylphenylamid d. Essigsäure.** Sm. 94—95° (A. 155, 23; B. 13, 1088; 18, 1483; 31, 128; Am. 10, 475). — II, 492.
 48) **4-Methoxyphenylamid d. Oxaminsäure.** Sm. 241° (B. 31, 334).
 49) **3-Amido-4-Methylphenylmonamid d. Oxalsäure** (Amidotolyloxamid-säure). Sm. 223° u. Zers. $Ba + 2H_2O$ (A. 268, 329). — IV, 604.
 50) **Aethylidenhydrazid d. 2-Oxyphenylkohlenensäure.** Sm. 125° (A. 300, 151).
 51) **Phenylmonohydrazid d. Malonsäure.** Sm. 154° u. Zers. Phenylhydrazinsalz (B. 22, 2734). — IV, 701.
 52) **2-Oxybenzylidenhydrazid d. Oxyessigsäure.** Sm. 220—221° (J. pr. [2] 51, 368). — III, 76.
 53) **4-Oxybenzylidenhydrazid d. Oxyessigsäure.** Sm. 215—216° (J. pr. [2] 51, 368). — III, 86.
- $C_9H_{10}O_3N_4$ C 48,6 — H 4,5 — O 21,6 — N 25,2 — M. G. 222.
 1) **α -Nitro- α -Oximido- β -Phenylhydrazonpropan.** Sm. 125—126° u. Zers. (A. 277, 331; 283, 223). — IV, 758.
 2) **Aethyläther d. 4-Nitro-1-[Imidooxymethyl]azobenzol.** Sm. 73° (B. 28, 2078). — IV, 1453.
 3) **Methazonsäure-4-Azotoluol.** Sm. 154° u. Zers. (B. 10, 143). — IV, 1382.
 4) **Amid d. 4-Harnstoffphenyl-1-Oxaminsäure** (B. 27, 963; A. 293, 380). — IV, 593.
 5) **Phenylhydrazid d. Oxalursäure.** Sm. 223° (J. pr. [2] 48, 79).
 6) **Phenylmonohydrazid d. Oxalsäuremonureid** (Oxalurhydrazid). Sm. 215° u. Zers. (Soc. 53, 556). — IV, 701.
 7) **Amidoformylphenylhydrazid d. Oxaminsäure.** Sm. oberh. 300° (J. pr. [2] 48, 80).
- $C_9H_{10}O_3Cl_4$ 1) **$\beta\beta\gamma$ -Trichlorbutylidenester d. $\beta\gamma\gamma$ -Trichlor- α -Oxyvaleriansäure** (Trichlorvalerolaktinsäurebutyrylchloralid). Sm. 84—86°; Sd. 300—310° (A. 193, 48). — I, 945.
- $C_9H_{10}O_3Br_2$ 1) **3,5-Dimethyläther d. 2,6-Dibrom-3,4,5-Trioxyl-1-Methylbenzol.** Sm. 126° (B. 12, 1375). — II, 1023.
 2) **Trimethyläther d. Dibrom-1,3,5-Trioxylbenzol.** Sm. 136° (A. 276, 330). — II, 1020.
- $C_9H_{10}O_3S$ 1) **Phenylsulfondimethylketon** (Phenylsulfonaceton). Sm. 57° (J. pr. [2] 36, 403; A. 260, 262). — II, 790.
 2) **2-Propylthiophen-5-Ketocarbonsäure.** Ag (B. 20, 1745). — III, 759.
 3) **3-Isopropylthiophen-2-Ketocarbonsäure.** Fl. Pb, Ag (A. 267, 137). — III, 759.
 4) **β -Phenylpropen-4[?]-Sulfonsäure** (A. 219, 302). — II, 170.
 5) **2,3-Dihydroinden-2-Sulfonsäure (α -Säure)** (B. 26, 1539). — II, 170.
 6) **2,3-Dihydroinden-2-Sulfonsäure + x H₂O (β -Säure).** Sm. bei 92°. Na + 4 H₂O (B. 26, 1539). — II, 170.
 7) **α -Phenylmerkpto- α -Oxypropionsäure.** Sm. 87° (B. 18, 263). — II, 788.
- $C_9H_{10}O_3Hg$ 1) **Acetat d. 2-Methoxyphenylquecksilberoxydhydrat.** Sm. 123—124° (B. 27, 257). — IV, 1709.
 2) **Acetat d. 4-Methoxyphenylquecksilberoxydhydrat.** Sm. 176,5° (B. 23, 2345). — IV, 1709.
- $C_9H_{10}O_4N_2$ C 51,4 — H 4,8 — O 30,5 — N 13,3 — M. G. 210.
 1) **2-Dinitro-2-Aethyl-1-Methylbenzol.** Fl. (B. 19, 3090). — II, 102.
 2) **2-Dinitro-4-Aethyl-1-Methylbenzol.** Sm. 52° (B. 7, 1514). — II, 102.
 3) **isom. Dinitro-4-Aethyl-1-Methylbenzol.** Fl. (B. 7, 1514). — II, 103.
 4) **3,6-Dinitro-1,2,4-Trimethylbenzol.** Sm. 96° (B. 27, 1429).
 5) **2,4-Dinitro-1,3,5-Trimethylbenzol.** Sm. 86° (A. 141, 133; B. 29, 2204). — II, 103.
 6) **2-Nitro-1-Nitromethyl-3,5-Dimethylbenzol.** Sm. 85,5—86° (B. 29, 2202; J. pr. [2] 58, 338).
 7) **3-Nitro-5-Acetylamido-2-Oxy-1-Methylbenzol.** Sm. 217° (B. 23, 3477). — II, 743.
 8) **Methyläther d. 4-Nitro-2-Acetylamido-1-Oxybenzol.** Sm. 174—175° (131—132°) (Soc. 69, 1330; C. 1898 [2] 950).

- $C_9H_{10}O_4N_2$ 9) Methyläther d. 5-Nitro-2-Acetylamido-1-Oxybenzol. Sm. 143° (145 bis 146°; 153—154°) (A. 207, 242; Soc. 69, 1331; C. 1898 [2] 950). — II, 731.
- 10) Methyläther d. 3-Nitro-4-Acetylamido-1-Oxybenzol. Sm. 115° (117°) (J. pr. [2] 43, 63; B. 29, 2595). — II, 732.
- 11) α -[2-Nitrophenyl]äther d. β -Oximido- α -Oxypropan. Sm. 102° (B. 30, 1635).
- 12) α -[4-Nitrophenyl]äther d. β -Oximido- α -Oxypropan. Sm. 119° (B. 30, 1634).
- 13) Melanin (J. 1866, 722). — III, 668.
- 14) α -[4-Nitrophenyl]amidopropionsäure + H_2O . Sm. 147° (B. 30, 2767).
- 15) α -Amido- β -[4-Nitrophenyl]propionsäure + $1\frac{1}{2}H_2O$. Zers. bei 240 bis 245°. Cu + $2H_2O$, HCl (A. 219, 213; J. 1882, 365). — II, 1368.
- 16) β -[2-Nitro-4-Amidophenyl]propionsäure. Sm. 137—139° (B. 12, 601). — II, 1367.
- 17) β -[3-Nitro-4-Amidophenyl]propionsäure. Sm. 145° (B. 15, 845). — II, 1367.
- 18) α -Isonitramido- β -Phenylpropionsäure + $2H_2O$. Sm. 72°. NH_4 (B. 28, 1794).
- 19) N-Benzylisonitramidoessigsäure. Sm. 135° (A. 300, 132).
- 20) 3-Nitro-4-Methylphenylamidoessigsäure. Sm. 189—190° u. Zers. NH_4 , Ba + $1\frac{1}{2}H_2O$, Pb + $\frac{1}{2}H_2O$ (B. 19, 9; 20, 26). — II, 505.
- 21) 4-Nitro-2-Aethylamidobenzol-1-Carbonsäure. Sm. 223° (Am. 20, 222).
- 22) 5-Nitro-3-Aethylamidobenzol-1-Carbonsäure. Sm. 208°. Ba + $4H_2O$ (B. 10, 1704). — II, 1285.
- 23) 3-Harnstoff-4-Oxybenzoldimethyläther-1-Carbonsäure (3-Anisuraminsäure). Ca + $7H_2O$ (A. 153, 99). — II, 1540.
- 24) Oxyessig-4-Carbamidophenyläthersäure + $2H_2O$. Sm. 195° (B. 30, 547).
- 25) 4-Amido-2,6-Dimethylpyridin-3,5-Dicarbonsäure. Sm. 263° u. Zers. NH_4 , K, K_2 , Ba, Cu, HCl, HNO_3 (B. 27, 1323). — IV, 837.
- 26) Methylester d. 2-Nitro-4-Amidophenylessigsäure. Sm. 94° (B. 14, 825). — II, 1327.
- 27) Aethylester d. 3-Nitro-2-Amidobenzol-1-Carbonsäure. Sm. 109° (A. 195, 40; J. pr. [2] 43, 435). — II, 1281.
- 28) Aethylester d. 4-Nitro-2-Amidobenzol-1-Carbonsäure (Am. 20, 222).
- 29) Aethylester d. 5-Nitro-2-Amidobenzol-1-Carbonsäure. Sm. 148° (145°) (J. pr. [2] 43, 470; B. 24, 3810). — II, 1282.
- 30) Aethylester d. 4-Nitro-3-Amidobenzol-1-Carbonsäure. Sm. 139° (B. 18, 2948). — II, 1284.
- 31) Aethylester d. 5-Nitro-3-Amidobenzol-1-Carbonsäure. Sm. 155° (A. 222, 84; B. 28, 595). — II, 1285.
- 32) Aethylester d. 3-Nitro-4-Amidobenzol-1-Carbonsäure. Sm. 145° (136°) (B. 23, 3449; J. pr. [2] 43, 455). — II, 1285.
- 33) Aethylester d. 2-Nitrophenylamidoameisensäure. Sm. 58° (B. 12, 1295; Am. 19, 303). — II, 373.
- 34) Aethylester d. 3-Nitrophenylamidoameisensäure. Sm. 56° (65°) (J. pr. [2] 52, 230; Am. 19, 304).
- 35) Aethylester d. 4-Nitrophenylamidoameisensäure. Sm. 132° (129°) (B. 17, 2625; 26, 2369; A. 233, 9; J. pr. [2] 52, 233; Am. 19, 301). — II, 373.
- 36) Aethylester d. 1,4-Dioximido-1,4-Dihydrobenzol-2-Carbonsäure. Prismen, Zers. bei 160° (B. 22, 1282). — I, 824.
- 37) Amid d. β -Oxy- β -[2-Nitrophenyl]propionsäure. Sm. 197° u. Zers. (B. 16, 2646; 17, 2013). — II, 1573.
- 38) Amid d. β -Oxy- β -[4-Nitrophenyl]propionsäure. Sm. 166° (B. 17, 1495). — II, 1574.
- 39) Amid d. 6-Nitro-2-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 197° (R. 2, 217). — II, 1510.
- 40) Amid d. 4-Nitro-3-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 202° (J. pr. [2] 43, 463). — II, 1520.
- 41) Methylenimid d. Bernsteinsäure (J. pr. [2] 50, 3).
- 42) Acetylhydrazid d. 2-Oxyphenylkohlsäure. Sm. 180° (A. 300, 149).

- $C_9H_{10}O_4N_4$ C 45,4 — H 4,2 — O 26,9 — N 23,5 — M. G. 238.
- 1) β -[2,4-Dinitrophenyl]hydrazonpropan. Sm. 128° (118°) (*J. pr.* [2] 50, 268; *G.* 24 [1] 569; *A.* 253, 58). — IV, 765.
 - 2) Kaffeincarbonsäure. Sm. 225—226° u. Zers. Na + 2H₂O, K + 2H₂O, Ca + 5H₂O, Ba + 5H₂O, Cu + 4H₂O, Ag (*Am.* 17, 412). — III, 961.
 - 3) 3,5-Di[Amidoformyl]diamidobenzol-1-Carbonsäure (Diureidbenzol-carbonsäure). Ba (*B.* 2, 47). — II, 1276.
- $C_9H_{10}O_4Br_2$ 1) Dilakton d. $\alpha\eta$ -Dibrom- β -Dioxyheptan- $\delta\delta$ -Dicarbonsäure (D. d. Dibromdioxydipropylmalonsäure). Sm. 130° (*B.* 14, 627; 15, 625; *A.* 216, 62). — I, 806.
- $C_9H_{10}O_4S$ 1) α -Phenylsulfonpropionsäure. Sm. 115—116°. Na, Ba + 2H₂O (*J. pr.* [2] 40, 548). — II, 786.
- 2) β -Phenylsulfonpropionsäure. Sm. 123—124°. K + 1½ H₂O (*B.* 21, 95). — II, 786.
 - 3) 4-Methylphenylsulfonessigsäure. Sm. 117,5—118,5°. Ag (*B.* 14, 834; *J.* 1885, 1604). — II, 824.
 - 4) β -Keto- α -Phenylpropan-2-Sulfonsäure. Pb (*B.* 19, 2625). — III, 145.
- $C_9H_{10}O_4S_2$ 1) γ -Phenylsulfon- $\alpha\beta$ -Sulfonpropan. Sm. noch nicht bei 230° (*J. pr.* [2] 56, 450).
- $C_9H_{10}O_4S_3$ 1) Aethylester d. Merkaptothioameisen-4-Sulfophenyläthersäure. K (*C.* 1895 [2] 495).
- $C_9H_{10}O_5N_2$ C 47,8 — H 4,4 — O 35,4 — N 12,4 — M. G. 226.
- 1) 3,6-Dinitro-5-Oxy-1,2,4-Trimethylbenzol. Sm. 112° (*B.* 17, 2981; 18, 2659). — II, 763.
 - 2) Aethyläther d. 3,5-Dinitro-2-Oxy-1-Methylbenzol. Sm. 51° (46°) (*B.* 14, 899, 987; 15, 1133, 1860; *A.* 217, 154). — II, 740.
 - 3) Aethyläther d. 4,6-Dinitro-3-Oxy-1-Methylbenzol. Sm. 97° (*A.* 259, 219). — II, 746.
 - 4) Aethyläther d. 3,5-Dinitro-4-Oxy-1-Methylbenzol. Sm. 73° (71°) (*B.* 14, 899, 986; 15, 1858; *A.* 217, 164, 170; *Am.* 19, 533). — II, 752.
 - 5) norm. Propyläther d. 2,4-Dinitro-1-Oxybenzol. Fl. (*B.* 12, 765). — II, 684.
 - 6) 1-Methyläther d. 5-Nitro-3-Acetylamido-1,2-Dioxybenzol. Sm. 224—226° u. Zers. (*Soc.* 69, 1331).
 - 7) β -Keto- α -[*p*-Dinitrophenyl]propan. Sm. 73—75° (*Bl.* [3] 19, 74).
 - 8) α -Amido- β -[*p*-Nitro-4-Oxyphenyl]propionsäure (Nitrotyrosin). Ba, Hg, Ag, HCl + ½ H₂O, HNO₃, H₂SO₄ (*A.* 73, 75; 116, 77; *Z.* 1869, 669). — II, 1568.
 - 9) Aethylester d. 2,4-Diketo-1-Acetyl-1,2,3,4-Tetrahydro-1,3-Diazin-6-Carbonsäure (Ac. d. Acetyluracilcarbonsäure). Sm. 139° (*J. pr.* [2] 56, 492).
 - 10) β -Oxyäthylester d. 2-Nitrophenylamidoameisensäure. Sm. 71° (*Am.* 19, 314).
- $C_9H_{10}O_5N_4$ C 42,5 — H 3,9 — O 31,5 — N 22,0 — M. G. 254.
- 1) 3,5-Dinitro-4-Aethylnitrosamido-1-Methylbenzol. Sm. 77—78° (*B.* 18, 1485). — II, 484.
 - 2) β -[4-Nitrophenylazo]oxamidopropionsäure. Sm. 177—178° (*B.* 30, 2287). — IV, 1583.
- $C_9H_{10}O_5Cl_4$ 1) Diäthylester d. $\alpha\alpha\gamma\gamma$ -Tetrachlor- β -Ketopropan- $\alpha\gamma$ -Dicarbonsäure. Sm. 30—30,5° (*Soc.* 75, 169).
- $C_9H_{10}O_5S$ 1) β -Benzoyloxyäthan- α -Sulfonsäure. K, Ba + H₂O (*Z.* 1868, 235). — II, 1153.
- 2) β -[3-Sulfophenyl]propionsäure. Ca + 5H₂O (*J.* 1877, 860). — II, 1369.
 - 3) β -Phenyläthan- α -Carbonsäure- α -Sulfonsäure. K, K₂, Ca, Ba + H₂O, (K₂ + Zn), Pb, Ag₂ + H₂O (*A.* 154, 62). — II, 1369.
 - 4) 1,3-Dimethylbenzol-5-Carbonsäure-*p*-Sulfonsäure. Ca + 4H₂O (*Am.* 3, 218). — II, 1379.
 - 5) isom. 1,3-Dimethylbenzol-5-Carbonsäure-*p*-Sulfonsäure. Ca + 4H₂O (*Am.* 3, 218). — II, 1379.
 - 6) C-Methylester d. Phenylmethan- α -Carbonsäure- α -Sulfonsäure. NH₄ (*J.* 1880, 856). — II, 1328.
 - 7) 1-Aethylester d. Benzol-1-Carbonsäure-2-Sulfonsäure. Na + 2H₂O, K, Ba + 4H₂O, Ag (*Am.* 11, 342; 20, 261; *B.* 31, 1660). — II, 1295.

- $C_9H_{10}O_5S$ 8) 3-Aethylester d. Benzol-1-Carbonsäure-3-Sulfonsäure. NH_4 , Na + $2H_2O$, Ba (A. 102, 256; 106, 385). — II, 1299.
- $C_9H_{10}O_4N_2$ C 44,5 — H 4,1 — O 39,7 — N 11,6 — M. G. 242.
- 1) Methyläthyläther d. 2,5-Dinitro-1,4-Dioxybenzol. Sm. 144° (M. 6, 914). — II, 946.
- 2) Trimethylester d. Pyrazol-3,4,5-Tricarbonsäure. Sm. 118° (A. 273, 255). — IV, 547.
- $C_9H_{10}O_4N_1$ C 40,0 — H 3,8 — O 35,5 — N 20,7 — M. G. 270.
- 1) 2,4,6-Trinitro-1-Isopropylamidobenzol. Sm. 59° (R. 4, 191). — II, 335.
- 2) p-Dinitro-2-Aethylnitroamido-1-Methylbenzol. Sm. 71—72° (R. 3, 402). — II, 458.
- 3) 3,5-Dinitro-4-Aethylnitroamido-1-Methylbenzol. Sm. 116° (R. 3, 409; B. 18, 1486; 20, 2271). — II, 485.
- 4) s-Aethoxyl-3,5-Dinitro-2-Oxyphenylharnstoff. HCl (B. 15, 448). — II, 734.
- $C_9H_{10}O_6Cl_1$ 1) Aethylester d. $\alpha\beta$ -Di[Dichloracetoxyl]propionsäure. Sd. 203°₁₅ (Soc. 73, 187).
- $C_9H_{10}O_4S$ 1) α -[4-Oxyphenyl-p-Sulfonsäure]propionsäure(Sulfophloretinsäure). Na_2 , Mg + $5H_2O$, Ca + $4H_2O$, Ba + $3H_2O$ (J. 1858, 271). — II, 1571.
- 2) Dimethylester d. 2-Oxybenzol-1-Carbonsäure-5-Sulfonsäure. Sm. 64,5—65° (M. 18, 137).
- $C_9H_{10}O_7N_2$ C 41,9 — H 3,9 — O 43,4 — N 10,8 — M. G. 258.
- 1) Trimethyläther d. 4,5-Dinitro-1,2,3-Trioxybenzol. Sm. 126° (B. 21, 612). — II, 1015.
- 2) Trimethyläther d. p-Dinitro-1,2,4-Trioxybenzol (B. 21, 606). — II, 1018.
- 3) 2,4-Dinitrophenyläther d. $\alpha\beta\gamma$ -Trioxypropan. Sm. 83° (B. 12, 766). — II, 685.
- 4) Superoxyd d. $\alpha\beta$ -Dioximidoaceton- $\alpha\beta$ -Dicarbonsäureäthylester. Sm. 117—118° (B. 26, 1001).
- $C_9H_{10}O_7N_6$ C 34,4 — H 3,2 — O 35,7 — N 26,7 — M. G. 314.
- 1) p-Trinitro-3-Methylnitrosamido-1-Dimethylamidobenzol. Sm. 132° (B. 12, 1815). — IV, 571.
- $C_9H_{10}NCl$ 1) 2-Methylamido-1-[β]Chloräthenylbenzol. Fl. (B. 17, 2509). — II, 584.
- 2) 2-[α]-Chloräthenylamido-1-Methylbenzol (A. 214, 208).
- 3) 4-[α]-Chloräthenylamido-1-Methylbenzol (A. 214, 202).
- 4) β -Chloräthyliden-4-Methylphenylamin. Sm. 58° (M. 8, 190). — II, 511.
- $C_9H_{10}NBr$ 1) α -Brom- γ -Phenylamidopropen. Fl. HCl (C. 1897 [2] 181).
- 2) p-Brom-1,2,3,4-Tetrahydrochinolin. HBr (B. 16, 737). — IV, 190.
- $C_9H_{10}N_2Cl_1$ 1) Verbindung (aus Trichloroxykyanconin) (J. pr. [2] 30, 164). — IV, 829.
- $C_9H_{10}N_2S$ 1) Aethylenphenylthioharnstoff. Sm. 155° (B. 24, 2192). — II, 393.
- 2) α -Vinyl- β -Phenylthioharnstoff. Sm. 80° (B. 28, 2935).
- 3) 2-Phenylamido-4,5-Dihydrothiazol. Sm. 160° (B. 28, 2936).
- 4) 2-Thiocarbonyl-4-Phenyltetrahydroimidazol (Phenyläthylenthioharnstoff). Sm. 184° (B. 28, 3173). — IV, 641.
- 5) 2-Thiocarbonyl-1,5-Dimethyl-2,3-Dihydrobenzimidazol (4-Methyltoluylenthioharnstoff). Sm. 194° (B. 28, 196). — IV, 614.
- 6) 3,5,6-Trimethylbenzthiodiazol. Sm. 85° (A. 277, 236). — IV, 1551.
- 7) 3-Methylimido-3,4-Dihydro-2,1-Benzthiazin. Sm. 139°. (2HCl, PtCl₄), (HCl, AuCl₃) (B. 22, 2935). — IV, 878.
- 8) 2-Thiocarbonyl-3-Methyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 181° (J. pr. [2] 51, 132). — IV, 633.
- $C_9H_{10}N_2S_2$ 1) Phenylhydrazonmethylenäther d. $\alpha\beta$ -Dimerkaptoäthan. Sm. 88° (A. 262, 74). — IV, 687.
- 2) 5-Merkapto-2-Methyl-3-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 132°. K (B. 28, 2641). — IV, 746.
- 3) Methyläther d. 5-Merkapto-3-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 34—35° (B. 28, 2647). — IV, 745.
- 4) 2-Thiocarbonyl-4-Phenyltetrahydro-1,3,4-Thiodiazin. Sm. 94°. HCl (B. 27, 2516). — IV, 684.
- $C_9H_{10}N_2S_3$ 1) Benzylester d. Trithioallophansäure. Sm. 142—143° (B. 28, 1939).
- $C_9H_{10}N_3Cl$ 1) Chlormethylat d. 1-Phenyl-1,2,4-Triazol. 2 + PtCl₄. — IV, 1099.
- $C_9H_{10}N_3J$ 1) Jodmethylat d. 1-Phenyl-1,2,4-Triazol. — IV, 1099.

- $C_9H_{10}ClF$ 1) *p*-Chlor-*p*-Fluor-1,2,4-Trimethylbenzol. *Sd.* 205° (*B.* 26, 1111). — II, 53.
- $C_9H_{10}Cl_2J$ 1) $\alpha\beta$ -Dichlor-4-Methylphenyljodoniumchlorid. *Sm.* 180° u. *Zers.* 2 + $PtCl_4$ (*B.* 28, 2111).
- $C_9H_{10}BrF$ 1) *p*-Brom-*p*-Fluor-1,2,4-Trimethylbenzol. *Sd.* 225—230° (*B.* 26, 1112). — II, 67.
- $C_9H_{10}JF$ 1) *p*-Jod-*p*-Fluor-1,2,4-Trimethylbenzol. *Fl.* (*B.* 26, 1113). — II, 76.
- $C_9H_{11}ON$ C 72,5 — H 7,4 — O 10,7 — N 9,4 — *M. G.* 149.
- 1) 2-Nitroso-1,3,5-Trimethylbenzol. *Sm.* 129° (*B.* 31, 561).
- 2) β -[4-Oxyphenyl]imidopropan (4-Isopropenylamido-1-Oxybenzol). *Sm.* 172—174° (*B.* 25, 2755; 27, 2530, 3005). — II, 722.
- 3) 2-Oxy-1-Aethylimidomethylbenzol. *Sd.* 237° (*B.* 21, 1554). — III, 72.
- 4) Methyläther d. 6-Oxy-3-Imido-1-Methylbenzol. *HCl* (*B.* 31, 1150).
- 5) 2-Aethylidenamido-1-Oxymethylbenzol. *Sd.* 135—137° (*B.* 25, 2969). — II, 1062.
- 6) Aethyläther d. Oxymethylenamidobenzol. *Sd.* 212° (*A.* 287, 362).
- 7) Phenylimidomethyläthyläther. *Sd.* 213—215° (*Am.* 13, 527). — II, 359.
- 8) 2-Methylphenylimidomethyläther. *Sd.* 211—213° (*Am.* 13, 526). — II, 460.
- 9) 4-Methylphenylimidomethyläther. *Sd.* 216—218° (*Am.* 13, 527). — II, 490.
- 10) Benzimidoäthyläther. *Sd.* 218°. *HCl*, + $HgCl_2$ (*B.* 16, 1654; 23, 105; *Pinner*, Imidoäther 53; *Am.* 18, 490; 20, 71). — II, 1212.
- 11) Phenylacetimidomethyläther. *Sd.* 114,5—115°₂₀ (*Am.* 20, 76).
- 12) α -Amido- β -Keto- α -Phenylpropan. *HCl*, (2*HCl*, $PtCl_4$) (*A.* 291, 269, 276).
- 13) Aethyl-*p*-Amidophenylketon. *Fl.* (2*HCl*, $PtCl_4$) (*B.* 6, 1007). — III, 140.
- 14) α -Amidoäthylphenylketon. *HCl*, (2*HCl*, $SnCl_4$), (2*HCl*, $PtCl_4$), *Pikrat* (*B.* 30, 1521).
- 15) β -Amidoäthylphenylketon. *HCl*, *Pikrat* (*B.* 22, 3252). — III, 141.
- 16) Methyl-4-Amido-3-Methylphenylketon. *Sm.* 102°; *Sd.* 280—284°. *HCl*, (2*HCl*, $PtCl_4$) (*B.* 18, 2696). — III, 145.
- 17) Amidomethyl-4-Methylphenylketon. *HCl*, (2*HCl*, $PtCl_4$), (*HCl*, $AuCl_3$), *Pikrat* (*B.* 31, 2133).
- 18) α -Oximido- α -Phenylpropan. *Sm.* 52—53°; *Sd.* 245—246° u. *Zers.* (*B.* 19, 2896). — III, 140.
- 19) β -Oximido- α -Phenylpropan. *Fl.* *HCl* (*B.* 25, 1918; 26, 1971; *A.* 291, 285). — III, 144.
- 20) γ -Oximido- α -Phenylpropan (Oxim d. β -Phenylpropionsäurealdehyd). *Sm.* 93—94,5° (*B.* 26, 1971). — III, 53.
- 21) α -Oximido- α -[4-Methylphenyl]äthan. *Sm.* 88° (*B.* 19, 587). — III, 147.
- 22) *N*-Benzylacetoxim. *Sm.* 120°. *HCl* (*B.* 22, 439; 28, 1279).
- 23) *N*-Aethyl-syn-Benzaldoxim. *Fl.* + *NaJ* (*B.* 22, 1536; 24, 2813). — III, 43.
- 24) Aethyläther d. anti-Benzaldoxim. *Sd.* 207,5—209° (*B.* 16, 827; *Ph. Ch.* 16, 218). — III, 42.
- 25) 2-Butyrylpyridin. *Sd.* 216—220°. (2*HCl*, $PtCl_4$) (*B.* 24, 2536). — IV, 184.
- 26) 3-Butyrylpyridin. *Sd.* 246—252°. + $HgCl_2$ (*B.* 24, 2541). — IV, 184.
- 27) 2,3-Dihydroindenoxamin. *Sm.* 132—133° (*B.* 26, 1543). — II, 170.
- 28) 5-Oxy-1,2,3,4-Tetrahydrochinolin. *Sm.* 116—117° (*B.* 16, 723). — IV, 197.
- 29) 8-Oxy-1,2,3,4-Tetrahydrochinolin. *Sm.* 121—122° (*B.* 14, 1368; 16, 713). — IV, 198.
- 30) 3-Methyl-3,4-Dihydro-1,4-Benzoxazin. *Sd.* 254—256°. *HCl*, (2*HCl*, $PtCl_4$), *Pikrat* (*B.* 30, 1636; 31, 755).
- 31) 4-Methyl-3,4-Dihydro-1,4-Benzoxazin. *Sd.* 261°. *HCl*, *Pikrolonat* (*B.* 22, 2098; 32, 733). — II, 705.
- 32) Aldehyd d. 2-Amidomethylphenylessigsäure. *Sm.* 76—77°; *Sd.* 160 bis 170°₁₀. *Pikrat* (*B.* 30, 2190).
- 33) Aldehyd d. 4-Dimethylamidobenzol-1-Carbonsäure. *Sm.* 73° (75°) (*B.* 18, 1520; 19, 365; 27, 3316; 28, 110). — III, 18.
- 34) Aldehyd d. 4-Amido-1,3-Dimethylbenzol-5-Carbonsäure. *Sm.* 48 bis 49° (*J. pr.* [2] 58, 343, 361).
- 35) Amid d. α -Phenylpropionsäure. *Sm.* 91—92° (*A.* 250, 136). — II, 1370.

- $C_9H_{11}ON$ 36) Amid d. β -Phenylpropionsäure. Sm. 82° (105°) (B. 18, 2740; 25 [2] 747). — II, 1357.
- 37) Amid d. 2-Methylphenylelessigsäure. Sm. 161° (B. 18, 1281). — II, 1373.
- 38) Amid d. 3-Methylphenylelessigsäure. Sm. 141° (B. 18, 1282). — II, 1373.
- 39) Amid d. 4-Methylphenylelessigsäure. Sm. 184° (B. 18, 1281). — II, 1374.
- 40) Amid d. 1-Aethylbenzol-2-Carbonsäure. Sm. 151 — 153° (B. 20, 2535).
- 41) Amid d. 1-Aethylbenzol-4-Carbonsäure. Sm. 115 — 116° (B. 23, 1195). — II, 1373.
- 42) Amid d. 1,2-Dimethylbenzol-4-Carbonsäure. Sm. 130 — 131° (A. 244, 52). — II, 1375.
- 43) Amid d. 1,3-Dimethylbenzol-4-Carbonsäure. Sm. 179 — 181° (B. 12, 1970; A. 244, 53). — II, 1376.
- 44) Amid d. 1,3-Dimethylbenzol-5-Carbonsäure. Sm. 133° (A. 147, 47). — II, 1378.
- 45) Amid d. 1,4-Dimethylbenzol-2-Carbonsäure. Sm. 186° (B. 14, 2112). — II, 1380.
- 46) Methyramid d. Phenylelessigsäure. Sm. 58° (R. 16, 34).
- 47) Methyramid d. 1-Methylbenzol-4-Carbonsäure. Sm. 161° (143°) (A. 244, 51; B. 21, 2651). — II, 1341.
- 48) Dimethyramid d. Benzolcarbonsäure. Sm. 41 — 42° ; Sd. 255 — 257° (B. 9, 846; R. 4, 385). — II, 1159.
- 49) Aethylamid d. Benzolcarbonsäure. Sm. 68 — 69° ; Sd. 256 — 260° (298 bis 299°) (R. 4, 390; A. 244, 50; B. 28, 2354, 2358; Am. 21, 190). — II, 1160.
- 50) Phenylamid d. Propionsäure. Sm. 92° (105°) (Z. 1871, 35; B. 16, 1200; 27 [2] 516; J. pr. [2] 52, 60; Am. 18, 699; Soc. 75, 167).
- 51) Benzylamid d. Essigsäure. Sm. 60 — 61° ; Sd. oberhalb 300° (B. 5, 697; 12, 1297; 19, 1286). — II, 524.
- 52) Methylphenylamid d. Essigsäure. Sm. 102 — 104° (101 — 102°); Sd. 245° (J. 1888, 683; B. 10, 329, 599 Anm.; 16, 29; 21, 1108; 31, 662). — II, 366.
- 53) 2-Methylphenylamid d. Essigsäure. Sm. 110° (107°); Sd. 296° . + CH_3ONa , + C_2H_5ONa , + $NaOH$ (A. 154, 302; 156, 77; 252, 319; J. 1882, 369; H. 12, 317; B. 16, 1200; 26, 2855; Soc. 69, 93; 73, 161). — II, 461.
- 54) 3-Methylphenylamid d. Essigsäure. Sm. $65,5^\circ$; Sd. 303° (A. 156, 83). — II, 478.
- 55) 4-Methylphenylamid d. Essigsäure. Sm. 153° (147°); Sd. 307° . 2 + Al_2Cl_6 , + CH_3ONa , + C_2H_5ONa (A. 129, 78; 154, 302; 156, 74; J. 1864, 426; 1878, 678; Ph. Ch. 4, 76; B. 15, 317; 16, 1200; 26, 2854; H. 12, 308; Bl. [3] 11, 927; Soc. 69, 93). — II, 490.
- 56) Aethylphenylamid d. Ameisensäure. Sd. 240 — 250° (258°_{72}) (B. 15, 2866; 21, 1108; Soc. 67, 831; Am. 21, 189). — II, 359.
- 57) β -Phenyläthylamid d. Ameisensäure. Sd. 205°_{15} (B. 26, 1908). — II, 539.
- 58) Methyl-4-Methylphenylamid d. Ameisensäure. Sm. 30° ; Sd. 273 bis 277° (B. 24, 2080). — II, 490.
- 59) 2,4-Dimethylphenylamid d. Ameisensäure. Sm. 113 — 114° (B. 18, 1011). — II, 543.
- 60) 2,5-Dimethylphenylamid d. Ameisensäure. Sm. 111 — 112° (A. 255, 168). — II, 547.
- 61) 3,4-Dimethylphenylamid d. Ameisensäure. Sm. 52° (B. 21, 646). — II, 541.
- 62) 3,5-Dimethylphenylamid d. Ameisensäure. Sm. $76,5^\circ$ (B. 21, 643). — II, 545.
- $C_9H_{11}ON_3$ 63) Verbindung (Base aus d. Nitril d. Propionsäure) (Am. 7, 74). — I, 1463. C 61,0 — H 6,2 — O 9,0 — N 23,7 — M. G. 177.
- 1) α -Phenylhydrazon- α -Amido- β -Ketopropan (Acetylamidrazon). Sm. 183° (B. 25, 3541; 28, 1283). — IV, 1229.
- 2) α -Oximido- β -Phenylhydrazonpropan. Sm. 134° (B. 21, 2996). — IV, 758.
- 3) 2,3-Anhydro-7-Amido-2-Oxy-2,5-Dimethyl-2,3-Dihydrobenzimidazol + H_2O . Sm. 258 — 260° . HCl + $\frac{1}{2}H_2O$ (B. 19, 717; 21, 2406). — IV, 1129.
- 4) Verbindung (aus d. Phenylhydrazonmethan- $\alpha\alpha$ -Dicarbonsäuremethylmonamid). Sm. 205 — 209° (B. 31, 2162).

$C_9H_{11}ON_2$

C 52,7 — H 5,3 — O 7,8 — N 34,1 — M. G. 205.

- 1) *n*-Benzylidenamido- β -Imidoamidomethylharnstoff (Benzalamidodicyandiamidin). HCl (A. 303, 111).

 $C_9H_{11}OCl$

- 1) 3-Chlor-4-Oxy-1-Isopropylbenzol. Sd. 230—232°₇₆₀ (G. 28 [1] 218).
- 2) Aethyläther d. Chloroxymethylbenzol (Ae. d. Phenylchlormethylalkohol). Sd. 210—212° (B. 6, 805). — II, 1057.
- 3) Aethyläther d. 4-Chlor-1-Oxymethylbenzol. Sd. 215—218° (225 bis 227°₇₄₁) (A. 147, 346; 161, 335; A. Spl. 2, 251; G. 17, 208). — II, 1056.
- 4) Aethyläther d. *p*-Chlor-*p*-Oxy-1-Methylbenzol. Sd. 210—220° (A. 168, 210). — II, 756.
- 5) isom. Aethyläther d. *p*-Chlor-*p*-Oxy-1-Methylbenzol. Sd. 210—220° (A. 168, 210). — II, 756.

 $C_9H_{11}OBr$

- 6) Phenyläther d. γ -Chlor- α -Oxypropan. Sm. 11,8—12°; Sd. 238 bis 240°₇₄₅ (B. 25, 416; 28, 1198; Bl. [3] 15, 1224). — II, 653.
- 7) Chlorid d. α -Camphylsäure. Sd. 138—140° u. Zers. (C. 1897 [1] 101).
- 8) Chlorid d. β -Camphylsäure. Sd. 135°₆₀ (C. 1897 [1] 102).
- 1) 5-Brom-2-Oxy-1-Isopropylbenzol. Sm. 47—49° (G. 16, 117). — II, 761.
- 2) 6-Brom-5-Oxy-1,2,4-Trimethylbenzol. Sm. 35° (32°); Sd. 250° u. Zers. (B. 11, 29; 18, 2657; 30, 754; A. 302, 121). — II, 763.
- 3) *p*-Brom-2-Oxy-1,3,5-Trimethylbenzol. Sm. 80° (B. 8, 60; A. 195, 270). — II, 764.
- 4) 4-Brom-3,5-Dimethyl-1-Oxymethylbenzol. Sm. 66—66,5° (B. 19, 213). — II, 1065.
- 5) Aethyläther d. 4-Brom-1-Oxymethylbenzol. Sd. 243°₇₂₉ (G. 17, 204). — II, 1057.
- 6) β -Bromäthyläther d. 4-Oxy-1-Methylbenzol. Sm. 40°; Sd. 254—255° (B. 24, 190). — II, 748.
- 7) Isopropyläther d. 4-Brom-1-Oxybenzol. Sd. 236° (Z. 1870, 250). — II, 672.
- 8) γ -Brom-norm. Propyläther d. Oxybenzol. Sd. 246—256° (211—212°₇₀₀) (B. 24, 2632; 26, 2987). — II, 653.

 $C_9H_{11}OJ$ $C_9H_{11}O_2N$

- 1) 5-Jodoso-1,2,4-Trimethylbenzol. Sm. 171° u. Zers. (B. 27, 1903).
- C 65,5 — H 6,6 — O 19,4 — N 8,5 — M. G. 165.
- 1) α -Nitropropylbenzol. Sd. 245—246°. K (J. r. 25, 532).
- 2) β -Nitropropylbenzol. K (J. r. 25, 540).
- 3) γ -Nitropropylbenzol. K (J. r. 25, 540).
- 4) α -Nitroisopropylbenzol (β -Nitro- β -Phenylpropan). Sd. 224° u. Zers. (B. 28, 1856; J. r. 26, 71).
- 5) 2-Nitro-1-Isopropylbenzol. Fl. (J. r. 18, 52; B. 21, 1157). — II, 102.
- 6) *p*-Nitro-4-Aethyl-1-Methylbenzol. Fl. (B. 19, 3090). — II, 102.
- 7) 1-Nitromethyl-2,4-Dimethylbenzol. (Gemisch) (J. r. 25, 542).
- 8) 1-Nitromethyl-3,5-Dimethylbenzol. Stabile Form Sm. 46—47°; labile Form Sm. 63° (B. 28, 1862; 29, 2194, 2201).
- 9) 3-Nitro-1,2,4-Trimethylbenzol. Sm. 30° (B. 20, 972). — II, 102.
- 10) 5-Nitro-1,2,4-Trimethylbenzol. Sm. 71°; Sd. 265° (Z. 1867, 12). — II, 102.
- 11) 6-Nitro-1,2,4-Trimethylbenzol. Sm. 20° (B. 18, 629). — II, 102.
- 12) 2-Nitro-1,3,5-Trimethylbenzol. Sm. 44° (41—42°); Sd. 255° (A. 141, 132; 147, 1; 179, 169; J. 1884, 464; 1885, 774; B. 8, 57; 29, 2204). — II, 103.
- 13) 5-Formylamido-4-Oxy-1,3-Dimethylbenzol. Sm. 68° (Soc. 63, 106). — II, 759.
- 14) 2-Acetylamido-1-Oxymethylbenzol. Sm. 114°. (2HCl, PtCl₄) (B. 22, 1667). — II, 1062.
- 15) 3-Acetylamido-1-Oxymethylbenzol. Sm. 106—107° (B. 30, 1066).
- 16) 2-Oxy-1-Acetylamidomethylbenzol. Sm. 140° (B. 23, 2745). — II, 742.
- 17) 4-Acetylamido-2-Oxy-1-Methylbenzol. Sm. 224—225° (B. 15, 2831; 17, 609). — II, 741.
- 18) 6-Acetylamido-3-Oxy-1-Methylbenzol + H₂O. Sm. 80° (125° wasserfrei) (A. 259, 217). — II, 746.
- 19) 2-Acetylamido-4-Oxy-1-Methylbenzol. Sm. 178° (B. 17, 609). — II, 753.
- 20) 3-Acetylamido-4-Oxy-1-Methylbenzol. Sm. 159—160° (B. 17, 361). — II, 753.

- $C_9H_{11}O_2N$ 21) Methyläther d. 2-Acetylamido-1-Oxybenzol. Sm. 84° (78°); Sd. 303 bis 305°. 2 + J₂ (A. 207, 242; B. 15, 1685; G. 17, 493; 25 [2] 525). — II, 705.
- 22) Methyläther d. 3-Acetylamido-1-Oxybenzol. Sm. 80–81° (G. 17, 493). — II, 715.
- 23) Methyläther d. 4-Acetylamido-1-Oxybenzol. Sm. 127,1°. Hg (G. 17, 493; 28 [2] 124). — II, 719.
- 24) Methyläther d. 3-Formylamido-4-Oxy-1-Methylbenzol. Sm. 86° (B. 22, 349). — II, 753.
- 25) Aethyläther d. 2-Formylamido-1-Oxybenzol. Sm. 62°; Sd. 292° (im H-Strom) (J. pr. [2] 12, 208). — II, 705.
- 26) Acetat d. 2-Amido-1-Oxymethylbenzol. Fl. HCl, (2HCl, PtCl₄), HBr, Pikrat (B. 22, 1667; 27, 3517). — II, 1061.
- 27) Dimethyläther d. α -Phenylimido- $\alpha\alpha$ -Dioxymethan. Sd. 123,5°₁₆ (Am. 16, 392).
- 28) Benzoximidoäthyläther. Fl. (B. 17, 185). — II, 1196.
- 29) 4-Oximido-1-Keto-2,3,6-Trimethyl-1,4-Dihydrobenzol. Sm. 184° (B. 27, 1431). — III, 364.
- 30) 2-Oxy-3,5-Dimethylbenzaloxim. Sm. 138,5–139,5° (J. pr. [2] 58, 352).
- 31) Dimethyläther d. 2-Oxybenzaloxim (B. 16, 1784). — III, 76.
- 32) Dimethyläther d. anti-4-Oxybenzaloxim. Sm. 43°; Sd. 246°₁₃₄ (B. 23, 2164). — III, 87.
- 33) Dimethyläther d. syn-4-Oxybenzaloxim. Sd. 245° (B. 23, 2167). — III, 87.
- 34) 2-Aethyläther d. 2-Oxybenzaloxim. Sm. 57–59°. HCl (M. 12, 396). — III, 76.
- 35) 4-Aethyläther d. anti-4-Oxybenzaloxim. Sm. 118° (Ph. Ch. 13, 518). — III, 88.
- 36) 4-Aethyläther d. syn-4-Oxybenzaloxim. Sm. 157° (Ph. Ch. 13, 518). — III, 88.
- 37) α -[2-Methylphenyl]äther d. β -Oximido- α -Oxyäthan. Sm. 117° (B. 30, 1705).
- 38) α -[3-Methylphenyl]äther d. β -Oximido- α -Oxyäthan. Sm. 82° (87°) (B. 30, 1441, 1705).
- 39) α -[4-Methylphenyl]äther d. β -Oximido- α -Oxyäthan. Sm. 99° (B. 30, 1440, 1704; 31, 601 Anm.).
- 40) α -Aethylbenzhydroxamsäure. Sm. 53,5°. HCl (A. 175, 329; 182, 221; 205, 285; 217, 4; 252, 211; 281, 195; B. 16, 874; 17, 1587; 18, 742; 25, 38). — II, 1197.
- 41) β -Aethylbenzhydroxamsäure. Sm. 67–68° (A. 205, 286; 217, 5; 281, 195). — II, 1198.
- 42) Methyläther d. anti-Methylbenzhydroxamsäure. Sd. 216–217° (A. 281, 217; B. 29, 1146). — II, 1197.
- 43) Aethyläther d. Benzhydroxamsäure. Sm. 64–65°. Na, K, Mg, Cu, Ag (A. 181, 385; 205, 278; 252, 184; 281, 184; B. 18, 740; J. 1882, 368). — II, 1196.
- 44) 2,5-Diacetyl-1-Methylpyrrol? Sm. 133–134° (B. 20, 1368). — IV, 102.
- 45) α -Oxy- γ -Keto- α -[2-Pyridyl]butan. Sm. 74°. (2HCl, PtCl₄) (M. 17, 457). — IV, 185.
- 46) α -Oxy- γ -Keto- α -[3-Pyridyl]butan. Sm. 115–117°. (HCl, AuCl₃) (M. 18, 681).
- 47) α -Phenylamidopropionsäure. Sm. 162°. HCl, Cu (B. 15, 2036; 22, 1793; 23, 2010; Ph. Ch. 10, 647; H. 20, 315; 22, 422). — II, 431.
- 48) β -Phenylamidopropionsäure. Sm. 59–60° (B. 25, 2351; Ph. Ch. 10, 649). — II, 433.
- 49) α -Amido- α -Phenylpropionsäure. subl. bei 260°. HCl (B. 14, 1981). — II, 1372.
- 50) β -Amido- α -Phenylpropionsäure. Sm. 169,5° (A. 195, 158; 209, 11). — II, 1372.
- 51) α -Amido- β -Phenylpropionsäure (Phenylalanin). Sm. 263–265° u. Zers. Cu + 2H₂O, Ag, HCl, (2HCl, PtCl₄), HNO₃, H₂SO₄ (B. 15, 1006; 17, 1623; 30, 2978; A. 219, 194; 271, 169). — II, 1364.

- $C_9H_{11}O_2N$ 52) isom. β - α -Amido- β -Phenylpropionsäure. Sm. 263—265°. Cu, HCl (*H.* 7, 284; *II*, 201; 17, 209; *B.* 14, 1785; 16, 1711; *J. pr.* [2] 27, 342). — *II*, 1365.
- 53) β -Amido- β -Phenylpropionsäure. Sm. 120—121°. HCl (*A.* 195, 143; 200, 97; *J.* 1880, 372; *B.* 15, 1006). — *II*, 1364.
- 54) α -[2-Amidophenyl]propionsäure. Siehe Anhydrid (*A.* 227, 274). — *II*, 1371.
- 55) α -[4-Amidophenyl]propionsäure. Sm. 128°. HCl (*A.* 227, 267). — *II*, 1371.
- 56) β -[3-Amidophenyl]propionsäure. Sm. 84—85°. HCl (*B.* 15, 846). — *II*, 1363.
- 57) β -[4-Amidophenyl]propionsäure. Sm. 131°. HCl, H_2SO_4 (*Z.* 1869, 195; *B.* 15, 843; *A.* 225, 59). — *II*, 1363.
- 58) Benzylamidoessigsäure. Sm. 197—198°. Na, Cu, HCl (*Soc.* 65, 189). — *II*, 525.
- 59) Methylphenylamidoessigsäure. Fl. HCl (*B.* 17, 2661; 27, 3258). — *II*, 428.
- 60) α -Methylamido- α -Phenylessigsäure. subl. bei 274° (*B.* 14, 1982). — *II*, 1323.
- 61) 2-Methylphenylamidoessigsäure. Sm. 149—150°. Ca + 3 H_2O , Cu + 2 H_2O (*B.* 13, 137, 1091; 16, 204; *Ch. Ph.* 10, 640; *M.* 11, 377). — *II*, 468.
- 62) 3-Methylphenylamidoessigsäure. Cu + 2 H_2O (*B.* 15, 2011). — *II*, 479.
- 63) 4-Methylphenylamidoessigsäure. Sm. 132° u. Zers. (*B.* 31, 2715).
- 64) isom.-4-Methylphenylamidoessigsäure? (p-Tolylglycin). Sm. 115 bis 118° (Sm. 166—168° ist unrichtig) (*B.* 25, 2282; *Ph. Ch.* 10, 642; siehe auch *B.* 8, 1158; 10, 2047; 14, 1323). — *II*, 505.
- 65) α -Amido- α -[3-Methylphenyl]essigsäure (*B.* 17, 1472). — *II*, 1374.
- 66) 3-Aethylamidobenzol-1-Carbonsäure. Sm. 112°. HCl, Ba + 2 H_2O (*B.* 5, 1038). — *II*, 1258.
- 67) 1-[β -Amidoäthyl]benzol-2-Carbonsäure. Sm. 160—165°. HCl, (2 HCl, PtCl₄ + 2 H_2O) (*B.* 26, 1217). — *II*, 1372.
- 68) 4-Amido-1-Aethylbenzol-2-Carbonsäure. Sm. 179—180° (*B.* 29, 2537).
- 69) 5-Amido-1-Aethylbenzol-2-Carbonsäure. Sm. 179—180° (*B.* 29, 2537, 2538).
- 70) 2-Dimethylamidobenzol-1-Carbonsäure. Sm. 175° (*Bl.* [3] 9, 970; *B.* 26 [2] 932). — *II*, 1247.
- 71) 3-Dimethylamidobenzol-1-Carbonsäure. Sm. 151° (*B.* 6, 587; 26 [2] 932; *J.* 1885, 1454). — *II*, 1258.
- 72) 4-Dimethylamidobenzol-1-Carbonsäure. Sm. 235°. Ag (*B.* 9, 401; 22, 341; 26 [2] 932). — *II*, 1271.
- 73) 5-Amido-1,3-Dimethylbenzol-2-Carbonsäure. Sm. 194—195° u. Zers. (*Am.* 20, 812).
- 74) 2-Amido-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 235°. HCl (*A.* 147, 50; 193, 171; *B.* 12, 608). — *II*, 1379.
- 75) 4-Amido-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 186—187° (*A.* 193, 171; *B.* 11, 2055). — *II*, 1379.
- 76) 2-Methyl-4-Aethylpyridin-6-Carbonsäure. (2 HCl, PtCl₄) (*A.* 237, 190). — *IV*, 150.
- 77) 2,4,6-Trimethylpyridin-3-Carbonsäure + 2 H_2O (Collidincarbonsäure). Sm. 110° (155° wasserfrei). K, Ca + H_2O , (2 HCl, PtCl₄ + H_2O) (*A.* 215, 42; 225, 131). — *IV*, 149.
- 78) Methylester d. Phenylamidoessigsäure (M. d. Anilidoessigsäure). Sm. 48° (*B.* 8, 1157; *J. pr.* [2] 38, 437). — *II*, 427.
- 79) Methylester d. α -Amidophenylessigsäure. Sm. 32°. HCl (*B.* 24, 4146). — *II*, 1323.
- 80) Methylester d. 4-Amidophenylessigsäure. Fl. HCl (*B.* 28, 1919).
- 81) Methylester d. 4-Amido-1-Methylbenzol-3-Carbonsäure. Sm. 62° (*J. pr.* [2] 33, 69). — *II*, 1338.
- 82) Methylester d. 6-Amido-1-Methylbenzol-3-Carbonsäure. Sm. 115° (*B.* 28, 598).
- 83) Aethylester d. Phenylamidoamelsensäure (Phenylurethan). Sm. 51 bis 52°; Sd. 237—238° u. ger. Zers. (*J. pr.* [2] 10, 207; [2] 27, 499; [2] 52, 214; [2] 58, 230; *A.* 147, 159; *B.* 3, 649, 654; 23, 2590; 27, 3182). — *II*, 371.

- C₉H₁₁O₂N** 84) Aethylester d. 2-Amidobenzol-1-Carbonsäure. *Sd.* 260° (266—268°). *HCl* (*J. pr.* [2] 30, 474; *B.* 28, 1686; *A.* 305, 362). — II, 1246.
- 85) Aethylester d. 3-Amidobenzol-1-Carbonsäure. *Sd.* 294°. *HCl*, (2*HCl*, *PtCl*₄), *HNO*₃ (*J.* 1850, 418; *A.* 201, 366; *B.* 19, 1494). — II, 1257.
- 86) Aethylester d. 4-Amidobenzol-1-Carbonsäure. *Sm.* 89—90° (*B.* 28, 1921 *Ann.*; *A.* 303, 278).
- 87) β-Amidoäthylester d. Benzolcarbonsäure. *Fl.* (2*HCl*, *PtCl*₄), *HBr*, *Pikrat* (*B.* 23, 2497). — II, 1139.
- 88) Propylester d. Pyridin-2-Carbonsäure. *Sd.* 255°. (2*HCl*, *PtCl*₄) (*B.* 27, 1785). — IV, 142.
- 89) Propylester d. Pyridin-3-Carbonsäure. *Sd.* 232° (*B.* 27, 1787). — IV, 144.
- 90) Amid d. β-Oxy-β-Phenylpropionsäure. *Sm.* 119—120° (*B.* 30, 1129).
- 91) Amid d. α-[4-Oxyphenyl]propionsäure. *Sm.* 110—115° (*A.* 102, 162, 163). — II, 1570.
- 92) Amid d. β-[2-Oxyphenyl]propionsäure. *Sm.* 70° (*A. Spl.* 5, 120). — II, 1562.
- 93) Amid d. α-Oxypropionphenyläthersäure. *Sm.* 130° (*J. pr.* [2] 21, 152). — II, 665.
- 94) Amid d. 4-Methoxyphenylessigsäure. *Sm.* 188—189° (*B.* 22, 2140). — II, 1544.
- 95) Amid d. Oxyessig-2-Methylphenyläthersäure. *Sm.* 128° (*G.* 22 [2] 543). — II, 738.
- 96) Amid d. Oxyessig-3-Methylphenyläthersäure. *Sm.* 111—112° (*G.* 20, 508). — II, 744.
- 97) Amid d. Oxyessig-4-Methylphenyläthersäure. *Sm.* 126—127° (*G.* 22 [2] 543). — II, 750.
- 98) Amid d. 6-Oxy-1-Methylbenzol-3-Carbonsäure. *Sm.* 144° (*A.* 244, 64). — II, 1548.
- 99) Amid d. 4-Oxy-1-Methylbenzolmethylether-3-Carbonsäure. *Sm.* 163° (*A.* 244, 66). — II, 1547.
- 100) Amid d. 2-Oxybenzoläthyläther-1-Carbonsäure. *Sm.* 132—135° (110°) (*A.* 98, 264; *M.* 12, 400). — II, 1499.
- 101) Amid d. 4-Oxybenzoläthyläther-1-Carbonsäure. *Sm.* 202° (206°) (*A.* 244, 63; *B.* 23, 2954). — II, 1530.
- 102) Phenylamid d. α-Oxypropionsäure. *Sm.* 58° (*M.* 9, 48; *A.* 279, 73). — II, 404.
- 103) Phenylamid d. Oxyessigmethyläthersäure. *Sm.* 58° (*Bl.* [3] 17, 357).
- 104) 2-Methylphenylamid d. Oxyessigsäure. *Sm.* 67° (*B.* 23, 2033; *A.* 279, 59). — II, 466.
- 105) 4-Methylphenylamid d. Oxyessigsäure. *Sm.* 143° (*A.* 279, 63).
- 106) Benzylacetylhydroxylamin. *Sm.* 124° (*B.* 26, 2633). — II, 533.
- 107) Acetat d. Benzylhydroxylamin. *Fl.* *HCl* (*B.* 26, 2284). — II, 533.
- C₉H₁₁O₂N₂** C 55,9 — H 5,7 — O 16,6 — N 21,7 — M. G. 193.
- 1) 4-Nitroso-1-[norm.]Propylnitrosamidobenzol. *Sm.* 69° (*A.* 243, 293). — II, 335.
- 2) α-Nitroso-α-Aethyl-β-Phenylharnstoff. *Sm.* 59,5° (*A.* 199, 286). — II, 377.
- 3) Acetylphenylamidoharnstoff (Acetylphenylsemicarbazid). *Sm.* 196 bis 197° (*B.* 27, 2965; 29, 1947). — IV, 674.
- 4) 3-Acetylamidophenylharnstoff. *Sm.* 225° (*A.* 293, 383). — IV, 575.
- 5) 4-Acetylamidophenylharnstoff. *Sm.* 354° (cor.) (*B.* 27, 400; *A.* 293, 375). — IV, 590.
- 6) α-Oximido-4-Methylbenzylharnstoff. *Sm.* 170° (*B.* 22, 2435). — II, 1343.
- 7) α-Aethylimido-α-Amido-α-[3-Nitrophenyl]methan (Aethyl-3-Nitrobenzenylamidin). (2*HCl*, *PtCl*₄) (*A.* 265, 150). — IV, 840.
- 8) Glykolphenylguanidin. *Sm.* 260° u. *Zers.* (*B.* 13, 992). — II, 428.
- 9) α-Phenylhydrazon-α-Nitropropan. *Sm.* 98,5—99,5° (*B.* 9, 386; 31, 2631). — IV, 1375.
- 10) β-Phenylhydrazon-β-Nitropropan. *Fl.* (*B.* 8, 1076). — IV, 1375.
- 11) β-[3-Nitrophenyl]hydrazonpropan. *Sm.* 112° (*B.* 22, 2813). — IV, 765.
- 12) β-[4-Nitrophenyl]hydrazonpropan. *Sm.* 148—148,5° (*B.* 26, 1306). — IV, 765.
- 13) α-Nitro-α-[2-Methylphenyl]hydrazonäthan. *Sm.* 87—88°. *Na* (*B.* 9, 387). — IV, 1377.

- $C_9H_{11}O_2N_3$ 14) α -Nitro- α -[4-Methylphenyl]hydrazonäthan. Sm. 133° u. Zers. (B. 9, 387). — IV, 1381.
 15) 2-[$\alpha\gamma$ -Dioximidobutyl]pyridin. Sm. 146—147° (M. 17, 453). — IV, 185.
 16) 3-[$\alpha\gamma$ -Dioximidobutyl]pyridin. Sm. 79° (M. 18, 679).
 17) α -Methyl- α -Phenylguanidin-3-Carbonsäure + $1\frac{1}{2}H_2O$. HCl + H_2O , (2HCl, PtCl₄) (B. 8, 324). — II, 1269.
 18) α -Methyl- β -Phenylguanidin-3-Carbonsäure. HCl, (2HCl, PtCl₄ + 2H₂O) (B. 8, 325). — II, 1269.
 19) Amid d. 4-Methylphenylnitrosamidoessigsäure. Sm. 158° (B. 31, 2715).
 20) Amid d. 2-Aethylnitrosamidobenzol-1-Carbonsäure. Sm. 110° (J. pr. [2] 37, 442). — II, 1248.
 21) Diamid d. Phenylmethancarbonsäureamidoameisensäure. Sm. 223° u. Zers. (B. 22, 697). — II, 1325.
 22) Hydrazid d. Benzoylamidoessigsäure. Sm. 162,5°. HCl, 2 + PtCl₄ (B. 23, 3031; 24, 3343; J. pr. [2] 51, 362; [2] 52, 243). — II, 1308.
 23) β -Acetylhydrazid d. Phenylamidoameisensäure. Sm. 171,5° (169°) (J. pr. [2] 53, 524; [2] 58, 222).
 24) Phenylhydrazid d. Methyloxaminsäure. Sm. 186° (J. pr. [2] 46, 79).
 $C_9H_{11}O_2N_5$ C 48,8 — H 5,0 — O 14,5 — N 31,7 — M. G. 221.
 1) 5-Nitro-6-Dimethylamido-1-Methyl-1,2,3-Benzotriazol. Sm. 141° (B. 30, 2856). — IV, 1258.
 $C_9H_{11}O_2Cl$ 1) 5-Chlor-3,6-Dioxy-1,2,4-Trimethylbenzol. Sm. 202° (B. 27, 1429). — II, 970.
 2) 3-Chlor-5,6-Dioxy-1,2,4-Trimethylbenzol. Sm. 131—132° (A. 296, 217).
 3) Dimethyläther d. 2,5-Dioxy-1-Chlormethylbenzol. Sm. 72—73° (H. 20, 221).
 $C_9H_{11}O_2Cl_3$ 1) Chlorid d. Chlorpyrocampheensäure. Sd. 142°₁₅ (Soc. 69, 81).
 $C_9H_{11}O_2Br$ 1) 6-Brom-5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol. Sm. 90—91° (A. 302, 127).
 2) 2-Brom-3,5-Di[Oxymethyl]-1-Methylbenzol. Sm. 121° (A. ch. [6] 6, 99). — II, 1099.
 3) 1-Methyläther-2-[2-Bromäthyl]äther d. 1,2-Dioxybenzol. Sm. 49° (C. 1897 [2] 481).
 4) Brom- α -Camphylsäure (C. 1897 [1] 101).
 5) Brom- β -Camphylsäure. Sm. 150° (C. 1897 [1] 102).
 6) Isobrom- β -Camphylsäure. Sm. 168° (C. 1897 [1] 102).
 $C_9H_{11}O_2J$ 1) 5-Jodo-1,2,4-Trimethylbenzol. Zers. bei 210° (B. 27, 1904).
 $C_9H_{11}O_2P$ 1) Anhydro-2,4,5-Trimethylphenylphosphinsäure. Sm. 216° (B. 25, 1749; A. 294, 8). — IV, 1678.
 2) isom. Anhydro-2,4,5-Trimethylphenylphosphinsäure. Sm. 80° (A. 294, 27). — IV, 1678.
 3) Anhydro-2,4,6-Trimethylphenylphosphinsäure. Sm. 215—216° u. Zers. (A. 294, 40). — IV, 1680.
 $C_9H_{11}O_2N$ C 59,7 — H 6,1 — O 26,5 — N 7,7 — M. G. 181.
 1) 3-Nitro-2-Oxy-1-Isopropylbenzol. Fl. (G. 18, 121). — II, 762.
 2) 5-Nitro-2-Oxy-1-Isopropylbenzol. Sm. 86° (G. 18, 121). — II, 762.
 3) 4-Nitro-3-Oxy-1-Isopropylbenzol. Sm. 47—48°; Sd. 260—262° u. Zers. K + H_2O , Ca, Ba, Cu, Ag (Bl. [3] 7, 252, 327; [3] 9, 30). — II, 762.
 4) 6-Nitro-5-Oxy-1,2,4-Trimethylbenzol. Sm. 48°. Nitrat (B. 17, 2979; 18, 2658; 29, 1105). — II, 763.
 5) 6-Nitro-2-Oxy-1,3,5-Trimethylbenzol. Sm. 64° (A. 215, 98; B. 15, 1376). — II, 764.
 6) Methyläther d. 5-Nitro-4-Oxy-1,3-Dimethylbenzol. Sm. 27°; Sd. 269,5° (Soc. 63, 105). — II, 759.
 7) Methyläther d. 2-Nitro-2-Oxy-1,3-Dimethylbenzol. Sm. 56—57° (B. 16, 1136). — II, 760.
 8) Aethyläther d. 2-Nitro-1-Oxymethylbenzol. Sd. 167—172°₅₀ (G. 18, 235; A. 305, 111). — II, 1058.
 9) Aethyläther d. 3-Nitro-1-Oxymethylbenzol (G. 18, 234). — II, 1059.
 10) Aethyläther d. 4-Nitro-1-Oxymethylbenzol. Sm. 24—24,5° (G. 18, 233). — II, 1059.
 11) Aethyläther d. 3-Nitro-2-Oxy-1-Methylbenzol. Fl. (A. 217, 50; B. 14, 567). — II, 739.

- $C_9H_{11}O_3N$ 12) Aethyläther d. 5-Nitro-2-Oxy-1-Methylbenzol. Sm. 71° (B. 14, 899; 15, 133; A. 217, 155). — II, 740.
- 13) Aethyläther d. 4-Nitro-3-Oxy-1-Methylbenzol. Sm. 50—51° (A. 259, 224). — II, 745.
- 14) Aethyläther d. 6-Nitro-3-Oxy-1-Methylbenzol. Sm. 54° (B. 15, 1134; A. 217, 161). — II, 745.
- 15) Aethyläther d. 3-Nitro-4-Oxy-1-Methylbenzol. Sd. 275—285° u. Zers. (B. 15, 1134; A. 217, 54, 162). — II, 752.
- 16) Aethyläther d. p-Nitro-p-Oxy-1-Methylbenzol. Sm. 72—73°; Sd. 285° (B. 8, 1212). — II, 756.
- 17) 1-Methyläther d. 3-Acetylamido-1,2-Dioxybenzol + H₂O. Sm. 122 bis 123° u. Zers. (Soc. 73, 690).
- 18) 4-Methyläther d. α -Oximido- α -[2,4-Dioxyphenyl]äthan (Päonolketoxim) (B. 24, 2855). — III, 135.
- 19) 3-Methyläther d. α -Oximido- α -[3,4-Dioxyphenyl]äthan (Acetovanillinnoxim). Sm. 95° (B. 24, 2867). — III, 137.
- 20) Dimethyläther d. 1-Oximido-6-Oxy-4-Keto-2-Methyl-1,4-Dihydrobenzol (Dimethylnitrosoorcin). Sm. 118° (M. 18, 183).
- 21) α -[2-Oxyphenyläther] d. β -Oximido- α -Oxypropan. Sm. 76—77° (Bl. [3] 21, 292).
- 22) Acetat d. 3-Oxy-4-Keto-1-Aethyl-1,4-Dihydropyridin. Sm. 140° + C₆H₆ (J. pr. [2] 32, 181). — IV, 120.
- 23) 2-Methylpyridin-5-[α -Oxyäthyl- α -Carbonsäure] (α -Oxy- α -[2-Methylpyridyl(5)]propionsäure). Sm. 158—159°. Ba, HCl, (HCl, AuCl₃), HBr (B. 28, 1765). — IV, 156.
- 24) Methyl-4-Methoxylbenzhydroxamsäure. Sm. 113,5° (A. 281, 214). — II, 1533.
- 25) α -Oxamido- β -Phenylpropionsäure (Amidoxyphenylessigsäure). Sm. 157 bis 158° (B. 28, 2301).
- 26) β -Amido- α -Oxy- β -Phenylpropionsäure. Zers. bei 220—221° (A. 271, 155). — II, 1578.
- 27) α -Amido- β -Oxy- β -Phenylpropionsäure + H₂O. Zers. bei 193—194°. Cu (A. 284, 44). — II, 1546.
- 28) α -Amido- β -[4-Oxyphenyl]propionsäure (Tyrosin). Sm. 295° (235°?). Salze meist bekannt (A. 116, 67). Lit. bedeutend. — II, 1566.
- 29) α -Oxy- β -[4-Amidophenyl]propionsäure + $\frac{1}{2}$ H₂O. Sm. 188—189°. HCl (A. 219, 231). — II, 1577.
- 30) α -Amido- α -[4-Methoxyphenyl]essigsäure. subl. bei 225°. Cu (B. 14, 1979). — II, 1544.
- 31) 2-Methoxyphenylamidoessigsäure. Sm. 141,5°. Pb, HCl (J. pr. [2] 29, 292). — II, 713.
- 32) 4-Methoxyphenylamidoessigsäure. Zers. bei 200° (J. pr. [2] 29, 294). — II, 721.
- 33) 3-[β -Oxyäthyl]amidobenzol-1-Carbonsäure. Sm. 187°. HNO₃ (B. 6, 130). — II, 1271.
- 34) 3-Methylamido-4-Oxybenzoldimethyläther-1-Carbonsäure. Sm. oberh. 200°. HCl + H₂O (B. 5, 1042). — II, 1540.
- 35) 5-Acetyl-2,4-Dimethylpyrrol-3-Carbonsäure. Sm. 252—254° (G. 24 [1] 553; B. 21, 2865). — IV, 89.
- 36) 3-Acetyl-2,4-Dimethylpyrrol-5-Carbonsäure. Zers. bei 208—210° (G. 24 [1] 548). — IV, 89.
- 37) α -Oxy- β -[6-Methyl-2-Pyridyl]propionsäure. Sm. 166°. (2HCl, PtCl₄), (HCl, AuCl₃ + H₂O), Cu, CuO + $1\frac{1}{2}$ H₂O (B. 26, 1421). — IV, 156.
- 38) Methylester d. 6-Amido-3-Oxy-1-Methylbenzol-4-Carbonsäure. Sm. 92° (B. 27, 1934). — II, 1550.
- 39) Methylester d. 3-Amido-4-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 85—86°. (2HCl, PtCl₄) (A. 109, 26; B. 30, 1477). — II, 1540.
- 40) Methylester d. α -Oxy- β -[2-Pyridyl]propionsäure. (HCl, AuCl₃) (A. 265, 218). — IV, 154.
- 41) Methylester d. β -Oxy- β -[2-Pyridyl]propionsäure. (2HCl, PtCl₄) (A. 265, 233). — IV, 154.
- 42) Methylester d. 2-Keto-4,6-Dimethyl-1,2-Dihydropyridin-5-Carbonsäure. Sm. 202° (A. 274, 275). — IV, 155.

- $C_9H_{11}O_3N$ 43) Aethylester d. 2-Oxyphenylamidoameisensäure. Sm. 85° (*Bl.* 25, 177; *B.* 19, 2268; 31, 1061). — II, 706.
 44) Aethylester d. 4-Oxyphenylamidoameisensäure. Sm. 120° (*Bl.* 25, 179). — II, 719.
 45) Aethylester d. 3-Amido-2-Oxybenzol-1-Carbonsäure. Sm. 47° (*C.* 1897 [2] 672).
 46) Aethylester d. 5-Amido-2-Oxybenzol-1-Carbonsäure. Sm. 145°. HCl (*B.* 28, 599; *C.* 1897 [2] 672). — II, 1513.
 47) Aethylester d. 4-Amido-3-Oxybenzol-1-Carbonsäure. Sm. 98° (*C.* 1897 [2] 672; 1898 [2] 526).
 48) Aethylester d. 6-Amido-3-Oxybenzol-1-Carbonsäure. Sm. 146° (*B.* 27, 1933). — II, 1521.
 49) Aethylester d. 3-Amido-4-Oxybenzol-1-Carbonsäure. Sm. 100—101°. HCl (*Z.* 1886, 648; *B.* 30, 991; *C.* 1897 [2] 672; 1898 [2] 525, 526). — II, 1539.
 50) Aethyl-4-Amidophenylester d. Kohlensäure. Sm. 35—36°. HCl, (2HCl, PtCl₄) (*B.* 31, 1065).
 51) Amid d. α -Oxy- α -[4-Methoxyphenyl]essigsäure. Sm. 159° (160°) (*B.* 14, 1977; 29, 2100). — II, 1750.
 52) Amid d. Oxyessig-[2-Methylphenyläther]säure. Sm. 138° (*B.* 27, 2804).
 53) 2-Methoxyphenylamid d. Oxyessigsäure. Sm. 102—103° (*C.* 1896 [1] 797).
 54) 4-Methoxyphenylamid d. Oxyessigsäure. Sm. 97° (*C.* 1896 [1] 797).
 $C_9H_{11}O_3N_2$ C 51,7 — H 5,3 — O 22,8 — N 20,1 — M. G. 209.
 1) 4-Nitro-2-Aethylnitrosamido-1-Methylbenzol. Sm. 56° (*Soc.* 67, 248).
 2) 5-Nitro-4-Methylnitrosamido-1,3-Dimethylbenzol. Sm. 63° (*B.* 31, 2931).
 3) 2-Nitro-4-Formylamido-1-Dimethylamidobenzol. Sm. 86° (*B.* 27, 604). — IV, 588.
 4) $\alpha\alpha$ -Dimethyl- β -[2-Nitrophenyl]harnstoff. Fl. (*Am.* 19, 316).
 5) α -Oxy- α -Phenyläthenyluramidoxim. Sm. 127° (*B.* 18, 2477). — II, 1553.
 6) Aethyläther d. 3-Nitrophenyloximidoamidomethan. HCl (*B.* 18, 1064). — II, 1235.
 7) Aethyläther d. 4-Nitrophenyloximidoamidomethan. Sm. 59—60° (*B.* 22, 2420). — II, 1237.
 8) Aethyläther d. 4-Nitro-2-Methyldiazobenzol. Fl. (*B.* 28, 241).
 9) 4-Acetat d. 2,3-Anhydro-2,3,4-Trioximido-1-Methylhexahydrobenzol. Sm. 139—140° (*B.* 29, 1084).
 10) Aethylester d. Nikotenyamidoximkohlsäure. Sm. 136° (*B.* 24, 3444). — IV, 145.
 11) Methylamid d. 5-Nitro-2-Methylamidobenzol-1-Carbonsäure. Sm. 204° (*J. pr.* [2] 43, 472). — II, 1282.
 12) Methylamid d. 4-Nitro-3-Methylamidobenzol-1-Carbonsäure. Sm. 194° (*J. pr.* [2] 43, 466). — II, 1284.
 13) Aethylamid d. 5-Nitro-2-Amidobenzol-1-Carbonsäure. Sm. 151—156° (*J. pr.* [2] 53, 216).
 $C_9H_{11}O_3N_5$ C 45,6 — H 4,6 — O 20,2 — N 29,5 — M. G. 237.
 1) Amid d. Kaffeincarbonsäure. Sm. noch nicht bei 360° (*Am.* 17, 404). — III, 962.
 $C_9H_{11}O_3Cl$ 1) Anhydrid d. Chlorpyrocampheensäure. Sm. 228—229° (*Soc.* 69, 83).
 $C_9H_{11}O_3Br$ 1) Trimethyläther d. Brom-1,3,5-Trioxybenzol. Sm. 96—97° (*G.* 22 [2] 64). — II, 1020.
 $C_9H_{11}O_3Br_3$ 1) 2-Brom-2,4,6-Trioxy-1,3,5-Trimethylbenzoldibromid. Sm. 88—90° (*A.* 302, 186).
 $C_9H_{11}O_3P$ 1) 4-Allylphenylphosphinsäure? Ag₂ (*A.* 294, 51).
 2) Dimethylphenylphosphinoxid-4-Carbonsäure. Sm. 240° (243°); Sd. oberh. 360°₁₅. NH₄, Cu, Ag, + HgCl₂, 2 + PtCl₄, + AuCl₃ (*A.* 293, 284; *B.* 15, 2020). — IV, 1673.
 $C_9H_{11}O_4N$ C 54,8 — H 5,6 — O 32,5 — N 7,1 — M. G. 197.
 1) $\alpha\gamma$ -Dioxy- α -[2-Nitrophenyl]propan? Sm. 108—109° u. Zers. (*B.* 15, 2861).
 2) 5-Nitro-3,6-Dioxy-1,2,4-Trimethylbenzol. Sm. 106° (*A.* 237, 18). — II, 970.

- C₉H₁₁O₄N**
- 3) Dimethyläther d. 2-Nitro-1-Dioxymethylbenzol. Sd. 274—276°₇₆₃ (B. 30, 3058).
 - 4) Dimethyläther d. 3-Nitro-1-Dioxymethylbenzol. Sd. 162—164°₁₉ (B. 31, 1016).
 - 5) Dimethyläther d. 4-Nitro-1-Dioxymethylbenzol. Sm. 23—25°; Sd. 294—296°₇₇₄ (B. 30, 3057).
 - 6) Dimethyläther d. 5-Nitro-3,4-Dioxy-1-Methylbenzol. Sm. 56—58° (C. 1898 [1] 1025).
 - 7) Dimethyläther d. 6-Nitro-3,4-Dioxy-1-Methylbenzol. Sm. 117° (C. 1898 [1] 1025).
 - 8) Monoäthyläther d. p-Nitro-3,5-Dioxy-1-Methylbenzol. Sm. 54° (M. 2, 371). — II, 964.
 - 9) Monoäthyläther d. isom.-p-Nitro-3,5-Dioxy-1-Methylbenzol. Sm. 103° (M. 2, 371). — II, 964.
 - 10) αβ-Dioxy-α-[2-Amidophenyl]propionsäure. Sm. 218°. Na, K, Ba (J. 1877, 788). — II, 1762.
 - 11) 2-Amido-3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 181 bis 183°. HCl (B. 28, 810). — II, 1746.
 - 12) 6-Amido-3,4-Dioxybenzoldimethyläther-1-Carbonsäure. (HCl, SnCl₂) (B. 9, 942). — II, 1746.
 - 13) 4-Amido-3,5-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 182° u. Zers. Cu + 2H₂O, HCl (M. 8, 432). — II, 1748.
 - 14) 2,5-Dimethylpyrrol-3-Carbonsäure-4-Methylcarbonsäure. Sm. 196° (B. 19, 48). — IV, 93.
 - 15) 1,2,5-Trimethylpyrrol-3,4-Dicarbonsäure. Zers. bei 258—260°. Ba (B. 18, 307; A. 236, 303). — IV, 92.
 - 16) βγ-Dioxy-γ-[p-Pyridyl]buttersäure? Ba (B. 26, 301). — IV, 160.
 - 17) Anhydroacetylloiponsäure. Sm. 161—163° (M. 17, 380). — III, 844.
 - 18) Aethylester d. 2-Nitrophenylpropionsäure. Sm. 60—61° (B. 13, 2259). — II, 1439.
 - 19) Aethylester d. 2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydropyridin-3 oder 5-Carbonsäure. Sm. 206—206,5°. HCl + 3H₂O (B. 31, 768).
 - 20) Oxim d. Säure C₉H₁₀O₄ (vom Sm. 76—77°). Sm. 195—196° (B. 27, 1575).
 - 21) Verbindung (aus Dehydrodiacetylävulinsäure). Sm. 198—199° u. Zers. (G. 22 [1] 439). — I, 734.
- C₉H₁₁O₄N₂**
- C 48,0 — H 4,9 — O 28,4 — N 18,7 — M. G. 225.
- 1) 2,4-Dinitro-1-Isopropylamidobenzol. Sm. 95° (R. 4, 191). — II, 335.
 - 2) 3,5-Dinitro-4-Aethylamido-1-Methylbenzol. Sm. 126—126,5° (B. 18, 1485). — II, 484.
 - 3) p-Dinitro-3-Dimethylamido-1-Methylbenzol. Sm. 168° (B. 12, 1800). — II, 477.
 - 4) p-Dinitro-3-Dimethylamido-1-Methylbenzol. Sm. 107° (B. 12, 1800). — II, 477.
 - 5) 2,p-Dinitro-4-Dimethylamido-1-Methylbenzol. Sm. 103,5—104° (B. 28, 3041).
 - 6) 3,5-Dinitro-4-Dimethylamido-1-Methylbenzol. Sm. 95° (B. 31, 2518).
 - 7) p-Dinitro-5-Amido-1,2,4-Trimethylbenzol. Sm. 183° (B. 18, 2662). — II, 551.
 - 8) 2,4-Dinitro-6-Amido-1,3,5-Trimethylbenzol. Sm. 193—195° (A. 141, 138; 179, 168; B. 24, 570). — II, 553.
 - 9) p-Dinitro-p-Amido-p-Trimethylbenzol. Sm. 78° (B. 18, 2232). — II, 555.
 - 10) p-Dinitro-5-Amidomethyl-1,3-Dimethylbenzol. Fl. HCl, (2HCl, PtCl₂), Pikrat (B. 25, 3015). — II, 555.
 - 11) Aethyläther d. 4-Oxy-p-Nitrophenylharnstoff (J. pr. [2] 30, 104). — II, 720.
 - 12) Aethylester d. 4-Nitro-2-Amidophenylamidoamelsensäure. Sm. 162° (B. 17, 2630). — IV, 559.
- C₉H₁₁O₄N₂**
- C 42,7 — H 4,3 — O 25,3 — N 27,7 — M. G. 253.
- 1) 2-Nitrobenzylidendiarnstoff. Sm. 200° (M. 10, 305). — III, 33.
 - 2) 3-Nitrobenzylidendiarnstoff + H₂O. Sm. bei 200° u. Zers. (A. 151, 194). — III, 33.
- C₉H₁₁O₄Cl**
- 1) Chlorid d. α-Camphoronsäureanhydrid. Sm. 131—132°; Sd. 164 bis 165°₁₃ (M. 6, 193; B. 28, 317; A. 292, 89). — I, 814.

- $C_9H_{11}O_4Cl$ 2) Chlorid d. β -Camphoronsäureanhydrid. Sm. 38—39°; Sd. 151°₁₀ (B. 28, 317; A. 292, 90).
- $C_9H_{11}O_4Cl_3$ 1) Diäthylester d. $\gamma\gamma\gamma$ -Trichlorpropen- $\alpha\alpha$ -Dicarbonsäure (D. d. Trichloräthylidenmalonsäure). Sd. 160—164°₂₃ (A. 218, 169). — I, 713.
- $C_9H_{11}O_4P$ 1) α -Acetoxylbenzylphosphinigesäure. — IV, 1663.
 $C_9H_{11}O_5N$ C 50,7 — H 5,1 — O 37,6 — N 6,6 — M. G. 213.
- 1) Trimethyläther d. p -Nitro-1,2,3-Trioxybenzol. Sm. 100° (B. 21, 612). — II, 1015.
- 2) Trimethyläther d. Nitro-1,3,5-Trioxybenzol (A. 199, 47). — II, 1021.
- 3) Verbindung (aus α -Diacetylbernsteinsäurediäthylester). Sm. 55° (B. 27, 1162).
- $C_9H_{11}O_5Br$ 1) Bromcamphoronsäureanhydrid. Sm. 154° (B. 28, 20, 319; A. 299, 145; 302, 74 Anm.).
- $C_9H_{11}O_5P$ 1) 2,4-Dimethylphenylphosphinsäure-5-Carbonsäure. Sm. 258°. Ag₃ (A. 294, 22). — IV, 1679.
- 2) 2,4[oder 2,6]-Dimethylphenylphosphinsäure-6[oder 4]-Carbonsäure. Sm. 245° u. Zers. Ag₃ (A. 294, 43). — IV, 1680.
- 3) 4-Aethylester d. Phenylphosphinsäure-4-Carbonsäure. Sm. 78°. Ag (A. 293, 279). — IV, 1672.
- $C_9H_{11}O_6N$ C 47,2 — H 4,8 — O 41,9 — N 6,1 — M. G. 229.
- 1) Diäthylester d. 4-Oxyisoxazol-3,5-Dicarbonsäure. Sm. 104—105° (B. 24, 860). — I, 764.
- $C_9H_{11}NCl_2$ 1) Phenyldichlordimethylamidomethan. Sm. 36° (R. 4, 386). — II, 1160.
- $C_9H_{11}NS$ 1) 3-Phenyltetrahydrothiazol. Fl. (2HCl, PtCl₄) (B. 21, 1871). — II, 387.
- 2) Methyläther d. β -Imido- β -Merkapto- α -Phenyläthan. (2HCl, PtCl₄), HJ (A. 192, 56; 197, 343). — II, 1328.
- 3) Methyläther d. α -Phenylimido- α -Merkaptoäthan. Sd. 244—245° (B. 11, 1595; 12, 1061; 13, 528). — II, 369.
- 4) Aethyläther d. α -Imido- α -Merkaptophenylmethan (Aethyl- α -Imidobenzylsulfid). Fl. HCl, (2HCl, PtCl₄), HJ (A. 197, 348). — II, 1294.
- 5) Aethyläther d. Phenylimidomerkaptomethan. Sd. 230—240° (B. 16, 145). — II, 360.
- 6) Amid d. 1-Aethylbenzol-2-Thiocarbonsäure. Sm. 78—79° (B. 29, 2536).
- 7) Amid d. 3-Methylphenylthioessigsäure. Sm. 69° (B. 28, 1392 Anm.).
- 8) Methylphenylamid d. Thioessigsäure. Sm. 58—59°; Sd. 290° (B. 13, 528). — II, 369.
- 9) 2-Methylphenylamid d. Thioessigsäure. Sm. 67—68° (B. 13, 529). — II, 461.
- 10) 4-Methylphenylamid d. Thioessigsäure. Sm. 127,5—128° (130—132°) (B. 11, 1759; 13, 529). — II, 491.
- 11) 1,3-Dimethyl-4-Phenylamid d. Thioameisensäure. Sm. 105° (B. 21, 2549). — II, 543.
- $C_9H_{11}NS_2$ 1) Methylester d. Methylphenylamidodithioameisensäure. Sm. 88° (B. 25, 54, 58). — II, 387.
- 2) Methylester d. 2-Methylphenylamidodithioameisensäure. Sm. 132° (B. 24, 3027). — II, 464.
- 3) Methylester d. 3-Methylphenylamidodithioameisensäure. Sm. 89° (B. 24, 3027). — II, 479.
- 4) Methylester d. 4-Methylphenylamidodithioameisensäure. Sm. 84° (B. 15, 1310). — II, 496.
- 5) Aethylester d. Phenylamidodithioameisensäure. Sm. 60° (56°). Ag (B. 2, 120; 15, 570, 1305; 24, 3025). — II, 387.
- $C_9H_{11}N_2Cl$ 1) β -[4-Chlorphenyl]hydrazonpropan. Sm. 84° (B. 30, 218). — IV, 765.
- $C_9H_{11}N_2Br$ 1) α - γ -Bromallylphenylhydrazin. H₂SO₄ (A. ch. [7] 11, 251). — IV, 659.
- 2) β -[4-Bromphenyl]hydrazonpropan. Sm. 94—95° (98—99°) (B. 28, 2129; 30, 217; A. 248, 96; Am. 21, 29; Soc. 75, 165). — IV, 765.
- $C_9H_{11}N_2J$ 1) β -[4-Jodphenyl]hydrazonpropan. Sm. 114° (A. 248, 98). — IV, 765.
- $C_9H_{11}N_2J_3$ 1) 2,4,6-Trimethyldiazobenzoltrijodid. Zers. bei 70° (B. 28, 2758). — IV, 1534.
- $C_9H_{11}N_3S$ 1) α -Benzylidenamido- β -Methylthioharnstoff. Sm. 160° (B. 27, 623). — III, 40.
- $C_9H_{11}N_3S_2$ 1) Methylphenyldithiobiuret. Sm. 156° (B. 28, 1099).
- 2) 4-Methylphenyldithiobiuret. Sm. 158° (B. 17, 585). — II, 500.

- $C_6H_{11}ClHg$ 1) Quecksilber-2,4,5-Trimethylphenylchlorid. Sm. 201° (B. 28, 591). — IV, 1712.
2) Quecksilber-2,4,6-Trimethylphenylchlorid. Sm. 200° (B. 28, 592). — IV, 1712.
- $C_6H_{11}Cl_2J$ 1) 5-Dichlorjodoso-1,2,4-Trimethylbenzol. Sm. 67–68° (B. 27, 1903).
- $C_6H_{11}Cl_2P$ 1) 4-Isopropylphenyldichlorphosphin. Sd. 268–270° (A. 294, 48). — IV, 1677.
2) 2,4,5-Trimethylphenyldichlorphosphin. Sd. 280° (A. 294, 2). — IV, 1677.
3) 2,4,6-Trimethyldichlorphosphin. Sm. 35–37°; Sd. 273–275° (A. 294, 35). — IV, 1679.
- $C_6H_{11}Cl_4P$ 1) 4-Isopropylphenylphosphortetrachlorid. Sm. 53–55° (A. 294, 48). — IV, 1677.
2) 2,4,5-Trimethylphenylphosphortetrachlorid. Sm. 75° (A. 294, 4). — IV, 1677.
3) 2,4,6-Trimethylphenylphosphortetrachlorid. Sm. 70° (A. 294, 36). — IV, 1679.
- $C_6H_{11}BrHg$ 1) Quecksilber-2,4,5-Trimethylphenylbromid. Sm. 211° (B. 28, 591). — IV, 1712.
2) Quecksilber-2,4,6-Trimethylphenylbromid. Sm. 194° (B. 28, 592). — IV, 1712.
- $C_6H_{11}JS$ 1) Jodmethylat d. Anhydrid d. 1,2-Di[Merkaptomethyl]benzol. Sm. 154–155° (B. 22, 2904). — II, 1097.
- $C_6H_{11}JHg$ 1) Quecksilber-2,4,5-Trimethylphenyljodid. Sm. 196–197° (B. 28, 591). — IV, 1712.
2) Quecksilber-2,4,6-Trimethylphenyljodid. Sm. 178° (B. 28, 592). — IV, 1712.
- $C_6H_{11}S_2P$ 1) Dimethylphenylphosphin + Schwefelkohlenstoff. Sm. 97° u. Zers. (2HCl, PtCl₄) (B. 15, 2017). — IV, 1654.
- $C_6H_{11}ON_2$ C 65,8 — H 7,3 — O 9,7 — N 17,1 — M. G. 164.
1) 4-Nitroso-1-[norm.]Propylamidobenzol. Sm. 59°. HCl (A. 243, 291). — II, 334.
2) 4-Methylnitrosamido-1-Aethylbenzol. Sm. 162° (B. 20, 2423). — II, 537.
3) 2-Aethylnitrosamido-1-Methylbenzol. Fl. (Am. 7, 119). — II, 458.
4) 5-Nitroso-2-Aethylamido-1-Methylbenzol. Sm. 140° (B. 19, 2994; 25, 1610; A. 286, 163). — II, 458.
5) 9-Nitroso-3-Dimethylamido-1-Methylbenzol. Sm. 92°. HCl (B. 12, 1797, 1825). — II, 477.
6) 3-Methylnitrosamido-1,2-Dimethylbenzol. Sm. 160–161°. HCl (A. 263, 323). — II, 540.
7) 4-Methylnitrosamido-1,3-Dimethylbenzol. Fl. (B. 31, 2930).
8) 2-Methylnitrosamido-1,4-Dimethylbenzol. Fl. (A. 255, 172). — II, 546.
9) 5-Nitroso-2-Methylamido-1,4-Dimethylbenzol. Sm. 164° (A. 255, 172). — II, 546.
10) 4-Formylamido-1-Dimethylamidobenzol. Sm. 108°. (HCl, HgCl₂), Pikrat (B. 26, 1314; 27, 603). — IV, 588.
11) 2-Acetylamido-1-Amidomethylbenzol. Fl. (B. 26, 1892). — IV, 630.
12) 2-Amido-1-Acetylamidomethylbenzol. Sm. 112,5–113,5° (B. 23, 2812). — IV, 629.
13) 4-Amido-2-Acetylamido-1-Methylbenzol. Sm. 140°. (2HCl, PtCl₄) (A. 234, 360). — IV, 602.
14) 4-Acetylamido-2-Amido-1-Methylbenzol. Sm. 161,5° (158–159°) (B. 3, 221; 15, 2826, 2835; A. 234, 354; 293, 371 Ann.). — IV, 602.
15) 4-Acetylamido-3-Amido-1-Methylbenzol. Sm. 130–131°. Pikrat (B. 19, 1757; 22, 1399). — IV, 613.
16) Aethyläther d. α -Imido- α -Amido- α -[2-Oxyphenyl]methan. HCl (B. 23, 2953). — IV, 849.
17) Aethyläther d. α -Imido- α -Amido- α -[4-Oxyphenyl]methan. HCl (B. 23, 2954). — IV, 849.
18) 4-Amido-5-Oximidomethyl-1,3-Dimethylbenzol. Sm. 170–171° (J. pr. [2] 58, 339, 351).

- $C_9H_{12}ON_2$ 19) Benzyläther d. α -Oximido- α -Amidoäthan. Fl. HCl (Sm. 163°) (B. 17, 2751). — II, 1048.
- 20) 2,4-Dimethylbenzenylamidoxim. Sm. 178° (B. 22, 2443). — II, 1376.
- 21) Methyläther d. 4-Methylbenzenylamidoxim. Sm. 85° (B. 19, 1489; A. 281, 283). — II, 1343.
- 22) Aethyläther d. Benzenylamidoxim. Sm. 67° (B. 18, 732; A. 252, 221; 281, 280). — II, 1200.
- 23) s-Aethylphenylharnstoff. Sm. 99° (Bl. 4, 203). — II, 377.
- 24) uns-Aethylphenylharnstoff. Sm. 62° (B. 17, 2095). — II, 377.
- 25) α -Phenyläthylharnstoff. Sm. 137°; Zers. bei 210° (B. 27, 2308).
- 26) β -Phenyläthylharnstoff. Sm. 112° (G. 9, 567; J. pr. [2] 50, 557). — II, 532.
- 27) $\alpha\alpha$ -Dimethyl- β -Phenylharnstoff (B. 12, 1163). — II, 377.
- 28) 2,4-Dimethylphenylharnstoff. Sm. 186° (B. 3, 226). — II, 544.
- 29) 2-Methylbenzylharnstoff. Sm. 172—173° (B. 21, 578). — II, 541.
- 30) 3-Methylbenzylharnstoff. Sm. 148° (B. 21, 2703). — II, 545.
- 31) 4-Methylbenzylharnstoff. Sm. 166° (B. 23, 1031). — II, 547.
- 32) β -Formyl- α -Aethyl- α -Phenylhydrazin. Sm. 78—79° (Am. 18, 574). — IV, 663.
- 33) α -Formyl- α -Aethyl- β -Phenylhydrazin. Sm. 106° (Am. 18, 576). — IV, 663.
- 34) β -Formyl- $\alpha\beta$ -Dimethyl- α -Phenylhydrazin. Sd. 147—148° (B. 27, 697). — I, 663.
- 35) β -Acetyl- α -Methyl- α -Phenylhydrazin. Sm. 92—93° (A. 239, 250). — IV, 665.
- 36) uns-Acetyl-4-Methylphenylhydrazin. Sm. 122° (B. 27, 1698).
- 37) β -Phenylhydrazon- α -Oxypropan (Acetolphenylhydrazon). Sm. 100—102° (B. 31, 36). — IV, 767.
- 38) 1,2-Diacetyl-3-Keto-4,5-Dimethyl-2,3-Dihydropyrazol. Sm. 44° (J. pr. [2] 52, 41).
- 39) 4-Oxy-1-Phenyltetrahydropyrazol? Sm. 103—104°. (2HCl, PtCl₄ + 2H₂O) (B. 24, 352). — IV, 660.
- 40) 2-[α -Oximidobutyl]pyridin. Sm. 48° (B. 24, 2537). — IV, 184.
- 41) 4-Acetylamido-2,6-Dimethylpyridin + xH₂O. Sm. 78° (113° wasserfrei). (2HCl, PtCl₄), Pikrat (B. 27, 1326). — IV, 824.
- 42) 7-Amido-3-Methyl-3,4-Dihydro-1,4-Benzoxazin. Fl. (B. 30, 1639). — IV, 854.
- 43) Base (aus 2-Nitro-1-Nitromethyl-3,5-Dimethylbenzol). Sm. 260° (J. pr. [2] 58, 356).
- 44) Nitril d. 6-Keto-2,2,4-Trimethyl-1,2,3,6-Tetrahydropyridin-5-Carbonsäure. Sm. 194—195,5°. — IV, 75.
- 45) Amid d. α -Phenylamidopropionsäure. Sm. 144° (140—141°) (B. 15, 2035; 30, 2313). — II, 432.
- 46) Amid d. α -Methylamido- α -Phenylessigsäure. Sm. 155°. HCl (B. 14, 1983). — II, 1323.
- 47) Amid d. Methylphenylamidoessigsäure. Sm. 163° (B. 17, 2663). — II, 429.
- 48) Amid d. 2-Dimethylamidobenzol-1-Carbonsäure. Sm. 139—140°. (2HCl, PtCl₄) (J. pr. [2] 43, 225). — II, 1248.
- 49) Amid d. 2-Aethylamidobenzol-1-Carbonsäure. Sm. 128—129° (J. pr. [2] 37, 441). — II, 1248.
- 50) Amid d. 4-Methylphenylamidoessigsäure. Sm. 168° (B. 31, 2715).
- 51) isom. Amid d. 4-Methylphenylamidoessigsäure? Sm. 162—163° u. Zers. (B. 8, 1160; 30, 2473). — II, 505.
- 52) Aethylamid d. 2-Amidobenzol-1-Carbonsäure. Sm. 104—105° (J. pr. [2] 37, 437). — II, 1246.
- 53) Phenylhydrazid d. Propionsäure. Sm. 157—158° (160—160,5°) (B. 21, 2461; 31, 2632; Am. 20, 677). — IV, 666.
- 54) 2-Methylphenylhydrazid d. Essigsäure. Sm. 104° (B. 25, 1078). — IV, 801.
- 55) 4-Methylphenylhydrazid d. Essigsäure. Sm. 121° (B. 25, 1080). — IV, 805.
- $C_9H_{12}ON_1$ C 56,3 — H 6,2 — O 8,3 — N 29,2 — M. G. 192.
- 1) β -Oximido- α -Imido- β -Amido- α -[4-Methylphenyl]amidoäthan (Oralenp-Tolylamidinamidoxim). Sm. 147—148°. HCl (B. 24, 813). — II, 512.

- $C_9H_{11}OS$ 1) 5-Acetyl-2-Propylthiophen. Sd. 255° (B. 20, 1744). — III, 765.
 2) *p*-Acetyl-3-Isopropylthiophen. Sd. 237° (A. 267, 134).
 $C_9H_{11}O_2N_2$ C 60,0 — H 6,7 — O 17,8 — N 15,5 — M. G. 180.
 1) *p*-Nitro-4-Amido-1-Isopropylbenzol. Sm. unter 100°. HCl + $\frac{1}{2}H_2O$, $H_2SO_4 + H_2O$ (J. 1847/48, 665). — II, 550.
 2) 3-Nitro-5-Amido-1,2,4-Trimethylbenzol. Sm. 137°. HCl, $H_2SO_4 + H_2O$ (A. 151, 262; B. 20, 968; 24, 572). — II, 551.
 3) 6-Nitro-5-Amido-1,2,4-Trimethylbenzol. Sm. 46–47° (B. 18, 629; 24, 571). — II, 551.
 4) *p*-Nitro-6-Amido-1,3,5-Trimethylbenzol. Sm. 73–74°. HCl, (2HCl, $PtCl_4$), H_3PO_4 (A. 71, 137; 179, 165; 215, 98; 278, 214; B. 8, 58; 24, 570; R. 6, 32). — II, 553.
 5) 6-Nitramido-1,2,4-Trimethylbenzol. Sm. 86,5–87° (B. 28, 400). — IV, 1534.
 6) 2-Nitro-1-Aethylamidomethylbenzol. Fl. HCl (B. 25, 3038). — II, 515.
 7) 4-Nitro-1-Aethylamidomethylbenzol (Aethyl-4-Nitrobenzylamin). Fl. HCl, (2HCl, $PtCl_4$), Oxalat (B. 30, 63).
 8) 4-Nitro-2-Aethylamido-1-Methylbenzol. Sm. 81–82° (Soc. 67, 247).
 9) 5-Nitro-2-Aethylamido-1-Methylbenzol. Sm. 98° (B. 25, 3137). — II, 458.
 10) 2-Nitro-4-Aethylamido-1-Methylbenzol. Sm. 47–48° (50°) (B. 19, 549; Bl. [3] 21, 20). — II, 484.
 11) 3-Nitro-4-Aethylamido-1-Methylbenzol. Sm. 58–59° (B. 18, 1483; 20, 3000). — II, 484.
 12) 4-Nitro-1-Dimethylamidomethylbenzol. Fl. (B. 28, 1141).
 13) 4-Nitro-2-Dimethylamido-1-Methylbenzol. Sd. 280° u. Zers. (A. 304, 107).
 14) 5-Nitro-2-Dimethylamido-1-Methylbenzol. Sm. 47,5° (B. 25, 3133). — II, 458.
 15) *p*-Nitro-3-Dimethylamido-1-Methylbenzol. Sm. 84° (B. 12, 1800). — II, 477.
 16) 3-Nitro-4-Dimethylamido-1-Methylbenzol. Sm. 24,5–25° (B. 28, 3041; 30, 3119 Anm.).
 17) 5-Nitro-4-Methylamido-1,3-Dimethylbenzol. Sm. 58° (B. 31, 2931).
 18) β -Benzylnitrosamido- α -Oxyäthan. Fl. (B. 29, 2382).
 19) α -Oxy- α -Aethyl- β -Phenylharnstoff. Sm. 98° (B. 26, 2381). — II, 453.
 20) Methyläther d. 2-Oxybenzylharnstoff. Sm. 127° (B. 23, 2743). — II, 743.
 21) Methyläther d. 4-Oxybenzylharnstoff. Sm. 167° (B. 20, 2409). — II, 754.
 22) Aethyläther d. 4-Oxyphenylharnstoff. Sm. 160° (J. pr. [2] 30, 103). — II, 719.
 23) Methyläther d. β -Acetyl- α -[2-Oxyphenyl]hydrazin. Sm. 125° (A. 221, 322). — IV, 814.
 24) Methyläther d. β -Acetyl- α -[4-Oxyphenyl]hydrazin. Sm. 133,5° (B. 25, 1849). — IV, 815.
 25) N-Aethyläther d. 2-Oxybenzenylamidoxim. Sd. 278° (B. 22, 2785). — II, 1502.
 26) γ -Oximido- α -Oxy- α -[2-Pyridyl]butan. Sm. 120° (M. 17, 459). — IV, 186.
 27) Acetylderivat d. 5-Amido-6-Oxy-2,4-Dimethylpyridin. Sm. 255° (Soc. 73, 233). — IV, 826.
 28) α -Amido- β -[4-Amidophenyl]propionsäure + H_2O . Cu, 2HCl, (2HCl, $PtCl_4$), H_2SO_4 (B. 15, 1545; 16, 853, 1023; A. 219, 219, 223; 229, 227). — II, 1366.
 29) β -[3,4-Diamidophenyl]propionsäure + H_2O . Sm. 142–144° (wasserfrei) (B. 15, 2291). — II, 1366.
 30) β -[2-Hydrazidophenyl]propionsäure. Na (A. 221, 282). — II, 1368.
 31) α -[β -Phenylhydrazido]propionsäure. Sm. 172–174°. Ca, Ba (B. 16, 2243; 17, 1453; 22, 2924; 25, 2061, 2701; A. 247, 212). — IV, 739.
 32) α -Hydrazido- β -Phenylpropionsäure. Sm. 196° (B. 29, 675).
 33) Aethylester d. 2,5-Diamidobenzol-1-Carbonsäure. Sm. 50,5–51°. 2HCl, H_2SO_4 (J. pr. [2] 52, 428).

- $C_9H_{17}O_2N_2$ 34) Aethylester d. 3,5-Diamidobenzol-1-Carbonsäure. Sm. 84°. 2HCl, $H_2SO_4 + 2H_2O$, Pikrat (*J. pr.* [2] 51, 526).
- 35) Aethylester d. 2-Amidophenylamidoameisensäure. Sm. 86°. HCl (*B.* 12, 1295). — IV, 559.
- 36) Aethylester d. 4-Amidophenylamidoameisensäure. Sm. 72–73° (73–74°). HCl, (4HCl, $HgCl_2$), (3HCl, $SnCl_4$), (2HCl, $PtCl_4$), H_2SO_4 , Oxalat, 2 + $SnCl_2 + H_2O$ (*B.* 17, 2626; 27, 399; *A.* 233, 10; 293, 374). — IV, 590.
- 37) Aethylester d. α -Phenylhydrazidoameisensäure. Sd. 157°₁₅. HCl (*B.* 29, 829; 32, 11).
- 38) Aethylester d. β -Phenylhydrazidoameisensäure + H_2O . Sm. 86 bis 87° (82–83° wasserfrei) (*Am.* 14, 493; *B.* 28, 1927; *A.* 263, 278; 266, 107; 270, 334). — IV, 737.
- 39) β -Phenylhydrazid d. α -Oxypropionsäure. Sm. 114,5° (*B.* 28, 2611). — IV, 688.
- $C_9H_{12}O_2N_4$ C 51,9 — H 5,8 — O 15,4 — N 26,9 — M. G. 208.
- 1) Aethyltheobromin. Sm. oberh. 270° (164–165°). HCl + 2 H_2O , (2HCl, $PtCl_4$), (HCl, $AuCl_3$), HBr, Ag, + $AgNO_3$, + $HgCl_2$ (*B.* 9, 1309; 15, 33; 30, 2585; *C.* 1897 [1] 284; 1897 [2] 737; 1898 [2] 474; *R.* 15, 189). — III, 955.
- 2) Benzylidendiarnstoff (Benzylidendiureid). Sm. 195° (200°) (*A.* 151, 192; 291, 369). — III, 33.
- 3) β -Phenylnitrosamido- α -Aethylarnstoff. Sm. 86,5° u. Zers. (*A.* 180, 111). — IV, 673.
- 4) 4-Methyl-1,2-Phenylendiarnstoff. Sm. 282° (*A.* 221, 14). — IV, 614.
- 5) 4-Methyl-1,3-Phenylendiarnstoff. Sm. 220° (252° u. Zers.). 2HCl (*A.* 148, 157; *B.* 8, 292; *C.* 1898 [1] 945). — IV, 603.
- 6) 4-Ureido-1-Ureidomethylbenzol. Sm. 167° u. Zers. (*B.* 19, 1289). — IV, 640.
- 7) $\alpha\gamma$ -Di[5-Methyl-1,2,4-Oxdiazol-3]propan (Glutarendiazoximdiäthylen). Sm. 138–139° (*B.* 22, 2969). — I, 1487.
- 8) $\alpha\beta$ -Dioximido- α -Amido- β -[4-Methylphenyl]äthan (Oxalen-p-Tolyl-diamidoxim). Sm. 175° (*B.* 24, 811). — II, 512.
- 9) 1-Amidooximidomethyl-2-[β -Amido- β -Oximidoäthyl]benzol (Homoterephthalendiamidoxim). Sm. 192° u. Zers. 2HCl (*B.* 22, 2977). — II, 1844.
- $C_9H_{12}O_2Cl_2$ 1) Chlorid d. Pyrocampheensäure. Sd. 125–130°₁₅ (*Soc.* 69, 78).
- $C_9H_{12}O_2Br_2$ 1) Dibromdihydro- α -Camphylsäure. Sm. 157° (*C.* 1887 [1] 101).
- 2) Dibromdihydro- β -Camphylsäure. Sm. 177° (*C.* 1897 [1] 102).
- $C_9H_{12}O_2S$ 1) Propylphenylsulfon. Sm. 45° (*J. pr.* [2] 40, 562; *Am.* 7, 67; *B.* 21, 998; *A.* 284, 303). — II, 783.
- 2) Isopropylphenylsulfon. Fl. (*B.* 21, 998). — II, 783.
- 3) Aethyl-2-Methylphenylsulfon. Fl. (*J. pr.* [2] 54, 524).
- 4) Aethyl-4-Methylphenylsulfon. Sm. 55–56° (*B.* 13, 1276; *J.* 1882, 1011; *J. pr.* [2] 40, 555; *A.* 284, 304). — II, 823.
- 5) 1,2,4-Trimethylbenzol-5-Sulfinsäure. Sm. 98°. Na, Ba, Ag (*B.* 11, 32). — II, 111.
- 6) 1,3,5-Trimethylbenzol-2-Sulfinsäure. Sm. 98–99°. Ba + x H_2O , Ag (*Z.* 1867, 687). — II, 111.
- 7) Aethylester d. 1-Methylbenzol-4-Sulfinsäure. Fl. (*B.* 18, 2504; 20, 2278; 26, 310). — II, 111.
- $C_9H_{12}O_2S_2$ 1) Aethylester d. 1-Methylbenzol-4-Thiosulfonsäure. Fl. (*B.* 15, 129). — II, 162.
- $C_9H_{12}O_3S_3$ 1) α -Phenylsulfon- $\beta\gamma$ -Dimerkaptopropan (*J. pr.* [2] 56, 451).
- $C_9H_{12}O_3N$ 1) Verbindung (aus d. 2-Nitrophenyläther d. α -Oxy- β -Ketopropan). = $(C_9H_{12}O_3N)_x$. Sm. 106° (*B.* 30, 1640).
- $C_9H_{12}O_3N_2$ C 55,1 — H 6,1 — O 24,5 — N 14,3 — M. G. 196.
- 1) Anhydro-4-Nitro-2-Trimethylamido-1-Oxybenzol. HCl + H_2O , (2HCl, $PtCl_4$ + 6 H_2O), HJ + 2 H_2O (*B.* 13, 647). — II, 731.
- 2) Methyläther d. 5-Nitro-2-Dimethylamido-1-Oxybenzol. Sm. 99° (*Bl.* [3] 6, 416). — II, 731.
- 3) Diacetylderivat d. 5-Keto-3,4-Dimethyl-4,5-Dihydropyrazol. Sm. 44° (*J. pr.* [2] 50, 229). — IV, 521.
- 4) α -Amido- β -[β -Amido-4-Oxyphenyl]propionsäure (Amidotyrosin). 2HCl + H_2O , 2 H_2SO_4 , (2 H_2SO_4 + $ZnSO_4$) (*Z.* 1867, 437). — II, 1569.

- $C_9H_{11}O_3N_2$ 5) Säure (aus d. Verb. $C_9H_{11}O_3N_2$). Sm. 244° u. Zers. Ag_2 (*J. pr.* [2] 39, 281). — IV, 1134.
- 6) Monacetylketodiimid d. β -Acetylpropan- $\alpha\gamma$ -Dicarbonsäure. Sm. $142-143^\circ$ (A. 295, 115).
- $C_9H_{11}O_3N_4$ C 48,2 — H 5,3 — O 21,4 — N 25,0 — M. G. 224.
- 1) 6-Nitro-3-Methylnitrosamido-1-Dimethylamidobenzol. Sm. 157° (A. 286, 172). — IV, 571.
- 2) 2-Nitro-4-Methylnitrosamido-1-Dimethylamidobenzol. Sm. 87° . ($2HCl$, $PtCl_4$) (B. 12, 1811). — IV, 582.
- 3) 2-Oxybenzylidendiharnstoff + H_2O (Salicyldiureid). Cu (A. 151, 199). — III, 74.
- 4) Oxyäthyltheobromin (B. 15, 33; A. 215, 306). — III, 956.
- 5) Methyläther d. 8-Oxy-2,6-Diketo-1,3,7-Trimethylpurin (M. d. Oxykaffein). Sm. 175° (B. 17, 1785; 30, 569; 31, 3269). — III, 961.
- 6) 2,6,8-Triketo-1,3-Diäthylpurin + H_2O (1,3-Diäthylharnsäure). Zers. oberh. 300° (B. 30, 1823).
- 7) Diäthylharnsäure (*J.* 1864, 630). — I, 1338.
- 8) Isodiäthylharnsäure (*J.* 1864, 630). — I, 1338.
- 9) 2,6,8-Triketo-1,3,7,9-Tetramethylpurin (Tetramethylharnsäure). Sm. 228° (cor.) (B. 17, 1784; 28, 2479; 30, 569, 3009; 31, 3268; 32, 467). — I, 1338.
- $C_9H_{11}O_3N_6$ C 42,9 — H 4,8 — O 19,0 — N 33,3 — M. G. 252.
- 1) Trihydrazid d. Benzol-1,3,5-Tricarbonsäure. Sm. 100° u. Zers. (B. 25, 3441). — II, 2011.
- $C_9H_{11}O_3S$ 1) α -Oxy- β -Phenylsulfonpropan. Sm. 46° (*J. pr.* [2] 51, 287).
- 2) β -Oxyäthyl-2-Methylphenylsulfon. Fl. (*J. pr.* [2] 54, 528).
- 3) α -Oxyäthyl-4-Methylphenylsulfon. Sm. $54-55^\circ$ (*J. pr.* [2] 30, 355). — II, 823.
- 4) 1-Propylbenzol-2-Sulfonsäure. $K + \frac{1}{2}H_2O$, Ca, Ba, Ni, Pb (A. 149, 330; 219, 296; *J.* 1877, 374; B. 12, 2238; *J. pr.* [2] 41, 152). — II, 147.
- 5) 1-Propylbenzol-4-Sulfonsäure. $Mg + 4H_2O$, Ba + $2H_2O$, Pb + $2H_2O$, Ni (*J.* 1877, 374; *J. pr.* [2] 41, 157; B. 23, 3195). — II, 147.
- 6) 1-Isopropylbenzol-2-Sulfonsäure. $Mg + 8H_2O$, Ba + $3\frac{1}{2}H_2O$, Zn + $7H_2O$, Pb + $2\frac{1}{2}H_2O$, Cu + $8H_2O$ (*J.* 1879, 760; B. 18, 1239). — II, 147.
- 7) 1-Isopropylbenzol-4-Sulfonsäure. K, $Mg + 7H_2O$, Ca + $2H_2O$, Sr + $2H_2O$, Ba + H_2O , Pb + H_2O , Ag (A. 38, 92; 146, 86; 149, 330; 216, 195; 219, 299; B. 12, 2239; 18, 1239). — II, 147.
- 8) 1-Methyl-2-Aethylbenzol-2-Sulfonsäure (α -Säure). Ba, Pb (B. 19, 3090). — II, 148.
- 9) 1-Methyl-2-Aethylbenzol-2-Sulfonsäure (β -Säure). Na + H_2O , K + H_2O , Ca + $2H_2O$, Ba + $3H_2O$, Pb + $3H_2O$, Cu + H_2O (B. 19, 3090). — II, 148.
- 10) 1-Methyl-3-Aethylbenzol-2-Sulfonsäure (α -Säure). Ba + $6H_2O$ (A. 192, 199). — II, 148.
- 11) 1-Methyl-3-Aethylbenzol-2-Sulfonsäure (β -Säure). Ba + $3H_2O$ (A. 192, 199). — II, 148.
- 12) 1-Methyl-4-Aethylbenzol-2-Sulfonsäure + $1\frac{1}{2}H_2O$. Sm. $59-60^\circ$. Na + $1\frac{1}{2}H_2O$, Ba + $2H_2O$ (B. 28, 2649; Bl. [3] 13, 891).
- 13) 1-Methyl-4-Aethylbenzol-2-Sulfonsäure. Ba + $3H_2O$ (A. 146, 102; Bl. [3] 13, 891). — II, 148.
- 14) 1,2,3-Trimethylbenzol-5-Sulfonsäure + xH_2O . Na + H_2O , Ca, Ba (B. 15, 1858; 19, 2517). — II, 148.
- 15) 1,2,4-Trimethylbenzol-3-Sulfonsäure. Na (B. 19, 1222). — II, 148.
- 16) 1,2,4-Trimethylbenzol-5-Sulfonsäure + $2H_2O$. Sm. $111-112^\circ$. Na + $1(5)H_2O$, K + H_2O , Ba + H_2O , Ag (A. 139, 188; 184, 199; B. 11, 29; 19, 1546; Ph. Ch. I, 77, 81, 86; 2, 957; Bl. [3] 11, 433). — II, 148.
- 17) 1,2,4-Trimethylbenzol-6-Sulfonsäure. Na + $\frac{1}{2}H_2O$, K + H_2O , Ba, Ag (B. 19, 1218, 1555). — II, 149.
- 18) 1,3,5-Trimethylbenzol-2-Sulfonsäure + $2H_2O$. Sm. 77° . Salze meist bek. (A. 146, 95; 164, 53; 184, 195). — II, 150.
- 19) Sulfonsäure (aus Styron). Ba (A. 146, 90). — II, 151.
- 20) Sulfonsäure (d. Kohlenw. C_9H_{12} aus Harzessenz). Ba + H_2O (B. 19, 1970). — II, 151.

- $C_9H_{12}O_8S$ 21) Aethylester d. 1-Methylbenzol-4-Sulfonsäure. Sm. 32—33°; Sd. 173₁₅ (A. 142, 100; Z. 1865, 221; B. 19, 1226; 25, 2259; J. 1882, 1013). — II, 132.
- 22) Propylester d. Benzolsulfonsäure. Sm. 162—163°₁₅ (B. 25, 2258; A. 223, 237). — II, 113.
- 23) Phenylester d. α -Propansulfonsäure. Fl. (J. pr. [2] 48, 250). — II, 661.
- $C_9H_{12}O_8S_2$ 1) 2-Merkapto-1-Methylbenzoläthyläther-4-Sulfonsäure. K + $1\frac{1}{2}H_2O$ (Soc. 73, 757).
- 2) 2-Merkapto-1-Methylbenzoläthyläther-5-Sulfonsäure. K (Soc. 73, 757).
- 3) 4-Merkapto-1-Methylbenzoläthyläther-3-Sulfonsäure. K (Soc. 73, 752).
- $C_9H_{12}O_4N_2$ C 50,9 — H 5,7 — O 30,2 — N 13,2 — M. G. 212.
- 1) 1,2-Methylen-3,4-Dimethyläther d. 5,6-Diamido-1,2,3,4-Tetraoxybenzol. Sm. 119° (B. 21, 1194; 23, 2289). — II, 1030.
- 2) 2-Isobutylimidazol-4,5-Dicarbonsäure. NH_4 (A. ch. [6] 24, 539). — IV, 549.
- 3) Diäthylester d. β -Cyan- β -Imidoäthan- $\alpha\alpha$ -Dicarbonsäure. Sm. 93° (B. 31, 2946).
- $C_9H_{12}O_4N_4$ C 45,0 — H 5,0 — O 26,7 — N 23,3 — M. G. 240.
- 1) Dimethyläther d. Diisonitramidomethylbenzol. Sm. 152° (A. 300, 125).
- 2) Oxytetramethylharnsäure. Sm. 224° (229° cor.) (B. 30, 3012). — IV, 1256.
- $C_9H_{12}O_8S$ 1) $\beta\gamma$ -Dioxypropylphenylsulfon. Sm. 135—136° (A. 283, 189).
- 2) 1-[α -Oxyisopropyl]benzol- ρ -Sulfonsäure. K, Ba, Pb (B. 12, 2239; A. 219, 301). — II, 1065.
- 3) 2-Oxy-1-Isopropylbenzol- ρ -Sulfonsäure. Ba (B. 11, 1062). — II, 846.
- 4) 5-Oxy-1,2,4-Trimethylbenzol- ρ -Sulfonsäure. Ba (B. 11, 30). — II, 846.
- 5) 2-Oxy-1,3,5-Trimethylbenzol-4-Sulfonsäure. Na, Ba (A. 195, 270). — II, 846.
- 6) 4-Oxy-1,3-Dimethylbenzoldimethyläther-6-Sulfonsäure. Na, K + $\frac{1}{2}H_2O$, Ba + $4H_2O$, Zn, Cu + $4H_2O$ (Am. 19, 386).
- 7) 2-Oxy-1-Methylbenzoläthyläther-4-Sulfonsäure. K + H_2O , Ba + $3H_2O$, Pb + $3H_2O$ (A. 172, 215). — II, 842.
- 8) 4-Oxy-1-Methylbenzoläthyläther-2-Sulfonsäure. Salze meist bekannt (A. 221, 352; Am. 8, 245; 15, 126). — II, 844.
- 9) 4-Oxy-1-Methylbenzoläthyläther-3-Sulfonsäure (Am. 15, 305). — II, 844.
- 10) 4-Aethoxylphenylmethansulfonsäure. Ba + $2H_2O$ (A. 221, 222). — II, 845.
- $C_9H_{12}O_8S_2$ 1) Benzylidendi[Methylsulfon]. Sm. 162—163° (B. 21, 486). — III, 8.
- $C_9H_{12}O_8N_2$ C 47,4 — H 5,2 — O 35,1 — N 12,3 — M. G. 228.
- 1) Verbindung (aus d. ϵ -Keto- β -Hexen- $\gamma\delta\zeta$ -Tricarbonsäuretriäthylester). Zers. bei 270° (Soc. 71, 329).
- $C_9H_{12}O_8N_4$ C 42,2 — H 4,7 — O 31,2 — N 21,9 — M. G. 256.
- 1) Kaffeidindicarbonsäure + H_2O . Sm. 141° u. Zers. Na_2 + $3H_2O$, Ag_2 (B. 31, 1138). — IV, 1117.
- 2) Aethylester d. Theobromursäure. Sm. 208° (B. 30, 2608).
- 3) Verbindung (aus Kyanäthin). Sm. 136° (J. pr. [2] 39, 276). — IV, 1134.
- $C_9H_{12}O_8N_6$ C 38,0 — H 4,2 — O 28,2 — N 29,6 — M. G. 284.
- 1) Dipyruvintriureid (A. ch. [5] 11, 382). — I, 1345.
- $C_9H_{12}O_8S$ 1) 3,4-Dioxy-1-Methylbenzoldimethyläther- ρ -Sulfonsäure. K (C. 1898 [1] 1026).
- $C_9H_{12}O_8S_2$ 1) 2-Aethylsulfon-1-Methylbenzol-4-Sulfonsäure. K + $\frac{1}{2}H_2O$ (Soc. 73, 757).
- 2) 2-Aethylsulfon-1-Methylbenzol-5-Sulfonsäure. K (Soc. 73, 758).
- 3) 4-Aethylsulfon-1-Methylbenzol-2-Sulfonsäure. K + H_2O (Soc. 73, 756).
- 4) 4-Aethylsulfon-1-Methylbenzol-3-Sulfonsäure. K + H_2O , Ba + $3H_2O$ (Soc. 73, 753).

- C₉H₁₁O₆N₂** C 44,3 — H 4,9 — O 39,3 — N 11,5 — M. G. 244.
 1) 4-Aethoxyl-2-Aethyl-1,2,6-Oxdiazin-3,5-Dicarbonsäure. Sm. 186,5° (B. 26, 1006). — IV, 545.
 2) Trimethylester d. 4,5-Dihydropyrazol-3,4,5-Tricarbonsäure. Sm. 61°. Ag (A. 273, 239). — IV, 494.
 3) Diäthylester d. 4-Oxy-1,2,6-Oxdiazin-3,5-Dicarbonsäure. Sm. 169° (B. 26, 1003). — IV, 545.
- C₉H₁₁O₆N₆** C 36,0 — H 4,0 — O 32,0 — N 28,0 — M. G. 300.
 1) Trimethylester d. Triazoessigsäure. Sm. 167—168° (J. pr. [2] 38, 542). — I, 1493.
- C₉H₁₁O₆Cl₁** 1) Aethylester d. αβ-Di[Chloracetoxyl]propionsäure. Sd. 198°₁₅ (Soc. 73, 190).
- C₉H₁₁O₆S₂** 1) 1,3,5-Trimethylbenzol-2,4-Disulfonsäure. Na₂ + 1½ H₂O, K₂ + 2 H₂O, Ba + 3 H₂O, Cu (M. 1, 807). — II, 151.
- C₉H₁₁O₇S₂** 1) 2-Oxy-1-Methylbenzoläthyläther-3,5-Disulfonsäure. Ba + 2½ H₂O (A. 230, 293). — II, 842.
- C₉H₁₁O₉S₂** 1) α-Verbindung (aus Benzol-1-Carbonsäure-3-Sulfonsäure mit Schwefelsäuredimethylester). Na₂, Ba + 3½ H₂O, Pb, Cu + H₂O (A. 218, 264). — II, 1298.
 2) β-Verbindung (aus Benzol-1-Carbonsäure-3-Sulfonsäure mit Schwefelsäuredimethylester). Ba (A. 218, 269). — II, 1298.
- C₉H₁₁NCl** 1) β-Chlor-α-Benzylamidoäthan (β-Chlorbenzylamin). HCl, (2 HCl, PtCl₄) (M. 12, 83; B. 29, 2383). — II, 515.
 2) Chlorallylat d. Thierölpikolin. 2 + PtCl₄ (J. 1876, 783). — IV, 126.
- C₉H₁₁NBr** 1) 4-Brom-1-Methyläthylamidobenzol. Sd. 265° (B. 17, 1327). — II, 334.
 2) 2-Brom-2-Dimethylamido-1-Methylbenzol. Sd. 244—245° (B. 14, 2173). — II, 457.
 3) 2-Brom-3-Dimethylamido-1-Methylbenzol. Sm. 98°; Sd. 276° (B. 12, 1800, 1825). — II, 477.
 4) 3-Brom-4-Dimethylamido-1-Methylbenzol. Sd. 237—238°₄₄. (2 HCl, PtCl₄) (G. 28 [2] 108).
 5) β-Brom-α-Benzylamidoäthan. HBr, Pikrat (B. 29, 2383).
 6) 2-Bromhexahydrochinolin. (HBr, Sm. 184°) (B. 27, 1481). — IV, 139.
- C₉H₁₁NJ** 1) 6-Jod-5-Amido-1,2,4-Trimethylbenzol. Sm. 93° (B. 28, 2804).
- C₉H₁₁NF** 1) 2-Fluor-5-Amido-1,2,4-Trimethylbenzol. Fl. Oxalat (B. 26, 1113). — II, 551.
- C₉H₁₁N₂S** 1) α-Aethylphenylthioharnstoff. Sm. 99,5° (B. 8, 1524). — II, 392.
 2) uns-α-Aethylphenylthioharnstoff. Sm. 113° (B. 17, 2094). — II, 392.
 3) β-Phenyläthylthioharnstoff. Sm. 137° (B. 19, 1822; J. pr. [2] 50, 557). — II, 539.
 4) αα-Dimethyl-β-Phenylthioharnstoff. Sm. 134—135° (132—132,5°) (B. 26, 1685; Soc. 61, 538). — II, 391.
 5) αβ-Dimethyl-α-Phenylthioharnstoff. Sm. 114° (B. 17, 3037). — II, 391.
 6) 2,4-Dimethylphenylthioharnstoff. Sm. 176° (B. 23, 386). — II, 544.
 7) α-Methyl-[2-Methylphenyl]thioharnstoff. Sm. 152—153° (Soc. 55, 621). — II, 465.
 8) α-Methyl-[4-Methylphenyl]thioharnstoff. Sm. 125—126° (Soc. 55, 620). — II, 497.
 9) α-Methylbenzylthioharnstoff. Sm. 74—74,5° (Soc. 55, 619). — II, 527.
 10) 2-Methylbenzylthioharnstoff. Sm. 167° (B. 21, 578). — II, 541.
 11) 3-Methylbenzylthioharnstoff. Sm. 112° (B. 21, 2702). — II, 545.
 12) Methyläther d. Imidomethylphenylamidomerkaptomethan. Fl. HJ (B. 25, 52). — II, 391.
 13) Aethyläther d. Phenylamidoimidomerkaptomethan. Fl. (2 HCl, PtCl₄), HJ, Pikrat (B. 25, 55). — II, 391.
- C₉H₁₁N₂S₂** 1) Thiocarbamat d. αβ-Diamidoäthylbenzol. Sm. 97° u. Zers. (B. 28, 3172). — IV, 641.
- C₉H₁₁N₃Cl** 1) Chlormethylat d. 1,5-Dimethyl-1,2,3-Benzotriazol. 2 + PtCl₄, + AuCl₃, + ClJ (A. 240, 123). — IV, 1145.
- C₉H₁₁N₃Cl₃** 1) ?-Trichlor-6-Amido-5-Methyl-2,4-Diäthyl-1,3-Diazin (Trichlorkyanäthin). Sm. 110° (J. pr. [2] 30, 162). — IV, 1132.
 2) 2,4,6-Tri[β-Chloräthyl]-1,3,5-Triazin (polym. Nitril d. α-Chlorpropionsäure). Fl. (J. pr. [2] 50, 446).

- $C_9H_{11}N_3Br$ 1) Brommethylat d. 1,5-Dimethyl-1,2,3-Benzotriazol. + Br_2 (A. 240, 125). — IV, 1145.
- $C_9H_{11}N_3Br_3$ 1) *p*-Tribrom-6-Amido-5-Methyl-2,4-Diäthyl-1,3-Diazin (Tribromkyanäthin). Sm. 126° (J. pr. [2] 30, 160). — IV, 1133.
- $C_9H_{11}N_3J$ 1) Jodmethylat d. 1,5-Dimethyl-1,2,3-Benzotriazol. Sm. 217°. + HgJ_2 , + 2 AgJ , + J_2 , + J_4 (A. 240, 126). — IV, 1145.
- $C_9H_{11}N_4S_2$ 1) 4-Methyl-1,3-Phenylendithioharnstoff. Sm. 218° (206°) (B. 8, 1266; 17, 3046; 18, 3293). — IV, 603.
- 2) 4-Thioureido-1-Thioureidomethylharnstoff. Sm. 176° (B. 19, 1289). — IV, 640.
- $C_9H_{13}ON$ C 71,5 — H 8,6 — O 10,6 — N 9,3 — M. G. 151.
- 1) 4-Dimethylamido-1-Oxymethylbenzol. Sm. 62°. (2HCl, $PtCl_4$) (Bl. [3] 11, 318). — II, 1063.
- 2) 4-Amido-3-Oxy-1-Isopropylbenzol. Sm. 122°; Sd. 260°. HCl, Pikrat (Bl. [3] 9, 34). — II, 762.
- 3) 3-Amido-5-Oxy-1,2,4-Trimethylbenzol. Sm. 164–165° (166–167°) (B. 17, 886, 2980). — II, 764.
- 4) 6-Amido-2-Oxy-1,3,5-Trimethylbenzol. HCl (B. 15, 1376; A. 215, 99). — II, 764.
- 5) β -Benzylamido- α -Oxyäthan. Sd. 280° u. Zers. (HCl, $AuCl_3$), Pikrat (B. 29, 2382; M. 12, 81).
- 6) β -Methylphenylamido- α -Oxyäthan. Sd. 218–219°₁₁₀. + CH_3J (B. 17, 676). — II, 426.
- 7) β -[4-Methylphenyl]amido- α -Oxyäthan. Sm. 37°; Sd. 286–288°. (2HCl, $PtCl_4$), H_2SO_4 , Oxalat (A. 173, 129). — II, 504.
- 8) Methyläther d. 2-Aethylamido-1-Oxybenzol. Sd. 228–229°₇₅. HCl (B. 31, 495).
- 9) Methyläther d. 2-Dimethylamido-1-Oxybenzol. Sd. 210–212°. (2HCl, $PtCl_4$) (A. 207, 248; B. 13, 248; 32, 733). — II, 703.
- 10) Methyläther d. 4-Dimethylamido-1-Oxybenzol. Sm. 48° (B. 13, 249). — II, 716.
- 11) Methyläther d. 5-Amido-4-Oxy-1,3-Dimethylbenzol. Sd. 239,5°. HCl (Soc. 63, 106). — II, 759.
- 12) Aethyläther d. 2-Amido-1-Oxymethylbenzol. Sd. 123–129°₂₅. HCl, Oxalat (A. 305, 111).
- 13) Aethyläther d. 2-Oxy-1-Amidomethylbenzol. Fl. (2HCl, $PtCl_4$) (M. 12, 397). — II, 742.
- 14) Aethyläther d. 5-Amido-2-Oxy-1-Methylbenzol. Fl. HCl + $1\frac{1}{2}H_2O$, (2HCl, $PtCl_4$), HNO_3 , H_2SO_4 , Oxalat (A. 217, 217; B. 15, 1135). — II, 741.
- 15) Aethyläther d. 6-Amido-3-Oxy-1-Methylbenzol. Fl. HCl, H_2SO_4 , + xH_2O , Oxalat (A. 217, 219; B. 15, 1135). — II, 746.
- 16) Aethyläther d. 3-Amido-4-Oxy-1-Methylbenzol. Sm. 40–41°; Sd. 240°. HCl + $1\frac{1}{2}H_2O$, HNO_3 , H_2SO_4 + $2H_2O$ (B. 15, 1135; 27, 2712; A. 217, 220). — II, 753.
- 17) Aethyläther d. 4-Methylamido-1-Oxybenzol. Sd. 251° (B. 22, 1789). — II, 716.
- 18) β -Amidoäthyläther d. 4-Oxy-1-Methylbenzol. Sd. 242–243°₇₇. HCl, (2HCl, $PtCl_4$), Pikrat (B. 24, 191). — II, 748.
- 19) Phenyläther d. γ -Amido- α -Oxypropan (γ -Phenoxypropylamin). Sd. 241–242°. HCl, (2HCl, $PtCl_4$), Pikrat (B. 24, 2643). — II, 653.
- 20) Dimethyl-2-Methylphenylaminosyd (B. 32, 354).
- 21) Dimethyl-4-Methylphenylaminosyd (B. 32, 353).
- 22) 2,4,6-Trimethylphenylhydroxylamin. Sm. 105° (B. 31, 561).
- 23) Benzyläther d. Aethylhydroxylamin. Sd. 135°₇₀. Dioxalat (A. 257, 237). — II, 532.
- 24) Anhydrotrimethyl-2-Oxyphenylammoniumhydrat (B. 13, 246; A. 293, 28).
- 25) 1-Acetyl-3[*p*]-Isopropylpyrrol. Sd. 222–224° (B. 20, 852). — IV, 74.
- 26) *p*-Acetyl-*p*-Isopropylpyrrol. Sm. 64°; Sd. 251° (B. 20, 852). — IV, 100.
- 27) 2-[α -Oxybutyl]pyridin. Sd. 212–224° (B. 24, 2538). — IV, 138.
- 28) 2-[β -Oxybutyl]pyridin. Sd. 125–127°₁₅. (2HCl, $PtCl_4$), (HCl, $AuCl_3$) (B. 23, 2709). — IV, 137.

- C₉H₁₃ON** 29) 2-[β -Oxyäthyl]-5-Aethylpyridin. Sd. 147—149°₁₈. (2HCl, PtCl₄) (B. 23, 2725). — IV, 138.
- 30) Aethyläther d. 6-Oxy-2,4-Dimethylpyridin. Sd. 245—247° (G. 16, 449). — IV, 128.
- 31) isom. Aethyläther d. 6-Oxy-2,4-Dimethylpyridin. Sd. 217—218°. (2HCl, PtCl₄ + H₂O) (Soc. 67, 221). — IV, 128.
- 32) Aethyläther d. 4-Oxy-2,6-Dimethylpyridin. Sd. 207° (215°). HCl, (2HCl, PtCl₄), Pikrat (B. 20, 165; 22, 82; 27, 1328). — IV, 130.
- 33) Methoxyhydrat d. 1,5-Dimethyl-1,2,3-Benzotriazol. Chlorid, 2Chlorid + PtCl₄, Chlorid + AuCl₃, Bromid + Br₂, Jodid, Jodid + HgJ₂, Jodid + 2AgJ, Jodid + 2 und 4J (A. 240, 126). — IV, 1145.
- C₉H₁₃ON₃** C 60,3 — H 7,3 — O 8,9 — N 23,5 — M. G. 179.
- 1) 3-Methylnitrosamido-1-Dimethylamidobenzol. Fl. HCl (A. 286, 168). — IV, 571.
- 2) 4-Methylnitrosamido-1-Dimethylamidobenzol. Sm. 98—99° (B. 12, 1809). — IV, 582.
- 3) 4-Nitroso-3-Dimethylamido-1-Methylamidobenzol. Sm. 143°. HCl, 2HCl (A. 286, 169, 171).
- 4) 5-Amido-4-Methylnitrosamido-1,3-Dimethylbenzol. Sm. 81° (B. 31, 2933).
- 5) α -Dimethylamido- β -Phenylharnstoff. Sm. 108° (B. 13, 2172). — II, 377.
- 6) α -Aethylamido- α -Phenylharnstoff. Sm. 111—112° (A. 199, 295). — II, 377.
- 7) β -Phenylamido- α -Aethylharnstoff. Sm. 151° (A. 190, 109). — IV, 673.
- 8) 4-Dimethylamidophenylharnstoff. Sm. 179°. (2HCl, PtCl₄) (B. 12, 536). — IV, 590.
- 9) uns-Methyl-2-Acetylamidophenylhydrazin. Sm. 129—131° (J. pr. [2] 41, 173). — IV, 1126.
- 10) 5-[α -Methylnitrosamidoäthyl]-2-Methylpyridin. Fl. (B. 28, 1761). — IV, 826.
- 11) Amid d. α -[β -Phenylhydrazido]propionsäure. Sm. 124° (B. 17, 1452; 25, 2061). — IV, 739.
- C₉H₁₃OCl** 1) Chlorid d. Isolauronolsäure. Sd. 135°₆₀ (212—214°₇₆₀) (C. 1897 [1] 102; B. [3] 15, 1197).
- C₉H₁₃OBr₃** 1) β -Tribrom-2-Keto-3-Isopropyliden-1-Methyl-R-Pentamethylen (Tri-bromcampherphoron). Sm. 52° (B. 25, 263). — I, 1013.
- C₉H₁₃OP** 1) Dimethyl-4-Methylphenylphosphinoyd. Sm. 95°. + HgCl₂ + H₂O (B. 15, 2015; A. 293, 283). — IV, 1670.
- C₉H₁₃O₂N** C 64,7 — H 7,8 — O 19,1 — N 8,4 — M. G. 167.
- 1) γ -Phenylamido- $\alpha\beta$ -Dioxypropan (Phenylglykolin). Sm. 52°; Sd. 249°₅₀ (B. 27, 3425).
- 2) 1-Methyläther d. β -Oxyäthyl-2-Amido-1-Oxybenzol. Sd. 305° (B. 22, 2095). — II, 704.
- 3) Anhydroecgonin. Sm. 235°. Salze meist bek. (B. 19, 2003; 20, 1221; 21, 49, 3035; 22, 1365; 23, 2870; A. 271, 183). — III, 870.
- 4) Diäthyläther d. 2,4-Dioxypyridin. Sm. 230—232° (B. 31, 1689).
- 5) Diäthyläther d. 3,5-Dioxypyridin. Sd. 242—246°_{749,2}. (HCl, HgCl₂), (2HCl, PtCl₄) (M. 6, 653). — IV, 118.
- 6) Aethylester d. 2,4-Dimethylpyrrol-3-Carbonsäure. Sm. 75—76°; Sd. 291° (A. 236, 325). — IV, 85.
- 7) Aethylester d. 2,5-Dimethylpyrrol-3-Carbonsäure. Sm. 117—118°; Sd. 290°₇₃₁ (B. 18, 1564). — IV, 86.
- 8) Acetat d. Base C₉H₁₁ON (aus d-Lupatin). HCl, (2HCl, PtCl₄ + 4H₂O) (C. 1897 [1] 1233).
- 9) Nitril d. α -Acetoxyl- β -Methyl- β -Penten- α -Carbonsäure. Sd. 110 bis 114°₃₂ (M. 11, 404). — I, 1475.
- C₉H₁₃O₂N₃** C 55,4 — H 6,7 — O 16,4 — N 21,5 — M. G. 195.
- 1) 6-Nitro-2,4-Diamido-1,3,5-Trimethylbenzol. Sm. 184°. 2HCl (A. 141, 139; 235, 183). — IV, 645.
- 2) Verbindung (aus d. Verb. C₉H₁₇O₅N₄). Sm. 205° (J. pr. [2] 39, 278). — IV, 1134.
- C₉H₁₃O₂N₅** C 48,4 — H 5,8 — O 14,3 — N 31,4 — M. G. 223.
- 1) Methylamidokaffeïn. Sm. 310—315° u. Zers. (B. 27, 3089). — III, 960.
- 2) Amidomethylkaffeïn? (Am. 17, 411).

- $C_7H_{13}O_2Cl$ 1) Chlordihydro- β -Camphylsäure. Sm. 105—106° (C. 1898 [1] 106; Soc. 73, 824).
- $C_7H_{13}O_2Br$ 1) Bromdihydro- α -Camphylsäure. Sm. 156—157° (C. 1897 [1] 101).
2) Bromdihydro- β -Camphylsäure. Sm. 128—129° (C. 1895 [1] 693; 1897 [1] 102; 1898 [1] 106; Soc. 73, 827).
- $C_7H_{13}O_2P$ 3) Bromlauronolsäure. Sm. 185° (C. 1898 [1] 1292).
1) 4-Isopropylphenylphosphinige Säure. Fl. Ba + H₂O, Phenylhydrazinsalz (A. 294, 49). — IV, 1677.
2) 2,4,5-Trimethylphosphinige Säure. Sm. 128°. K, Ba + 3H₂O, Pb, Cu, Phenylhydrazinsalz (A. 294, 4). — IV, 1677.
3) 2,4,6-Trimethylphenylphosphinige Säure. Sm. 147°. NH₄, K, Ca, Ba + 6H₂O, Cu, Anilinsalz, Phenylhydrazinsalz (A. 294, 36). — IV, 1679.
- $C_7H_{13}O_2N$ C 59,0 — H 7,1 — O 26,2 — N 7,6 — M. G. 183.
1) Trimethyläther d. β -Amido-1,2,3-Trioxylbenzol. Sm. 114° (B. 21, 613). — II, 1016.
2) γ -Cyan- δ -Keto- $\beta\gamma$ -Dimethylpentan- β -Carbonsäure. Sm. 67° (Soc. 67, 426).
3) Oximidolaurononsäure. Sm. 220° u. Zers. (Soc. 73, 841).
4) Morrhuinsäure. Ag₂ (Bl. [3] 2, 232). — III, 888.
5) Säure (aus Benzoylamidoessigsäure) (A. 113, 335). — II, 1189.
6) Lakton d. Nitrosocampholaktonsäure. Sm. 117° (Soc. 73, 565).
7) Methylester d. α -Cyan- β -Ketoheptan- α -Carbonsäure. Sm. 42° (C. 1896 [2] 17; Bl. [3] 15, 133).
8) Aethylester d. α -Cyan- β -Ketopentan- α -Carbonsäure (Ac. d. norm. Butyrylcyanessigsäure). Sd. 166—178°₆₆. Ca + 2H₂O, Ba + 3 $\frac{1}{2}$ H₂O (B. 21 [2] 354). — I, 1224.
9) Aethylester d. γ -Cyan- β -Ketopentan- γ -Carbonsäure (Ac. d. Acetyläthylcyanessigsäure). Sd. 103—105°_{20–25} (A. ch. [6] 18, 476). — I, 1224.
10) Aethylester d. δ -Cyan- γ -Keto- β -Methylbutan- δ -Carbonsäure (Ac. d. Isobutyrylcyanessigsäure). Sd. 170—175°₅₅. Ca + 2H₂O (B. 21 [2] 354). — I, 1224.
11) Aethylester d. 2-Keto-1,5-Dimethyl-2,3-Dihydropyrrol-4-Carbonsäure. Sm. 42°; Sd. 160°₁₁ (A. 260, 146). — I, 1215.
12) Isobutylester d. α -Cyan- β -Ketopropan- α -Carbonsäure (I. d. Acetylcyanessigsäure). Sd. 142°₂₂ (Bl. [3] 13, 1034).
13) Verbindung (aus NH₃ u. α -Methylacetylbernsteinsäurediäthylester). Sm. 127° (A. 260, 151). — I, 1216.
- $C_7H_{13}O_2N_2$ C 51,2 — H 6,2 — O 22,7 — N 19,9 — M. G. 211.
1) Aethylester d. β -Cyanacetylhydrazonbittersäure. Sm. 98° (B. 27, 688).
- $C_7H_{13}O_2P$ 1) 4-Isopropylphenylphosphinsäure. Sm. 139°. Ba, Ag₂, Phenylhydrazinsalz (A. 294, 50). — IV, 1677.
2) 2,4,5-Trimethylphenylphosphinsäure. Sm. 212°. K, Ba, Ni + 4H₂O, Ag₂ (A. 294, 7). — IV, 1678.
3) 2,4,6-Trimethylphenylphosphinsäure. Sm. 167°. NH₄, Ba + 3H₂O, Ni + 8H₂O, Ag₂ (A. 294, 39). — IV, 1680.
- $C_7H_{13}O_4N$ C 54,2 — H 6,6 — O 32,2 — N 7,0 — M. G. 199.
1) Mesitencarbaminmethyläthersäure. Sm. 92° u. Zers. Pb + H₂O, Cd + 3H₂O (A. 274, 273).
2) Lakton d. Nitrocampholaktonsäure. Sm. 171° (Soc. 73, 561; C. 1898 [1] 1292).
3) Dimethylester d. δ -Methylamido- $\alpha\gamma$ -Butadien- $\alpha\gamma$ -Dicarbonsäure (D. d. Methylamidomethylenglutakonsäure). Sm. 143—144° (A. 273, 177). — I, 1216.
4) Aethylester d. α -Acetylamido- γ -Keto- α -Buten- β -Carbonsäure. Sm. 88° (A. 297, 32).
5) Diäthylester d. α -Cyanäthan- $\alpha\beta$ -Dicarbonsäure (D. d. Cyanbernsteinsäure). Sd. 260—262° (280—290°) (A. ch. [6] 18, 283; B. 21, 3400; J. r. 21, 160). — I, 1224.
6) Imid d. Camphoronsäure. Sm. 212° (210°). NH₄ (B. 13, 798; 28, 2690). — I, 1405.
- $C_7H_{13}O_4N_2$ C 47,6 — H 5,7 — O 28,2 — N 18,5 — M. G. 227.
1) Diacetat d. 2,6-Dioximidoheptahydropyridin (D. d. Glutarenimido-dioxim). Sm. 127° (B. 22, 2971). — I, 1487.

- $C_9H_{13}O_4N_3$ 2) Aethylester d. 2,4-Dioximido-6-Methyl-1,2,3,4-Tetrahydropyridin-3- oder 5-Carbonsäure. Zers. bei 245--255° (B. 31, 771).
- $C_9H_{13}O_4N_5$ 1) Verbindung (aus Amidoessigsäureäthylester). subl. (J. pr. [2] 37, 179). — I, 1185.
- $C_9H_{13}O_4Br$ 1) Bromisobutylisoparakonsäure. Sm. 126° (A. 304, 316).
2) Brompinsäure (B. 29, 1908).
- $C_9H_{13}O_4P$ 1) 4-[α -Oxyisopropyl]phenylphosphinsäure. Fl. Ag₂ (A. 294, 51). — IV, 1677.
- $C_9H_{13}O_5N$ C 50,2 — H 6,0 — O 37,2 — N 6,5 — M. G. 215.
- $C_9H_{13}O_6N$ 1) Acetylloiponsäure. Sm. 204° (M. 17, 381). — III, 844.
C 46,7 — H 5,6 — O 41,6 — N 6,1 — M. G. 231.
- 1) Diäthylester d. α -Oximido- β -Ketopropan- $\alpha\gamma$ -Dicarbonsäure (D. d. Isonitrosoacetondicarbonsäure). Fl. (B. 24, 860). — I, 764.
- $C_9H_{13}O_6Cl$ 1) Trimethylester d. 2-Chlorpropan- $\alpha\beta\gamma$ -Tricarbonsäure (Trimethylester d. Chlortricarballylsäure) (B. 9, 1750). — I, 809.
- $C_9H_{13}O_7N$ C 43,7 — H 5,3 — O 45,3 — N 5,7 — M. G. 247.
- 1) Uvitaminsäure. Ba + H₂O, Zn (A. 208, 138). — I, 587.
- $C_9H_{13}O_9N$ C 38,7 — H 4,7 — O 51,6 — N 5,0 — M. G. 279.
- 1) Verbindung (aus d. Diäthylester d. 1,2,4-Triketo-R-Pentamethylen-3,5-Dicarbonsäure) (G. 26 [2] 377).
- $C_9H_{13}NS$ 1) Benzyläther d. β -Amido- α -Merkaptoäthan. Sd. 270—272°_{734,5}. HCl, (2HCl, PtCl₄) (B. 25, 3050). — II, 1054.
- $C_9H_{13}NS_2$ 1) Akrothialdin + 5H₂O (A. Spl. 6, 29). — I, 958.
- $C_9H_{13}N_2Cl$ 1) 5-Chlor-3,6-Diamido-1,2,4-Trimethylbenzol. Sm. 171°. 2HCl (B. 27, 1428). — IV, 645.
2) 6-Chlor-5-Methyl-2,4-Diäthyl-1,3-Diazin. Fl. (J. pr. [2] 22, 273). — IV, 828.
- $C_9H_{13}N_2Br$ 1) 6-Brom-5-Methyl-2,4-Diäthyl-1,3-Diazin (J. pr. [2] 26, 340).
- $C_9H_{13}N_2S$ 1) β -Aethylamido- α -Phenylthioharnstoff. Sm. 109—110° (A. 199, 296). — II, 402.
2) β -Phenylamido- α -Aethylthioharnstoff. Sm. 121—122° (Soc. 55, 302). — IV, 678.
3) β -Methylphenylamido- α -Methylthioharnstoff. Sm. 162,5° (B. 25, 3114). — IV, 678.
4) Methyläther d. Phenylhydrazonphenylamidomerkaptomethan. HJ (B. 29, 2923).
- $C_9H_{13}ClS$ 1) Dimethylbenzylsulfinchlorid. 2 + PtCl₄ (B. 7, 1275). — II, 1054.
- $C_9H_{13}JS$ 1) Dimethylbenzylsulfinjodid. (B. 7, 1275; A. ch. [5] 10, 21). — II, 1054.
- $C_9H_{13}JS_2$ 1) Jodmethylat d. Verbindung $C_9H_{10}S_3$ (aus d. γ -Chlorbuttersäurenitril). Sm. 103—104° (B. 23, 2492). — I, 1465.
- $C_9H_{13}J_2Se$ 1) Benzyl dimethylselenintriiodid. Sm. 65° (A. 179, 19). — II, 1056.
- $C_9H_{13}ON_2$ C 65,1 — H 8,4 — O 9,6 — N 16,9 — M. G. 166.
- 1) 4,6-Diamido-2-Oxy-1,3,5-Trimethylbenzol. 2HCl (M. 19, 256).
2) Anhydro-4-Amido-2-Trimethylamido-1-Oxybenzol. 2HCl + 4H₂O, (2HCl, PtCl₄ + 2H₂O) (B. 13, 648). — II, 722.
3) Methyläther d. 2-[β -Amidoäthyl]amido-1-Oxybenzol. Sd. 277 bis 280°₆₄. 2HCl, Pikrat (B. 27, 929). — II, 704.
4) Aethyläther d. 3,5-Diamido-2-Oxy-1-Methylbenzol. 2HCl (A. ch. [6] 4, 112; B. 14, 987; 15, 1861). — II, 743.
5) Aethyläther d. 3,5-Diamido-4-Oxy-1-Methylbenzol. Fl. HCl (B. 15, 1136, 1859; A. 217, 221). — II, 755.
6) 6-Oxy-4,5-Dimethyl-2-Propyl-1,3-Diazin. Sm. 127° (PINNER, Imidoäther 228). — IV, 830.
7) 6-Oxy-4,5-Dimethyl-2-Isopropyl-1,3-Diazin. Sm. 145° (PINNER, Imidoäther 230). — IV, 830.
8) 6-Oxy-5-Methyl-2,4-Diäthyl-1,3-Diazin. Sm. 156—157°. HCl, (2HCl, PtCl₄), HNO₃, Dioxalat (J. pr. [2] 22, 267; [2] 26, 342; [2] 39, 264). — IV, 828.
9) 6-Oxy-4-Methyl-2,5-Diäthyl-1,3-Diazin. Sm. 135° (PINNER, Imidoäther 226). — IV, 830.
10) 4-Keto-6-Methyl-2,3-Diäthyl-3,4-Dihydro-1,3-Diazin. Sd. bei 265° (PINNER, Imidoäther 265). — IV, 825.
11) Tropinonhydrocyanid. Sm. 145° u. Zers. (B. 29, 1577). — III, 791.

- C₈H₁₀ON₂** 1) Diäthylamidin d. Furan-2-Carbonsäure. Sd. bei 240°. (2HCl, PtCl₆) (A. 214, 229). — IV, 830.
 13) 1-Eegoninnitril. Sm. 145,5°. HCl (B. 26, 968). — III, 865.
 14) Aethylamid d. 1-Aethylamidopyrrol-2-Carbonsäure. Sm. 43—44°; Sd. 269—270° (B. 10, 1863; 11, 1812). — IV, 80.
C₈H₁₀ON₄ C 48,6 — H 6,3 — O 7,2 — N 37,8 — M. G. 222.
 1) Aldehyd + Cyanamid (Triäthylidenmelamin) (A. 131, 253). — I, 1440.
C₈H₁₀OBr₂ 1) Isophorondibromid. Fl. (A. 299, 214).
C₈H₁₀OBr₄ 1) $\beta\gamma\epsilon\zeta$ -Tetrabrom- δ -Keto- $\beta\zeta$ -Dimethylheptan (Phorontetrabromid). Sm. 88—89° (A. 180, 12). — I, 1013.
C₈H₁₀O₂N₂ C 59,3 — H 7,7 — O 17,6 — N 15,4 — M. G. 182.
 1) Dioxykyanconlin. Sm. 151°. Ag + H₂O (J. pr. [2] 30, 154). — IV, 830.
 2) 2,4-Diketo-6-Methyl-1,3-Diäthyl-1,2,3,4-Tetrahydro-1,3-Diazin (Methyldiäthyluracil). Sm. 52—53° (A. 253, 71). — I, 1351.
 3) Aethylester d. β -Aethylamido- α -Cyanpropen- α -Carbonsäure (Ac. d. Aethylamidocyaneronsäure). Sm. 67,5° (A. ch. [6] 18, 513). — I, 1223.
 4) Anhydroverbindung (aus d. Dimethyldiamid d. γ -Ketopentan- $\alpha\epsilon$ -Dicarbonsäure). Sm. 140—141° (A. 267, 64). — I, 1397.
C₈H₁₄O₂Cl₂ 1) Chlorid d. Heptan- $\alpha\eta$ -Dicarbonsäure. Sd. 180—183°₃₃ (C. 1896 [2] 1091).
C₈H₁₄O₂Br₂ 1) Acetat d. $\alpha\beta\zeta\eta$ -Tetrabrom- δ -Oxypentan. Fl. (A. 185, 137).
 2) β -Dibrom-1,2-Dimethylhexahydrobenzol-4-Carbonsäure. Sm. 124° (Soc. 71, 168).
 3) Dibromid d. cis-Campholytischen Säure. Sm. 138—140° (B. 28, 552; Am. 17, 430).
 4) Dibromid d. cistrans-Campholytischen Säure. Sm. 106—107° (110 bis 114°) (B. 26, 460; 28, 552; Soc. 63, 506).
 5) Dibromid d. Allocampholytischen Säure. Sm. 184° (Soc. 67, 343).
C₈H₁₄O₂Br₄ 1) Acetat d. $\alpha\beta\zeta\eta$ -Tetrabrom- δ -Oxyheptan. Fl. (A. 185, 137). — I, 248.
C₈H₁₄O₂N₂ C 54,5 — H 7,1 — O 24,2 — N 14,1 — M. G. 198.
 1) Nitrosomerochinen. Sm. 67°. Ca + 2H₂O (B. 27, 905). — III, 818.
 2) Trimethyl-3-Nitrophenylammoniumhydrat. Salze, siehe diese (B. 19, 1941). — II, 331.
 3) Trimethyl- β -Nitrophenylammoniumhydrat. Nitrat (B. 31, 1152).
 4) Aethylester d. 2-Keto-4,6-Dimethyl-1,2,3,4-Tetrahydro-1,3-Diazin-5-Carbonsäure. Sm. 195—196° (G. 23 [1] 392).
 5) Amid-Imid d. Camphoronsäure. Sm. 210—218° (B. 28, 2693).
C₈H₁₄O₂N₄ C 47,8 — H 6,2 — O 21,2 — N 24,8 — M. G. 226.
 1) Kaffeinmethoxyhydrat + H₂O. Sm. 90—91° (137—138° wasserfrei). Salze siehe (Z. 1865, 456; A. 217, 286; 228, 142). — III, 959.
 2) Homokaffeidincarbonsäure. Cu + 4H₂O (C. 1897 [1] 284; R. 15, 189). — III, 955.
C₈H₁₄O₂Cl₂ 1) Isoamylester d. $\alpha\alpha$ -Dichlor- β -Ketopropan- α -Carbonsäure (l. d. Acetyldichloressigsäure). Fl. (A. 186, 243). — I, 597.
C₈H₁₄O₂Br₂ 1) 1,2-Dibrom-3-Oxyhexahydrobenzoläthyläther-1-Carbonsäure. Sm. 125—126°. Na (A. 271, 255). — II, 1484.
C₈H₁₄O₂N₂ C 50,5 — H 6,5 — O 29,9 — N 13,1 — M. G. 214.
 1) Diäthylester d. 4,5-Dihydropyrazol-3,5-Dicarbonsäure? Sm. 99° (A. 273, 238).
 2) Diacetat d. $\beta\gamma$ -Dioximidopentan (D. d. Methyläthylglyoxim) (B. 16, 2187). — I, 972.
 3) Diacetat d. $\alpha\epsilon$ -Diimido- $\alpha\epsilon$ -Dioxypentan (Glutarimidodiacetat). Sm. 210 bis 211° (B. 23, 2944). — I, 1491.
C₈H₁₄O₂N₄ C 44,6 — H 5,8 — O 26,4 — N 23,1 — M. G. 242.
 1) 5-Uramido-2,4,6-Triketo-1,3-Diäthylhexahydro-1,3-Diazin (1,3-Diäthylpseudoharnsäure). Sm. 196° u. Zers. (B. 30, 1823).
C₈H₁₄O₂Br₂ 1) Dibromdihydroisobutylatiksäure. Sm. 210° u. Zers. (A. 304, 315).
 2) Dimethylester d. $\alpha\gamma$ -Dibrom- $\beta\beta$ -Dimethylpropan- $\alpha\gamma$ -Dicarbonsäure. Sd. 172°₂₂ (C. 1898 [1] 1292).
 3) Diäthylester d. β -Dibrompropan- $\alpha\beta$ -Dicarbonsäure (D. d. Itadibrombrenzweinsäure). Sd. 158°₁₉ (J. pr. [2] 43, 593). — I, 665.
 4) Diäthylester d. $\alpha\alpha$ -Dibrompropan- $\alpha\beta$ -Dicarbonsäure (D. d. Citradibrombrenzweinsäure). Sd. 164°₂₂ (J. pr. [2] 43, 593). — I, 666.

- $C_9H_{14}O_4Br_2$ 5) Diäthylester d. $\alpha\gamma$ -Dibrompropan- $\alpha\gamma$ -Dicarbonsäure (D. d. norm. Dibrombreuzweinsäure). Sd. 160°_{11} (B. 24, 2229). — I, 667.
- $C_9H_{14}O_5N_4$ C 41,9 — H 5,4 — O 31,0 — N 21,7 — M. G. 258.
- $C_9H_{14}O_5S$ 1) Aethylester d. Dihydrotheobromursäure. Sm. $202-203^\circ$ (B. 30, 2612).
- 1) Amethylcamphophenolsulfon (Bl. [3] 4, 715). — III, 499.
- 2) Amethylcamphophenolsulfonsäure. Fl. Ba (Bl. [3] 4, 715; [3] 5, 651). — III, 499.
- 3) Sulfocamphersäure + $3H_2O$. Sm. $160-165^\circ$. $(NH_4)_2 + H_2O$, Na + $5H_2O$, K, K_2 , Ca, Ba, Pb, Pb + $4H_2O$, Ag + H_2O , Ag, (A. ch. [3] 9, 177; A. 169, 179; J. 1877, 642; B. 26, 811, 2044; 27, 3465; 27 [2] 594; C. 1895 [1] 693; Bl. [3] 17, 844; Soc. 73, 820). — I, 905.
- $C_9H_{14}O_6S_2$ 1) Lävulinsäurethioglykolsäure. Sm. $153-154^\circ$ (B. 21, 485). — I, 892.
- $C_9H_{14}NCl$ 1) Trimethylphenylammoniumchlorid. + $HgCl_2$, 2 + $PtCl_4$, + ClJ (A. 224, 352; B. 31, 1147). — II, 331.
- 2) Chlormethylat d. 2-Propylpyridin. 2 + $PtCl_4$ (B. 17, 827). — IV, 133.
- 3) Chlormethylat d. 4-Isopropylpyridin. + $AuCl_3$ (A. 247, 24). — IV, 134.
- 4) Chlorbutylat d. Pyridin. 2 + $PtCl_4$, + $AuCl_3$ (A. 276, 182). — IV, 110.
- 5) sec. Chlorbutylat d. Pyridin. 2 + $PtCl_4$, + $AuCl_3$ (A. 276, 184). — IV, 110.
- 6) Chlorisobutylat d. Pyridin. 2 + $PtCl_4$, + $AuCl_3$ (A. 276, 184). — IV, 110.
- $C_9H_{14}NBr$ 1) Trimethylphenylammoniumbromid. Zers. bei $203-204^\circ$ (B. 14, 622, 984; 31, 3017).
- $C_9H_{14}NJ$ 1) Trimethylphenylammoniumjodid. 2 + ZnJ_2 (Bl. 7, 448; J. pr. [2] 17, 286; J. r. 13, 448; J. 1882, 510; B. 14, 620; 27, 698 Anm.). — II, 331.
- 2) Jodmethylat d. 2-Propylpyridin. Fl. (B. 17, 827). — IV, 133.
- 3) Jodmethylat d. 4-Isopropylpyridin (A. 247, 24). — IV, 134.
- 4) Jodmethylat d. 3-Methyl-2-Aethylpyridin. — IV, 136.
- 5) Jodmethylat d. Base $C_9H_{11}N$ (aus d. Fleisch d. Tintenfisches) (Bl. 51, 159). — IV, 137.
- 6) Jodbutylat d. Pyridin (A. 276, 182). — IV, 110.
- 7) sec. Jodbutylat d. Pyridin (A. 276, 184). — IV, 110.
- 8) Jodisobutylat d. Pyridin (A. 276, 184). — IV, 110.
- $C_9H_{14}NJ_3$ 1) Trimethylphenylammoniumtrijodid. Sm. 116° (A. 240, 87; M. 4, 500; B. 31, 1146). — II, 331.
- $C_9H_{14}NJ_5$ 1) Trimethylphenylammoniumpentajodid. Sm. 87° (A. 240, 69; M. 4, 500). — II, 331.
- $C_9H_{14}NJ_7$ 1) Trimethylphenylammoniumheptajodid. Sm. 65° (A. 240, 70). — II, 331.
- $C_9H_{14}N_2S_2$ 1) Oenanthylensenföl. Fl. (B. 11, 833). — I, 1284.
- $C_9H_{14}N_3Br$ 1) p-Brom-6-Amido-5-Methyl-2,4-Diäthyl-1,3-Diazin (Bromkyanäthin). Sm. 153° . $(2HCl, PtCl_4)$, $(HCl, AuCl_3)$, HBr , HNO_3 (J. pr. [2] 26, 356; [2] 30, 145). — IV, 1132.
- $C_9H_{14}N_3J$ 1) p-Jod-6-Amido-5-Methyl-2,4-Diäthyl-1,3-Diazin (Jodkyanäthin). Sm. 152° u. Zers. $(HCl, AuCl_3)$ (J. pr. [2] 30, 166). — IV, 1132.
- $C_9H_{14}ClAs$ 1) Trimethylphenylarsoniumchlorid. 2 + $PtCl_4$ (A. 207, 206). — IV, 1687.
- $C_9H_{14}JP$ 1) Trimethylphenylphosphoniumjodid. Sm. 205° (A. 181, 363). — IV, 1654.
- $C_9H_{14}JAs$ 1) Trimethylphenylarsoniumjodid. Sm. 244° (A. 207, 205). — IV, 1687.
- $C_9H_{14}ON$ C 70,6 — H 9,8 — O 10,4 — N 9,1 — M. G. 153.
- 1) 4-Formylamido-2,6-Dimethyl-1,2,3,4-Tetrahydrobenzol. Sd. 156 bis 158°_{18} (A. 281, 123). — IV, 51.
- 2) 6-[α -Oximidoäthyl]-5-Methyl-1,2,3,4-Tetrahydrobenzol. Fl. (Soc. 57, 19). — I, 1033.
- 3) 5-[α -Oximidoäthyl]-2,4-Dimethyl-2,3-Dihydro-R-Penten. Sd. 157°_{100} (Soc. 61, 79). — I, 1033.
- 4) Di[R-Tetramethylen]oximidomethan. Fl. (B. 19, 3113). — I, 1033.
- 5) δ -Oximido- $\beta\zeta$ -Dimethyl- $\beta\epsilon$ -Heptadien (Phoronoxim). Sm. 48° ; Sd. 218° (B. 16, 496). — I, 1033.
- 6) Campherphoronoxim + H_2O . Sm. 121° (B. 26, 810; A. 290, 144).
- 7) Oxim d. β -Campherphoron. Sm. $82-82,5^\circ$ (A. 299, 234).
- 8) Isophoronoxim. α -Modif. Sm. $74-75^\circ$; β -Modif. Sm. 100° (B. 30, 230; A. 289, 10 Anm.; 290, 140; 297, 189; 299, 170, 219).
- 9) D-d-Fenchocampheronoxim. Sm. $54-56^\circ$ (A. 302, 384).
- 10) D-l-Fenchocampheronoxim. Sm. $69-71^\circ$ (A. 300, 316; 302, 383).

- C₉H₁₅ON** 11) Oxim d. Camphenylon. Sm. 105—106° (C. 1897 [1] 1056).
 12) Oxim d. Keton C₉H₁₄O (B. 20, 2963).
 13) Oxim d. Keton C₉H₁₄O (aus 3-Keto-1-Methyl-R-Pentamethylen). Sm. 85—87° (B. 29, 1601).
 14) Trimethylphenylammoniumhydrat. Salze, siehe diese (Bl. 7, 448; B. 14, 620; J. r. 13, 448; A. 224, 352; 240, 269; J. 1882, 510; M. 4, 500; J. pr. [2] 17, 286). — II, 331.
 15) 3,4,5-Triäthylisoxazol. Sd. 214° (Soc. 59, 431). — IV, 76.
 16) Oxymethyltropidin. (2HCl, PtCl₄) (B. 25, 3124). — III, 792.
 17) Pseudopelletierin + 2H₂O (n-Methylgranatonin). Sm. 48°; Sd. 246°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), H₂SO₄ + 4H₂O (Bl. 32, 466; 36, 256; B. 25, 1602; 29, 490). — IV, 53.
 18) 2-Ketodekahydrochinolin. Sm. 151°; subl. bei 100°. HCl (B. 27, 1472). — II, 1129.
 19) Inn. Anhydrid d. Amidolauronsäure. Sm. 203° (Am. 16, 507).
 20) Inn. Anhydrid d. Dihydroamidocampholytischen Säure. Sm. 188 bis 189°; Sd. 285—287° (Am. 16, 504).
 21) Amid d. Lauronsäure. Fl. (Am. 17, 433).
 22) Amid d. Isolauronsäure. Sm. 129—130° (Bl. [3] 15, 1197).
 23) Verbindung (aus Nitropropan). Sd. 217—220° u. Zers. (J. r. 20, 498). C 59,7 — H 8,3 — O 8,8 — N 23,2 — M. G. 181.
- C₉H₁₅ON₂** 1) 1-Semicarbazon-3,5-Dimethyl-1,2,3,4-Tetrahydrobenzol. Sm. 179 bis 180° (A. 297, 165).
- C₉H₁₅OCl** 1) Chlorid d. Oktonaphtencarbonsäure. Sd. 206—208° (B. 24, 2723). — I, 521.
 2) Chlorid d. 1,2-Dimethylhexahydrobenzol-4-Carbonsäure. Sd. 110°, (Soc. 71, 170).
- C₉H₁₅OJ** 1) Verbindung (aus Phoron). Fl. (J. r. 7, 174). — I, 1013.
- C₉H₁₅O₂N** C 63,9 — H 8,9 — O 18,9 — N 8,3 — M. G. 169.
 1) Dimethyl-2-Methylphenyloxyammoniumoxydhydrat. Pikrat (B. 32, 354).
 2) Dimethyl-4-Methylphenyloxyammoniumoxydhydrat. Pikrat (B. 32, 354).
 3) Trimethyl-2-Oxyphenylammoniumhydrat. HCl + 2H₂O, (2HCl, PtCl₄), HJ + H₂O (B. 13, 246; 29, 1534; A. 293, 28). — II, 703.
 4) Trimethyl-3-Oxyphenylammoniumhydrat + ½H₂O. Sm. 110—111°. Jodid (B. 29, 1533).
 5) Trimethyl-4-Oxyphenylammoniumhydrat (B. 13, 249; 29, 1534). — II, 716.
 6) Hydroecgonidin + ½H₂O (Dihydroanhydroecgonin). Sm. bei 200°. HCl, (2HCl, PtCl₄ + 2[½H₂O]), (HCl, AuCl₃ + 3H₂O) (B. 30, 711).
 7) Merochinen. Sm. 222° (B. 27, 904, 1501; 28, 15, 1986; 30, 1334). — III, 818.
 8) Methylscopolin. Sd. 244° u. Zers. (2HCl, PtCl₄), (HCl, AuCl₃) (C. 1896 [1] 1200; 1898 [1] 1196).
 9) Lakton d. Amidocampholaktonsäure. Sm. 39° (66° wasserfrei). HCl (Soc. 73, 566).
 10) Aethylester d. β-Cyanpentan-β-Carbonsäure. Sd. 216—222° (B. 30, 1055).
 11) Aethylester d. γ-Cyanpentan-γ-Carbonsäure. Sd. 100—101°, (Am. 18, 746).
 12) Aethylester d. δ-Cyan-β-Methylbutan-δ-Carbonsäure (A. d. α-Cyanisobutylessigsäure). Sd. 220—240° (J. 1889, 638). — I, 1220.
 13) Aethylester d. γ-Cyan-ββ-Dimethylpropan-α-Carbonsäure. Sd. 244° (Soc. 75, 53).
 14) Aethylester d. 1-Methyl-1,2,3,4-Tetrahydropyridin-3-Carbonsäure. Fl. (2HCl, PtCl₄). — IV, 60.
 15) Isoamylimid d. Aethan-αβ-Dicarbonsäure. Sd. 261—262° (C. 1895 [2] 86). C 54,8 — H 7,6 — O 16,2 — N 21,3 — M. G. 197.
- C₉H₁₅O₂N₃** 1) Semioxamazon d. 3-Keto-1-Methylhexahydrobenzol. Sm. 153—154° (B. 30, 593).
- C₉H₁₅O₂Cl** 1) Propylester d. β-Chlor-α-Penten-γ-Carbonsäure? (Pr. d. β-Chlor-α-Aethyltetrakrylsäure). Sd. 197—198° (A. 249, 316). — I, 516.

- $C_9H_{15}O_2Cl$ 2) Isobutylester d. γ -Chlor- β -Buten- β -Carbonsäure (I. d. β -Chlor- α -Methyltetraakrylsäure). Sd. 201–202° (A. [249](#), [308](#)). — [I](#), [514](#).
- $C_9H_{15}O_2Br$ 1) cis-Bromdihydrocampholytische Säure. Sm. 115° (129–130°?) (B. [28](#), [552](#); Am. [17](#), [431](#); [18](#), [689](#)).
2) cis-trans-Bromdihydrocampholytische Säure. Sm. 98–100° (B. [28](#), [552](#); Am. [17](#), [427](#)).
3) Bromdihydrolauronsäure. Sm. 133° u. Zers. (C. [1898](#) [[1](#)] 1292).
4) Verbindung (aus d. Verb. $C_9H_{15}O$). Sm. 124,5° (B. [30](#), [426](#)).
C [58,4](#) — H [8,1](#) — O [25,9](#) — N [7,6](#) — M. G. [185](#).
- $C_9H_{15}O_3N$ 1) α -Ecgonin + H_2O . Sm. 305° u. Zers. (2HCl, PtCl₄ + [5H₂O](#)), (HCl, AuCl₃ + H_2O) (B. [29](#), [2218](#)). — III, [872](#).
2) d-Ecgonin. Sm. 257° u. Zers. HCl, (HCl, AuCl₃) (B. [23](#), [470](#), [979](#); [26](#), [1491](#)). — III, [865](#).
3) l-Ecgonin + H_2O . Sm. 198° u. Zers. (140°; 205°). Ba + x H_2O , HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (B. [19](#), [3002](#); [21](#), [2351](#), [3036](#), [3197](#); [22](#), [1495](#); [25](#), [3073](#); [31](#), [2498](#); A. [133](#), [360](#); J. [1885](#), [1715](#)). — III, [864](#).
4) Methylester d. Nor-d-Ecgonin. Sm. 160° (B. [26](#), [1485](#)). — III, [863](#).
5) Aethylester d. Ecgoninsäure. Fl. (B. [24](#), [611](#)). — III, [872](#).
6) Oxymerochinen + H_2O . Sm. 254° (wasserfrei) u. Zers. HCl, (2HCl, PtCl₄) (B. [28](#), [1989](#); Bl. [[3](#)] [19](#), [432](#)). — III, [818](#).
7) Oximidopinononsäure. Sm. 178–180° (B. [29](#), [882](#)).
8) Lakton d. Hydroxylamidocampholaktonsäure. Sm. 148° (Soc. [73](#), [563](#)).
9) Aethylester d. α -Cyan- δ -Oxyvalerianmethyläthersäure. Fl. (B. [30](#), [1058](#)).
10) Monamid d. α -Penten- $\alpha\beta$ -Dicarbonsäuremonäthylester (M. d. Aethylcitronsäuremonäthylester). Sm. 78–79° (A. ch. [[5](#)] [20](#), [489](#)). — [I](#), [712](#).
11) Monamid d. α -Penten- $\delta\epsilon$ -Dicarbonsäuremonäthylester (M. d. Isopropylfumarsäuremonäthylester). Sm. 94–95° (A. ch. [[5](#)] [20](#), [491](#)). — [I](#), [1392](#).
12) Monopiperidid d. Oxalsäuremonäthylester. Sd. 288–290° (A. [237](#), [245](#)). — IV, [15](#).
C [50,7](#) — H [7,0](#) — O [22,5](#) — N [19,7](#) — M. G. [213](#).
- $C_9H_{15}O_3N_3$ 1) Triäthylester d. norm. Cyanursäure. Sm. 29°; Sd. 275° u. Zers. Hydrat + [12H₂O](#), + HgCl₂ (B. [15](#), [71](#), [513](#); [16](#), [360](#); [18](#), [3265](#); [19](#), [2075](#); R. [1](#), [195](#); [2](#), [133](#); [4](#), [91](#); [5](#), [99](#); J. pr. [[2](#)] [33](#), [131](#)). — [I](#), [1271](#).
2) Triäthylester d. Isocyanursäure. Sm. 95°; Sd. 276° (A. [109](#), [102](#); [137](#), [127](#); J. [1857](#), [273](#); [1861](#), [516](#); A. ch. [[3](#)] [42](#), [57](#); B. [18](#), [3271](#); [19](#), [2076](#); Bl. [[3](#)] [19](#), [197](#)). — [I](#), [1269](#).
3) Semicarbazon d. Norpinsäuremonaldehyd. Sm. 188–189° u. Zers. (B. [29](#), [1909](#)).
- $C_9H_{15}O_3Cl$ 1) Isobutylester d. γ -Chlor- α -Oxy- β -Buten- α -Carbonsäure (Isobutylester d. Chlorangelaktinsäure). Sd. 235–240° (B. [11](#), [1497](#)). — [I](#), [601](#).
- $C_9H_{15}O_3Cl_3$ 1) Triäthyläther d. $\alpha\alpha\gamma$ -Trichlor- $\gamma\gamma\gamma$ -Trioxypropen. Sd. 236–237° (A. [297](#), [315](#)).
- $C_9H_{15}O_3Br$ 1) Aethylester d. ζ -Brom- β -Ketohehexan- γ -Carbonsäure (Ae. d. γ -Brompropylacetyllessigsäure). Fl. (B. [18](#), [3279](#)). — [I](#), [606](#).
- $C_9H_{15}O_3B$ 1) Borsäuretriallylester. Sd. 168–175° (J. pr. [[2](#)] [18](#), [376](#); B. [26](#) [[2](#)] [573](#)). — [I](#), [345](#).
- $C_9H_{15}O_4N$ C [53,7](#) — H [7,5](#) — O [31,8](#) — N [7,0](#) — M. G. [201](#).
1) Dioxyanhydroecgonin. Zers. bei 280°. HCl (B. [25](#), [1395](#)). — III, [871](#).
2) 1-Methylhexahydropyridin-2-Methylcarbonsäure-4-Carbonsäure (Granatsäure). Sm. 240–245°. (HCl, AuCl₃) (B. [29](#), [486](#); G. [26](#) [[2](#)] [155](#)). — IV, [47](#).
3) Säure (aus Albumin). — IV, [1587](#).
4) Methylester d. β -Oxy- δ -Oximido- $\epsilon\epsilon$ -Methyl- β -Hexen- ϵ -Carbonsäure. Sm. 115° (B. [31](#), [1341](#)).
5) Dimethylester d. cis-Hexahydropyridin-2,3-Dicarbonsäure. HCl (Sm. 189–190° u. Zers.) (B. [28](#), [3159](#)). — IV, [46](#).
6) Dimethylester d. cis-trans-Hexahydropyridin-2,3-Dicarbonsäure. HCl (Sm. 166–167° u. Zers.) (B. [28](#), [3157](#)). — IV, [46](#).
7) Aethylester d. δ -Imido- δ -Oxy- β -Ketobutanäthyläther- α -Carbonsäure. HCl (B. [24](#) [[2](#)] [18](#)). — [I](#), [764](#).
8) Diäthylester d. β -Amidopropen- $\alpha\gamma$ -Dicarbonsäure (D. d. β -Amidoglutakonsäure). Sd. 157–158°_{12–13} (B. [23](#), [3762](#)). — [I](#), [1215](#).

- C₉H₁₅O₄N** 9) Diäthylester d. β -Methylamidoäthen- $\alpha\alpha$ -Dicarbonsäure. Sm. 34° (B. 28, 823).
- 10) Diäthylester d. β -Carboxylamidopropen- α -Carbonsäure (D. d. β -Carboxylamidocrotonsäure). Sm. 29° (A. 244, 235). — I, 1207.
- C₉H₁₅O₄Cl** 1) Aethylester d. α -Chlor- $\beta\beta$ -Dioxyakryldiäthyläthersäure. Sd. 226 bis 230° (A. 297, 319).
- 2) Diäthylester d. α -Chlorpropan- $\alpha\alpha$ -Dicarbonsäure (Diäthylester d. Aethylchlormalonsäure). Sd. 228° (A. 209, 232; B. 14, 618). — I, 668.
- 3) Diäthylester d. β -Chlorpropan- $\alpha\beta$ -Dicarbonsäure (Diäthylester d. Itachlorbrenzweinsäure). Sd. 250—252° u. Zers. (Z. 1866, 722). — I, 665.
- C₉H₁₅O₄Br** 1) Dimethylester d. α -Brom- $\beta\beta$ -Dimethylpropan- $\alpha\gamma$ -Dicarbonsäure. Sd. 172°₁₀ (C. 1898 [1] 1292; Soc. 75, 55).
- 2) γ -Aethylester d. α -Brom- $\beta\beta$ -Dimethylpropan- $\alpha\gamma$ -Dicarbonsäure. Sd. 240°₁₅ (C. 1898 [1] 1292; Soc. 75, 55).
- 3) Diäthylester d. α -Brompropan- $\alpha\alpha$ -Dicarbonsäure (Diäthylester d. Bromäthylmalonsäure). Sd. 125°₁₀ (B. 26, 2356).
- 4) Diäthylester d. γ -Brompropan- $\alpha\beta$ -Dicarbonsäure (Diäthylester d. Itabrombrenzweinsäure). Sd. 270—275° u. Zers. (Z. 1866, 722; A. 254, 144). — I, 665.
- 5) Diacetat d. Bromamylenglykol (J. 1861, 664).
- C₉H₁₅O₄P** 1) Triäthylester d. Phosphorsäure. Fl. (C. 1897 [1] 406).
- C₉H₁₅O₅N** C 49,8 — H 6,9 — O 36,8 — N 6,4 — M. G. 217.
- 1) Dimethylester d. γ -Oximidopentan- $\alpha\alpha$ -Dicarbonsäure. Sm. 52° (A. 253, 225). — I, 767.
- 2) Diäthylester d. α -Oxaminpropionsäure. Sd. 169—172°₁₄ (B. 30, 584).
- 3) Diacetat d. β -Nitroso- α -Oxy- β -Oxymethylbutan. Sm. 71—72° (B. 31, 224).
- 4) Verbindung (aus Camphoronsäure). Sm. 212° (B. 13, 799). — I, 1405.
- C₉H₁₅O₆N** C 46,4 — H 6,4 — O 41,2 — N 6,0 — M. G. 233.
- 1) Diacetat d. β -Nitro- α -Oxy- β -Oxymethylbutan. Sd. 168°₂₂ (B. 31, 224).
- C₉H₁₅O₆N₂** C 41,4 — H 5,7 — O 36,8 — N 16,1 — M. G. 261.
- 1) Triacetat d. 1,3,5-Trioxyhexahydro-1,3,5-Triazin. Sm. 133° (B. 29 [2] 659; Soc. 73, 357).
- C₉H₁₅O₆N₇** C 34,1 — H 4,7 — O 30,3 — N 30,9 — M. G. 317.
- 1) Triglykolamidsäurediureid (B. 5, 1013; 6, 1016).
- C₉H₁₅N₃Cl** 1) Trimethyl-4-Amidophenylammoniumchlorid. HCl (B. 30, 2861).
- 2) Chlormethylat d. 2,3,5,6-Tetramethyl-1,4-Diazin. (HCl, PtCl₄ + H₂O) (B. 20, 429). — IV, 827.
- C₉H₁₅N₃J** 1) Jodmethylat d. $\alpha\beta$ -Dimethyl- α -Phenylhydrazin. Sm. 145° (B. 27, 702). — IV, 658.
- 2) Jodmethylat d. 2,5-Dimethyl-3-Aethyl-1,4-Diazin. Sm. 236—237° u. Zers. (J. pr. [2] 47, 476). — IV, 827.
- 3) Jodmethylat d. 2,3,5,6-Tetramethyl-1,4-Diazin + 2H₂O. Sm. 216° (B. 20, 429). — IV, 827.
- C₉H₁₅N₃S₂** 1) Triäthyläther d. Trithiocyanursäure. Sm. 27°; Sd. 350° (J. pr. [2] 33, 120). — I, 1285.
- C₉H₁₅JS** 1) Triäthylsulfonjodid? (Z. 1865, 438). — I, 366.
- C₉H₁₅ON₂** C 64,3 — H 9,5 — O 9,5 — N 16,7 — M. G. 168.
- 1) 3,5-Dimethyl-1,2,3,4-Tetrahydro-1-Phenylharnstoff. Sm. 185° (A. 281, 125). — IV, 51.
- 2) 2-Keto-4-Methyl-5-Amyl-2,3-Dihydroimidazol. Sm. 243° u. Zers. (B. 30, 1517). — IV, 531.
- 3) 2-Keto-4-Methyl-5-Isoamyl-2,3-Dihydroimidazol. Sm. 271° u. Zers. (B. 30, 1520). — IV, 532.
- 4) 2-Keto-4,5-Dipropyl-2,3-Dihydroimidazol. Sm. 216° u. Zers. (B. 31, 1220).
- 5) 2-Keto-4,5-Diisopropyl-2,3-Dihydroimidazol. Sm. noch nicht bei 295° (B. 31, 1221).
- 6) 1-Nitroso-2,2,6,6-Tetramethyl-1,2,3,6-Tetrahydropyridin (Nitroso-triacetonin) (B. 17, 1790). — I, 984.
- 7) Imidotriacetonamin + H₂O. Sm. 180—181° wasserfrei. (2HCl, PtCl₄), HBr, HJ (B. 31, 672).
- 8) 1-Nitrosodekahydrochinolin. Fl. (B. 23, 1150). — IV, 55.

- C₉H₁₆ON₂** 9) Oxim d. Pseudopelletierin (Oxim d. n-Methylgranatonin). Sm. 128 bis 129°. HCl (B. 26, 156). — IV, 54.
 10) Hydroecgonidinamid. Sm. 126—127° (B. 31, 2660).
 11) Amid d. δ -Cyanheptan- δ -Carbonsäure (Dipropylecyanacetamid). Sm. 152—153° (G. 26 [1] 204).
 12) Nitril d. α -Imido- α -Oxy- β -Aethylbutanäthyläther- β -Carbonsäure. Sd. 90—91°₁₅ (Am. 18, 745).
C₉H₁₆ON₄ C 55,1 — H 8,2 — O 8,2 — N 28,5 — M. G. 196.
 1) Aethylkaffeidin. HJ (B. 14, 817). — III, 964.
 2) Dimethylkaffeidin. — III, 964.
C₉H₁₆OBr₂ 1) $\beta\delta$ -Dibrom- ϵ -Ketononan ($\alpha\gamma\gamma$ -Dibrom-norm. Diamylketon). Sm. 42° (A. 256, 133; 267, 89). — I, 1003.
C₉H₁₆OBr₄ 1) Aethyläther d. $\alpha\beta\zeta\eta$ -Tetrabrom- δ -Oxyheptan (J. r. 11, 395; J. pr. [2] 23, 273).
C₉H₁₆O₂N₂ C 58,7 — H 8,7 — O 17,4 — N 15,2 — M. G. 184.
 1) 2-Oximido-4-[α -Oximidoäthyl]-1-Methylhexahydrobenzol. α -Modif. Sm. 197—198°; β -Modif. Sm. 175—176° (B. 28, 2147).
 2) 1-Nitroso-4-Keto-2,2,6,6-Tetramethylhexahydropyridin (Nitrosotriacetamin). Sm. 72—73° (A. 185, 1; 187, 233). — I, 983.
 3) 2,4-Diketo-3-Aethyl-5-Isobutyltetrahydroimidazol (Aethylisobutylhydantoin). Sm. 135°; Sd. 295° (B. 22, 695). — I, 1312.
 4) 2,4-Diketo-5,5-Dipropyltetrahydroimidazol. Sm. 199° (G. 26 [1] 205).
 5) d-Ecgoninamid. Sm. 173°. HCl, Pikrat (B. 26, 970). — III, 865.
 6) l-Ecgoninamid. Sm. 198°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃ + 1½H₂O), HBr + H₂O, HJ + H₂O, Pikrat + H₂O (B. 26, 963). — III, 864.
C₉H₁₆O₂N₄ C 50,9 — H 7,5 — O 15,1 — N 26,4 — M. G. 212.
 1) Triäthylmelanurensäure. (2HCl, PtCl₄) (B. 18, 2789). — I, 1451.
C₉H₁₆O₂Br₂ 1) $\delta\epsilon$ -Dibrom- β -Methylheptan- η -Carbonsäure. Sm. 66° (A. 282, 355).
 2) $\alpha\beta$ -Dibrom- β -Propylpentan- α -Carbonsäure. Sm. 80—82° (102—104°?) (J. r. 22, 62). — I, 487.
C₉H₁₆O₃N₂ C 54,0 — H 8,0 — O 24,0 — N 14,0 — M. G. 200.
 1) $\beta\zeta$ -Dinitroso- δ -Keto- $\beta\zeta$ -Dimethylheptan. Sm. 132—133° (B. 31, 550, 1379).
 2) Nitrososincholoipon. Sm. 83—84°. Ca + 2H₂O (M. 9, 817). — III, 844.
C₉H₁₆O₃Br₄ 1) Di[Dibrompropyläther] d. $\alpha\beta\gamma$ -Trioxypropan. Fl. (B. 25 [2] 507).
C₉H₁₆O₄N₂ C 50,0 — H 7,4 — O 29,6 — N 13,0 — M. G. 216.
 1) Diamid d. Camphoronsäure. Sm. 160°. + C₂H₆O (Sm. 144—145°) (B. 13, 797). — I, 1405.
C₉H₁₆O₄N₄ C 44,3 — H 6,5 — O 26,2 — N 22,9 — M. G. 244.
 1) Diacetat d. $\alpha\epsilon$ -Diamido- $\alpha\epsilon$ -Dioximidopentan (D. d. Glutarendiamidoxim). Sm. 115° (B. 22, 2969). — I, 1487.
C₉H₁₆O₄S 1) 5-Keto-1,1,3-Trimethylhexahydrobenzol-3-Sulfonsäure. Na, Ba + 2H₂O (A. 299, 215).
 2) Dihydrocampherphoronsulfonsäure. Ba + 2H₂O (A. 299, 232).
C₉H₁₆O₅N₄ C 41,5 — H 6,1 — O 30,8 — N 21,5 — M. G. 260.
 1) Verbindung (aus Glykoseamidoguanidin) + 2H₂O (B. 27, 974).
C₉H₁₆O₆S 1) Sulfocamphersäure, siehe C₉H₁₄O₆S.
C₉H₁₆O₆N₄ C 35,1 — H 5,2 — O 41,5 — N 18,2 — M. G. 308.
 1) Dimethylester d. Pentamethylendi- $\alpha\epsilon$ -[Nitroamidoamelsensäure]. Sm. 37° (R. 7, 351). — I, 1256.
C₉H₁₄NCl 1) 1-Chlordekahydrochinolin. Sm. 125,5° (B. 27, 1466). — IV, 55.
 2) α -Methyltropidinhydrochlorid. Fl. (HCl, AuCl₃) (B. 24, 3119). — III, 789.
C₉H₁₄NJ 1) n-Methyljodgranatanin. HJ (Sm. 200° u. Zers.) (B. 26, 2744). — IV, 52.
C₉H₁₄N₂S 1) 2-Merkapto-4-Methyl-5-Amylimidazol. Sm. 224° (B. 30, 1516). — IV, 531.
 2) 2-Merkapto-4-Methyl-5-Isoamylimidazol. Sm. 255° u. Zers. (B. 30, 1520). — IV, 532.
 3) 2-Merkapto-4,5-Dipropylimidazol. Sm. noch nicht bei 290° (B. 31, 1220).
 4) 2-Merkapto-4,5-Diisopropylimidazol. Sm. noch nicht bei 290° (B. 31, 1221).
 5) 5-Methyl-2-[1-Hexahydropyridyl]-4,5-Dihydrothiazol (Piperylpseudothiosinamin). Sd. 277°. Pikrat (B. 24, 265). — IV, 14.

- C₉H₁₀N₂S** 6) **2,2,6-Trimethylhexahydropyridinmesothioharnstoff**. Sm. 77–78°. HCl (B. 29, 528; A. 294, 362). — IV, 485.
- 7) **Allylamid d. Hexahydropyridin-1-Thiocarbonsäure (s-Allylpiperidin-thioharnstoff)**. Fl. (B. 24, 262). — IV, 14.
- C₉H₁₀N₂S₂** 1) **Tropylamindithiocarbamat**. Sm. 194–195° u. Zers. (B. 31, 1212).
- 2) **Pseudotropylamindithiocarbamat**. Sm. 204–205° (B. 31, 1210).
- C₉H₁₀J₂S** 1) **Aethyldiallylsulfonjodid + Jodoform**. Sm. 98° (C. 1898 [2] 524).
- C₉H₁₇ON** C 69,7 — H 11,0 — O 10,3 — N 9,0 — M. G. 155.
- 1) **β-Diäthylamido-δ-Keto-β-Penten (α-Diäthylamidoäthenylaceton)**. Sd. 155 bis 156°, (Bl. [3] 7, 782). — I, 1017.
- 2) **Propionylamidohexahydrobenzol**. Sm. 88° (B. 30, 2865).
- 3) **α-Oximidopropylhexahydrobenzol**. Sm. 72–73° (B. 30, 2865).
- 4) **5-Oximido-1,1,3-Trimethylhexahydrobenzol**. Sm. 58° (A. 297, 199).
- 5) **Dihydrocamphoketonoxim**. Fl. (Soc. 73, 28).
- 6) **Oxim d. Keton C₉H₁₆O (aus Pulegensäure)**. Sm. 94° (A. 289, 357).
- 7) **Oxim d. Keton C₉H₁₆O (aus Nitrononaphten)**. Sd. 220–225° u. Zers. (B. 25 [2] 107; J. r. 25, 420). — I, 1010.
- 8) **4-Keto-2,2,6,6-Tetramethylhexahydropyridin + H₂O (Triacetamin)**. Sm. 58° (39,6° wasserfrei). HCl, (2HCl, PtCl₄ + 3H₂O), (2HCl, PtCl₃), HBr, H₂CrO₄, Oxalat (A. 174, 144; 178, 305; 181, 70; 198, 42; 201, 90; B. 16, 649; 28 [2] 160; 29, 523; 31, 668). — I, 983.
- 9) **1,6-Dimethyl-5-[α-Oxyäthyl]-1,2,3,4-Tetrahydropyridin**. Sd. 206 bis 210°, (HCl, 6HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (A. 304, 81).
- 10) **5-Oxymethyl-6-Methyl-1-Aethyl-1,2,3,4-Tetrahydropyridin?** Sd. 211°. (2HCl, PtCl₄), (HCl, AuCl₃) (A. 304, 58).
- 11) **α-Methyltropin**. Sd. 243° u. Zers. (2HCl, PtCl₄), (HCl, AuCl₃), HJ (A. 216, 332; 217, 130; B. 14, 1830, 2127, 2404). — III, 786.
- 12) **β-Methyltropin**. Sd. 198–205° u. Zers. (HCl, AuCl₃) (B. 14, 2404). — III, 786.
- 13) **γ-Methyltropin**. (2HCl, PtCl₄) (B. 15, 288). — III, 786.
- 14) **n-Methylgranatolin**. Sm. 100°; Sd. 251° (HCl, AuCl₃) (B. 26, 2741). — IV, 52.
- 15) **Methylpelletierin**. Sd. 215° (Bl. 36, 256). — IV, 53.
- 16) **Amid d. Nonaphtensäure**. Sm. 128–130° (J. r. 19, 156). — I, 1250.
- 17) **Amid d. cis-Dihydrocampholytischen Säure**. Sm. 161° (Am. 18, 689).
- C₉H₁₇ON₂** C 59,0 — H 9,3 — O 8,7 — N 22,9 — M. G. 183.
- 1) **ζ-Semicarbazon-β-Methyl-β-Hepten**. Sm. 136–138° (133,5–134°) (B. 28, 2124; C. 1896 [2] 289).
- 2) **ζ-Semicarbazon-β-Methyl-γ-Hepten**. Sm. 115° (B. 28, 2124).
- 3) **Semicarbazon-R-Oktomethylen**. Sm. 85° (B. 31, 1961).
- 4) **4-Semicarbazon-1-Aethylhexahydrobenzol**. Sm. 175–176° (C. 1996 [2] 1114).
- 5) **2-Semicarbazon-1,3-Dimethylhexahydrobenzol**. Sm. 197–198° u. Zers. (200–201°) (B. 30, 1542; C. 1897 [1] 372).
- 6) **isom. 2-Semicarbazon-1,3-Dimethylhexahydrobenzol**. Sm. 183 bis 184° u. Zers. (B. 30, 1542).
- 7) **5-Semicarbazon-1,3-Dimethylhexahydrobenzol**. Sm. 188–189° (A. 297, 164).
- 8) **Hydroecgonidinhydrazid**. Pikrat (B. 31, 2665).
- C₉H₁₇ON₃** C 51,2 — H 8,0 — O 7,6 — N 33,2 — M. G. 211.
- 1) **Triäthylammelin**. (2HCl, PtCl₄) (B. 2, 904). — I, 460.
- C₉H₁₇OCl** 1) **Chlorid d. Pelargonsäure**. Sd. 220° (J. 1850, 40).
- C₉H₁₇OJ** 1) **2-Jod-1-Oxy-1,2-Dimethyl-R-Heptamethyle** I, 255.
- C₉H₁₇O₂N** C 63,2 — H 9,9 — O 18,7 — N 8,2 —
- 1) **η-Oximido-ζ-Keto-β-Methyloktan**. 58, 398).
- 2) **p-Nitro-1,2,4-Trimethylhexahydrobenzol**. Sd. 226° u. Zers. (J. r. 25, 406).
- 3) **isom. Nitro-1,2,4-Trimethylhexahydrobenzol**. Sd. 220–226° u. Zers. (J. r. 25, 406).
- 4) **2-Oxy-4-[α-Oximidoäthyl]-1,2,4-Trimethylhexahydrobenzol**. Sd. 2143).

- C₉H₁₇O₂N** 5) 1-Oxy-4-Keto-2,2,6,6-Tetramethylhexahydropyridin (Triacetonhydroxylamin). Sm. 50—51°. HJ, Oxalat (B. 30, 231, 2735).
 6) Campherphoronoximhydrat, siehe C₉H₁₅ON.
 7) Cincholoipon. Sm. 236° u. Zers. HCl, (2HCl, PtCl₄ + 3½ H₂O), (HCl, AuCl₃) (M. 9, 809; 10, 49, 220; B. 27, 1504, 2292). — III, 844.
 8) 4-Dimethylamido-hexahydrobenzol-1-Carbonsäure + 2½ H₂O. Sm. 99—100° (218—220° zum zweiten Male). (2HCl, PtCl₄) (B. 27, 2831). — II, 1127.
 9) Amidolauronsäure. Sm. 260°. HCl, (2HCl, PtCl₄) (Am. 16, 506).
 10) Dihydroamidocampholytische Säure. HCl, (2HCl, PtCl₄), HNO₃ (B. 27, 919; Am. 16, 310, 503).
 11) α-[1-Hexahydropyridyl]buttersäure + ½ H₂O. Sm. 106—107° (153 bis 154,5° wasserfrei) (B. 31, 2842).
 12) γ-[1-Hexahydropyridyl]buttersäure. HCl, Pikrat (B. 25, 3043). — IV, 21.
 13) α-[1-Hexahydropyridyl]isobuttersäure. Sm. 160—161° (B. 31, 2843).
 14) Aethylester d. 1-Hexahydropyridylessigsäure. Sd. 209°₃₂ (B. 31, 2840).
 15) Aethylester d. 2-Amido-hexahydrobenzol-1-Carbonsäure. Sd. 148 bis 151°₃₀. HCl, (2HCl, PtCl₄) (B. 27, 2469; A. 295, 204). — II, 1127.
 16) Isoamylester d. β-Amidopropen-α-Carbonsäure (l. d. β-Amidocrotonsäure). Sd. 190—195° (i. V.) (A. 226, 319). — I, 1207.
 17) Acetat d. δ-Oximidoheptan. Fl. (B. 20, 501). — II, 1030.
 18) Acetat d. 2-[β-Oxyäthyl]hexahydropyridin. HCl (A. 301, 130).
 19) Nitril d. αγ-Dioxy-ββδ-Trimethylpentan-α-Carbonsäure? Sm. 140° (157—158°) (M. 19, 520; A. 306, 329).
 20) Amid d. ζ-Keto-β-Methylheptan-ε-Carbonsäure (A. d. Isoamylacetessigsäure). Sm. 129° (A. 257, 350). — I, 1355.
- C₉H₁₇O₂Br** 1) β-Bromoktan-α-Carbonsäure? (Bromnonylsäure). Fl. (A. 227, 83). — I, 487.
 2) Aethylester d. α-Bromhexan-α-Carbonsäure. Sd. 255° u. Zers. (B. 18, 625). — I, 487.
- C₉H₁₇O₃N** C 57,7 — H 9,1 — O 25,7 — N 7,5 — M. G. 187.
 1) Oxydihydromerochinen + 2H₂O. Sm. 254—255° (B. 30, 1335).
 2) γ-Oximido-β-Methylheptan-ζ-Carbonsäure. Sm. 67—68° (B. 31, 2893).
 3) α-Oxy-β-[1-Piperidyl]isobuttersäure. Sm. 234°. Cu (B. 28, 2221). — IV, 21.
 4) Amidocampholaktonsäure. (2HCl, PtCl₄) (Soc. 73, 566).
 5) Aethylester d. Oxyptinaminsäure. Sm. 77—77,5° (A. ch. [5] 20, 487).
 6) Monamid d. Heptan-αη-Dicarbonsäure. Sm. 170° (C. 1896 [2] 1091). C 50,2 — H 7,9 — O 22,3 — N 19,5 — M. G. 215.
- C₉H₁₇O₃N₃** 1) δ-Semicarbazon-ββ-Dimethylpentan-α-Carbonsäure. Sm. 172° u. Zers. (A. 304, 21).
 2) δ-Semicarbazon-γγ-Dimethylpentan-α-Carbonsäure. Sm. 186—187° (Soc. 73, 844; B. 30, 253, 418).
- C₉H₁₇O₄N** C 53,2 — H 8,4 — O 31,5 — N 6,9 — M. G. 203.
 1) Imidodimethylessigdimethylpropionsäure. HCl, K + 2H₂O, Zn + 1(6)H₂O, Cu + H₂O, Ag (A. 198, 72). — I, 1201.
 2) Diäthylester d. α-Methylamidoäthan-αβ-Dicarbonsäure (l. d. Methylasparaginsäure) (G. 19, 426). — I, 1212.
 3) Diacetat d. γ-Aethylamido-αβ-Dioxypropan. Sd. 189—190°₁₆ (M. 19, 581).
 4) Verbindung (aus β-Oxybuttersäurealdehyd) (Bl. 42, 1621). — I, 963. C 46,8 — H 7,3 — O 27,7 — N 18,2 — M. G. 231.
- C₉H₁₇O₄N₃** 1) Tri[Methylamid] d. β-Oxypropan-αβγ-Tricarbonsäure (Tr. d. Citronensäure). Sm. 124° (B. 19, 2614). — I, 1407.
- C₉H₁₇NBr₂** 1) 1,4-Dibrom-2,2,6,6-Tetramethylhexahydropyridin. Sm. 45° (B. 32, 665).
 2) 3,4-Dibrom-2,2,6,6-Tetramethylhexahydropyridin. HBr (B. 32, 667).
- C₉H₁₇NS** 1) sec. Oktylsenföl. Sd. 234° (232—232,5°) (B. 8, 804; 15, 1293; M. 3, 172, 173). — I, 1282.
 2) β-Rhodanoktan (sec. Oktylrhodanid). Sd. 142° (B. 8, 805). — I, 1279.
- C₉H₁₇NS₂** 1) 2-Propylhexahydropyridin-1-Dithiocarbonsäure. 2-Propylpiperidinsalz (Sm. 58—61°) (B. 31, 2690).

- $C_9H_{17}N_8$ 2) 2-Isopropylhexahydropyridin-1-Dithiocarbonsäure. Isopropylpiperidinsalz (A. 247, 77). — IV, 38.
- $C_9H_{17}N_2Cl$ 3) Coniin-N-Dithiocarbonsäure. Coniinsalz (C. 1899 [1] 430).
1) Chlormethylat d. 2-Aethyl-1-Propylimidazol (A. 214, 315). — IV, 525.
- $C_9H_{17}N_2J$ 1) Jodmethylat d. 1-Isoamylimidazol (B. 15, 651). — IV, 501.
2) Jodmethylat d. 1-Methyl-2-Isobutylimidazol. Sm. 169—170° (B. 17, 1294). — IV, 529.
3) Jodmethylat d. 2-Aethyl-1-Propylimidazol (A. 214, 315). — IV, 525.
4) 1-Jodallylat d. 2-Allyltetrahydropyrazol⁹ Sm. 102° (J. pr. [2] 50, 554).
- $C_9H_{17}N_4J$ 1) Jodallylat d. Hexamethylenetetramin. Sm. 148° u. Zers. (Bl. [3] 17, 293).
 $C_9H_{18}ON_2$ C 63,5 — H 10,6 — O 9,4 — N 16,5 — M. G. 170.
1) 4-Oximido-2,2,6,6-Tetramethylhexahydropyridin (Triacetonamin-oxim). Sm. 152—153° (B. 29, 523).
2) Verbindung (aus Nitrosotriacetonamin). HCl, (2HCl, PtCl₄) (A. 187, 242). — I, 984.
C 54,5 — H 9,1 — O 8,1 — N 28,3 — M. G. 198.
- $C_9H_{18}ON_4$ 1) Carbonyldipiperazin. 4HCl (B. 30, 1586).
- $C_9H_{18}OBr_2$ 1) βζ-Dibrom-δ-[α-Oxyäthyl]heptan. Fl. (B. 29, 2003).
- $C_9H_{18}OS_2$ 1) Isobutylester d. Oxydithioameisenisobutyläthersäure (Isobutylester d. Isobutylxanthogensäure). Sd. 247—250° (B. 5, 975). — I, 886.
C 58,0 — H 9,7 — O 17,2 — N 15,0 — M. G. 186.
- $C_9H_{18}O_2N_2$ 1) βγ-Dioximidononan. Sm. 84—85° (Soc. 55, 338). — I, 1034.
2) ζη-Dioximido-β-Methyloktan. Sm. 169—170° (G. 28 [2] 268, 278; J. pr. [2] 58, 367, 400).
3) αε-Di[Acetylamido]pentan (B. 18, 2958). — I, 1239.
4) βδ-Di[Acetylamido]pentan. Sm. 163° (B. 31, 550).
5) αβ-Di[Propionylamido]propan. Sm. 165° (B. 28, 1178).
6) Anhydrid d. βζ-Di[Oximido]-δ-Keto-βζ-Dimethylheptan (A. d. Triacetondihydroxylamin). Sm. 126—127° (B. 30, 232, 2733).
7) 4-Oximido-3-Oxamido-1,1,2-Trimethylhexahydrobenzol (Oxamidoisodihydrocampherphoronoxim). Sm. 153° (B. 30, 251).
8) Base (aus Phoron u. Hydroxylamin). Sm. 101—102°. 2HCl (B. 30, 233).
9) Amid d. α-Oxy-β-[1-Piperidyl]isobuttersäure. Sm. 153°. (2HCl, PtCl₄), (HCl, AuCl₃) (B. 28, 2222). — IV, 21.
10) Amid d. Heptan-αη-Dicarbonsäure. Sm. 172° (C. 1896 [2] 1091).
11) Di[Dimethylamid] d. Propan-αα-Dicarbonsäure. Sm. 76,5° (R. 16, 360).
12) Di[Dimethylamid] d. Propan-ββ-Dicarbonsäure (D. d. Dimethylmalonsäure). Sm. 80°; Sd. 276° u. Zers. (R. 4, 208). — I, 1386.
- $C_9H_{18}O_2S$ 1) Aethylester d. Merkaptoessigisoamyläthersäure. Sd. 230° (Bl. 23, 446). — I, 891.
- $C_9H_{18}O_3N_2$ C 53,5 — H 8,9 — O 23,8 — N 13,8 — M. G. 202.
1) α-Nitroso-α-Nitrononan (Am. 21, 235).
2) 1-[β-Nitro-δ-Oxybutyl]hexahydropyridin. Sm. 70—71° (R. 16, 197).
C 47,0 — H 7,8 — O 20,9 — N 24,3 — M. G. 230.
- $C_9H_{18}O_3N_4$ 1) Tri[β-Oximidopropyl]amin. Sm. 184,5°. Zers. bei 187° (B. 31, 2396).
 $C_9H_{18}O_4N_2$ C 49,5 — H 8,2 — O 29,3 — N 12,8 — M. G. 218.
1) αα-Dinitrononan. Na (Am. 21, 235).
2) Dinitrononan (Stickoxydpelargonsäure). NH₄, Na, K (Z. 1865, 736; A. 85, 225; 190, 300; J. pr. [2] 48, 327; [2] 50, 370; B. 26, 639). — I, 438.
3) Dimethylester d. Pentamethylendi-αε-[Amidoameisensäure]. Sm. 114° (R. 7, 350). — I, 1256.
4) Aethylester d. Hexylnitramidoameisensäure. Fl. (R. 14, 40).
5) Diäthylester d. Trimethylendi-αγ-[Amidoameisensäure]. Sm. 42°; Sd. 210°₃₀ (A. 232, 225). — I, 1256.
- $C_9H_{18}O_4S_2$ 1) 1,1-Diäthylsulfon-R-Pentamethylen (Pentanonsulfonal). Sm. 127—128° (B. 31, 338).
- $C_9H_{18}O_4S_3$ 1) Verbindung (aus Trithioaceton). Sm. 208° (B. 22, 2597). — I, 994.
 $C_9H_{18}O_5N_2$ C 46,1 — H 7,7 — O 34,2 — N 12,0 — M. G. 234.
1) Verbindung (aus Acetamid u. Methyltetrose). Sm. 201—205° (cor.) u. Zers. (B. 29, 1381).
- $C_9H_{18}O_5S_2$ 1) Glykosetrimethylenmerkaptal. Sm. 130° (B. 29, 550).

- C₉H₁₃O₆N₂** C 43,2 — H 7,2 — O 38,4 — N 11,2 — M. G. 250.
 1) Verbindung (aus d-Arabinose u. Acetamid). Sm. 187° (B. 26, 736).
 2) Verbindung (aus Lyxose u. Acetamid). Sm. 222—226° u. Zers. (B. 30, 3104).
- C₉H₁₃O₆S₃** 1) Dipropyltrimethylensulfon. Sm. 297° (B. 25, 244). — I, 945.
 2) Hexamethyltrimethylentrisulfon (Triacetonttrisulfon). Sm. 302° (B. 22, 2597; 25, 241; 27, 1673). — I, 993.
- C₉H₁₃O₇S₂** 1) δ-Keto-β₅-Dimethylheptan-β₅-Disulfonsäure (Diisobutylketondisulfonsäure). Na₂ + 2 $\frac{1}{2}$ H₂O (B. 15, 593). — I, 1013.
- C₉H₁₃NCI** 1) ζ-Chlor-δ[α-Amidoäthyl]-α-Hepten. Fl. (2HCl, PtCl₄), (HCl, AuCl₃) (A. 278, 16).
 2) Chlormethylat d. α-Conicein. 2 + PtCl₄ (B. 18, 11). — IV, 36.
 3) Chlormethylat d. Hydrotropidin. + AuCl₃ + 1 $\frac{1}{2}$ H₂O (B. 30, 725).
 4) Chloräthylat d. Diäthylamido-R-Propen. 2 + PtCl₄ (B. 30, 621).
- C₉H₁₃NBr** 1) 4-Brom-2,2,6,6-Tetramethylhexahydropyridin. Sm. 45°. HBr, (HBr, Br₂) (B. 32, 664).
 2) Bromäthylat d. Diäthylamido-R-Propen (B. 30, 621).
- C₉H₁₃NJ** 1) 4-Jod-2,2,6,6-Tetramethylhexahydropyridin. Sm. 90°. (HBr, Br₂), HJ (B. 17, 1791; 32, 665). — I, 985.
 2) Jodmethylat d. α-Conicein (B. 18, 10). — IV, 36.
 3) Jodmethylat d. Hydrotropidin + 2H₂O. Sm. noch nicht bei 300° (B. 30, 724).
- C₉H₁₃N₂S** 1) s-Allylamylthioharnstoff. Fl. (B. 24, 262). — I, 1323.
 2) 2-Thiocarbonyl-1-Aethyl-4,4,5,5-Tetramethyltetrahydroimidazol (Aethylpinakolylsulfoharnstoff). (2HCl + PtCl₄) (M. 17, 235).
 3) 2-Amylamido-5-Methyl-4,5-Dihydrothiazol. Sm. 32°; Sd. 267° (B. 24, 264). — I, 1323.
 4) 2-Aethylamido-4,4,6-Trimethyl-4,5-Dihydro-1,3-Thiazin. (2HCl, PtCl₄), Pikrat (B. 30, 1325).
 5) Propylamid d. Hexahydropyridin-1-Thiocarbonsäure (s-Propylpiperidinthioharnstoff). Sm. 75° (B. 25, 816). — II, 14.
- C₉H₁₃N₂S₂** 1) Carboisobutyraldin. Sm. 91° (B. 5, 701). — I, 948.
 2) stabil. 2,2,6-Trimethylhexahydro-4-Pyridylamidodithioameisensäure. Sm. 144—145° u. Zers. (A. 294, 359). — IV, 485.
 3) isom. stabil. 2,2,6-Trimethylhexahydro-4-Pyridylamidodithioameisensäure. Sm. 187—188° u. Zers. (B. 29, 528; A. 294, 361). — IV, 485.
 4) labil. 2,2,6-Trimethylhexahydro-4-Pyridylamidodithioameisensäure. Sm. 197—198° (A. 294, 369).
- C₉H₁₃ON** C 68,8 — H 12,1 — O 10,2 — N 8,9 — M. G. 157.
 1) α-Methylisoamylamido-β-Ketopropan. Sd. 175—176°. (2HCl, PtCl₄) (B. 29, 873).
 2) α-Dipropylamido-β-Ketopropan. Sd. 188°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (B. 29, 867).
 3) Aethyläther d. α-Oximidoheptan (Ae. d. Oenanthaldoxim). Sd. 185 bis 187° (B. 16, 2993). — I, 969.
 4) Aethyläther d. α-Imido-α-Oxyheptan (Heptenylimidomethyläther). HCl (Sm. 67°) (B. 28, 474).
 5) Isoamyläther d. α-Imido-α-Oxybutan (Butyrimidoisoamyläther). HCl (Sm. 98° u. Zers.) (PINNER, Imidoäther 30). — I, 1489.
 6) Isoamyläther d. α-Imido-α-Oxy-β-Methylpropan (Isobutyrimidoisoamyläther). HCl (PINNER, Imidoäther 30). — I, 1489.
 7) 2-[β-Oxybutyl]hexahydropyridin. Sd. 242—243° (B. 23, 2712). — IV, 40.
 8) 2-Methyl-1-[β-Oxypropyl]hexahydropyridin. Fl. (HCl, 5HgCl₂), (2HCl, PtCl₄) (A. 301, 146).
 9) 2-Methyl-1-[γ-Oxypropyl]hexahydropyridin. (2HCl, PtCl₄) (B. 17, 680). — IV, 18.
 10) 2-[β-Oxyäthyl]-1-Aethylhexahydropyridin. Sd. 232—234° (241,5° cor.). (HCl, 6HgCl₂ + 3H₂O) (A. 301, 137).
 11) 2-[β-Oxyäthyl]-5-Aethylhexahydropyridin. Sd. 170—180°, (B. 25, 2395). — IV, 41.
 12) 1,2-Dimethyl-3-[α-Oxyäthyl]hexahydropyridin. Sm. 30°; Sd. 222 bis 224°_{760,3}. (HCl, 6HgCl₂), (2HCl, PtCl₄), Pikrat (A. 304, 81).

- C₉H₁₉CN** 13) 3-Oxymethyl-2-Methyl-1-Aethylhexahydropyridin. *Sd.* 220—221°₇₈₄ (*A.* 304, 59).
 14) stab. 4-Oxy-1,2,2,6-Tetramethylhexahydropyridin (stab. Methylvinyl-diacetonalkamin). *Sd.* 225—226°₇₄₄. + 2H₂O (*Sm.* 39—40°). *HBr* (*A.* 296, 336).
 15) lab. 4-Oxy-1,2,2,6-Tetramethylhexahydropyridin (lab. Methylvinyl-diacetonalkamin). *Sm.* 70—72°; *Sd.* 220°₇₄₄ (*A.* 296, 340).
 16) 4-Oxy-2,2,6,6-Tetramethylhexahydropyridin (Triacetonalalkamin). *Sm.* 128,5°. *HCl*, (2*HCl*, *PtCl*₄), (*HBr*, *Br*₂) (*A.* 183, 309, 317; *B.* 17, 1789; 31, 1147). — *I*, 984.
 17) Pseudotriacetonalalkamin. *Sm.* 180°. (2*HCl*, *PtCl*₄ + 5H₂O) (*J.* 1882, 499; *A.* 183, 304; *B.* 17, 1792). — *I*, 984.
 18) Base (aus Campherphoronoxim). *Fl.* Oxalat (*A.* 290, 146).
 19) Amid d. Oktan- α -Carbonsäure (*A.* d. Pelargonsäure). *Sm.* 99° (92 bis 93°) (*J. r.* 6, 119; *B.* 9, 1252; 15, 984; *J. pr.* [2] 48, 326). — *I*, 1248.
 20) Amid d. Oktan- β -Carbonsäure (*A.* d. Isononylsäure). *Sm.* 105° (80 bis 81°) (*A.* 176, 308, 322). — *I*, 1248.
 21) Amid d. Säure C₉H₁₉O₂ (aus Harzessenz). *Sm.* 77—78° (*B.* 20, 1023). — *I*, 1248.
 22) Dimethylamid d. Hexan- α -Carbonsäure (*D.* d. Oenanthsäure). *Sd.* 242,5—243,5°_{758,5} (*R.* 6, 248). — *I*, 1248.
 23) Aethylamid d. Hexan- α -Carbonsäure (*Ac.* d. Oenanthsäure). *Sm.* 5 bis 6°; *Sd.* 267,5—268,5°₇₆₇ (*R.* 6, 248). — *I*, 1248.
 24) Diäthylamid d. β -Methylpropan- β -Carbonsäure (*D.* d. Trimethylessigsäure). *Sd.* 203° (*R.* 6, 243). — *I*, 1247.
- C₉H₁₉OCl** 1) Verbindung (aus Oenanthol). *Fl.* (*Z.* 1870, 75). — *I*, 956.
C₉H₁₉O₄N C 62,4 — H 11,0 — O 18,5 — N 8,1 — *M. G.* 173.
 1) α -Nitrononan. *Sd.* 215—218° u. Zers. *Na* (*Ann.* 21, 233).
 2) α -Oximido- γ -Oxy- $\beta\beta\epsilon$ -Trimethylhexan. *Sd.* 150—152°₇₀ (*M.* 19, 74).
 3) β -Amidopelargonsäure. *HCl* (*B.* 27, 176).
 4) α -Triäthylamidopropionsäure. (2*HCl*, *PtCl*₄), *HBr* (*Bl.* [3] 2, 142). — *I*, 1195.
 5) Aethylester d. Hexylamidoameisensäure. *Sd.* 232—234° (*R.* 14, 39).
 6) sec. Oktylester d. Amidoameisensäure. *Sm.* 54—55°; *Sd.* 230—232° (*A. ch.* [6] 8, 431). — *I*, 1254.
- C₉H₁₉O₂Cl** 1) Dipropyläther d. β -Chlor- $\alpha\alpha$ -Dioxypropan. *Sd.* 203°₇₅₅ (*Bl.* [3] 15, 14).
C₉H₁₉O₂N C 57,1 — H 10,0 — O 25,4 — N 7,4 — *M. G.* 189.
 1) Aethylpiperidinbetain. Chlorid (*J. pr.* [2] 43, 373). — *IV*, 20.
- C₉H₁₉O₃Br** 1) Triäthyläther d. β -Brom- $\alpha\alpha\beta$ -Trioxypropan. *Sd.* 103—104°₁₄ (*B.* 30, 3056).
- C₉H₁₉O₄P** 1) Acetat d. Oxyönanthylphosphorigen Säure. *Fl.* (*A. ch.* [6] 23, 320). — *I*, 1505.
- C₉H₁₉NCl₂** 1) Triäthyl- β -Chlorallylammoniumchlorid. 2 + *PtCl*₄ (*Bl.* 39, 521). — *I*, 1142.
 2) Triäthyl- γ -Chlorallylammoniumchlorid. 2 + *PtCl*₄ (*Bl.* 39, 521). — *I*, 1142.
- C₉H₁₉NBr₂** 1) Triäthylbromallylammoniumbromid (*B.* 30, 621).
C₉H₁₉NS₂ 1) Thiacetoin (*A.* 111, 311). — *I*, 985.
C₉H₂₀ON₂ C 62,8 — H 11,6 — O 9,3 — N 16,3 — *M. G.* 172.
 1) s-Diisobutylharnstoff. *Sm.* 135—136° (*Soc.* 67, 560).
 2) s-sec. Dibutylharnstoff. *Sm.* 137—138° (*Soc.* 67, 560).
 3) s-Dipseudobutylharnstoff. *Sm.* 242° (*B.* 12, 1875; *R.* 14, 16). — *I*, 1299.
 4) Isobutylpseudobutylharnstoff. *Sm.* 163° (*B.* 12, 1875). — *I*, 1299.
 5) Tetraäthylharnstoff. *Sd.* 205° (210—215°) (*J.* 1862, 335; *A.* 104, 200; 214, 275; *B.* 8, 1664; 14, 747). — *I*, 1299.
 6) $\beta\epsilon$ -Diamido- δ -Keto- $\beta\epsilon$ -Dimethylheptan (Triacetondiamin). *Sd.* 95°₁₂. 2*HCl*, (2*HCl*, *ZnCl*₂), (2*HCl*, *PtCl*₄), Oxalat, Dioxalat (*J.* 1886, 714; *A.* 203, 336; *B.* 30, 2733; *C.* 1898 [2] 951). — *I*, 985.
 7) α -Amido- α -Oximido- β -Methyloktan (Nonenylamidoxim). *Sm.* 84° (*B.* 24, 3355). — *I*, 1485.
 8) β -Diäthylamido- γ -Oximido- β -Methylbutan. *Sm.* 71—72° (*A.* 241, 304). — *I*, 1231.
 9) α -Dipropylamido- β -Oximidopropan. *Fl.* (*B.* 29, 868).

- $C_9H_{10}ON_4$ C 54,0 — H 10,0 — O 8,0 — N 28,0 — M. G. 200.
 1) β -Semicarbazon- α -Dipropylamidoäthan. Sm. 147° (B. 30, 1511).
- $C_9H_{20}O_2N_2$ C 57,4 — H 10,6 — O 17,0 — N 14,9 — M. G. 188.
 1) α -Methylnitramidooktan. Sd. 164,5°_{17,5} (B. 14, 240).
- $C_9H_{20}O_2N_4$ C 50,0 — H 9,3 — O 14,8 — N 25,9 — M. G. 216.
 1) Oenanthyldendiharnstoff (Oenanthodiureid). Sm. 166° u. Zers. (A. 151, 186). — I, 1314.
- $C_9H_{20}O_3N_2$ C 52,9 — H 9,8 — O 23,5 — N 13,7 — M. G. 204.
 1) β -Di[Hydroxylamido]- δ -Keto- β -Dimethylheptan (Triacetondihydroxylamin). Sd. 135°₂₀. HCl, Oxalat (B. 30, 2731).
 2) isom. β -Di[Hydroxylamido]- δ -Keto- β -Dimethylheptan. Sm. 110 bis 111° (C. 1898 [2] 526).
 3) isom. β -Di[Hydroxylamido]- δ -Keto- β -Dimethylheptan. Sm. 105° (C. 1898 [2] 526, 527).
- $C_9H_{20}O_4S_2$ 1) β -Di[Aethylsulfon]pentan (Diäthylsulfonmethylpropylmethan). Sm. 86° (B. 19, 2809). — I, 997.
 2) $\gamma\gamma$ Di[Aethylsulfon]pentan (Diäthylsulfondiäthylmethan). Sm. 85° (H. 14, 64). — I, 997.
 3) Di[Isobutylsulfon]methan. Sm. 85° (B. 23, 3231). — I, 351.
 4) Arabinoseäthylmerkaptal (Diäthyläther d. Dimerkaptoarabinose). Sm. 124—126° (B. 27, 677).
- $C_9H_{20}O_6S_4$ 1) $\alpha\beta\beta$ -Tri[Aethylsulfon]propan (Aethylsulfonsulfonal). Sm. 137° (B. 23, 3239; 24, 168). — I, 353.
- $C_9H_{20}NCl$ 1) Triäthylallylammoniumchlorid. 2 + PtCl₄ (J. 1881, 408). — I, 1142.
 2) Chloräthylat d. 1-Aethylhexahydropyridin. 2 + PtCl₄ (A. ch. [3] 38, 97). — IV, 7.
- $C_9H_{20}NBr$ 1) Triäthylallylammoniumbromid. (J. 1881, 408; B. 30, 620). — I, 1142.
- $C_9H_{20}NBr_3$ 1) Triäthyl- $\beta\gamma$ -Dibrompropylammoniumbromid. + Br₂ (B. 30, 620; 31, 1154).
- $C_9H_{20}NJ$ 1) Jodmethylat d. 1,2,3,5-Tetramethyltetrahydropyrrol (A. 278, 15). — IV, 30.
 2) Jodmethylat d. ϵ -Dimethylamido- α -Hexen. Sm. 199—200° (A. 264, 326). — I, 1145.
 3) Jodmethylat d. ζ -Dimethylamido- α -Hexen. Sm. 126—129° (A. 264, 342). — I, 1145.
 4) Jodmethylat d. ϵ -Dimethylamido- β -Hexen. Sm. 187° (B. 23, 1549). — IV, 26.
 5) Jodäthylat d. 1-Aethylhexahydropyridin (A. ch. [3] 38, 97; B. 14, 660). — IV, 7.
- $C_9H_{20}N_2S$ 1) Oktylthioharnstoff. Sm. 114° u. Zers. (M. 3, 173; B. 8, 804). — I, 1321.
 2) s -Diisobutylthioharnstoff. Sm. 87—88° (Soc. 63, 319). — I, 1321.
 3) s -sec. Dibutylthioharnstoff. Sm. 100—101° (Soc. 63, 320). — I, 1321.
 4) s -tert. Dibutylthioharnstoff. Sm. 162° (J. r. 11, 180). — I, 1321.
 5) Tetraäthylthioharnstoff. Sd. 216° (B. 14, 2758). — I, 1320.
 6) $\alpha\beta\beta$ -Aethyldipropylthioharnstoff. Sm. 34—34,5° (B. 26, 1686).
- $C_9H_{20}N_4S_2$ 1) Oenanthyldendithioharnstoff (Oenanthodithioureid) (B. 11, 833). — I, 1330.
- $C_9H_{20}JP$ 1) Triäthylallylphosphoniumjodid (A. Spl. 1, 52). — I, 1506.
- $C_9H_{21}ON$ C 67,9 — H 13,2 — O 10,1 — N 8,8 — M. G. 159.
 1) α -Dipropylamido- β -Oxypropan (Oxyisopropyldipropylamin). (2 HCl, PtCl₄) (B. 16, 532). — I, 1175.
 2) Diisobutylamidooxymethan. Fl. (Bl. [3] 13, 155).
- $C_9H_{21}O_2N$ C 61,7 — H 12,0 — O 18,3 — N 8,0 — M. G. 175.
 1) Oxyallyltriäthylammoniumhydrat? Chlorid (J. 1881, 510). — I, 1176.
 2) Diäthyläther d. β -Methyläthylamido- $\alpha\alpha$ -Dioxyäthan. Sd. 170—180°. (2 HCl, PtCl₄), (HCl, AuCl₃) (B. 30, 1507).
 3) Verbindung (aus Triacetonhydroxylamin). Sm. 56—57°; Sd. 225—235°. HCl (B. 30, 2737).
- $C_9H_{21}O_3N$ C 56,5 — H 11,0 — O 25,1 — N 7,3 — M. G. 191.
 1) α -Trimethylamido-norm. Capronsäure (Trimethylleucin). (2 HCl, PtCl₄ + H₂O), (HCl, AuCl₃), HJ (G. 13, 353). — I, 1202.
- $C_9H_{21}O_3P$ 1) Tripropylester d. Phosphorigen Säure. Sd. 240° u. Zers. + PtCl₄ (J. 1887, 612; A. 256, 283). — I, 338.
- $C_9H_{21}O_3Al$ 1) Aluminiumtripropylat. Sm. bei 60°; Sd. 255°₁₅ (Am. 19, 601).

- $C_9H_{21}O_3B$ 1) Tripropylester d. Borsäure. *Sd.* 172—175° (*J.* 1874, 498). — I, 344.
2) Triisopropylester d. Borsäure. *Sd.* 140° (*J. pr.* [2] 18, 389). — I, 344.
3) Diäthylisoamylester d. Borsäure. *Sd.* 173—175° (*A. Spl.* 5, 193). — I, 345.
- $C_9H_{21}O_4P$ 1) Tripropylester d. Phosphorsäure. *Fl.* (*Bl.* 48, 111). — I, 342.
- $C_9H_{21}O_5N_2$ 1) ? Verbindung (Ptomain) (*Bl.* [3] 7, 333).
- $C_9H_{21}Cl_8$ 1) Methyläthylhexylsulfenchlorid. + 3 u. 6 HgCl₂ (*B.* 31, 2286).
2) Methyl-diisobutylsulfenchlorid. + 2 u. 6 HgCl₂ (*B.* 31, 2287).
- $C_9H_{21}Br_8Si$ 1) Siliciumtripropylbromid. *Sd.* 213° (*B.* 14, 1875). — I, 1520.
- $C_9H_{21}JS$ 1) norm. Tripropylsulfanjodid (*A. ch.* [5] 10, 47). — I, 360.
2) Methyl-sec. Dibutylsulfanjodid (*B.* 7, 1289). — I, 362.
- $C_9H_{21}JSn$ 1) Zinn-norm. Tripropyljodid. *Sd.* 269—270° (*J.* 1873, 519; *Bl.* 34, 475). — I, 1529.
2) Zinntriisopropyljodid. *Sd.* 256—258° (*Bl.* 34, 476). — I, 1529.
- $C_9H_{21}ON_2$ C 62,0 — H 12,6 — O 9,2 — N 16,1 — M. G. 174.
1) β'-Diamido-δ-Oxy-β'-Dimethylheptan (Triacetondialkadiamin). *Sm.* 98—99° (104—106°); *Sd.* bei 205—210° (247—249°) (*B.* 30, 2735; *C.* 1898 [2] 157, 951).
- $C_9H_{21}OSi$ 1) Tripropylsilicol. *Sd.* 205—208° (*B.* 14, 1875; *A.* 222, 366). — I, 1520.
- $C_9H_{21}OSn$ 1) Zinn-norm. Tripropyloxydhydrat (*Bl.* 34, 475). — I, 1529.
- $C_9H_{22}O_2N_4$ C 49,5 — H 10,1 — O 14,7 — N 25,7 — M. G. 218.
1) Verbindung (aus Aethylisocyanid). *Sm.* 112° (*Bl.* 11, 221). — I, 1483.
- $C_9H_{22}NCl$ 1) Triäthylpropylammoniumchlorid. 2 + PtCl₄ (*A.* 121, 138). — I, 1130.
- $C_9H_{22}NJ$ 1) Triäthylpropylammoniumjodid (*A.* 121, 136). — I, 1130.
- $C_9H_{22}N_2S_2$ 1) Diäthylamidodithioamelsensaures Diäthylamin. *Fl.* (*B.* 14, 2756). — I, 1261.
- $C_9H_{22}ClP$ 1) Triäthylpropylphosphoniumchlorid. 2 + PtCl₄ (*Soc.* 53, 720). — I, 1503.
- $C_9H_{22}O_2N$ C 55,9 — H 11,9 — O 24,9 — N 7,2 — M. G. 193.
1) Diäthyläther d. Trimethyl-ββ-Dioxyäthylammoniumhydrat (Trimethylamidoacetal). Salze siehe (*B.* 17, 1141; 26, 468, 803). — I, 1230.
- $C_9H_{22}O_4P$ 1) Trihydroxypropylidenphosphoniumhydrat. *Fl.* (*A. ch.* [6] 2, 28). — I, 941.
- $C_9H_{24}N_4Cl_2$ 1) Hexamethyltrimethylendiammoniumchlorid. + PtCl₄, + 2 AuCl₃ (*B.* 14, 1352; *A.* 268, 179). — I, 1156.
- $C_9H_{24}N_4Br_2$ 1) Hexamethyltrimethylendiammoniumbromid + H₂O (*B.* 14, 1351; *A.* 268, 179). — I, 1156.
- $C_9H_{24}N_4Br_6$ 1) Hexamethyltrimethylendiammoniumhexabromid. *Sm.* 163° (*A.* 268, 180). — I, 1156.
- $C_9OCl_6Br_2$ 1) 2,3,4,5,6,7-Hexachlor-2,3-Dibrom-1-Keto-2,3-Dihydroinden. *Sm.* 148—149° (*A.* 272, 268). — III, 159.
- $C_9O_2Br_4S_2$ 1) Verbindung (aus Tetrabromthiophen). *Sm.* noch nicht bei 310° (*B.* 24, 1348). — III, 740.

C₉-Gruppe mit vier Elementen.

- $C_9H_3ONCl_4$ 1) 5,5,7,8-Tetrachlor-6-Keto-5,6-Dihydrochinolin. *Sm.* 82—83° (*A.* 264, 221; 290, 334). — IV, 278.
2) 5,6,7,7-Tetrachlor-8-Keto-7,8-Dihydrochinolin. (2HCl, PtCl₄) (*B.* 21, 2938). — IV, 278.
- $C_9H_3ONBr_4$ 1) ?-Tetrabrom-4-Oxychinolin (Tetrabromkynurin) (*H.* 4, 89). — IV, 269.
- $C_9H_3O_2NCl_2$ 1) 7,8-Dichlor-5,6-Diketo-5,6-Dihydrochinolin. *Sm.* 180°. HCl + H₂O (*A.* 290, 366). — IV, 291.
- $C_9H_3O_2NCl_4$ 1) Tetrachloroxykynurin. *Sm.* 179° (*H.* 7, 399). — IV, 270.
- $C_9H_3O_2N_2Br_3$ 1) 3,6,8-Tribrom-5-Nitrochinolin. *Sm.* 215° (*J. pr.* [2] 42, 243; [2] 51, 485). — IV, 267.
2) 3,5,8-Tribrom-6-Nitrochinolin? *Sm.* 195—196° (*J. pr.* [2] 51, 495).
3) 4,6,8-Tribrom-? Nitrochinolin. *Sm.* 157° (*J. pr.* [2] 42, 338). — IV, 267.
4) isom. 4,6,8-Tribrom-? Nitrochinolin. *Sm.* 197° (*J. pr.* [2] 42, 338). — IV, 267.

- $C_8H_5O_2NCl_2$ 1) 7,7-Dichlor-5,6,8-Triketo-5,6,7,8-Tetrahydrochinolin. HCl + $4H_2O$ (A. 290, 341).
- $C_8H_5O_2NBr_2$ 1) 2-Dibrom-6-Nitro-1,2-Benzpyron. Sm. 271° (B. 20, 2110). — II, 1632.
- $C_8H_4ONCl_2$ 1) 5,7,8-Trichlor-6-Oxychinolin. Sm. 244° . HCl + H_2O (A. 264, 215). — IV, 277.
- 2) 5,6,7-Trichlor-8-Oxychinolin. Sm. $213-214^\circ$. ($2HCl$, $PtCl_4 + 2H_2O$) (B. 21, 2981; J. pr. [2] 52, 547). — IV, 277.
- 3) 2-Trichlor-2-Oxychinolin. Sm. 200° (J. pr. [2] 29, 300). — IV, 277.
- 4) 5,5,7-Trichlor-6-Keto-5,6-Dihydrochinolin. Sm. $105-106^\circ$. HCl (A. 264, 216). — IV, 278.
- 5) 6,7,7-Trichlor-8-Keto-7,8-Dihydrochinolin. Sm. 98° ; Zers. bei 170° . HCl + $2H_2O$ (B. 21, 2983). — IV, 277.
- $C_8H_4ONCl_2$ 1) 5,5,6,7,7-Pentachlor-8-Keto-5,6,7,8-Tetrahydrochinolin. ($2HCl$, $PtCl_4$) (B. 21, 2988). — IV, 278.
- $C_8H_4ONBr_2$ 1) 2,3,2-Tribrom-1-Oximidoinden. Sm. $217-218^\circ$ u. Zers. (A. 247, 143). — III, 168.
- 2) 2-Tribrom-4-Oxychinolin (Tribromkynurin) (H. 4, 91). — IV, 269.
- 3) 3,5,7 [oder 3,5,8]-Tribrom-6-Oxychinolin. Sm. 257° (J. pr. [2] 52, 537). — IV, 281.
- 4) 3,5,7-Tribrom-8-Oxychinolin. Sm. $169-170^\circ$ (J. pr. [2] 42, 342; [2] 52, 545; [2] 54, 381). — IV, 281.
- 5) 2-Tribrom-2-Oxychinolin. Sm. 218° (M. 10, 706). — IV, 281.
- C_8H_4OClBr 1) 2-Chlor-3-Brom-1-Ketoinden. Sm. 105° (A. 247, 148). — III, 168.
- $C_8H_4OCl_2Br_2$ 1) 2,3-Dichlor-2,3-Dibrom-1-Keto-2,3-Dihydroinden. Sm. $125-126^\circ$ (B. 20, 2055; A. 247, 145). — III, 159.
- C_8H_4OBrJ 1) 2-Brom-3-Jod-1-Ketoinden. Sm. 163° (A. 247, 147). — III, 168.
- $C_8H_4O_2NCl_2$ 1) Nitril d. 2,4,6-Trichlor-3-Acetoxybenzol-1-Carbonsäure. Sm. $82-83^\circ$ (B. 32, 123).
- $C_8H_4O_2NBr_2$ 1) Nitril d. 2,4,6-Tribrom-3-Acetoxybenzol-1-Carbonsäure. Sm. $156-158^\circ$ (B. 32, 122).
- $C_8H_4O_2N_2Cl_2$ 1) 5,7-Dichlor-8-Nitrochinolin. Sm. $168,5^\circ$. ($2HCl$, $PtCl_4$) (J. pr. [2] 51, 418). — IV, 265.
- $C_8H_4O_2N_2Br_2$ 1) 6,7-Dibrom-5-Nitrochinolin. Sm. 165° . ($2HCl$, $PtCl_4$) (J. pr. [2] 53, 35). — IV, 267.
- 2) 6,8-Dibrom-5-Nitrochinolin. Sm. 159° . ($2HCl$, $PtCl_4$) (J. pr. [2] 40, 378; [2] 51, 478). — IV, 267.
- 3) 5,8-Dibrom-6-Nitrochinolin. Sm. 155° . HCl, ($2HCl$, $PtCl_4$) (J. pr. [2] 40, 376; [2] 51, 491). — IV, 267.
- 4) 5,6-Dibrom-8-Nitrochinolin. Sm. 152° . ($2HCl$, $PtCl_4$) (J. pr. [2] 53, 29). — IV, 267.
- 5) 5,7-Dibrom-8-Nitrochinolin. Sm. 198° . ($2HCl$, $PtCl_4$) (J. pr. [2] 50, 32). — IV, 267.
- 6) 6,7-Dibrom-8-Nitrochinolin. Sm. 191° . ($2HCl$, $PtCl_4$) (J. pr. [2] 53, 33). — IV, 267.
- 7) 2,7-Dibrom-2-Nitrochinolin. Sm. 180° (J. pr. [2] 43, 502). — IV, 267.
- 8) 4,8-Dibrom-2-Nitrochinolin (J. pr. [2] 42, 236). — IV, 267.
- $C_8H_4O_2ClBr$ 1) 2-Chlor-2-Brom-1,3-Diketo-2,3-Dihydroinden. Sm. $146-147^\circ$ (B. 20, 3227; 21, 501, 2391; 27, 740; A. 247, 150). — III, 275.
- $C_8H_4O_2NCl$ 1) 7-Chlor-6-Oxy-5,8-Diketo-5,8-Dihydrochinolin (Chloroxychinolin-chinon). Sm. bei 280° u. Zers. Na, Anilinsalz (A. 264, 226; 290, 332, 336, 370). — IV, 279.
- $C_8H_4O_2ClP$ 1) 2-Oxybenzol-1-Carbonsäurephosphorigsäurechlorid. Sm. $36-37^\circ$; Sd. 127°_{11} (A. 239, 301). — II, 1497.
- $C_8H_4O_2N_2Br$ 1) 3-Brom-5,7-Dinitrochinolin. Sm. 161° (J. pr. [2] 53, 209). — IV, 266.
- 2) 3-Brom-5,8-Dinitrochinolin. Sm. 152° (J. pr. [2] 53, 200). — IV, 267.
- 3) 3-Brom-6,8-Dinitrochinolin. Sm. 120° (J. pr. [2] 53, 206). — IV, 267.
- $C_8H_4O_2N_4Br_2$ 1) Verbindung (aus Malyloreidsäure) (A. ch. [5] 11, 408). — I, 1383.
- $C_8H_4ONCl_2$ 1) 2,3-Dichlor-1-Oximidoinden. Sm. 120° (B. 20, 1270). — III, 168.
- 2) 2-Dichlor-2-Oxychinolin. Sm. 249° (B. 15, 1425). — IV, 277.
- 3) 5,7-Dichlor-6-Oxychinolin. Sm. 217° . HCl + $2H_2O$, ($2HCl$, $PtCl_4$) (A. 264, 213; 290, 333). — IV, 276.
- 4) 5,7-Dichlor-8-Oxychinolin. Sm. 179° . ($2HCl$, $PtCl_4 + 2H_2O$) (J. pr. [2] 54, 387; [2] 56, 282; B. 21, 2980). — IV, 277.
- 5) 5-Chlor-2-Chloroxychinolin. Sm. 155° (A. 243, 357). — IV, 276.

- $C_9H_5ONCl_2$ 6) 6-Chlor-2-Chloroxychinolin. Sm. 145° (A. 243, 354). — IV, 276.
7) Verbindung (aus Benzoylamidoessigsäure) (A. 112, 66; B. 19, 1171). — II, 1185.
- C_9H_5ONCl 1) 5,5,7,8-Tetrachlor-6-Keto-5,6,7,8-Tetrahydrochinolin + H₂O. Zers. bei 180° (A. 264, 227; 290, 333). — IV, 279.
- $C_9H_5ONBr_2$ 1) 2,3-Dibrom-1-Oximidoinden. Sm. 198° u. Zers. (A. 247, 142). — III, 168.
2) 6,8-Dibrom-5-Oxychinolin. Zers. bei 130—140° (J. pr. [2] 53, 336). — IV, 281.
3) 5,7-Dibrom-8-Oxychinolin. Sm. 196°. HBr, (HBr, Br₂) (J. pr. [2] 44, 449; [2] 52, 540; [2] 54, 379; [2] 56, 390; B. 14, 1367; 20, 2694; M. 3, 543). — IV, 281.
- C_9H_5ONBr 1) 2,2,3,3-Tetrabrom-1-Oximido-2,3-Dihydroinden. Sm. 214° (A. 247, 143). — III, 159.
2) Dibromid d. 5,7-Dibrom-8-Oxychinolin. HBr (Sm. 180—185°) (J. pr. [2] 52, 542). — IV, 281.
- $C_9H_5ON_2Cl_2$ 1) p-Trichlor-4-Oxy-2-Methyl-1,3-Benzdiazin. Sm. 206—207° (J. pr. [2] 42, 354). — IV, 901.
- $C_9H_5O_2NCl_2$ 1) 5,7-Dichlor-2,8-Dioxychinolin. Sm. 278° (B. 21, 2986). — IV, 289.
2) 7,8-Dichlor-5,6-Dioxychinolin. HCl + H₂O (A. 290, 368). — IV, 291.
3) Nitril d. 3,5-Dichlor-4-Acetoxybenzol-1-Carbonsäure. Sm. 93° (B. 29, 2358).
- $C_9H_5O_2NCl$ 1) Tetrachlorbilirubin (J. 1875, 882). — III, 662.
- $C_9H_5O_2NBr_2$ 1) Dibromid d. inn. Anhydrid d. 1- α -Oximidoäthylbenzol-2-Carbonsäure. Sm. 223—223,5° (B. 16, 1996). — II, 1650.
2) Nitril d. 3,5-Dibrom-4-Acetoxybenzol-1-Carbonsäure. Sm. 150° (B. 29, 2358).
- $C_9H_5O_2NJ_2$ 1) Nitril d. 3,5-Dijod-4-Acetoxybenzol-1-Carbonsäure. Sm. 198° (B. 29, 2358).
- $C_9H_5O_2N_2Cl$ 1) 2-Chlor-5-Nitrochinolin. Sm. 130° (J. pr. [2] 53, 395). — IV, 264.
2) 6-Chlor-5-Nitrochinolin. Sm. 129°. HCl, (2HCl, PtCl₄), HNO₃ (J. pr. [2] 49, 359). — IV, 264.
3) 8-Chlor-5-Nitrochinolin. Sm. 145°. (2HCl, PtCl₄) (J. pr. [2] 45, 540; [2] 48, 145). — IV, 265.
4) 5-Chlor-8-Nitrochinolin. Sm. 184°. (2HCl, PtCl₄) (J. pr. [2] 48, 256). — IV, 264.
5) 6-Chlor-8-Nitrochinolin. Sm. 158°. (2HCl, PtCl₄) (B. 20, 1381; J. pr. [2] 49, 366). — IV, 264.
6) 7-Chlor-8-Nitrochinolin. Sm. 138°. (2HCl, PtCl₄) (B. 17, 927; 18, 2941; J. pr. [2] 48, 275). — IV, 264.
7) 3-Chlor-2-Nitrochinolin. Sm. 107° (J. pr. [2] 54, 352). — IV, 264.
8) 3-Chlor-2-Nitrochinolin. Sm. 127°. HCl (J. pr. [2] 54, 352). — IV, 264.
9) Chlorid d. 3-Phenyl-1,2,4-Oxiazol-5-Carbonsäure. Sd. 153—155° (B. 22, 3137). — II, 1203.
- $C_9H_5O_2N_2Br$ 1) 4-Brom-5-Nitrochinolin. Sm. 136—137°; Sd. bei 320—330° u. ger. Zers. (2HCl, PtCl₄) (J. pr. [2] 39, 301; [2] 53, 392). — IV, 265.
2) 6-Brom-5-Nitrochinolin. Sm. 133°. (2HCl, PtCl₄) (J. pr. [2] 40, 463). — IV, 266.
3) 8-Brom-5-Nitrochinolin. Sm. 137—138°. subl. (2HCl, PtCl₄) (J. pr. [2] 48, 153; [2] 53, 203). — IV, 266.
4) 3-Brom-6-Nitrochinolin. Sm. 165° (J. pr. [2] 53, 108). — IV, 265.
5) 8-Brom-6-Nitrochinolin. Sm. 164° (J. pr. [2] 53, 207). — IV, 266.
6) 4-Brom-8-Nitrochinolin. Sm. 124°. (2HCl, PtCl₄) (J. pr. [2] 39, 301). — IV, 266.
7) 5-Brom-8-Nitrochinolin. Sm. 146°. (2HCl, PtCl₄) (J. pr. [2] 38, 392). — IV, 266.
8) 6-Brom-8-Nitrochinolin. Sm. 170°. (2HCl, PtCl₄) (J. pr. [2] 49, 527). — IV, 266.
9) 7-Brom-8-Nitrochinolin. Sm. 192°. (2HCl, PtCl₄) (J. pr. [2] 38, 389). — IV, 266.
10) 2-Brom-2-Nitrochinolin. Sm. 133° (B. 15, 1918). — IV, 265.
11) isom. 2-Brom-2-Nitrochinolin. Sm. 111° (J. pr. [2] 41, 44). — IV, 265.
12) isom. 2-Brom-2-Nitrochinolin. Sm. 146° (J. pr. [2] 41, 44). — IV, 265.

- $C_9H_5O_2N_2Br$ 13) isom. 2-Brom-*p*-Nitrochinolin. Sm. 244° (*J. pr.* [2] 41, 44). — IV, 265.
 14) isom. 5-Brom-*p*-Nitrochinolin. Sm. 126°. (2HCl, PtCl₄) (*J. pr.* [2] 38, 393). — IV, 266.
 15) isom. 7-Brom-*p*-Nitrochinolin. Sm. 142°. (2HCl, PtCl₄) (*J. pr.* [2] 38, 391). — IV, 266.
 16) *p*-Brom-5 [oder 8]-Nitroisochinolin. Sm. 173°. (2HCl, PtCl₄) (*M.* 14, 157; *J. pr.* [2] 43, 195). — IV, 302.
 17) 8-Brom-*p*-Nitroisochinolin. Sm. 140° (*J. pr.* [2] 47, 263). — IV, 302.
 18) *p*-Brom-*p*-Nitroisochinolin. Sm. 158° (*J. pr.* [2] 43, 197). — IV, 302.
- $C_9H_5O_2N_2J$ 1) Jodnitroisochinolin. Sm. 140° (*J. pr.* [2] 51, 209). — IV, 302.
- $C_9H_5O_2Cl_2Br$ 1) 1-[$\alpha\beta$ -Dichlor- β -Bromäthenyl]benzol-2-Carbonsäure. Sm. 173 bis 174° (*B.* 20, 2056). — II, 1423.
- $C_9H_5O_2N_2Cl$ 1) 7-Chlor-5 [oder 8]-Oximido-6-Oxy-8 [oder 5]-Keto-5,8-Dihydrochinolin (*A.* 290, 337). — IV, 279.
- $C_9H_5O_2N_2Br$ 1) 6-Brom-8-Nitro-5-Oxychinolin. Sm. 280° (*J. pr.* [2] 53, 538). — IV, 284.
- $C_9H_5O_2N_2S$ 1) Rhodaninroth (*J. pr.* [2] 16, 9). — I, 1228.
- $C_9H_5O_2ClBr_2$ 1) 2-[Chlordibromacetyl]benzol-1-Carbonsäure. Sm. 153° (*B.* 21, 2400). — II, 1649.
- $C_9H_5O_2Cl_2Br$ 1) 2-[Dichlorbromacetyl]benzol-1-Carbonsäure. Sm. 150° (*B.* 21, 2400). — II, 1649.
- $C_9H_5O_4NCl_2$ 1) 7,7-Dichlor-6,6-Dioxy-5,8-Diketo-5,6,7,8-Tetrahydrochinolin. Sm. bei 100°. HCl + 4H₂O (*A.* 290, 339). — IV, 290.
 2) 2,2-Dichlor-1-Oxy-3-Keto-2,3-Dihydro-4-Pyrinden-1-Carbonsäure. Sm. 105–110° (*A.* 290, 344). — IV, 238.
 3) Lakton d. 1-[$\beta\beta$ -Dichlor- β -Nitro- α -Oxyäthyl]benzol-2-Carbonsäure. Sm. 94,5° (*A.* 268, 292, 304; 278, 194, 196). — II, 1580.
- $C_9H_5O_4NBr_2$ 1) 3,4-Dibrom-5-Nitro-3,4-Dihydro-1,2-Benzpyron (Nitrocumarinbromid). Sm. 151°. — II, 1564.
 2) $\alpha\beta$ -Dibrom- β -[4-Nitrophenyl]akrylsäure. Sm. 179–180° (*A.* 212, 157).
- C_9H_5NClBr 1) 6-Chlor-4-Bromchinolin. Sm. 112°. HCl, (2HCl, PtCl₄) (*J. pr.* [2] 49, 357). — IV, 262.
- C_9H_5ONCl 1) 3-Chlor-2-Oxychinolin. Sm. 241–242° (*B.* 15, 2680). — IV, 275.
 2) 4-Chlor-2-Oxychinolin. Sm. 246° (*B.* 15, 337, 2148). — IV, 275.
 3) *p*-Chlor-2-Oxychinolin (α -Chlorchinophenol). Sm. 180° (*B.* 15, 2685). — IV, 287.
 4) 6-Chlor-5-Oxychinolin. Sm. 183–184°. (2HCl, PtCl₄) (*J. pr.* [2] 49, 365; [2] 56, 282). — IV, 276.
 5) 5-Chlor-6-Oxychinolin. Sm. 198°. subl. HCl, (2HCl, PtCl₄ + 2H₂O), H₂SO₄ (*A.* 264, 211). — IV, 276.
 6) 5-Chlor-8-Oxychinolin. Sm. 125° (129–130°). HCl, (2HCl, PtCl₄ + 2H₂O) (*J. pr.* [2] 54, 390; *B.* 21, 2979). — IV, 276.
 7) 7-Chlor-8-Oxychinolin. Sm. 145° (*J. pr.* [2] 54, 388). — IV, 276.
 8) 3-Chlor-1-Oxyisochinolin. Sm. 218–220° (*B.* 19, 2360). — IV, 304.
 9) 1-Chlor-3-Oxyisochinolin. Sm. 195–197° (*B.* 19, 2355). — IV, 304.
 10) *p*-Chlor-*p*-Oxyisochinolin. Sm. 238° (*M.* 14, 163). — IV, 304.
 11) 1-Chlor-2-Keto-1,2-Dihydrochinolin. Sm. 112° (*A.* 243, 343). — IV, 275.
 12) 5-Chlor-2-Keto-1,2-Dihydrochinolin. Sm. 287° (*A.* 243, 358). — IV, 275.
 13) 6-Chlor-2-Keto-1,2-Dihydrochinolin. Sm. 262–263° (*A.* 243, 345; 262, 165). — IV, 276.
 14) Inn. Anhydrid d. Benzoylamidoessigsäurechlorid. Sm. 40–50°; Sd. 220° (*A.* 112, 65). — II, 1184.
- $C_9H_5ONCl_2$ 1) Verbindung (aus Chloralbenzamid). Sm. 142° (*B.* 24, 1803). — II, 1194.
- C_9H_5ONBr 1) 3-Brom-2-Oxychinolin. Sm. 253° (*J. pr.* [2] 45, 49). — IV, 279.
 2) 4-Brom-2-Oxychinolin. Sm. 266° (*B.* 15, 1425, 2149, 2682). — IV, 280.
 3) 5-Brom-2-Oxychinolin. Sm. 300° (*J. pr.* [2] 43, 503). — IV, 280.
 4) 6-Brom-2-Oxychinolin. Sm. 269° (*J. pr.* [2] 43, 498). — IV, 280.
 5) 7-Brom-2-Oxychinolin. Sm. 228°; subl. (*J. pr.* [2] 43, 500). — IV, 281.
 6) 6-Brom-5-Oxychinolin. Sm. 162° (*J. pr.* [2] 53, 338). — IV, 280.
 7) 8-Brom-5-Oxychinolin. Sm. 190° u. Zers. (*J. pr.* [2] 53, 336). — IV, 281.

- C_9H_6ONBr 8) 5-Brom-6-Oxychinolin. Sm. 186°. (2HCl, PtCl₄ + 2H₂O), HBr, (HBr, Br₂) (*J. pr.* [2] 44, 439; [2] 52, 532; [2] 55, 523; *M.* 3, 553). — IV, 280.
 9) 2-Brom-7-Oxychinolin. HBr, (HBr, Br₂) (*M.* 3, 566). — IV, 281.
 10) 5-Brom-8-Oxychinolin. Sm. 124°. (2HCl, PtCl₄) (*J. pr.* [2] 44, 444). — IV, 280.
 11) 7-Brom-8-Oxychinolin. Sm. 138°; subl. (*J. pr.* [2] 54, 380). — IV, 281.
 12) 2-Brom-2-Oxychinolin. Sm. 119–120° (*B.* 20, 2694). — IV, 281.
 13) 4-Brom-5-Keto-3-Phenyl-4,5-Dihydroisoxazol. Sm. 134° u. Zers. (*J. pr.* [2] 47, 126). — IV, 306.
 14) Bromamid d. Phenylpropionsäure. K, Ag (*R.* 15, 125).
- C_9H_6ONBr , 1) Verbindung (aus d. Verb. C₁₀H₆O₂NBr₂). Sm. 237° (*B.* 17, 718). — III, 380.
- C_9H_6ONJ 1) 4-Jod-2-Keto-1,2-Dihydrochinolin. Sm. 276° (*B.* 15, 2149). — IV, 282.
- $C_9H_6ON_2Cl_2$ 1) 2-Dichlor-5-Amido-8-Oxychinolin. Zers. bei 160° (*M.* 10, 796). — IV, 912.
- $C_9H_6ON_2Br_2$ 1) 4,4-Dibrom-5-Keto-3-Phenyl-4,5-Dihydropyrazol. Sm. 189° (*J. pr.* [2] 52, 32). — IV, 905.
- $C_9H_6ON_2S_2$ 1) Monobenzoat d. 2,5-Dimerkapto-1,3,4-Thiodiazol. Sm. 220° u. Zers. (*B.* 27, 2519). — II, 1291.
- $C_9H_6ON_2Cl$ 1) 5-Keto-1-[2-Chlorphenyl]-4,5-Dihydro-1,2,4-Triazol. Sm. 257° (*C.* 1897 [1] 593).
 2) isom. 5-Keto-1-[2-Chlorphenyl]-4,5-Dihydro-1,2,4-Triazol. Sm. 152° (*C.* 1897 [1] 593).
- C_9H_6OClBr 1) Chlorid d. α -Brom- β -Phenylakrylsäure. Sd. 152,4–152,8°, (*B.* 20, 1386). — II, 1411.
- $C_9H_6O_2NCl$ 1) 4-[oder 7]-Chlor-2,3-Diketo-1-Methyl-2,3-Dihydroindol. Sm. 191° (*B.* 18, 431). — II, 1277.
 2) Nitril d. 5-Chlor-2-Acetoxybenzol-1-Carbonsäure. Sm. 79° (*C.* 1897 [2] 1075).
 3) Chlormethylimid d. Benzol-1,2-Dicarbonsäure. Sm. 132–133° (*B.* 31, 1232).
- $C_9H_6O_2NCl_2$ 1) Trichlorbilirubin (*J.* 1875, 882). — III, 662.
 2) 2-[$\beta\beta\beta$ -Trichloräthyliden]amidobenzol-1-Carbonsäure. Sm. 152° (*B.* 28, 2812).
- $C_9H_6O_2NBr$ 1) Methyläther d. 2-Brom-2-Oxy-3-Ketopseudoindol (m-Bromisatin-methyläther). Sm. 147° (*B.* 15, 2095). — II, 1606.
 2) Nitril d. 5-Brom-2-Acetoxybenzol-1-Carbonsäure. Sm. 60° (*C.* 1897 [2] 1075).
 3) Nitril d. 3-Brom-4-Acetoxybenzol-1-Carbonsäure. Sm. 100–101° (*B.* 29, 2358).
 4) Brommethylimid d. Benzol-1,2-Dicarbonsäure. Sm. 149–150° (*B.* 31, 1229).
- $C_9H_6O_2NJ$ 1) Nitril d. 5-Jod-2-Acetoxybenzol-1-Carbonsäure. Sm. 79° (*C.* 1897 [2] 1075).
- $C_9H_6O_2N_2Br_2$ 1) 4,4-Dibrom-3-Oxy-5-Keto-1-Phenyl-4,5-Dihydropyrazol. Sm. 243° (*B.* 30, 1018). — IV, 702.
 2) 6-Nitrochinolindibromid. HBr (*J. pr.* [2] 53, 108). — IV, 263.
- $C_9H_6O_2N_2S$ 1) Phenyloxallylthioharnstoff. Sm. 179°. — II, 411.
- $C_9H_6O_2N_2Cl$ 1) 3-Chlor-4-Oximido-5-Keto-1-Phenyl-4,5-Dihydropyrazol + 2H₂O. Sm. 146–147° (wasserfrei) (*B.* 31, 3009).
- $C_9H_6O_2N_2Br$ 1) 3-Bromphenylhydrazocyanessigsäure. Sm. 167° u. Zers. (*J. pr.* [2] 52, 161). — IV, 721.
- $C_9H_6O_2NCl$ 1) 7-Chlor-5,6,8-Trioxychinolin + H₂O. Sm. 225° (wasserfrei). HCl (*A.* 290, 337). — IV, 290.
 2) Aldehyd d. α -Chlor- β -[2-Nitrophenyl]akrylsäure. Sm. 112–113° (*B.* 24, 247). — III, 60.
 3) Aldehyd d. α -Chlor- β -[3-Nitrophenyl]akrylsäure. Sm. 112° (*B.* 24, 251). — III, 60.
 4) Aldehyd d. α -Chlor- β -[4-Nitrophenyl]akrylsäure. Sm. 145° (*B.* 24, 248). — III, 60.

- $C_9H_6O_3NCl$ 5) Chlorid d. β -[2-Nitrophenyl]akrylsäure. Sm. 64,5° (B. 16, 34). — II, 1414.
- $C_9H_6O_3NBr$ 1) Aldehyd d. α -Brom- β -[2-Nitrophenyl]akrylsäure. Sm. 96—97° (B. 17, 1817). — III, 60.
2) Aldehyd d. α -Brom- β -[3-Nitrophenyl]akrylsäure. Sm. bei 90° (B. 18, 485). — III, 60.
3) Aldehyd d. α -Brom- β -[4-Nitrophenyl]akrylsäure. Sm. 136° (B. 17, 1816; A. 253, 351). — III, 60.
- $C_9H_6O_3N_2Cl$ 1) 5-Keto-1-[p-Chlorphenyl]-4,5-Dihydro-1,2,4-Triazol-3-Carbonsäure. Sm. 250° (C. 1897 [1] 593). — IV, 1113.
2) isom. 5-Keto-1-[p-Chlorphenyl]-4,5-Dihydro-1,2,4-Triazol-3-Carbonsäure. Sm. 152° u. Zers. (C. 1897 [1] 593). — IV, 1113.
- $C_9H_6O_4NCl$ 1) α -Chlor- β -[2-Nitrophenyl]akrylsäure. Sm. 201—202° (B. 24, 250). — II, 1415.
2) α -Chlor- β -[3-Nitrophenyl]akrylsäure. Sm. 205—207° (B. 24, 252). — II, 1415.
3) α -Chlor- β -[4-Nitrophenyl]akrylsäure. Sm. 219—220° (224°) (B. 19, 2646; 24, 250). — II, 1416.
4) β -[5-Chlor-2-Nitrophenyl]akrylsäure. Sm. 174—175°. Ca + 1 $\frac{1}{2}$ H₂O, Ba + H₂O, Cu + 1 $\frac{1}{2}$ H₂O, Ag (A. 262, 153). — II, 1416.
5) Lakton d. β -Oxy- β -[5-Chlor-2-Nitrophenyl]propionsäure. Sm. 147° u. Zers. (A. 262, 157). — II, 1575.
6) Lakton d. 1-[β -Chlor- β -Nitro- α -Oxyäthyl]benzol-2-Carbonsäure. Sm. 127° (A. 268, 286). — II, 1579.
- $C_9H_6O_4NCl_3$ 1) Trichloräthylester d. 3-Nitrobenzol-1-Carbonsäure. Sm. 75° (B. 26, 2758). — II, 1232.
- $C_9H_6O_4NBr$ 1) α -Brom- β -[2-Nitrophenyl]akrylsäure. Sm. 211—212° (B. 24, 251). — II, 1416.
2) α -Brom- β -[3-Nitrophenyl]akrylsäure. Sm. 211—213° (B. 24, 252). — II, 1416.
3) α -Brom- β -[4-Nitrophenyl]akrylsäure. Sm. 146°. Ba (A. 212, 137). — II, 1416.
4) isom. α -Brom- β -[4-Nitrophenyl]akrylsäure. Sm. 205°. Ba (A. 212, 135; B. 24, 250). — II, 1416.
5) β -[5-Brom-2-Nitrophenyl]akrylsäure. Sm. 171° (A. 284, 148). — II, 1416.
- $C_9H_6O_4NBr_3$ 1) 2,4,6-Tribrom-3-Nitrophenylester d. Propionsäure. Sm. 70—71° (B. 18, 1175). — II, 699.
- $C_9H_6O_5NCl$ 1) α -[5-Chlor-2-Nitrophenyl]äthanoxyd- β -Carbonsäure. Sm. 156° u. Zers. K, Ca, Cu, Ag (A. 262, 148). — II, 1640.
- $C_9H_6O_5NBr$ 1) α -[5-Brom-2-Nitrophenyl]äthanoxyd- β -Carbonsäure. Sm. 156° u. Zers. (A. 284, 147). — II, 1640.
- $C_9H_6O_5N_2Cl_3$ 1) p-Dinitro-4-Methylphenylamid d. Trichloressigsäure. Sm. 141 bis 142° (B. 11, 1975). — II, 492.
- $C_9H_6O_5N_2Br_2$ 1) Verbindung (aus Malyureidsäure) (A. ch. [5] 11, 412). — I, 1384.
- $C_9H_6O_5N_2Br_3$ 1) Hexabrommalolakturil. Sm. 250° u. Zers. (A. ch. [5] 11, 406). — I, 1383.
- $C_9H_6NClBr_2$ 1) Dibromid d. 6-Chlorchinolin. HBr, Sm. 129° u. Zers. (J. pr. [2] 49, 357).
- $C_9H_7ONCl_2$ 1) 3,3-Dichlor-2-Keto-1-Methyl-2,3-Dihydroindol. Sm. 145—147° (A. 248, 116). — II, 1321.
- $C_9H_7ONBr_2$ 1) 3,3-Dibrom-2-Keto-1-Methyl-2,3-Dihydroindol. Sm. 204° u. Zers. (B. 17, 564; A. 248, 115). — II, 1321.
2) p-Dibrom-2-Keto-3-Methyl-2,3-Dihydroindol. Sm. 171° (M. 18, 536).
3) Bromamid d. α -Brom- β -Phenylakrylsäure. Sm. 188° (Bl. [3] 17, 421).
- C_9H_7ONS 1) Rhodanmethylphenylketon. Sm. 74° (B. 10, 120; A. 249, 10; 266, 326; G. 19, 426). — III, 128.
2) polym. Rhodanmethylphenylketon = (C₉H₇ONS)_x. Sm. 203—204° u. Zers. (B. 10, 120).
3) 2-Oxy-4-Phenylthiazol. Sm. 204° (B. 10, 120; A. 249, 15). — IV, 306.
4) Rhodanid d. Phenyleessigsäure (Soc. 69, 865).
- C_9H_7ONSa 1) Selencyanmethylphenylketon. Sm. 85° (A. 250, 298). — III, 129.

- $C_9H_7ON_2Cl$ 1) 3-Chlor-5-Keto-1-Phenyl-4,5-Dihydropyrazol. Sm. 143–144° (B. 31, 3008).
- $C_9H_7ON_2Cl_2$ 1) Benzimidazol + Chloral + H_2O . Sm. 75–81° (A. 272, 373). — IV, 868.
- $C_9H_7ON_2Br$ 1) 2-Brom-2-Oxy-1-Phenylpyrazol. Sm. 214° (A. 239, 200). — IV, 499.
- $C_9H_7ON_2S$ 1) 3-Nitroso-2-Phenylimido-2,3-Dihydrothiazol. Sm. 58° (A. 265, 127). — IV, 505.
- 2) 2-Nitrosimido-4-Phenyl-2,3-Dihydrothiazol (A. 261, 14). — IV, 916.
- 3) Amid d. 4-Keto-1,4-Dihydro-1,3-Benzdiazin-1-Thiocarbonsäure (B. 18, 2418). — II, 1255.
- $C_9H_7OClBr_2$ 1) Chlorid d. $\alpha\beta$ -Dibrom- β -Phenylpropionsäure (C. 1897 [2] 576).
- $C_9H_7OCl_2Br$ 1) 2,4-Dichlor-6-Bromphenylester d. Propionsäure. Sm. 31–32° (B. 25 [2] 121). — II, 675.
- $C_9H_7O_2NBr_2$ 1) Dibrombilirubin (J. 1875, 882; J. pr. [2] 53, 315). — III, 662.
- $C_9H_7O_2NS$ 1) 3-Phenyl-2,4-Dioxybenzthiazol (Phenylsenfölglykolid). Sm. 148° (143°) (A. 207, 137; B. 12, 597; 14, 1662; 15, 516; 21, 975; G. 28 [1] 366). — II, 386.
- 2) Acetat d. 1-Merkaptobenzoxazol. Sm. 120° (B. 16, 1827). — II, 710.
- 3) Acetat d. 1-Oxybenzthiazol. Sm. 60° (B. 13, 11). — II, 797.
- 4) Acetat d. 4-Oxyphenylsenföhl. Sm. 36° (B. 16, 1831). — II, 720.
- $C_9H_7O_2N_2Br$ 1) 2,5-Diketo-1-[2-Bromphenyl]tetrahydroimidazol (2 [2-Bromphenyl]-Hydantoïn). Sm. 180°. — II, 383.
- 2) 2-Bromindazol-3-Methylcarbonsäure. Sm. bei 200° u. Zers. (A. 227, 328). — IV, 891.
- $C_9H_7O_2N_2Br_2$ 1) Aethylester d. 2,4,6-Tribromdiazobenzolcarbonsäure. Sm. 72 bis 73° (B. 28, 1929). — IV, 738.
- $C_9H_7O_2N_2S$ 1) 2-[2,4-Dioxyphenyl]azothiazol (A. 249, 40). — IV, 1441.
- $C_9H_7O_2N_2Cl$ 1) 5-Chlor-3-Semicarbazon-2-Oxypseudoindol. Zers. bei 230° (B. 29, 1033).
- $C_9H_7O_2ClBr_2$ 1) α -Chlor- $\alpha\beta$ -Dibrom- β -Phenylpropionsäure. Sm. 136° (B. 16, 855). — II, 1360.
- 2) 2-Chlor-4,6-Dibromphenylester d. Propionsäure. Sm. 31,5–32° (B. 25 [2] 111). — II, 675.
- $C_9H_7O_2NCl_2$ 1) 2-Dichloracetylamidobenzol-1-Carbonsäure. Sm. 173°. Ag (B. 14, 887). — II, 1250.
- 2) 3,4-Dichlorbenzoylamidoessigsäure. Na + H_2O , Ca + 5(9) H_2O , Ba + 3 H_2O , Pb + 4 H_2O , (2Pb + PbO), Ag (A. 122, 134). — II, 1187.
- $C_9H_7O_2NS$ 1) 3,4-Dioxy-1-Rhodanacetylbenzol (Rhodanglykobrenzkatechin). Sm. 147–150° (B. 27, 1987). — III, 138.
- 2) Chinolin-5-Sulfonsäure + H_2O . Ca + 5 H_2O , Hg (B. 15, 684, 1979; 16, 721; 20, 1446). — IV, 292.
- 3) Chinolin-6-Sulfonsäure + $1\frac{1}{2}$ (2) H_2O . Sm. noch nicht bei 260°. K, Ba, Ag (B. 17, 192, 440; 22, 1391; 29, 707; M. 8, 577, 639). — IV, 292.
- 4) Chinolin-7-Sulfonsäure. Zers. oberh. 300°. Na + 3 H_2O , K + 2 H_2O , Ca + 4 H_2O , Ba + 4 H_2O , Pb, Cu + 2 H_2O (J. pr. [2] 37, 261). — IV, 293.
- 5) Chinolin-8-Sulfonsäure. Na + 5 H_2O , K + 2 H_2O , Ca + 9 H_2O , Pb, Cu + 2 H_2O (B. 15, 684, 1979; 16, 721; 19, 2882; 20, 95; J. pr. [2] 37, 260; [2] 55, 98; M. 8, 641). — IV, 293.
- 6) Isochinolin-8-Sulfonsäure + H_2O . NH_4 + H_2O , Na + 3 H_2O , K + H_2O , Ca + 2 H_2O , Ba + 9 H_2O , Pb (R. 5, 308; J. pr. [2] 45, 242; [2] 52, 3). — IV, 305.
- 7) isom. Isochinolin-2-Sulfonsäure + H_2O . Ba + 6 H_2O (R. 5, 308; J. pr. [2] 45, 242; [2] 52, 7). — IV, 305.
- $C_9H_7O_2N_2Cl$ 1) β -Chlor- γ -Oximido- α -[2-Nitrophenyl]propen. Sm. 191° (B. 24, 248). — III, 62.
- 2) β -Chlor- γ -Oximido- α -[3-Nitrophenyl]propen. Sm. 185–186° (B. 24, 251). — III, 62.
- 3) β -Chlor- γ -Oximido- α -[4-Nitrophenyl]propen. Sm. 213–215° (B. 24, 248). — III, 62.
- $C_9H_7O_2N_2Cl_2$ 1) 3-Nitro-4-Methylphenylamid d. Trichloressigsäure. Sm. 54–55° (A. 209, 363; B. 11, 1972). — II, 492.

- C₉H₇O₃N₂Br** 1) β -Brom- γ -Oximido- α -[2-Nitrophenyl]propen. Sm. 161—162° (B. 24, 248). — III, 62.
 2) β -Brom- γ -Oximido- α -[3-Nitrophenyl]propen. Sm. 199—200° (B. 24, 252). — III, 62.
 3) β -Brom- γ -Oximido- α -[4-Nitrophenyl]propen. Sm. 205—207° (B. 24, 248). — III, 62.
 4) Amidoformylamid d. 4-Brombenzol-1-Ketocarbonsäure. Sm. 186,5° (B. 28, 258). — II, 1600.
- C₉H₇O₄NBr₂** 1) $\alpha\beta$ -Dibrom- γ -[2-Nitrophenyl]propionsäure. Sm. 180° u. Zers. (B. 13, 2257). — II, 1362.
 2) $\alpha\beta$ -Dibrom- β -[4-Nitrophenyl]propionsäure. Sm. 217—218°. Ca (A. 212, 151). — II, 1362.
 3) 4,6-Dibrom-3-Nitrophenylester d. Propionsäure. Sm. 54—55° (B. 25 [2] 120). — II, 698.
 4) Acetat d. β -Dibrom-4-Nitro-2-Oxy-1-Methylbenzol. Sm. 127° (B. 26, 2352). — II, 741.
- C₉H₇O₄NS** 1) 2,3,4-Trioxy-1-Rhodanacetylbenzol (Rhodanglykopyrogallol). Sm. 196° (B. 27, 1988). — III, 139.
 2) α -Merkapto- β -[β -Nitrophenyl]akrylsäure. Sm. 240°. Ba (M. 8, 355). — II, 1638.
 3) 5-Oxychinolin-8-Sulfonsäure + H₂O. Sm. bei 300° (wasserfrei). Na + H₂O (J. pr. [2] 53, 338). — IV, 296.
 4) 6-Oxychinolin-5-Sulfonsäure + $\frac{1}{2}$ H₂O. Zers. bei 270°. Na + H₂O, Na₂ + $1\frac{1}{2}$ H₂O, K + H₂O, K₂ + $1\frac{1}{2}$ H₂O, Ca + 2H₂O, Ba + 2H₂O, Pb + $\frac{1}{2}$ H₂O, Co + $\frac{1}{2}$ H₂O, Ag (J. pr. [2] 41, 159; [2] 55, 512). — IV, 296.
 5) 7-Oxychinolin- β -Sulfonsäure + H₂O. Sm. bei 270°. Na, K, Ba (B. 16, 724). — IV, 297.
 6) 8-Oxychinolin-5-Sulfonsäure + 2H₂O. Zers. bei 270°. Na + H₂O, Na₂ + 2H₂O, K + H₂O, K₂ + 3H₂O, Ca + H₂O, Ba + H₂O (J. pr. [2] 41, 33; [2] 55, 471). — IV, 297.
 7) 8-Oxychinolin- β -Sulfonsäure + $1\frac{1}{2}$ H₂O. Sm. 275° u. Zers. K, Ba, Ag (M. 10, 798). — IV, 297.
 8) β -Oxychinolin- β -Sulfonsäure + H₂O. K + H₂O, Ca + 6H₂O, Ba + 3H₂O, BaH + 3H₂O, Cu + 4H₂O (B. 19, 997; 20, 100). — IV, 297.
 9) β -Oxychinolin- β -Sulfonsäure + H₂O. Sm. 270—275° (B. 19, 998; 20, 3200). — IV, 297.
 10) Acetylimid d. Benzol-1-Carbonsäure-2-Sulfonsäure (B. 29, 1050).
- C₉H₇O₄N₂Cl** 1) Base (aus d. Verb. C₉H₆O₄N₂Cl). Sm. 179—180° (B. 31, 1400).
- C₉H₇O₄NBr₂** 1) $\alpha\beta$ -Dibrom- β -[3-Nitro-4-Oxyphenyl]propionsäure. Sm. 70—72° (A. 243, 375). — II, 1566.
- C₉H₇O₅NS** 1) 2, β -Dioxychinolin- β -Sulfonsäure. Ba, Ag (B. 15, 2152). — IV, 299.
 2) 2,3-Imid d. 1-Methylbenzol-3,5-Dicarbonsäure-2-Sulfonsäure. Sm. 270—272° (A. 206, 183; Am. 2, 130). — II, 1847.
 3) 2,3-Methylimid d. Benzol-1,2-Dicarbonsäure-3-Sulfonsäure? Sm. 190,7—191,7° (Am. 6, 269). — II, 1824.
- C₉H₇O₅N₂Br** 1) β -Keto- α -[β -Brom- β -Dinitrophenyl]propan. Sm. 112—113° (Am. 12, 174). — III, 144.
- C₉H₇O₆NS₂** 1) α -Chinolindisulfonsäure + 3H₂O. K₂ + $3\frac{1}{2}$ H₂O, Ba + 3H₂O (B. 19, 996; 20, 98). — IV, 294.
 2) β -Chinolindisulfonsäure + $1\frac{1}{2}$ H₂O. K₂ + H₂O, Ba + 2H₂O (B. 19, 996; 20, 98, 3199). — IV, 294.
 3) γ -Chinolindisulfonsäure. Ba (B. 16, 736). — IV, 294.
- C₉H₇O₆N₂Br** 1) Aethylester d. 4-Brom-3,5-Dinitrobenzol-1-Carbonsäure. Sm. 105° (Am. 19, 16, 207).
- C₉H₇O₆NS₂** 1) 8-Oxychinolin- β -Disulfonsäure + H₂O (J. pr. [2] 41, 40). — IV, 298.
 2) 8-Oxychinolin- β -Disulfonsäure. Zers. bei 200°. K, K₂, Ba + 3H₂O, Cu₂ + 10H₂O (M. 10, 801). — IV, 298.
- C₉H₇O₆NS** 1) 5-Amid d. Benzol-1,2,4-Tricarbonsäure-5-Sulfonsäure (B. 16, 192). — II, 2010.
 2) 2-Amid d. Benzol-1,3,5-Tricarbonsäure-2-Sulfonsäure. K + 2H₂O (A. 206, 203). — II, 2011.
- C₉H₇O₆N₂Cl** 1) Methyläther d. β -Chlor- β -Trinitro-2-Acetylamido-1-Oxybenzol. Sm. 198° (B. 15, 1686). — II, 736.

- C_9H_7NClJ 1) Chinolinchlorojodid. Sm. 159,5°. HCl (*Bl.* [3] 7, 73; *B.* 18, 1613). — IV, 248.
- $C_9H_7N_8P$ 1) 4-Methylphenylidirhodanphosphin. Sd. 237—240°₄₀ (*A.* 293, 261). — IV, 1667.
- C_9H_7ONCl 1) β -Chlor- γ -Oximido- α -Phenylpropen. Sm. 157—159° (*B.* 24, 247). — III, 62.
- 2) Phenylimidechlorid d. Brenztraubensäure. Sd. 136°₈₀ (*A.* 270, 299). — II, 405.
- $C_9H_7ONCl_3$ 1) 2-[$\beta\beta\beta$ -Trichloräthyliden]amido-1-Oxymethylbenzol. Sm. 92° (*B.* 25, 2970). — II, 1062.
- 2) $\beta\beta\beta$ -Trichlor- α -Benzylidenamido- α -Oxyäthan (Benzylidenchlorammoniak). Sm. 130° (*B.* 11, 2166). — III, 37.
- 3) 2-Methylphenylamid d. Trichloressigsäure. Sm. 66—67° (*A. ch.* [6] 9, 215). — II, 461.
- 4) 4-Methylphenylamid d. Trichloressigsäure. Sm. 79—80° (102°) (*B.* 3, 784; *A. ch.* [6] 9, 216). — II, 491.
- 5) *p*-Trichlor-3-Methylphenylamid d. Essigsäure. Sm. 190—191° (*A.* 187, 279). — II, 478.
- C_9H_7ONBr 1) Hydrobrombilirubid (*A.* 181, 253). — III, 662.
- 2) β -Brom- γ -Oximido- α -Phenylpropen. Sm. 135—136° (*B.* 24, 247). — III, 62.
- 3) 3-Brom-2-Keto-1-Methyl-2,3-Dihydroindol (*A.* 248, 119). — II, 1321.
- 4) 7-Brom-2-Keto-1,2,3,4-Tetrahydrochinolin. Sm. 178° (*B.* 13, 1683). — II, 1366.
- 5) Amid d. α -Brom- β -Phenylakrylsäure. Sm. 118,5—119° (*B.* 20, 1387; *R.* 15, 130). — II, 1412.
- $C_9H_7ONBr_3$ 1) 3,5-Dibrom-2-Methylphenylamid d. Bromessigsäure. Sm. 207° (*J. pr.* [2] 38, 287). — II, 462.
- 2) 2,5,6-Tribrom-3-Methylphenylamid d. Essigsäure. Sm. 179 bis 181° (*B.* 13, 974). — II, 478.
- 3) 4,5,6-Tribrom-3-Methylphenylamid d. Essigsäure. Sm. 171 bis 173° (*B.* 13, 975). — II, 478.
- $C_9H_7ONF_3$ 1) 3-Trifluormethylamid d. Essigsäure. Sm. 103°; Sd. 287° (*C.* 1898[2] 26).
- $C_9H_7ON_2Cl_2$ 1) 5,5-Dichlor-2-Methyl-4-Phenyl-4,5-Dihydro-1,3,4-Oxdiazol. Sm. 120—122° (*B.* 23, 2835). — IV, 672.
- $C_9H_7ON_2Br_2$ 1) 4,5-Dibrom-5-Amido-3-Phenyl-4,5-Dihydroisoxazol. Sm. 128 bis 130° u. Zers. (*J. pr.* [2] 47, 126). — II, 1645.
- 2) *p*-Dibrom-7-Amido-2-Keto-1,2,3,4-Tetrahydrochinolin. Sm. 179° (*B.* 13, 603). — II, 1366.
- $C_9H_7ON_2S$ 1) 2-Imido-3-Phenyl-4-Ketotetrahydrothiazol. Sm. 178° (*B.* 10, 1965; 14, 1661; 15, 325; *A.* 207, 129; *G.* 28 [1] 369; *M.* 2, 776). — II, 403.
- 2) 5-Merkapto-2-[4-Methylphenyl]-1,2,4-Oxdiazol. Sm. 135° (*B.* 28, 2233).
- 3) 5-Thiocarbonyl-2-Methyl-4-Phenyl-4,5-Dihydro-1,3,4-Oxdiazol (Isoacetylphenylthiocarbizin). Sm. 73—74°; Sd. 275° (*B.* 21, 2468; 23, 2837). — IV, 682.
- 4) 2-Thiocarbonyl-5-Keto-1-Phenyltetrahydroimidazol (Anhydrid d. Phenylthiohydantoinsäure). Zers. bei 200° (*B.* 17, 424). — II, 403.
- 5) Acetylderivat d. Phenylthiocarbizin. Sm. 186—187° (*A.* 212, 329). — IV, 682.
- $C_9H_7ON_2Cl$ 1) 5-Keto-3-Methyl-1-[*p*-Chlorphenyl]-4,5-Dihydro-1,2,4-Triazol. Sm. 247° (*C.* 1897 [1] 593). — IV, 1105.
- 2) isom. 5-Keto-3-Methyl-1-[*p*-Chlorphenyl]-4,5-Dihydro-1,2,4-Triazol. Sm. 163° (*C.* 1897 [1] 593). — IV, 1105.
- 3) 2-Keto-1,2,3,4-Tetrahydrochinolin-7-Diazochlorid (*B.* 14, 2332). — II, 1366.
- $C_9H_7ON_2S$ 1) 3-Nitroso-2-Phenylimido-5-Methyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 114—115° (*B.* 27, 620). — IV, 1107.
- C_9H_7OClBr 1) α -Bromäthyl-4-Chlorphenylketon. Sm. 77,5° (*Bl.* [3] 19, 830).
- $C_9H_7O_2NCl$ 1) 6-Chlor-2,4-Dioxy-3,4-Dihydrochinolin. Sm. 172° (*A.* 262, 165). — IV, 223.
- 2) Acetat d. anti-2-Chlorbenzaloxim. Sm. 80—85° (*B.* 25, 1923). — III, 45.

- $C_6H_5O_2NCl_2$ 1) Phenylamid d. $\beta\beta\beta$ -Trichlor- α -Oxypropionsäure. Sm. 164—165° u. Zers. (A. 253, 130). — II, 404.
2) Verbindung (aus Chloral u. d. Amid d. Benzolcarbonsäure; Chloralbenzamid). Sm. 150—151° (A. 157, 245; B. 5, 255; 11, 10; 24, 1803; J. 1879, 552). — II, 1194.
- $C_6H_5O_2NBr$ 1) Brombilirubin (J. 1875, 882). — III, 662.
2) Acetat d. syn-4-Brombenzaldoxim. Sm. 91—92° (Ph. Ch. 13, 520). — III, 46.
- $C_6H_5O_2NBr_3$ 1) β -[2,4,6-Tribrom-3-Amidophenyl]propionsäure. Sm. 188° (B. 28, 1268).
2) Aethylester d. 2,4,5-Tribromphenylamidoameisensäure. Sm. 101° (Am. 20, 186).
3) Aethylester d. 3,4,5-Tribromphenylamidoameisensäure. Sm. 169 bis 170° (Am. 20, 182).
- $C_6H_5O_2N_2Br$ 1) Bromid d. Benzoylamidomethylcarbonimid? (J. pr. [2] 52, 269).
- $C_6H_5O_2N_2S$ 1) Amid d. Chinolin-7-Sulfonsäure. Sm. 119° (J. pr. [2] 37, 263). — IV, 293.
2) Amid d. Chinolin-8-Sulfonsäure. Sm. 183—184° (R. 8, 184). — IV, 293.
- $C_6H_5O_2N_2Cl$ 1) γ -Nitro- γ -[4-Chlorphenyl]hydrazonpropen. Sm. 105,5° (B. 25, 1706). — IV, 1376.
- $C_6H_5O_2N_2Br$ 1) γ -Nitro- γ -[3-Bromphenyl]hydrazonpropen. Sm. 93—94° (B. 25, 1706). — IV, 1376.
2) 4-Brom-2-Nitro-2,5-Dimethylbenzimidazol. Sm. 219°. HNO_3 (B. 25, 867). — IV, 381.
- $C_6H_5O_2ClBr$ 1) Methyläther d. ?-Chlormethyl-4-Brom-1-Oxyphenylketon. Sm. 94° (B. 30, 1716; 31, 171).
2) β -Chlor- α -Brom- β -Phenylpropionsäure. Sm. 182° (A. 147, 92; 289, 261; J. 1882, 363). — II, 1360.
3) α -Chlor- β -Brom- β -Phenylpropionsäure. Sm. 184,5° (A. 147, 92; 289, 261; J. 1882, 363). — II, 1360.
- $C_6H_5O_2ClJ$ 1) β -Chlor- α -Jod- β -Phenylpropionsäure. Sm. 122—123° u. Zers. (A. 289, 269).
- $C_6H_5O_2NCl$ 1) α -Benzenylchloroximessigsäure. Sm. 134—135° (B. 25, 47). — II, 1202.
2) β -Benzenylchloroximessigsäure. Sm. 195° (B. 25, 47). — II, 1202.
3) 2-Chloracetylamidobenzol-1-Carbonsäure. Zers. bei 200° (B. 14, 888). — II, 1250.
4) 3-[oder 6]-Chlor-2-Methylformylamidobenzol-1-Carbonsäure. Sm. 201—202° u. Zers. (B. 18, 429). — II, 1277.
5) 3-Chlorbenzoylamidoessigsäure. $Na + \frac{1}{2}H_2O$, $Ca + 4H_2O$, Pb (A. 122, 131; 142, 346). — II, 1187.
6) Acetat d. labil. 5-Chlor-1-Oximido-4-Keto-2-Methyl-1,4-Dihydrobenzol. Sm. 141—142° (A. 303, 18).
7) Acetat d. stabil. 5-Chlor-1-Oximido-4-Keto-2-Methyl-1,4-Dihydrobenzol. Sm. 158—159° (A. 303, 17).
- $C_6H_5O_2NBr$ 1) Benzenylbromoximessigsäure. Sm. 135—136° (B. 26, 1570). — II, 1202.
2) 4-Brombenzoylamidoessigsäure. Ba (H. 5, 64). — II, 1187.
3) ?-Brombenzoylamidoessigsäure. Ca (Z. 1865, 415). — II, 1187.
4) 5-Brom-2-Acetylamidobenzol-1-Carbonsäure. Sm. 214—215° (B. 14, 886; 22, 1647). — II, 1279.
5) Acetat d. labil. 5-Brom-1-Oximido-4-Keto-2-Methyl-1,4-Dihydrobenzol. Sm. 131—132° (A. 303, 27).
6) Acetat d. stabil. 5-Brom-1-Oximido-4-Keto-2-Methyl-1,4-Dihydrobenzol. Sm. 166—167° (A. 303, 27).
- $C_6H_5O_2NJ$ 1) Benzoylamidodessigsäure? (Z. 1865, 415). — II, 1187.
2) ?-Jodbenzoylamidoessigsäure (B. 1, 190). — II, 1187.
- $C_6H_5O_2NF$ 1) Benzenylfluoroximessigsäure. Sm. 135° (B. 26, 1570). — II, 1202.
2) 2-Fluorbenzoylamidoessigsäure. Sm. 121—121,5° (G. 13, 522). — II, 1187.
3) 3-Fluorbenzoylamidoessigsäure. Sm. 152—153°. $Ca + 2H_2O$, $Pb + 5H_2O$ (G. 13, 522). — II, 1187.

- $C_9H_7O_3NF$ 4) 4-Fluorbenzoylamidoessigsäure. Sm. 161—161,5°. $Ca + 2H_2O$ (G. 13, 522). — II, 1187.
- $C_9H_7O_3N_2S$ 1) Aethyläther d. ?-Nitro-1-Oxybenzthiazol. Sm. 205° (A. 277, 240). — II, 802.
2) Benzoylthioharnstoff-2-Carbonsäure (Thiophthalursäure). Sm. 171 bis 172°. $Ba + 7H_2O$ (A. 214, 25). — II, 1798.
3) Amid d. 6-Oxychinolin-5-Sulfonsäure. Sm. 69—70° (J. pr. [2] 55, 517). — IV, 297.
- $C_9H_7O_3N_3Cl$ 1) 5-Chlormethyl-3-[4-Nitrophenyl]-4,5-Dihydro-1,2,4-Oxiazol. Sm. 176° (B. 22, 2426). — II, 1238.
- $C_9H_7O_3N_3Br_2$ 1) Bromid d. 3-Diazobenzoylamidoessigsäure (Z. 1867, 165). — II, 1188.
- $C_9H_7O_3ClJ$ 1) Aethylester d. 5-Chlor-?-Jod-2-Oxybenzol-1-Carbonsäure (Am. 8, 98). — II, 1507.
- $C_9H_7O_3Br_2S$ 1) $\gamma\gamma$ -Dibrom- α -Phenylsulfon- β -Ketopropan (Phenylsulfondibrom-aceton). Sm. 113—114° (J. pr. [2] 36, 413). — II, 791.
- $C_9H_7O_4NCl$ 1) 5-Chlor-2-Nitrophenyläther d. β -Keto- α -Oxypropan. Sm. 86° (B. 31, 758).
2) 4-Chlor-2,6-Dimethylpyridin-3,5-Dicarbonsäure. Sm. 224° (B. 20, 164). — IV, 168.
3) Aldehyd d. β -Oxy- β -[5-Chlor-2-Nitrophenyl]propionsäure. Fl. (A. 262, 166). — III, 90.
4) Aethylester d. 2-Chlor-5-Nitrobenzol-1-Carbonsäure. Sm. 28—29° (Z. 1866, 615). — II, 1240.
5) Aethylester d. 3-Chlor-6-Nitrobenzol-1-Carbonsäure. Sm. 282° (A. 135, 113). — II, 1240.
6) Aethylester d. 4-Chlor-3-Nitrobenzol-1-Carbonsäure. Sm. 58° (Z. 1866, 615). — II, 1241.
- $C_9H_7O_4NBr$ 1) β -Brom- β -[2-Nitrophenyl]propionsäure. Sm. 130—140° u. Zers. (B. 16, 2208). — II, 1361.
2) β -Brom- β -[3-Nitrophenyl]propionsäure. Sm. 96° (B. 17, 596). — II, 1362.
3) β -Brom- β -[4-Nitrophenyl]propionsäure. Sm. 170—172° u. Zers. Anilinsalz (B. 16, 3002; 17, 1494). — II, 1362.
4) β -[4-Brom-2-Nitrophenyl]propionsäure. Sm. 141—142,5° (B. 13, 1682). — II, 1361.
5) β -[4-Brom-3-Nitrophenyl]propionsäure. Sm. 90—95°. Ca (B. 13, 1684). — II, 1361.
6) Aldehyd d. β -Oxy- β -[5-Brom-2-Nitrophenyl]propionsäure. Sm. 92—93°. + Acetaldehyd (A. 284, 151). — III, 90.
7) Methylester d. 4-Brom-2-Nitrophenylessigsäure. Sm. 66—68° (Soc. 37, 97). — II, 1319.
8) Methylester d. 4-Brom-3-Nitrophenylessigsäure. Sm. 40—41° (Soc. 37, 97). — II, 1320.
9) Aethylester d. 3-Brom-2-Nitrobenzol-1-Carbonsäure. Sm. 80° (A. 143, 241). — II, 1242.
10) Aethylester d. 5-Brom-2-Nitrobenzol-1-Carbonsäure. Sm. 55° (A. 143, 238). — II, 1243.
11) Aethylester d. 4-Brom-3-Nitrobenzol-1-Carbonsäure. Sm. 74° (A. 143, 250). — II, 1243.
12) Aethylester d. 6-Brom-3-Nitrobenzol-1-Carbonsäure. Sm. 65 bis 66° (A. 198, 111). — II, 1242.
- $C_9H_7O_4NJ$ 1) Aethylester d. 3-Jod-2-Nitrobenzol-1-Carbonsäure? Sm. 84° (J. pr. [2] 18, 325). — II, 1244.
2) Aethylester d. 5-Jod-2-Nitrobenzol-1-Carbonsäure. Sm. 64° (J. pr. [2] 18, 326). — II, 1244.
3) Aethylester d. 4-Jod-3-Nitrobenzol-1-Carbonsäure. Sm. 88—89,5° (B. 26, 1742). — II, 1244.
- $C_9H_7O_4NCl$ 1) β -Chlor- α -Oxy- β -[2-Nitrophenyl]propionsäure. Sm. 125—126° u. ger. Zers. (B. 19, 2649). — II, 1577.
2) β -Chlor- α -Oxy- β -[4-Nitrophenyl]propionsäure. Sm. 167—168° u. Zers. (B. 19, 2646). — II, 1577.
3) α -Chlor- β -Oxy- β -[2-Nitrophenyl]propionsäure. Sm. 119—120° (B. 13, 2261). — II, 1575.

- $C_9H_5O_5NCl$ 4) α -Chlor- β -Oxy- β -[4-Nitrophenyl]propionsäure. Sm. 165° (A. 163, 142; B. 19, 2646). — II, 1575.
5) β -Oxy- β -[5-Chlor-2-Nitrophenyl]propionsäure. Sm. 152°. Ca, Cu, Ag (A. 262, 161). — II, 1575.
6) Aethylester d. 5-Chlor- β -Nitro-2-Oxybenzol-1-Carbonsäure. Sm. 89° (B. 13, 35). — II, 1511.
- $C_9H_5O_5NBr$ 1) β -Brom- α -Oxy- β -[2-Nitrophenyl]propionsäure. Sm. 135° (B. 17, 221). — II, 1577.
2) α -Brom- β -Oxy- β -[2-Nitrophenyl]propionsäure. Sm. 145—147° (B. 17, 219). — II, 1576.
3) β -Oxy- β -[5-Brom-2-Nitrophenyl]propionsäure. Sm. 152° (A. 284, 152). — II, 1576.
- $C_9H_5O_5N_2Br_2$ 1) Methyläther d. $\beta\beta$ -Dibrom- β -Nitro- α -Oxy- α -[3-Nitrophenyl]äthan. Sm. 145—146° (A. 229, 237). — II, 1063.
- $C_9H_5O_5N_2S$ 1) β -[2-Diazophenyl]akrylsäure-N-Schwefligesäure (A. 221, 274; 227, 325). — IV, 1556.
2) Aethylester d. 5-Nitro-3-Thionylamidobenzol-1-Carbonsäure. Sm. 48—49° (B. 28, 595).
3) Aethylimid d. 4-Nitrobenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 172° (Am. 19, 508).
- $C_9H_5O_5N_3Br$ 1) 5-Brom-3,6- β -Dinitro-2-Methylphenylamid d. Essigsäure. Sm. 244° u. Zers. (B. 25, 870). — II, 462.
- $C_9H_5O_5N_3Cl$ 1) Methyläther d. β -Chlor- β -Dinitro-2-Acetylamido-1-Oxybenzol. Sm. 165° (B. 15, 1686). — II, 736.
- $C_9H_5O_5N_3Cl$ 1) Verbindung (aus 2-Chlor-1,3,5-Trinitrobenzol u. Diazomethan). Sm. 176—177° (B. 31, 1399).
- $C_9H_5O_5N_3Br$ 1) 1-Methyläther-2-[β -Bromäthyl]äther d. β -Trinitro-1,2-Dioxybenzol. Sm. 120° (C. 1897 [2] 481).
- $C_9H_5ONCl_4$ 1) 2-Methylphenylamid d. Dichloressigsäure (B. 18, 2987). — II, 461.
2) 3-Methylphenylamid d. Dichloressigsäure. Sm. 98—100° (B. 18, 2988). — II, 478.
3) 4-Methylphenylamid d. Dichloressigsäure. Sm. 153° (B. 10, 879; 18, 2980). — II, 491.
4) 3,5-Dichlor-2-Methylphenylamid d. Essigsäure. Sm. 186° (A. 274, 291). — II, 461.
5) 4,5-Dichlor-3-Methylphenylamid d. Essigsäure. Sm. 187° (C. 1895 [2] 529).
6) 3,5-Dichlor-4-Methylphenylamid d. Essigsäure. Sm. 201° (A. 231, 321). — II, 491.
- $C_9H_5ONBr_2$ 1) Amid d. $\alpha\beta$ -Dibrom- β -Phenylpropionsäure. Sm. 217°. — II, 1359.
2) 2,5-Dibrom-3-Methylphenylamid d. Essigsäure. Sm. 144—145° (B. 13, 974). — II, 478.
3) 4,5-Dibrom-3-Methylphenylamid d. Essigsäure. Sm. 162—163° (B. 13, 975). — II, 478.
4) 4,6-Dibrom-3-Methylphenylamid d. Essigsäure. Sm. 168—168,6° (B. 13, 971). — II, 478.
5) 5,6-Dibrom-3-Methylphenylamid d. Essigsäure. Sm. 204—205° (B. 13, 964). — II, 478.
6) 2,6-Dibrom-4-Methylphenylamid d. Essigsäure. Sm. 199—200° (183°) (A. 265, 377; B. 27, 99; 32, 220). — II, 492.
- $C_9H_5ONBr_3$ 1) 1-Keto-2-Methyl-1,3-Dihydroisindoltribromid? Sm. 150° u. Zers. (A. 247, 305).
- C_9H_5ONS 1) 1-Thiocarbonyl-2-Aethyl-1,2-Dihydrobenzoxazol. Sm. 112°; Sd. oberh. 360° (J. pr. [2] 42, 449). — II, 710.
2) 1-Aethyläther d. 1-Merkaptobenzoxazol. Sd. 265—270° (J. pr. [2] 42, 444). — II, 710.
3) Aethyläther d. 1-Oxybenzthiazol. Sm. 25°; Sd. über 360°. (2HCl, PtCl₂) (B. 13, 10; 19, 1811). — II, 796.
4) 3-Keto-2-Methyl-3,4-Dihydro-1,4-Benzthiazin. Sm. 128° (B. 30, 2395).
5) Aethylenester d. Phenylamidothiolameisensäure? Sm. 79° (B. 15, 344; 21, 976). — II, 386.
- C_9H_5ONHg 1) Aethyläther d. 4-Oxyphenylquecksilbercyanid. Sm. 158—159° (B. 27, 260). — IV, 1710.

- $C_9H_9ON_2Cl_2$ 1) Benzenylamidinchloral. Fl. (B. 22, 1609). — IV, 848.
- $C_9H_9ON_2Br$ 1) p-Brom-7-Amido-2-Keto-1,2,3,4-Tetrahydrochinolin. Sm. 218 bis 219° (B. 12, 603). — II, 1366.
- $C_9H_9ON_2S$ 1) 3-Merkapto-5-Keto-4-Phenyl-1-Methyl-4,5-Dihydro-1,2,4-Triazol. Sm. 163°. Ag (B. 29, 2924).
2) 3-Thiocarbonyl-5-Keto-4-Phenyl-1-Methyltetrahydro-1,2,4-Triazol. Sm. 212°. Ag, 5 + 2PtCl₄ (B. 29, 2924).
3) 1-Amido-2-Thiocarbonyl-4-Keto-3-Phenyltetrahydroimidazol (Phenylthioamidohydantoin). Sm. 165° (B. 31, 169).
4) 5-Amido-2-Keto-3-(2-Methylphenyl)-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 278—279° (B. 26, 2876). — IV, 802.
- $C_9H_9ON_2S_2$ 1) 2-Acetyl-4,6-Di[Thioacetyl]-1,3,5-Triazin (J. pr. [2] 57, 364). — IV, 1136.
- $C_9H_9OClBr_2$ 1) 1-Chlor-3,6-Dibrom-4-Keto-1,2,5-Trimethyl-1,4-Dihydrobenzol. Sm. 109—110° (B. 29, 1118).
- C_9H_9OBrS 1) Bromderivat d. Phenyläther d. Merkaptoaceton. Fl. (A. 260, 266).
- $C_9H_9OBr_2J$ 1) 3,6-Dibrom-1-Jod-4-Keto-1,2,5-Trimethyl-1,4-Dihydrobenzol. Sm. 134—136° (B. 29, 1117).
- $C_9H_9O_2NBr_2$ 1) αβ-Dibrom-β-Nitropropylbenzol. Sm. 77—78,5° (A. 225, 362). — II, 102.
2) p-Dibrom-2-Methylphenylamid d. Oxyessigsäure. Sm. 182° (J. pr. [2] 38, 294). — II, 466.
- $C_9H_9O_2NJ_2$ 1) 4,6-Dijod-2-Nitro-1,3,5-Trimethylbenzol. Sm. 183° (B. 26, 1103). — II, 103.
- $C_9H_9O_2NS$ 1) Dimethyläther d. 2,4-Dioxyphenylsenföls. Sm. 57° (B. 22, 2381). — II, 928.
2) α-Merkapto-β-[2-Amidophenyl]akrylsäure (M. 8, 360). — II, 1638.
3) Methylester d. Benzoylamidothiolameisensäure. Sm. 97°. Na (A. ch. [5] 11, 330). — II, 1181.
4) Benzoylmethylester d. Amidothiolameisensäure (Carbamidthioacetophenon). Sm. 120°. HCl (A. 249, 12; G. 22 [1] 352). — III, 128.
- $C_9H_9O_2N_2Cl$ 1) 7-Chlor-4-Nitroso-3-Methyl-3,4-Dihydro-1,4-Benzoxazin. Sm. 96,5°. HCl (B. 31, 757).
2) β-Chlor-α-Phenylhydrazonpropionsäure. Sm. 199—200° (G. 21, 290). — IV, 689.
3) α-[2-Chlorphenyl]hydrazonpropionsäure. Sm. 178° (Soc. 59, 211). — IV, 688.
4) α-[3-Chlorphenyl]hydrazonpropionsäure. Sm. 163° (Soc. 63, 871). — IV, 689.
5) α-[4-Chlorphenyl]hydrazonpropionsäure. Sm. 199° (Soc. 59, 211). — IV, 689.
- $C_9H_9O_2N_2Cl_2$ 1) Chloral + Benzenylamidoxim. Sm. 135° (B. 19, 1485). — II, 1200.
2) βββ-Trichlor-α-Oxy-α-[p-Methylnitrosamidophenyl]äthan. Sm. 117 bis 118° (B. 21, 783). — II, 1063.
- $C_9H_9O_2N_2Br$ 1) α-[4-Bromphenyl]hydrazonpropionsäure. Sm. 182° u. Zers. (184°) (B. 30, 290; Am. 21, 31). — IV, 689.
- $C_9H_9O_2N_2Br_2$ 1) α-Acetyl-β-[3-Brombenzoyl]hydrazin. Sm. 169° (J. pr. [2] 58, 192).
- $C_9H_9O_2N_2Br_3$ 1) Äthylester d. β-[2,4,6-Tribromphenyl]hydrazidoameisensäure. Sm. 103° (B. 28, 1929). — IV, 737.
- $C_9H_9O_2N_4Br$ 1) Amid d. p-Bromphenylhydrazonmethandicarbonsäure. Sm. 240° (Soc. 67, 1004). — IV, 720.
- $C_9H_9O_2Cl_2J$ 1) Äthylesterchlorid d. 2-Jodbenzol-1-Carbonsäure (B. 26, 1361). — II, 1226.
- $C_9H_9O_2NBr_2$ 1) 3,6-Dibrom-1-Nitro-4-Keto-1,2,5-Trimethyl-1,4-Dihydrobenzol? Sm. 135° u. Zers. (B. 29, 1108).
2) Methyläther d. 3-Nitro-4-Oxy-1-[αβ-Dibromäthyl]benzol. Sm. 78 bis 79° (A. 243, 369). — II, 761.
3) α-Amido-β-[p-Dibrom-4-Oxyphenyl]propionsäure + 2 H₂O (Dibromtyrosin). Ag₂ + 2 H₂O, HCl + 1½ H₂O, HBr, H₂SO₄ (A. 125, 282). — II, 1568.
4) Nitroverbindung (aus 3,6-Dibrom-5-Oxy-1,2,4-Trimethylbenzol). Sm. 102—103° (B. 29, 1107; 30, 757; A. 302, 162).
5) Nitroverbindung (aus 4,6-Dibrom-2-Oxy-1,3,5-Trimethylbenzol). Sm. 72° (A. 302, 162).

- C₉H₇O₃NS**
- 1) 1-Methylindol-2-Sulfonsäure. Na (B. 27, 3256). — IV, 219.
 - 2) Methylester d. 6-Thionylamido-1-Methylbenzol-3-Carbonsäure. Sm. 94° (B. 28, 598).
 - 3) Aethylester d. 3-Thionylamidobenzol-1-Carbonsäure. Sd. 195°₁₀₅ (A. 274, 249). — II, 1259.
 - 4) Imid d. 1,3-Dimethylbenzol-5-Carbonsäure-4-Sulfonsäure. Sm. 262° (Am. 2, 131; 3, 216). — II, 1380.
 - 5) Methylimid d. 1-Methylbenzol-4-Carbonsäure-3-Sulfonsäure. Sm. 153° (B. 25, 1738). — II, 1355.
 - 6) Aethylimid d. Benzol-1-Carbonsäure-2-Sulfonsäure. Sm. 93—94° (B. 20, 1598). — II, 1296.
 - 7) Aethyläther d. Pseudosaccharin. Sm. 217—218° (B. 26, 2294). — II, 1297.
- C₉H₇O₃NS₂**
- 1) β-Merkaptoäthylimid d. Benzol-1-Carbonsäure-2-Sulfonsäure. Sm. 170° (C. 1897 [1] 235).
- C₉H₇O₃N₂Cl**
- 1) 5-Chlor-3-Nitro-2-Methylphenylamid d. Essigsäure. Sm. 187° (A. 274, 297). — II, 462.
 - 2) 2-Chlor-5-Nitro-4-Methylphenylamid d. Essigsäure. Sm. 143° (A. 265, 344). — II, 483.
 - 3) 2-Chlor-6-Nitro-4-Methylphenylamid d. Essigsäure. Sm. 196° (A. 265, 344). — II, 483.
 - 4) 3-Chlor-6-Nitro-4-Methylphenylamid d. Essigsäure. Sm. 113° (A. 265, 355). — II, 492.
 - 5) 3-Nitro-4-Methylphenylamid d. Chloressigsäure. Sm. 122° (B. 23, 3288). — II, 492.
- C₉H₇O₃N₂Br**
- 1) β-Bromäthylamid d. 3-Nitrobenzol-1-Carbonsäure. Sm. 116—117° (B. 24, 3218). — II, 1233.
 - 2) 2-Nitrophenylamid d. α-Brompropionsäure. Sm. 62° (B. 31, 3237).
 - 3) 3-Nitrophenylamid d. α-Brompropionsäure. Sm. 137° (B. 31, 3238).
 - 4) 4-Nitrophenylamid d. α-Brompropionsäure. Sm. 153° (B. 31, 3238).
 - 5) 5-Brom-3-Nitro-2-Methylphenylamid d. Essigsäure. Sm. 205° (B. 25, 869; A. 269, 219). — II, 462.
 - 6) p-Bromnitro-4-Methylphenylamid d. Essigsäure. Sm. 210,5° (A. 192, 202). — II, 492.
- C₉H₇O₃N₂S**
- 1) Cyanacetylhydrazid d. Benzolsulfonsäure. Sm. 176° (B. 27, 689).
- C₉H₇O₃BrS**
- 1) γ-Brom-β-Keto-α-Phenylsulfonpropan (α-Phenylsulfonbromaceton). Sm. 96° (J. pr. [2] 36, 413). — II, 791.
 - 2) α-[4-]Bromphenylmerkpto-α-Oxypropionsäure. Sm. 114,5° (B. 18, 263). — II, 793.
- C₉H₇O₄NCl₂**
- 1) Dimethyläther d. 3,6-Dichlor-2-Nitro-1-Dioxymethylbenzol. Sm. 62—63° (B. 31, 547).
- C₉H₇O₄NS**
- 1) 2-Keto-1,2,3,4-Tetrahydrochinolin-2-Sulfonsäure. Ba (B. 16, 1453). — II, 1369.
 - 2) β-[4-Sulfamidphenyl]akrylsäure. Zers. bei 250°. Ca + H₂O, Ba + 2H₂O (Am. 4, 163). — II, 1422.
 - 3) Inn. Anhydrid d. 4-Oxybenzoläthyläther-1-Carbonsäure-2-Sulfonsäureamid. Sm. 257—258° u. Zers. K, Ag (Am. 8, 227). — II, 1542.
 - 4) β-Oxyäthylimid d. Benzol-1-Carbonsäure-2-Sulfonsäure. Sm. 183° (B. 30, 1266).
- C₉H₇O₄N₂Cl**
- 1) 6-Chlor-3,5-Dinitro-1,2,4-Trimethylbenzol. Sm. 169—170° (A. 294, 15).
 - 2) 5-Chlor-3,6-Dinitro-1,2,4-Trimethylbenzol. Sm. 205—206° (B. 27, 1427).
 - 3) 2-Chlor-4,6-Dinitro-1,3,5-Trimethylbenzol. Sm. 178—179° (A. 150, 325). — II, 102.
 - 4) Methyläther d. p-Chlor-p-Nitro-2-Acetylamido-1-Oxybenzol. Sm. 185° (B. 15, 1686). — II, 736.
 - 5) Amid d. β-Oxy-β-[5-Chlor-2-Nitrophenyl]propionsäure. Sm. 148° (A. 262, 160). — II, 1576.
- C₉H₇O₄N₂Br**
- 1) 5-Brom-3,6-Dinitro-1,2,4-Trimethylbenzol. Sm. 213—214° (A. 147, 14; B. 19, 1548). — II, 102.
 - 2) 3-Brom-5,6-Dinitro-1,2,4-Trimethylbenzol. Sm. 180—181° (B. 19, 1551). — II, 103.

- $C_9H_7O_4N_2Br$ 3) 2-Brom-4,6-Dinitro-1,3,5-Trimethylbenzol. Sm. 189—190° (194°) (A. 147, 8; 215, 248). — II, 103.
- $C_9H_7O_4N_2J$ 1) 2-Jod-4,6-Dinitro-1,3,5-Trimethylbenzol. Sm. 205—206° (B. 26, 1103). — II, 103.
- $C_9H_7O_4N_2F$ 1) 2-Fluor-2-Dinitro-1,2,4-Trimethylbenzol. Sm. 74—76° (B. 26, 1113). — II, 102.
- $C_9H_7O_4BrS$ 1) α -Phenylsulfon- α -Brompropionsäure. Sm. 134° (J. pr. [2] 40, 551). — II, 787.
- $C_9H_7O_5N_2S$ 1) 2,4-Dinitro-6-Thionylamido-1,3,5-Trimethylbenzol. Sm. 127° (A. 274, 242). — II, 554.
2) 3-Nitro-2,4,5-Trimethyl-1-Diazobenzol-6-Sulfonsäure (B. 20, 2066). — IV, 1539.
- $C_9H_7O_5ClS$ 1) α -[4-Chlorphenylsulfon]- α -Oxypropionsäure. Sm. 155—156° u. Zers. (H. 16, 549). — II, 793.
- $C_9H_7O_5BrS$ 1) β -[4-Brom-3-Sulfophenyl]propionsäure + 2½ H₂O. Na + 3 H₂O, CaH + 8 H₂O, Ca + 3 H₂O, BaH + 8 H₂O, Ag₂ (J. 1877, 859). — II, 1369.
2) 1-Aethylester d. 4-Brombenzol-1-Carbonsäure-3[2]-Sulfonsäure. Sm. 162° (B. 28 [2] 990).
3) 1-Aethylester d. 4-Brombenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 84° (A. 191, 19). — II, 1304.
- $C_9H_7O_6NS$ 1) 3-Sulfobenzoylamidoessigsäure. Ba + H₂O, Pb + PbO (A. 112, 66). — II, 1188.
2) 4-Amid d. 1-Methylbenzol-2,5-Dicarbonsäure-4-Sulfonsäure. Sm. 295—300° u. Zers. Ba + 2½ H₂O (B. 16, 190). — II, 1845.
3) 2-Amid d. 1-Methylbenzol-3,5-Dicarbonsäure-2-Sulfonsäure. K, Ba + 3 H₂O (A. 206, 180; Am. 2, 136). — II, 1847.
- $C_9H_7O_6N_2S_2$ 1) Rhodanuressigsäure. Sm. 199,5° u. Zers. Ba + 2 H₂O, Ba₃ + 2 H₂O (B. 14, 733; J. pr. [2] 33, 121; A. 136, 227). — I, 1228.
- $C_9H_7O_7NS$ 1) 1-Aethylester d. 4-Nitrobenzol-1-Carbonsäure-2-Sulfonsäure. K + H₂O, Ba + 4 H₂O (Am. 11, 190). — II, 1305.
- $C_9H_7NBr_2S$ 1) Bromid d. 2-Phenyl-4,5-Dihydrothiazol (B. 24, 784). — II, 1293.
- $C_9H_7N_3Cl_3J$ 1) Jodmethylat d. 4,6,7-Trichlor-1,5-Dimethyl-1,2,3-Benzotriazol. Sm. 210° (A. 249, 370 Anm.). — IV, 1146.
- $C_9H_{10}ONCl$ 1) α -Oximido- α -[4-Chlorphenyl]propan. Sm. 62—62,5° (Bl. [3] 19, 830).
2) α -Oximido- α -[4-Chlor-2-Methylphenyl]äthan. Sm. 116° (J. pr. [2] 43, 361). — III, 145.
3) α -Oximido- α -[4-Chlor-3-Methylphenyl]äthan. Sm. 112° (J. pr. [2] 43, 356). — III, 145.
4) α -Oximido- α -[6-Chlor-3-Methylphenyl]äthan. Sm. 94° (J. pr. [2] 46, 28). — III, 145.
5) Aethyläther d. Phenylchloroximidomethan. Sd. 230° (B. 18, 732; A. 252, 217). — II, 1198.
6) Aethyläther d. α -Chlorimidobenzylalkohol. Sd. 130—132°₁₆ (Am. 18, 755).
7) Aethyläther d. Phenylimidochloroxymethan. Sd. 115—120° (i. V.) (Am. 16, 73, 388).
8) Benzimido- β -Chloräthyläther. Fl. HCl, (2HCl, PtCl₄), Pikrat (B. 25, 2384). — II, 1213.
9) 7-Chlor-3-Methyl-3,4-Dihydro-1,4-Benzoxazin. Sm. 106° (B. 31, 756).
10) β -Chloräthylamid d. Benzolcarbonsäure. Sm. 102° (B. 23, 2499; 25, 2386; 28, 2933). — II, 1160.
11) Phenylamid d. α -Chlorpropionsäure. Sm. 92° (A. 279, 80).
12) Methyl-3-Chlorphenylamid d. Essigsäure. Sm. 92,5° (B. 19, 1948). — II, 366.
13) 3-Chlor-2-Methylphenylamid d. Essigsäure. Sm. 154° (C. 1895 [2] 530).
14) 4-Chlor-2-Methylphenylamid d. Essigsäure. Sm. 130—131° (130 bis 140°) (B. 7, 797; 19, 2441). — II, 461.
15) 5-Chlor-2-Methylphenylamid d. Essigsäure. Sm. 140° (A. 231, 317; 274, 286). — II, 461.
16) 6-Chlor-2-Methylphenylamid d. Essigsäure. Sm. 136° (B. 20, 2417). — II, 461.

- C₉H₉ONCl** 17) **2-Chlor-3-Methylphenylamid d. Essigsäure.** Sm. 132° (C. 1895 [2] 529).
 18) **4-Chlor-3-Methylphenylamid d. Essigsäure.** Sm. 96° (124°; 130 bis 131°) (B. 7, 798; 18, 2601; 19, 2442; J. pr. [2] 46, 29). — II, 478.
 19) **5-Chlor-3-Methylphenylamid d. Essigsäure.** Sm. 146° (151°) (B. 20, 2419; C. 1895 [2] 529). — II, 478.
 20) **6-Chlor-3-Methylphenylamid d. Essigsäure.** Sm. 89° (B. 20, 201). — II, 478.
 21) **2-Chlor-4-Methylphenylamid d. Essigsäure.** Sm. 118° (A. 168, 196; 231, 311; B. 24, 4111; Soc. 61, 1057). — II, 491.
 22) **3-Chlor-4-Methylphenylamid d. Essigsäure.** Sm. 86° (C. 1895 [2] 529).
 23) **2-Chlorbensylamid d. Essigsäure.** Sm. 79—80°. HCl (J. pr. [2] 51, 279).
 24) **2-Methylphenylamid d. Chloressigsäure.** Sm. 111—112° (J. pr. [2] 38, 299; A. 279, 62). — II, 461.
 25) **4-Methylphenylamid d. Chloressigsäure.** Sm. 162° (B. 8, 1154; 23, 3287; Bl. 19, 400; A. 279, 65). — II, 491.
 26) **Aethylphenylamid d. Chlorameisensäure.** Sd. 52° (B. 9, 399). — II, 359.
 27) **Chlorid d. 4-Dimethylamidobenzol-1-Carbonsäure** (B. 9, 401). — II, 1271.
- C₉H₉ONCl₂** 1) **βββ-Trichlor-α-Oxy-α-[p-Methylamidophenyl]äthan.** Sm. 112° u. Zers. HCl (B. 21, 782). — II, 1063.
 2) **βββ-Trichlor-α-Oxy-α-[4-Methylphenyl]amidoäthan.** Sm. 75° (A. 302, 363).
- C₉H₉ONBr** 3) **2-Methyl-6-[γγγ-Trichlor-β-Oxypropyl]pyridin.** Sm. 105,5°. HCl + H₂O, (2HCl, PtCl₄), (HCl, AuCl₃) (B. 26, 1418). — IV, 138.
 1) **α-Oximido-α-[4-Bromphenyl]propan.** Sm. 90—91° (Bl. [3] 19, 830).
 2) **α-Oximido-α-[4-Brom-2-Methylphenyl]äthan.** Sm. 97° (J. pr. [2] 43, 362). — III, 145.
 3) **α-Oximido-α-[4-Brom-3-Methylphenyl]äthan.** Sm. 104° (J. pr. [2] 43, 359). — III, 145.
 4) **α-Oximido-α-[6-Brom-3-Methylphenyl]äthan.** Sm. 109° (J. pr. [2] 46, 24). — III, 145.
 5) **Aethyläther d. Phenylbromoximidomethan.** Sd. 150°₄₅ (B. 24, 3454). — II, 1198.
 6) **Aethyläther d. α-Bromimidobenzylalkohol.** Fl. (Am. 18, 760).
 7) **β-Brom-α-[2-Oxybensyliden]amidoäthan.** Sm. 56—57° (B. 31, 2832).
 8) **p-Brom-6-Oxy-1,2,3,4-Tetrahydrochinolin.** Sm. 238° u. Zers. HCl (M. 10, 717). — IV, 198.
 9) **β-Bromäthylamid d. Benzolcarbonsäure.** Sm. 105—106° (B. 22, 2222; 28, 2933). — II, 1160.
 10) **Phenylamid d. α-Brompropionsäure.** Sm. 99° (B. 25, 2920; 31, 2853, 3245). — II, 369.
 11) **Methyl-4-Bromphenylamid d. Essigsäure.** Sm. 99° (B. 12, 1818). — II, 367.
 12) **5-Brom-2-Methylphenylamid d. Essigsäure.** Sm. 156—157°. + NaOH, + KOH (A. 168, 162; 252, 319; B. 7, 796; 25, 868; Soc. 73, 161). — II, 461.
 13) **4-Brom-3-Methylphenylamid d. Essigsäure.** Sm. 113,7—114,6° (164°) (B. 13, 972; J. pr. [2] 46, 24). — II, 478.
 14) **5-Brom-3-Methylphenylamid d. Essigsäure.** Sm. 167—168° (B. 13, 964). — II, 478.
 15) **2-Brom-4-Methylphenylamid d. Essigsäure.** Sm. 117,5°. 2 + Al₂Cl₆, + NaOH, + KOH (A. 168, 153; Bl. [3] 11, 927; Soc. 73, 160; B. 16, 913, 914 Anm.; 32, 220). — II, 492.
 16) **2-Methylphenylamid d. Bromessigsäure.** Sm. 113° (J. pr. [2] 38, 298). — II, 461.
 17) **4-Methylphenylamid d. Bromessigsäure.** Sm. 164° (J. pr. [2] 40, 433). — II, 491.
- C₉H₉ONJ** 1) **β-Jodäthylamid d. Benzolcarbonsäure.** Sm. 110° (B. 28, 2934).
- C₉H₉ON₂Br₂** 1) **p-Dibrom-4-Acetylamido-2-Amido-1-Methylbenzol.** Sm. 208° u. Zers. (B. 3, 221). — IV, 602.

- $C_9H_{10}ON_2S$ 1) **s-Acetylphenylthioharnstoff**. Sm. 173° (169—170°). HCl, HBr (*A. ch.* [5] **II**, 318; *B.* **9**, 570). — **II**, 397.
2) **β -Thionyl- α -Allyl- α -Phenylhydrazin**. Fl. (*B.* **26**, 2175). — **IV**, 662.
- $C_9H_{10}ON_2Cl$ 1) **5-Acetylamido-2-Methyldiazobenzolchlorid** (*A.* **235**, 253). — **IV**, 1531.
- $C_9H_{10}ON_2Br$ 1) **5-Acetylamido-2-Methyldiazobenzolbromid** (*A.* **235**, 249). — **IV**, 1531.
- $C_9H_{10}OClBr$ 1) **1,4-Anhydrid d. 1-Chlor-3-Brom-2,5-Dimethyl-1-Oxymethyl-1,4-Dihydrobenzol**. Sm. 73—74° (*A.* **302**, 125).
- $C_9H_{10}OBrJ$ 1) **1,4-Anhydrid d. 3-Brom-1-Jod-2,5-Dimethyl-1-Oxymethyl-1,4-Dihydrobenzol**. Sm. 94° (*A.* **302**, 126).
- $C_9H_{10}O_2NCl$ 1) **2-Chlor-4-Nitro-1,3,5-Trimethylbenzol**. Sm. 56—57° (*A.* **150**, 324). — **II**, 103.
2) **Methyläther d. 4-Chlor-2-Acetylamido-1-Oxybenzol**. Sm. 150°; Sd. 326° (*B.* **15**, 1686). — **II**, 726.
3) **N-Aethyläther d. 2-Oxyphenyloximidochlormethan**. Sd. 233 bis 234° (*B.* **22**, 2787). — **II**, 1502.
4) **β -Chloräthylester d. Phenylamidoameisensäure**. Sm. 51° (*J. pr.* [2] **31**, 174). — **II**, 372.
5) **3-Dimethylamidophenylester d. Chlorameisensäure**. Fl. (*B.* **29**, 506).
- $C_9H_{10}O_2NBr$ 1) **α -Brom- α -Nitropropylbenzol** (*J. r.* **25**, 535).
2) **5-Brom-*p*-Nitro-1,2,4-Trimethylbenzol**. Sm. 191—192° (*B.* **19**, 1518). — **II**, 102.
3) **2-Brom-4-Nitro-1,3,5-Trimethylbenzol**. Sm. 54° (*A.* **147**, 7). — **II**, 103.
4) **Methyläther d. 4-Brom-2-Acetylamido-1-Oxybenzol**. Sm. 127° (*B.* **32**, 162 Anm.).
5) **Methyläther d. 2-Brom-4-Acetylamido-1-Oxybenzol**. Sm. 111° (*B.* **32**, 162 Anm.).
6) **2-Methylpyridin-5-[α -Bromäthyl- α -Carbonsäure] (α -Brom- α -[2-Methylpyridyl(5)]propionsäure)**. + AuBr₃ (*B.* **28**, 1767, 1772). — **IV**, 150.
7) **β -[4-Brom-3-Amidophenyl]propionsäure**. Sm. 117—119°. Ba, HCl (*B.* **13**, 1684). — **II**, 1366.
8) **β -[3-Brom-4-Amidophenyl]propionsäure**. Sm. 104—105° (*B.* **15**, 2292). — **II**, 1366.
9) **Brommethylat d. β -[2-Pyridyl]akrylsäure**. Sm. 242° u. Zers. (*A.* **265**, 227). — **IV**, 212.
10) **Aethylester d. 3-Bromphenylamidoameisensäure**. Sd. 193—194°; (*J. pr.* [2] **58**, 197).
11) **Aethylester d. 4-Bromphenylamidoameisensäure**. Sm. 84—85° (S1°) (*B.* **13**, 228; *A.* **233**, 7; *J. pr.* [2] **58**, 201). — **II**, 373.
- $C_9H_{10}O_2NJ$ 1) **Methyläther d. 2-Jod-4-Acetylamido-1-Oxybenzol**. Sm. 152—153° (*B.* **29**, 399).
2) **Jodmethylat d. β -[2-Pyridyl]akrylsäure**. Sm. 219—220° u. Zers. (*A.* **265**, 226). — **IV**, 212.
- $C_9H_{10}O_2N_2S$ 1) **Phenylamidothioformylamidoessigsäure (Phenylthiohydantoinsäure)**. K (*B.* **17**, 424). — **II**, 403.
2) **Phenylamidoimidomethyläthermerkaptoesigsäure (o-Phenylthiohydantoinsäure)** (*B.* **14**, 1660; *G.* **28** [2] 68). — **II**, 403.
3) **Benzylester d. Harnstoffthiolcarbonsäure (B. d. Thioallophansäure)**. Sm. 179—180° (*B.* **28**, 1305).
4) **Phenylamid d. Carbaminthioglykolsäure**. Sm. 148—152° (*J. pr.* [2] **16**, 20; *B.* **14**, 732; *A.* **207**, 129; *G.* **28** [1] 356). — **II**, 402.
- $C_9H_{10}O_2N_2Cl$ 1) **Chloracetylphenylamidoharnstoff**. Sm. 182° (*B.* **29**, 1947). — **IV**, 675.
2) **1-Chlormethylat d. 1-Methyl-1,2,3-Benzotriazol-5[oder 6]-Carbonsäure**. Sm. 238° u. Zers. 2 + PtCl₄ (*A.* **291**, 338). — **IV**, 1154.
3) **Diäthyläther d. Verbindung $C_9H_{10}O_2N_2Cl$** . Sm. 212° (*J. pr.* [2] **50**, 118).
- $C_9H_{10}O_2N_2S$ 1) **Phenylhydrazid d. Thiooxalursäure**. Sm. 175° (*J. pr.* [2] **48**, 79).
- $C_9H_{10}O_2ClP$ 1) **Chlorid d. Dimethylphenylphosphinoxid-4-Carbonsäure**. Fl. (*A.* **293**, 287). — **IV**, 1673.
- $C_9H_{10}O_2Cl_2S$ 1) **β -Dichlorpropylphenylsulfon**. Sm. 72—73° (*J. pr.* [2] **55**, 204).

- $C_9H_{10}O_2Cl_2S$ 2) Chlorid d. ?-Chlor-4-Aethyl-1-Methylbenzol-?-Sulfonsäure. Fl. (B. 28, 2652).
- $C_9H_{10}O_2Br_2S$ 1) $\beta\gamma$ -Dibrompropylphenylsulfon. Sm. 80° (A. 283, 188; J. pr. [2] 58, 446).
- $C_9H_{10}O_2NCl$ 1) Aethyläther d. 3-Chlor-4-Nitro-1-Oxymethylbenzol. Sm. 33° (B. 25, 84). — II, 1060.
- $C_9H_{10}O_2NBr$ 1) 5-Brom-3-Nitro-2-Oxy-1-Isopropylbenzol. Sm. 33° (G. 16, 123). — II, 762.
2) 3-Brom-5-Nitro-2-Oxy-1-Isopropylbenzol. Sm. 87—88° (G. 16, 123). — II, 762.
- $C_9H_{10}O_2N_2S$ 1) ?-Nitro-6-Thionylamido-1,3,5-Trimethylbenzol. Sm. 77° (A. 274, 241). — II, 554.
2) Aethylester d. 3-Nitrophenylamidothiolameisensäure. Sm. 115° (B. 16, 49, 550). — II, 385.
3) Aethylester d. 4-Nitrophenylamidothiolameisensäure. Sm. 177 bis 178° (175—176°) (B. 15, 471; 26, 2369). — II, 385.
4) Amid d. β -[4-Sulfophenyl]akrylsäure. Sm. 218° (Am. 4, 163). — II, 1422.
- $C_9H_{10}O_2N_4Br_2$ 1) Oxykaffeindibromid (B. 14, 639; A. 215, 272). — III, 961.
- $C_9H_{10}O_3Br_2S$ 1) 5,6-Dibrom-1,2,4-Trimethylbenzol-3-Sulfonsäure. Na + H₂O, Ba (B. 19, 1221). — II, 150.
- $C_9H_{10}O_4NBr$ 1) Aethylester d. ?-Brom-2,4-Diketo-6-Methyl-1,2,3,4-Tetrahydropyridin-3 oder 5-Carbonsäure. Sm. 245° u. Zers. (B. 31, 770).
- $C_9H_{10}O_4N_2S$ 1) Isopropyläther d. 2,4-Dinitro-1-Merkaptobenzol. Sm. 93—94° (B. 18, 330). — II, 795.
- $C_9H_{10}O_4ClBr$ 1) Chlorid d. Bromcamphoronsäureanhydrid (2 isom. Formen). Sm. 168° (B. 28, 319; A. 299, 143).
- $C_9H_{10}O_5NBr$ 1) Trimethyläther d. ?-Brom-?-Nitro-1,2,3-Trioxybenzol. Sm. 72° (B. 21, 612). — II, 1015.
- $C_9H_{10}O_5N_2S$ 1) α -[4-Sulfophenylhydrazon]propionsäure. Fl. Na + H₂O (A. 239, 217). — IV, 736.
2) β -[2-Sulfohydrazinphenyl]akrylsäure. Na (A. 221, 274). — II, 1421.
- $C_9H_{10}NCIS$ 1) Chlorid d. Aethylphenylamidothioameisensäure. Sm. 56,5—57° (B. 20, 1630). — II, 360.
- $C_9H_{10}NBrS_2$ 1) Aethylester d. 4-Bromphenylamidodithioameisensäure. Sm. 89° (B. 13, 232). — II, 388.
- $C_9H_{10}N_2ClS_2$ 1) Verbindung (aus Thioharnstoff u. Benzylidenchlorid) (Am. 13, 119). — III, 35.
- $C_9H_{11}ONBr_2$ 1) Aethyläther d. ?-Dibrom-4-Amido-1-Oxymethylbenzol. Sm. 196° (J. pr. [2] 38, 286). — II, 1063.
2) 3,6-Dibrom-5-Oxy-2-Amidomethyl-1,4-Dimethylbenzol. Sm. 106°. HBr (B. 29, 1111).
3) Dihydrobromid d. β -Oxy- β -Phenylpropionsäurenitril. Sm. 116° (B. 30, 1129).
- $C_9H_{11}ONS$ 1) γ -Thionylamido- α -Phenylpropan. Fl. (B. 26, 2161). — II, 550.
2) 4-Thionylamido-1-Isopropylbenzol. Sd. 156—158°_{oo} (A. 274, 239). — II, 550.
3) 5-Thionylamido-1,2,4-Trimethylbenzol. Sd. 246° u. Zers. (A. 274, 238). — II, 552.
4) 6-Thionylamido-1,3,5-Trimethylbenzol. Sd. 241° (A. 274, 240). — II, 554.
5) 4-Dimethylamidobenzol-1-Thiocarbonsäure (C. 1898 [1] 1028).
6) Methylester d. Methylphenylamidothiolameisensäure. Sm. 54° (B. 25, 53, 55). — II, 386.
7) Methylester d. 2-Methylphenylamidothiolameisensäure. Sm. 70° (B. 15, 1317). — II, 464.
8) Methylester d. 4-Methylphenylamidothiolameisensäure. Sm. 107° (B. 15, 1311). — II, 495.
9) Aethylester d. Phenylamidothiolameisensäure. Sm. 73° (B. 15, 340; 23, 272). — II, 386.
10) Aethylester d. Phenylamidothioameisensäure. Sm. 71—72° (68 bis 69°). + HgCl₂, Pb + 2H₂O, Ag (B. 2, 120; 3, 772; 7, 692; 9, 1316; 13, 1575; 15, 2164; A. 207, 145; 285, 201). — II, 383.

- C₉H₁₁ONS** 11) Acetat d. 4-Amido-2-Merkapto-1-Methylbenzol. Sm. 195° (B. 14, 489). — II, 820.
 12) Acetat d. 2-Amido-4-Merkapto-1-Methylbenzol. Sm. 240° (B. 14, 490). — II, 822.
 13) Amid d. Merkaptoessigbenzyläthersäure. Sm. 97° (B. 12, 1641). — II, 1054.
 14) Amid d. 4-Merkaptobenzoläthyläther-1-Carbonsäure. Sm. 169 bis 170° (B. 27, 1739). — II, 1541.
 15) Phenylamid d. Merkaptoessigmethyläthersäure. Sm. 76° u. 80° (G. 28 [1] 363).
- C₉H₁₁ONS₂** 1) Methylester d. 2-Methoxyphenylamidodithioameisensäure (B. 21, 1863). — II, 709.
 2) 4-Amidophenylester d. Aethoxyldithioameisensäure (4-Amidophenylester d. Aethylxanthogensäure). H₂SO₄ (J. pr. [2] 41, 200). — II, 799.
- C₉H₁₁ON₂Cl** 1) α-[β-Chloräthyl]-β-Phenylharnstoff. Sm. 124° (B. 28, 2937).
 2) 4-Methylphenylhydrazid d. Chloressigsäure. Sm. 115° (B. 25, 1080). — IV, 805.
- C₉H₁₁ON₂Cl₂** 1) Trichloroxykyanconlin. Sm. 132° (J. pr. [2] 30, 163). — IV, 829.
- C₉H₁₁ON₂Br** 1) p-Brom-4 oder 2-Acetylamido-2 oder 4-Amido-1-Methylbenzol. Sm. unter 100° (A. 153, 134). — IV, 602.
 2) 5-Brom-4-Acetylamido-3-Amido-1-Methylbenzol. Sm. 167—168° (B. 23, 1049). — IV, 613.
 3) 4-Brom-2-Methylphenylhydrazid d. Essigsäure. Sm. 172° u. Zers. (B. 26, 2193). — IV, 801.
 4) 2-Brom-4-Methylphenylhydrazid d. Essigsäure. Sm. 124° (Soc. 73, 176). — IV, 805.
- C₉H₁₁ON₂Br₃** 1) Tribromoxykyanconlin. Sm. 149° (J. pr. [2] 30, 160). — IV, 830.
 2) Aethylamid d. 3,4,5-Tribrom-1-Aethylpyrrol-2-Carbonsäure. Sm. 120—121° u. Zers. (B. 11, 1813). — IV, 80.
- C₉H₁₁ON₂S** 1) α-Acetyl-β-Phenylamidothioharnstoff. Sm. 178—179° (Soc. 55, 303). — IV, 681.
- C₉H₁₁OCl₂P** 1) Dichlorid d. 4-Isopropylphenylphosphinsäure. Sm. 35°; Sd. 295 bis 300° u. ger. Zers. (A. 294, 49). — IV, 1677.
 2) Dichlorid d. 2,4,5-Trimethylphenylphosphinsäure. Sm. 63°; Sd. 307—308° (A. 294, 4). — IV, 1677.
 3) Dichlorid d. 2,4,6-Trimethylphenylphosphinsäure. Sm. 92—93°; Sd. oberh. 360° (A. 294, 36). — IV, 1679.
- C₉H₁₁O₂NS** 1) α-Amido-α-Merkaptopropionphenyläthersäure (Phenylcystein). Zers. bei 160° (B. 15, 1733; H. 5, 337). — II, 790.
 2) α-Phenylsulfon-β-Imidopropan. Sm. 110—111° (J. pr. [2] 36, 407). — II, 791.
 3) Amid d. β-Phenylpropen-p-Sulfonsäure. Sm. 152° (B. 12, 2240; A. 219, 302). — II, 170.
 4) Amid d. 2,3-Dihydroinden-p-Sulfonsäure. Sm. 91—92° (B. 26, 1539). — II, 170.
 5) Amid d. 2,3-Dihydroinden-p-Sulfonsäure. Sm. 134—134,5° (B. 26, 1539). — II, 170.
- C₉H₁₁O₂N₂Br** 1) p-Brom-4-Nitro-2-Aethylamido-1-Methylbenzol. Sm. 114°. HBr (Soc. 67, 248).
- C₉H₁₁O₂N₂J** 1) Jodmethylat d. Phtalaldehydsäurehydrazon. Sm. 179° u. Zers. (B. 26, 707). — II, 1626.
- C₉H₁₁O₂N₂S** 1) α-Amido-β-Phenylthioharnstoff-α-Methylcarbonsäure (Phenylthioamidohydantoinsäure). Sm. 135° (B. 31, 168).
- C₉H₁₁O₂N₂S₂** 1) 1,2-Diacetyl-3,5-Dithiocarbonyl-4-Allyltetrahydro-1,2,4-Triazol. Sm. 94,5° (B. 29, 861).
- C₉H₁₁O₂N₂Cl** 1) Chloräthyltheobromin. Sm. 141° (C. 1897 [1] 284). — III, 955.
 2) Aethoxylehloroxydimethylpurin. Sm. 160° (B. 17, 335). — I, 1337.
 3) Diäthyläther d. 8-Chlor-2,6-Dioxypurin. Sm. 205° u. Zers. (B. 30, 2234). — IV, 1252.
- C₉H₁₁O₂N₂Br** 1) Bromäthyltheobromin. Sm. 171—172° (A. 215, 306; C. 1897 [1] 284). — III, 955.
- C₉H₁₁O₂ClS** 1) α-Chloräthyl-4-Methylphenylsulfon. Sm. 78—79° (J. pr. [2] 30, 357). — II, 823.

- C₉H₁₁O₂ClS** 2) β -Chloräthyl-4-Methylphenylsulfon. Sm. 84° (*J. pr.* [2] 40, 515). — II, 823.
- 3) Chlorid d. 1-Isopropylbenzol-2-Sulfonsäure. Fl. (B. 18, 1241). — II, 147.
- 4) Chlorid d. 1-Methyl-4-Aethylbenzol-*p*-Sulfonsäure. Sm. 3° (B. 28, 2650).
- 5) Chlorid d. 1,2,4-Trimethylbenzol-5-Sulfonsäure. Sm. 61° (B. 11, 32). — II, 149.
- 6) Chlorid d. 1,3,5-Trimethylbenzol-2-Sulfonsäure. Sm. 57° (Z. 1867, 686; B. 28, 2943). — II, 150.
- C₉H₁₁O₂ClS₂** 1) Chlorid d. 4-Merkapto-1-Methylbenzoläthyläther-3-Sulfonsäure. Sm. 67° (Soc. 73, 753).
- C₉H₁₁O₂BrS** 1) β -Brompropylphenylsulfon. Fl. (*J. pr.* [2] 55, 209).
- C₉H₁₁O₂JS** 1) β -Jodpropylphenylsulfon. Fl. (*J. pr.* [2] 55, 211).
- 2) α -Jodäthyl-4-Methylphenylsulfon. Sm. 99,5—100,5° (*J. pr.* [2] 30, 357). — II, 823.
- C₉H₁₁O₃NS** 1) 1,2,3,4-Tetrahydrochinolin-5-Sulfonsäure + H₂O. Zers. bei 315 bis 318°. NH₄ + H₂O, K + $\frac{1}{2}$ H₂O, Ca + $2\frac{1}{2}$ H₂O, Ba + $3\frac{1}{2}$ H₂O, Pb + $2\frac{1}{2}$ H₂O, Ni + $3\frac{1}{2}$ H₂O, Cu + 3H₂O, Ag (B. 20, 3087; *J. pr.* [2] 42, 344; [2] 54, 385; [2] 55, 230). — IV, 196.
- 2) 1,2,3,4-Tetrahydrochinolin-8-Sulfonsäure. Zers. bei 240—242°. NH₄, K, Ca + 3H₂O, Ba, Cu + 4H₂O, Ag (*J. pr.* [2] 40, 455, 461; [2] 48, 264; [2] 55, 94). — IV, 196.
- 3) 1,2,3,4-Tetrahydroisochinolin-3-Sulfonsäure. Sm. 185—186° (B. 30, 2191).
- 4) Phenylsulfonacetoxim. Sm. 147—148° (*J. pr.* [2] 36, 406). — II, 791.
- 5) Acetoximester d. Benzolsulfonsäure. Sm. 52,5° (B. 24, 3538). — II, 113.
- 6) Amid d. β -Phenylsulfonpropionsäure. Sm. 123—124° (B. 21, 98). — II, 787.
- C₉H₁₁O₃N₂Cl** 1) Tetrachlortriäthylester d. Isocyanursäure (A. 109, 109). — I, 1270.
- C₉H₁₁O₃N₂S** 1) Acetylamid d. 5-Acetylamido-2-Methylthiazol-4-Carbonsäure. Sm. 176—178° (M. 16, 739). — IV, 542.
- C₉H₁₁O₃ClS** 1) *p*-Chlor-4-Aethyl-1-Methylbenzol-*p*-Sulfonsäure. Na, Ba + 4H₂O (B. 28, 2652).
- 2) 3-Chlor-1,2,4-Trimethylbenzol-*p*-Sulfonsäure. Na + $\frac{1}{2}$ H₂O, K + H₂O, Ba + H₂O (B. 25, 1528). — II, 149.
- 3) Chlorid d. 2-Oxy-1-Methylbenzoläthyläther-4-Sulfonsäure. Fl. (A. 172, 216). — II, 842.
- C₉H₁₁O₃BrS** 1) 2-Brom-4-Aethyl-1-Methylbenzol-*p*-Sulfonsäure. Na + H₂O, Ba + 5H₂O (B. 28, 2653).
- 2) 3-Brom-1,2,4-Trimethylbenzol-5-Sulfonsäure + $1\frac{1}{2}$ H₂O. Sm. 116°. Na + H₂O, K + H₂O, Mg + 2H₂O, Ca + 3H₂O, Ba + 2H₂O, Pb + 3H₂O, Ag + H₂O (B. 19, 1549; 21, 2822; 22, 1580). — II, 149.
- 3) 3-Brom-1,2,4-Trimethylbenzol-6-Sulfonsäure. Na + H₂O, K + H₂O, Mg + 4H₂O, Ca + 3H₂O, Ba (B. 22, 1585). — II, 150.
- 4) 5-Brom-1,2,4-Trimethylbenzol-6-Sulfonsäure + 2H₂O. Sm. 121°. Na + H₂O, K + H₂O, Ca + 3H₂O, Ba + $\frac{1}{2}$ H₂O, Cu + 4H₂O (B. 19, 1218, 1553). — II, 150.
- 5) 6-Brom-1,2,4-Trimethylbenzol-3-Sulfonsäure. Na + $\frac{1}{2}$ H₂O (B. 19, 1223). — II, 150.
- 6) 2-Brom-1,3,5-Trimethylbenzol-4-Sulfonsäure. K + H₂O, Na, Ba + H₂O, Pb + $\frac{1}{2}$ H₂O, Cu + 4H₂O (A. 164, 56). — II, 151.
- C₉H₁₁O₃JS** 1) *p*-Jod-1,2,4-Trimethylbenzol-*p*-Sulfonsäure. Na + H₂O, Ba + H₂O (B. 22, 1586). — II, 150.
- 2) 2-Jod-1,3,5-Trimethylbenzol-4-Sulfonsäure. Ba + H₂O, Pb (B. 26, 1101). — II, 151.
- C₉H₁₁O₃FS** 1) *p*-Fluor-1,2,4-Trimethylbenzol-*p*-Sulfonsäure. Sm. 115—116°. Na + 4H₂O, Ba + H₂O (B. 26, 1109). — II, 149.
- C₉H₁₁O₄NS** 1) α -Phenylsulfonamidopropionsäure. Sm. 126° (B. 23, 3197). — II, 115.
- 2) β -Phenylsulfonamidopropionsäure. Sm. 111—112° (A. 264, 289). — II, 115.
- 3) 8-Oxy-1,2,3,4-Tetrahydrochinolin-5-Sulfonsäure. Sm. noch nicht bei 320°. K (*J. pr.* [2] 54, 384). — IV, 201.

- C₉H₁₁O₄NS**
- 4) Aldehyd d. 4-Dimethylamidobenzol-1-Carbonsäure-2 oder 3-Sulfonsäure. Ca (C. 1898 [1] 813).
 - 5) 4-Methylester d. 1-Methylbenzol-4-Carbonsäure-3-Sulfonsäureamid. Sm. 145° (B. 25, 1740). — II, 1355.
 - 6) 1-Aethylester d. Benzol-1-Carbonsäure-2-Sulfonsäureamid. Sm. 83° u. Zers. (B. 20, 1601). — II, 1296.
 - 7) 1-Aethylester d. Benzol-1-Carbonsäure-3-Sulfonsäureamid (A. 106, 41, 387). — II, 1299.
 - 8) 1-Aethylester d. Benzol-1-Carbonsäure-4-Sulfonsäureamid. Sm. 110—111° (A. 178, 300). — II, 1301.
 - 9) 4-Acetylamidophenylester d. Methansulfonsäure. Sm. 177—178° (J. pr. [2] 48, 248). — II, 719.
 - 10) 2-Amid d. 1-Aethylbenzol-4-Carbonsäure-2-[p]-Sulfonsäure. Sm. 261—262° u. Zers. Ba + 3H₂O (Am. 4, 201). — II, 1373.
 - 11) 5-Amid d. 1,2-Dimethylbenzol-3-Carbonsäure-5-Sulfonsäure. Sm. 238°. Ba + 5H₂O (B. 19, 2519). — II, 1375.
 - 12) 5-Amid d. 1,3-Dimethylbenzol-2-Carbonsäure-5-Sulfonsäure. Sm. 174° (B. 19, 2519). — II, 1375.
 - 13) 6-Amid d. 1,3-Dimethylbenzol-4-Carbonsäure-6-Sulfonsäure. Sm. 268°. NH₄, K + H₂O, Ca, Ba + 2½ H₂O (B. 16, 190). — II, 1378.
 - 14) 2-Amid d. 1,3-Dimethylbenzol-5-Carbonsäure-2-Sulfonsäure. Sm. 276° u. Zers. Ca + 2H₂O, Ba + 2H₂O, Cu + H₂O (A. 206, 174; Am. 2, 131). — II, 1380.
 - 15) 4-Amid d. 1,3-Dimethylbenzol-5-Carbonsäure-4-Sulfonsäure. Sm. 263°. Ca + 6H₂O, Ba + 3H₂O, Cu + 3(4)H₂O, Ag (B. 10, 1040; A. 206, 167; Am. 2, 131). — II, 1379.
 - 16) 2-Aethylamid d. Benzol-1-Carbonsäure-2-Sulfonsäure. Sm. 116°. Na₂, K₂, Cu + 2H₂O, Ag (B. 20, 1599). — II, 1296.
- C₉H₁₁O₄N₂Cl₂**
- 1) Chloressigsäures Adenin. Sm. 162—163° (H. 16, 166).
- C₉H₁₁O₄ClS₂**
- 1) Chlorid d. 2-Aethylsulfon-1-Methylbenzol-4-Sulfonsäure. Sm. 77° (Soc. 73, 757).
 - 2) Chlorid d. 2-Aethylsulfon-1-Methylbenzol-5-Sulfonsäure. Sm. 73° (Soc. 73, 758).
 - 3) Chlorid d. 4-Aethylsulfon-1-Methylbenzol-3-Sulfonsäure. Sm. 117° (Soc. 73, 753).
- C₉H₁₁O₆NS**
- 1) Methyläther d. β-Oxyäthyl-3-Nitrophenylsulfon. Sm. 72° (A. 294, 247).
 - 2) 2-Nitro-1,3,5-Trimethylbenzol-4-Sulfonsäure + 1½ H₂O. Sm. 131°. K + H₂O, Ba, Pb + H₂O, Cu + 3H₂O (A. 164, 65). — II, 151.
 - 3) 4-Dimethylamidobenzol-1-Carbonsäure-2-Sulfonsäure. Ca (Am. 9, 413). — II, 1307.
 - 4) α-Amido-β-[4-Sulfophenyl]propionsäure + H₂O. Ba + 4H₂O (A. 219, 209). — II, 1369.
 - 5) Aethylester d. 4-Amidobenzol-1-Carbonsäure-2-Sulfonsäure (Am. 9, 413). — II, 1307.
 - 6) 6-Amid d. 4-Oxy-1-Methylbenzoldimethyläther-3-Carbonsäure-6-Sulfonsäure + H₂O? Sm. 236—238°. Ca + 7H₂O, Ba + 7H₂O (Am. 19, 391).
 - 7) 3-Amid d. 4-Oxybenzoldimethyläther-1-Carbonsäure-3-Sulfonsäure. Sm. 230—231° u. Zers. Ba + 2H₂O (Am. 15, 309). — II, 1543.
- C₉H₁₁O₆N₂S**
- 1) β-Nitro-β-Phenylhydrazonpropan-4-Sulfonsäure. K (B. 12, 2287). — IV, 1375.
- C₉H₁₁O₆NS**
- 1) Tyrosinsulfonsäure + 2H₂O (α-Amido-β-[4-Oxyphenyl]-?-Sulfonsäure] propionsäure). NH₄ + H₂O, Ca + 5H₂O, Ba + 4H₂O (A. 116, 91). — II, 1569.
 - 2) isom. Tyrosinsulfonsäure? Ba (A. 116, 91). — II, 1569.
 - 3) Tyrosinschwefelsäure. K (H. 7, 32).
 - 4) 2-Nitro-4-Oxy-1-Methylbenzoldimethyläther-5-Sulfonsäure. Ba + 4H₂O (A. 230, 306). — II, 845.
- C₉H₁₁O₆NS₂**
- 1) 3-Nitrobenzylidendi[methylsulfon]. Sm. 178—179° (B. 21, 487). — III, 19.
 - 2) 4-Nitrobenzylidendi[methylsulfon]. Sm. 247—248° (B. 21, 487). — III, 19.
- C₉H₁₁O₇N₂P**
- 1) 3,6-Dinitro-2,4,5-Trimethylphenylphosphinsäure. Sm. 239° u.

Zers. $\text{Cu} + \text{H}_2\text{O}$, Ag, Ag_2 , Anilinsalz, Phenylhydrazinsalz (A. [294](#), [19](#)). — IV, [1678](#).

- $\text{C}_9\text{H}_{11}\text{N}_2\text{JS}$ 1) 4-Jodmethylat d. [4-Methyl-1,3,4-Benzthiodiazin](#). Sm. 280° u. Zers. (B. [27](#), [865](#)). — IV, [682](#).
- $\text{C}_9\text{H}_{11}\text{ONCl}$ 1) Aethyläther d. 2-Chlor-4-Amido-1-Oxymethylbenzol. Fl. HCl (B. [25](#), [84](#)). — II, [1063](#).
- $\text{C}_9\text{H}_{11}\text{ONJ}$ 1) Jodäthylat d. 2-Acetylpyridin. Sm. 205° (B. [24](#), [2528](#)). — IV, [183](#).
- $\text{C}_9\text{H}_{11}\text{ON}_2\text{S}$ 1) Methyläther d. 4-Oxybenzylthioharnstoff. Sm. 95° (B. [20](#), [2409](#)). — II, [754](#).
- 2) Aethyläther d. 2-Oxyphenylthioharnstoff. Sm. 110° (J. pr. [\[2\]](#) [39](#), [106](#)). — II, [711](#).
- 3) Aethyläther d. 4-Oxyphenylthioharnstoff (J. pr. [\[2\]](#) [30](#), [108](#)). — II, [720](#).
- $\text{C}_9\text{H}_{11}\text{O}_2\text{NCl}$ 1) 3-Aethyl-1-Pyridylchlorammoniumessigsäure (Chlorid d. Lutidinyglykolsäure). Sm. [162,5^\circ](#). $2 + \text{PtCl}_4 + 2\text{H}_2\text{O}$ (J. [1882](#), [1079](#)). — IV, [132](#).
- $\text{C}_9\text{H}_{11}\text{O}_2\text{NBr}$ 1) Anhydro- α -Bromecgonin. $\text{HCl} + 3\text{H}_2\text{O}$, (HCl , $\text{AuCl}_3 + 1\frac{1}{2}\text{H}_2\text{O}$), $\text{HBr} + 3\text{H}_2\text{O}$ (B. [23](#), [2876](#)). — III, [871](#).
- 2) Verbindung (aus Pseudopelletierin). Sm. 207° (B. [26](#), [159](#)). — IV, [54](#).
- $\text{C}_9\text{H}_{11}\text{O}_2\text{N}_2\text{Cl}$ 1) Diäthyläther d. [2,6-Dichlor-4-Amido-3,5-Dioxypyridin?](#) Sm. 98° (B. [19](#), [2715](#)). — IV, [820](#).
- $\text{C}_9\text{H}_{11}\text{O}_2\text{N}_2\text{S}$ 1) β -Phenylsulfonhydrazonpropan. Sm. $143\text{--}145^\circ$ u. Zers. (J. pr. [\[2\]](#) [58](#), [172](#)).
- $\text{C}_9\text{H}_{11}\text{O}_3\text{NBr}$ 1) Verbindung (aus d. Verb. $\text{C}_{10}\text{H}_{13}\text{O}_3\text{Br}$ aus α -Dibromcampher). Sm. 125° (C. [1895](#) [\[1\]](#) [648](#)).
- $\text{C}_9\text{H}_{11}\text{O}_3\text{NP}$ 1) Dimethyl- P -Nitro-4-Methylphenylphosphinoxid. Sm. [175^\circ](#). $+ \text{HgCl}_2$ (A. [293](#), [283](#)). — IV, [1671](#).
- $\text{C}_9\text{H}_{11}\text{O}_3\text{N}_2\text{Br}_2$ 1) Verbindung (aus d. Äthylamid d. 1-Äthylpyrrol-2-Carbonsäure). Sm. 197° u. Zers. (B. [11](#), [1813](#)). — IV, [80](#).
- $\text{C}_9\text{H}_{11}\text{O}_3\text{N}_2\text{S}$ 1) [2,4,5-Trimethyldiazobenzolschwefligsäure](#). $\text{Na} + 2\frac{1}{2}\text{H}_2\text{O}$ (B. [18](#), [90](#)). — IV, [1533](#).
- 2) 2-Imido-4-Keto-3-Allyltetrahydrothiazol-5-[Äthyl- α -Carbonsäure] (Allylthiohydantoin- α -Propionsäure). Ba (M. [18](#), [71](#)).
- 3) β -Phenylhydrazonpropan- β^1 -Sulfonsäure (A. [239](#), [216](#)). — IV, [766](#).
- 4) Äthylester d. Thiomethyluracilelessigsäure. Sm. $142\text{--}143^\circ$ (A. [238](#), [15](#)). — I, [1355](#).
- 5) Diamid d. [1,3-Dimethylbenzol-5-Carbonsäure- \$\text{P}\$ -Sulfonsäure](#). Sm. $287\text{--}288^\circ$ (Am. [3](#), [218](#)). — II, [1379](#).
- $\text{C}_9\text{H}_{11}\text{O}_3\text{ClP}$ 1) [6-Chlor-2,4,5-Trimethylphenylphosphinsäure](#). Sm. 235° . Phenylhydrazinsalz (A. [294](#), [15](#)). — IV, [1678](#).
- $\text{C}_9\text{H}_{11}\text{O}_4\text{N}_2\text{S}$ 1) Diäthylester d. [2-Amidothiazol-4,5-Dicarbonsäure](#). Sm. 112° . $+ \frac{1}{2}\text{C}_2\text{H}_5\text{O}$ (A. [259](#), [272](#)). — IV, [545](#).
- $\text{C}_9\text{H}_{11}\text{O}_4\text{Cl}_4\text{Cr}_2$ 1) γ -Phenylpropylidendichlorochromsäure (A. ch. [\[5\]](#) [22](#), [252](#)). — II, [28](#).
- $\text{C}_9\text{H}_{11}\text{O}_3\text{N}_2\text{S}$ 1) [3-Nitro-5-Amido-1,2,4-Trimethylbenzol-6-Sulfonsäure](#). Sm. 240° u. Zers. Na, Ca, Ba (B. [19](#), [2313](#); [20](#), [966](#)). — II, [583](#).
- $\text{C}_9\text{H}_{11}\text{O}_3\text{N}_2\text{S}_2$ 1) 1-Äthylester d. [Benzol-1-Carbonsäure-2,4-Disulfonsäurediamid](#). Sm. $198\text{--}200^\circ$ (Am. [2](#), [185](#)). — II, [1302](#).
- $\text{C}_9\text{H}_{11}\text{ONS}$ 1) 2-[α -Oximidoäthyl]-5-Propylthiophen. Sm. 55° (B. [20](#), [1744](#)). — III, [766](#).
- $\text{C}_9\text{H}_{11}\text{ON}_2\text{Br}$ 1) Bromoxykyanconlin. Sm. 172° . Ag (J. pr. [\[2\]](#) [26](#), [358](#); [\[2\]](#) [30](#), [156](#)). — IV, [830](#).
- $\text{C}_9\text{H}_{11}\text{ON}_2\text{J}$ 1) Jodoxykyanconlin. Sm. 157° (J. pr. [\[2\]](#) [30](#), [168](#)). — IV, [830](#).
- 2) Pseudojodmethylat d. 4-Nitroso-1-Dimethylamidobenzol. Sm. 125° (B. [30](#), [934](#)).
- $\text{C}_9\text{H}_{11}\text{O}_3\text{NS}$ 1) γ -Phenyl-norm. Propylsulfaminsäure (B. [26](#), [2161](#)). — II, [550](#).
- 2) Amid d. 1-Propylbenzol-2-Sulfonsäure. Sm. 110° ($104\text{--}105^\circ$) (B. [12](#), [2239](#); J. pr. [\[2\]](#) [41](#), [155](#); A. [219](#), [298](#)). — II, [147](#).
- 3) Amid d. 1-Propylbenzol-4-Sulfonsäure. Sm. $109\text{--}110^\circ$ (84°) (J. pr. [\[2\]](#) [41](#), [157](#); B. [23](#), [3196](#)). — II, [147](#).
- 4) Amid d. 1-Isopropylbenzol-2-Sulfonsäure. Sm. $93\text{--}94^\circ$ (B. [18](#), [1241](#); [23](#), [3195](#)). — II, [147](#).
- 5) Amid d. 1-Isopropylbenzol-4-Sulfonsäure. Sm. $107\text{--}108^\circ$ ([112^\circ](#)) (B. [12](#), [2240](#); [18](#), [1241](#); [26](#), [2944](#); J. [1879](#), [760](#)). — II, [148](#).
- 6) Amid d. 1-Methyl-4-Äthylbenzol- P -Sulfonsäure. Sm. 71° . Ag (B. [28](#), [2650](#); [29](#), [190](#) Anm.).

- $C_9H_{11}O_2NS$ 7) Amid d. 1,2,3-Trimethylbenzol-5-Sulfonsäure. Sm. 196° (B. 15, 1858). — II, 148.
 8) Amid d. 1,2,4-Trimethylbenzol-3-Sulfonsäure. Sm. 113° (B. 19, 1223). — II, 148.
 9) Amid d. 1,2,4-Trimethylbenzol-5-Sulfonsäure. Sm. 181° (A. 184, 185; 235, 185; B. 14, 2629; 16, 190; 19, 2514; 26, 2943). — II, 149.
 10) Amid d. 1,2,4-Trimethylbenzol-6-Sulfonsäure. Sm. 173–179° (172°) (B. 19, 1219, 1556). — II, 149.
 11) Amid d. 1,3,5-Trimethylbenzol-2-Sulfonsäure. Sm. 141–142° (A. 184, 185; B. 15, 1857; 26, 2943). — II, 151.
 12) Amid d. Sulfonsäure d. Kohlenw. C_9H_{11} , (aus Harzessenz). Sm. 130° (B. 19, 1970). — II, 151.
 13) Methylamid d. 1,3-Dimethylbenzol 4-Sulfonsäure. Sm. 43° (R. 16, 420).
 14) Aethylamid d. 1-Methylbenzol-4-Sulfonsäure. Sm. 58° (63–64°) (Am. 8, 241; B. 32, 561). — II, 132.
 15) Methyläthylamid d. Benzolsulfonsäure. Fl. (A. 265, 180). — II, 115.
- $C_9H_{11}O_2N_2Cl$ 1) Trimethyl-3-Nitrophenylammoniumchlorid. 2 + $PtCl_4$ (B. 19, 1941). — II, 331.
- $C_9H_{11}O_2N_2Br$ 1) Trimethyl-3-Nitrophenylammoniumbromid (B. 19, 1941). — II, 331.
- $C_9H_{11}O_2N_2J$ 1) Trimethyl-2-Nitrophenylammoniumjodid. + J_2 (M. 19, 635).
- $C_9H_{11}O_2N_4Cl$ 1) Chlormethylat d. Kaffein + H_2O . Zers. bei 200°. 2 + $PtCl_4$ (A. 228, 149). — III, 959.
- $C_9H_{11}O_2N_4J$ 1) Jodmethylat d. Kaffein + H_2O . Zers. bei 190°. + J_2 (Z. 1865, 456; A. 217, 286; 228, 142). — III, 959.
- $C_9H_{11}O_2ClBr$ 1) Chlordibromtetrahydro- γ -Camphylsäure. Zers. bei 171–172° (Soc. 73, 825).
- $C_9H_{11}O_2NS$ 1) 1-Trimethylamidobenzol-4-Sulfonsäure. (2HCl, $PtCl_4$ + 8H₂O) (B. 12, 2116). — II, 576.
 2) 2-Amido-1,3,5-Trimethylbenzol-4-Sulfonsäure + H_2O . Mg + 3H₂O, Ba, Zn + 5H₂O, Pb + H₂O, Ag (A. 164, 70). — II, 584.
 3) 4-Aethylamido-1-Methylbenzol-2-Sulfonsäure. K + H₂O (J. pr. [2] 48, 62). — II, 581.
 4) 2-Dimethylamido-1-Methylbenzol-3-Sulfonsäure. Ca, Ba, Zn (B. 14, 2163). — II, 579.
 5) Methylphenylamidoäthansulfonsäure (Methylphenyltaurin) (J. pr. [2] 31, 417). — II, 427.
 6) Amid d. 4-Oxy-1,3-Dimethylbenzoldimethyläther-6-Sulfonsäure. Sm. 90° (Am. 19, 387).
 7) Amid d. 2-Oxy-1-Methylbenzoldimethyläther-4-Sulfonsäure. Sm. 137° (A. 172, 216). — II, 842.
 8) Amid d. 4-Oxy-1-Methylbenzoldimethyläther-2-Sulfonsäure. Sm. 143 bis 144° (136°) (A. 221, 353; Am. 8, 246). — II, 844.
 9) Amid d. 4-Oxy-1-Methylbenzoldimethyläther-3-Sulfonsäure. Sm. 138 bis 139° (Am. 15, 307). — II, 844.
 10) Amid d. 3-Oxybenzolpropyläther-1-Sulfonsäure. Sm. 122° (Am. 17, 460).
 11) Acetonanilindisulfid (A. 210, 129; B. 21, 1908). — II, 313, 446.
- $C_9H_{11}O_2N_2Br$ 1) Bromnitrosomerochinen. Sm. 87,5–88° (Bl. [3] 19, 431).
- $C_9H_{11}O_2N_2S$ 1) Phenyltaurocyamin. Zers. über 300° (J. pr. [2] 31, 418). — II, 348.
- $C_9H_{11}O_4ClS$ 1) S-Chlorid d. Sulfocamphersäure. Sm. 168–170° (C. 1898 [1] 106; Soc. 73, 823).
- $C_9H_{11}O_4BrS$ 1) S-Bromid d. Sulfocamphersäure. Sm. 152° (147–150° u. Zers.) (C. 1895 [1] 693; Soc. 73, 826).
- $C_9H_{11}O_6NS$ 1) Benzaldehydglycindisulfid (A. 210, 125). — III, 11.
- $C_9H_{11}NClBr$ 1) Trimethyl-3-Chlorphenylammoniumbromid (J. 1885, 907). — II, 331.
- $C_9H_{11}NBrJ$ 1) Trimethyl-3-Bromphenylammoniumjodid. Sm. 201° u. Zers. (B. 12, 1819). — II, 331.
 2) Trimethyl-4-Bromphenylammoniumjodid. Sm. 185° u. Zers. (B. 12, 1819, 1820). — II, 331.
- $C_9H_{11}ONJ$ 1) Trimethyl-3-Oxyphenylammoniumjodid. Sm. 182° (B. 29, 1533).
 2) Jodmethylat-4-Methyläther d. 4-Oxy-2,6-Dimethylpyridin. Sm. 204° u. Zers. (B. 22, 81). — IV, 130.
- $C_9H_{11}O_2NBr$ 1) Brommerochinen. HBr. Pikrat (B. 17, 1992; 27, 906; 28, 1988; Bl. [3] 19, 430). — III, 818.

- C₉H₁₄O₂NBr** 2) Anhydroecgoninhydrobromid. HBr (B. 23, 2888). — III, 871.
3) Aethylester d. ϵ -Brom- β -Cyanpentan- β -Carbonsäure. Sd. 160 bis 163°₁₅ (B. 29, 730).
- C₉H₁₄O₂N₂S** 1) Aethylester d. 2-Amidothiazol-4-Isopropyl- α -Carbonsäure. Sm. 137° (B. 25, 730). — IV, 548.
2) 4-Methylphenylamid d. Dimethylsulfaminsäure. Sm. 90—91°. Na (A. 222, 129; B. 15, 1612). — II, 503.
- C₉H₁₄O₃N₂S** 1) α -[2,4,5-Trimethylphenyl]hydrazin- β -Sulfonsäure. Na + 1½ H₂O (B. 18, 91). — IV, 814.
2) Benzaldehyd-Aethylenthionaminsäure. Sm. 169° (B. 30, 1012).
- C₉H₁₄O₃N₂S₂** 1) 2-Dimethylamido-5-Amido-1-Methylbenzol- ρ -Thionsulfonsäure. Sm. 240° u. Zers. (B. 25, 3135). — II, 825.
2) 4-Aethylamido-2-Amido-1-Methylbenzol- ρ -Thiosulfonsäure (B. 25, 1615). — IV, 607.
- C₉H₁₄O₄NBr₃** 1) Diäthylester d. $\alpha\alpha\beta$ -Tribrom- β -Carboxylamidobuttersäure. Fl. (A. 244, 239). — I, 1207.
- C₉H₁₄O₄N₂S** 1) 2-Oxybenzaldehyd-Aethylenthionaminsäure (B. 30, 1012).
- C₉H₁₅ONBr₂** 1) 3,3- oder 3,5-Dibrom-4-Keto-2,2,6,6-Tetramethylhexahydropyridin (Dibromtriacetonamin). Zers. bei 140—150°. HBr (B. 31, 670).
2) isom. Dibromtriacetonamin. Sm. 60—61° (B. 31, 672).
- C₉H₁₅O₃N₃Br₆** 1) Hexabromid d. norm. Cyanursäuretriäthylester (B. 16, 360). — I, 1271.
- C₉H₁₅O₃Br₆B** 1) Borsäuretri[$\beta\gamma$ -Dibrompropylester] (J. pr. [2] 18, 380). — I, 345.
- C₉H₁₅O₇N₂S** 1) Alloxanpiperidindisulfit (A. 248, 150). — IV, 4.
- C₉H₁₅N₂BrS** 1) 5-Brom-2-[1-Hexahydropyridyl]-4,5-Dihydro-1,3-Thiazin. Fl. HBr (Soc. 69, 30). — IV, 14.
- C₉H₁₅N₄JS** 1) Jodmethylat d. 2-Allylimido-5-Thiocarbonyl-1-Allyltetrahydro-1,3,4-Triazol (B. 26, 2880).
- C₉H₁₆ONCl** 1) Chlormethylat d. Tropinon. + AuCl₃ (Sm. 205—206° u. Zers.) (B. 29, 401). — III, 791.
2) Nitrosylechlorid d. Kohlenw. C₉H₁₆ (aus Pulegensäure). Sm. 74—75° (A. 289, 353).
- C₉H₁₆ONBr** 1) 1-Brom-4-Keto-2,2,6,6-Tetramethylhexahydropyridin (N-Bromtriacetonamin). Sm. 44° (B. 31, 669).
2) Piperidid d. α -Brombuttersäure. Sm. 125—130° (B. 31, 2846).
3) Piperidid d. α -Bromisobuttersäure. Sm. 121,5—122,5°; Sd. 147 bis 150°₉₅ (B. 31, 2846).
- C₉H₁₆ONJ** 1) Jodmethylat d. Tropinon. Sm. 263—265° u. Zers. (B. 29, 401). — III, 791.
- C₉H₁₆O₂NCl** 1) Chlormethylat d. 1-Methyl-1,2,3,4-Tetrahydropyridin-3-Carbonsäuremethylester (Ch. d. Arecolin). + AuCl₃ (B. 30, 729).
2) Chlormethylat d. Oscin. 2 + PtCl₄ + AuCl₃ (B. 17, 151; C. 1898 [1] 1196). — III, 797.
- C₉H₁₆O₂NBr** 1) ρ -Brom- ρ -Nitro-1,2,4-Trimethylhexahydrobenzol. Fl. (J. r. 25, 408).
- C₉H₁₆O₂NJ** 1) Jodmethylat d. 1-Methyl-1,2,3,4-Tetrahydropyridin-3-Carbonsäuremethylester (J. d. Arecolin). Sm. 173—174° (B. 30, 729).
2) Jodmethylat d. Oscin (B. 17, 151). — III, 797.
- C₉H₁₆O₂N₂S** 1) Aethylester d. α -Piperidylthioharnstoff- β -Carbonsäure. Sm. 99 bis 99,5° (Soc. 69, 332). — IV, 14.
- C₉H₁₆O₃NCl** 1) Aethylester d. β -[γ -Chlor- β -Oxypropyl]imidobuttersäure. Sm. 95° (G. 21 [2] 2). — I, 1348.
- C₉H₁₆O₃N₂S** 1) Isoamylester d. β -Acetylharnstoff- α -Thiolcarbonsäure (l. d. Acetylthiolallophanensäure). Sm. 85° (J. pr [2] 32, 253). — I, 1309.
- C₉H₁₆ClSP** 1) Methyldiäthylthiophenphosphoniumchlorid. 2 + PtCl₄ (B. 25, 1517). — IV, 1682.
- C₉H₁₆JSP** 1) Methyldiäthylthiophenphosphoniumjodid. Sm. 122° (B. 25, 1517). — IV, 1682.
- C₉H₁₇ONBr₂** 1) Triacetonamindibromid. HBr (B. 31, 669).
- C₉H₁₇ON₂Cl** 1) Chlormethylat d. Tropinonoxim. + AuCl₃ (Sm. 182° u. Zers.) (B. 29, 401). — III, 791.
- C₉H₁₇ON₂J** 1) Jodmethylat d. Tropinonoxim. Sm. 236° u. Zers. (B. 29, 400). — III, 791.

- $C_9H_{17}O_2N_2Cl_4$ 1) Chloral + uns-Dipropylharnstoff. Sm. 128°; (Hydrat Sm. 51°) (R. 8, 239). — I, 1314.
2) Chloral + uns-Diisopropylharnstoff. Sm. 121° (R. 8, 239). — I, 1314.
- $C_9H_{17}O_4N_2Br$ 1) α -Brom- $\alpha\alpha$ -Dinitrononan. Fl. (Am. 21, 236).
 $C_9H_{17}O_5N_2J_2$ 1) Verbindung (aus Aethyljodid und Parabansäure) (A. 103, 200). — I, 1368.
- $C_9H_{17}NBrJ$ 1) 1-Brom-4-Jod-2,2,6,6-Tetramethylhexahydropyridin. Sm. 98° (B. 32, 666).
- $C_9H_{19}ONCl$ 1) Chlormethylat d. Tropin. 2 + $PtCl_4$, + $AuCl_3$ (A. 216, 331). — III, 786.
2) Chlormethylat d. Pseudotropin. 2 + $PtCl_4$ (A. 271, 212). — III, 795.
3) Chlormethylat d. Piperidoaceton. 2 + $PtCl_4$, + $AuCl_3$ (B. 28, 1252; C. 1899 [1] 117). — IV, 22.
- $C_9H_{19}ONBr$ 1) 1-Brom-4-Oxy-2,2,6,6-Tetramethylhexahydropyridin (N-Brom-triacetonalkamin). Sm. 101° (B. 31, 1148; 32, 664).
- $C_9H_{19}ONJ$ 1) Jodmethylat d. Tropin (A. 216, 331; 217, 129). — III, 786.
2) Jodmethylat d. Piperidoaceton. Sm. 126° (B. 28, 1251). — IV, 22.
3) Jodmethylat d. Pseudotropin. Sm. oberh. 270° (A. 271, 212). — III, 795.
- $C_9H_{19}O_2NCl$ 1) Chlormethylat d. 1-Methylhexahydropyridin-3-Carbonsäuremethylester (Ch. d. Dihydroarecolin). + $AuCl_3$ (B. 30, 730).
- $C_9H_{19}O_2NBr$ 1) α -Brom- α -Nitrononan. Fl. (Am. 21, 234).
 $C_9H_{19}O_2NJ$ 1) Jodmethylat d. 1-Methylhexahydropyridin-3-Carbonsäuremethylester (J. d. Dihydroarecolin). Sm. 155–156° (B. 30, 730).
- $C_9H_{19}O_2NCl_3$ 1) Tri[β -Chlor- β -Oxyisopropyl]amin. Sm. 92–93°. HCl (B. 21 [2] 646). — I, 1174.
- $C_9H_{19}O_4Br_2S_2$ 1) Dibromdi[Isobutylsulfon]methan. Sm. 77–78° (B. 23, 3231). — I, 351.
- $C_9H_{19}ON_2J$ 1) Jodmethylat d. Hygrinoxim (B. 26, 852). — III, 878.
 $C_9H_{19}NClBr$ 1) Triäthylbromallylammoniumchlorid. 2 + $PtCl_4$ (B. 30, 621).
 $C_9H_{19}N_2JS$ 1) Allylthioharnstoffisoamyljodid (Z. 1869, 259). — I, 1322.
- $C_9H_{20}ONCl$ 1) Chlormethylat d. 3-Oxymethyl-1,2-Dimethylhexahydropyridin. 2 + $PtCl_4$, + $AuCl_3$ (A. 294, 147; 301, 134 Anm.). — IV, 30.
2) Chlormethylat d. 1-Methyl-2-[β -Oxyäthyl]hexahydropyridin. 2 + $PtCl_4$, + $AuCl_3$ (B. 24, 1624; A. 301, 134). — IV, 29.
3) Chloräthylat d. γ -Diäthylamidopropan- $\alpha\beta$ -Oxyd (Oxyallyltriäthylammoniumchlorid?). 2 + $PtCl_4$ (J. 1881, 510). — I, 1176.
4) Triäthyl- α -Chlorallylammoniumhydrat. Salze, siehe diese (B. 15, 3089).
5) Triäthyl- β -Chlorallylammoniumhydrat. Salze, siehe diese (B. 15, 3089).
- $C_9H_{20}ONJ$ 1) Jodmethylat d. 1-[γ -Oxypropyl]hexahydropyridin. Sm. 142° (B. 17, 680). — IV, 18.
2) Jodmethylat d. 3-Oxymethyl-1,2-Dimethylhexahydropyridin (A. 294, 147). — IV, 30.
- $C_9H_{20}ON_2S$ 1) α -Aethyl- β -[γ -Oxy- $\alpha\alpha$ -Dimethylbutyl]thioharnstoff. Sm. 198,5° (B. 30, 1325).
- $C_9H_{20}O_2NCl$ 1) α -Triäthylamidopropionsäurechlorid. 2 + $PtCl_4$ (Bl. [3] 2, 142). — I, 1195.
- $C_9H_{20}O_2NBr$ 1) α -Triäthylamidopropionsäurebromid (Bl. [3] 2, 142). — I, 1195.
 $C_9H_{20}O_3ClP$ 1) Diäthylester d. Chlorisoamylphosphinsäure. Fl. (M. 7, 24). — I, 1504.
- $C_9H_{20}NClBr_2$ 1) Triäthyl- $\beta\gamma$ -Dibrompropylammoniumchlorid. 2 + $PtCl_4$, + $AuCl_3$ (B. 30, 621).
- $C_9H_{21}O_3ClSi$ 1) Chlorid d. Tripropylkieselsäure. Sd. 208–210° (J. 1874, 497). — I, 346.
- $C_9H_{21}O_4NS$ 1) Amidoessigsäure-Oenanthaldehyddisulfit (A. 210, 125). — I, 1184.
 $C_9H_{22}O_2NCl$ 1) Diäthyläther d. Trimethyl- $\beta\beta$ -Dioxyäthylammoniumchlorid (Trimethylamidoacetalchlorid). + $AuCl_3$, 2 + $PtCl_4$ (B. 17, 1141; 26, 469, 803). — I, 1230.
- $C_9H_{22}O_2NJ$ 1) Diäthyläther d. Trimethyl- $\beta\beta$ -Dioxyäthylammoniumjodid (B. 26, 468). — I, 1230.

- $C_7H_7ON_2Cl_2$ 1) Dichlormethylat d. $\alpha\gamma$ -Di[Dimethylamido]- β -Oxypropan. + 2Au, Cl_2 , + $PtCl_4$ (M. 7, 252). — I, 1176.
- $C_7H_7NCl_2P$ 1) Methyltriäthyläthylenphosphammoniumchlorid. 2 + $PtCl_4$ (A. Spl. 1, 296). — I, 1506.
- $C_7H_7NBr_2P$ 1) Methyltriäthyläthylenphosphammoniumbromid (A. Spl. 1, 296). — I, 1506.
- $C_7H_7O_2NP$ 1) Methyltriäthyläthylenphosphammoniumhydrat (A. Spl. I, 296). — I, 1506.

C₉-Gruppe mit fünf Elementen.

- $C_9H_5O_2NCl_2S$ 1) Chlorid d. 5-Chlorchinolin-8-Sulfonsäure. Sm. 146° (J. pr. [2] 48, 266). — IV, 294.
2) Chlorid d. 7-Chlorchinolin-8-Sulfonsäure. Sm. 137° (J. pr. [2] 48, 284). — IV, 294.
- $C_9H_5O_2NCl_2S$ 1) Chlorid d. 7-Chlor-8-Oxychinolin-5-Sulfonsäure (J. pr. [2] 41, 39). — IV, 298.
- C_9H_5ONClS 1) 5-Chlor-2-Oxy-4-Phenylthiazol. Sm. 206° (A. 261, 16). — IV, 307.
- $C_9H_5O_2NClS$ 1) Chlorid d. Chinolin-7-Sulfonsäure (J. pr. [2] 37, 262). — IV, 293.
2) Chlorid d. Chinolin-8-Sulfonsäure. Sm. 124° (B. 19, 926). — IV, 293.
- $C_9H_5O_2NClS$ 1) 6-Chlorchinolin-5-Sulfonsäure + H_2O . K + $1\frac{1}{2}H_2O$ (J. pr. [2] 49, 373). — IV, 294.
2) 8-Chlorchinolin-5-Sulfonsäure. Na + $5H_2O$, Ba + $7H_2O$, Cu + $4H_2O$, Ag (J. pr. [2] 48, 148). — IV, 294.
3) 5-Chlorchinolin-8-Sulfonsäure. Na, K + H_2O , Ca, Ag (J. pr. [2] 48, 263). — IV, 294.
4) 6-Chlorchinolin-8-Sulfonsäure. K (J. pr. [2] 49, 375). — IV, 294.
5) 7-Chlorchinolin-8-Sulfonsäure. Zers. bei 350°. K, Ag (J. pr. [2] 48, 283). — IV, 294.
- $C_9H_5O_2NBrS$ 1) 2-Bromchinolin- β -Sulfonsäure. Sm. 288–290°. K + H_2O , Ba + $2\frac{1}{2}H_2O$, Ag + H_2O (J. pr. [2] 41, 46). — IV, 296.
2) 3-Bromchinolin-5-Sulfonsäure + $1\frac{1}{2}H_2O$. Zers. oberh. 300°. K + H_2O , Ca + $7H_2O$, Ba + $3H_2O$, Cu + $7H_2O$ (J. pr. [2] 40, 451; [2] 55, 227). — IV, 295.
3) 3-Bromchinolin-8-Sulfonsäure. K + H_2O , Ca + $4H_2O$, Ba + H_2O , Cu + H_2O (J. pr. [2] 40, 448). — IV, 295.
4) 5-Bromchinolin-6-Sulfonsäure. Na + H_2O , Ca + $7H_2O$, Ba + $2H_2O$ (J. pr. [2] 40, 458). — IV, 295.
5) 5-Bromchinolin-8-Sulfonsäure + $2H_2O$. Zers. oberh. 300°. Na + $2H_2O$, K + $2H_2O$, Ca + $4H_2O$, Ba + $3H_2O$, Cu + $5H_2O$, Ag (J. pr. [2] 40, 454). — IV, 295.
6) 6-Bromchinolin-5-Sulfonsäure + H_2O . NH_4 , K + $1\frac{1}{2}H_2O$, Mg + $9H_2O$, Ca + $5H_2O$, Ba + $2H_2O$, Zn + $9H_2O$, Mn + $6H_2O$, Ag (J. pr. [2] 49, 533; B. 15, 1915). — IV, 295.
7) 8-Bromchinolin-5-Sulfonsäure + H_2O . Ca + $6\frac{1}{2}H_2O$ (B. 20, 3086; J. pr. [2] 41, 38). — IV, 296.
8) 6-Bromchinolin-8-Sulfonsäure. K, Mg + $10H_2O$, Ca + $2H_2O$, Ba, Zn + $4H_2O$, Mn + $4H_2O$, Ag (B. 15, 1912; J. pr. [2] 40, 460; [2] 49, 531). — IV, 296.
9) β -Bromchinolin-8-Sulfonsäure. Zers. oberh. 350°. Na + H_2O , Ba, Cu + $2H_2O$, Ag (J. pr. [2] 37, 266). — IV, 296.
- $C_9H_5O_2NClS$ 1) 7-Chlor-8-Oxychinolin-5-Sulfonsäure + H_2O . Sm. noch nicht bei 300° (J. pr. [2] 41, 39; [2] 54, 386). — IV, 298.
- $C_9H_5O_2NCl_2Br$ 1) 2,4-Dichlor-6-Brom- β -Nitrophenylester d. Propionsäure. Sm. 88,5–89° (B. 25 [2] 121). — II, 700.
- $C_9H_5O_2NBrS$ 1) 7-Brom-8-Oxychinolin-5-Sulfonsäure + $\frac{1}{2}H_2O$. Zers. bei 280°. Na, Co + $2H_2O$, Ni + $2H_2O$ (J. pr. [2] 41, 36; [2] 42, 343; [2] 54, 379). — IV, 298.
- $C_9H_5O_2NJS$ 1) 7-Jod-8-Oxychinolin-5-Sulfonsäure (Loretin). Mg + $7H_2O$, bas. Mg + $5H_2O$, Ca + $2H_2O$, bas. Ca, Sr + H_2O , Ba + $2\frac{1}{2}H_2O$, bas. Ba + H_2O (B. 27 [2] 31; J. pr. [2] 55, 457). — IV, 298.

- $C_9H_6O_2NJS$ 2) 6-Jod-5-Oxychinolin-8-Sulfonsäure (Lorenit). Zers. bei 210 bis 230°. Na, $Na_2 + 4H_2O$, $K + 2H_2O$, $K_2 + xH_2O$, $Ca + xH_2O$, bas. $Ca + 4H_2O$, Ba, bas. Ba, Sr (*J. pr.* [2] 55, 533). — IV, 298.
- $C_9H_7O_2N_2ClS$ 1) Amid d. 5-Chlorchinolin-8-Sulfonsäure. Sm. 178° (*J. pr.* [2] 48, 266). — IV, 294.
2) Amid d. 7-Chlorchinolin-8-Sulfonsäure. Sm. 122° (*J. pr.* [2] 48, 284). — IV, 294.
- $C_9H_7O_2N_2BrS$ 1) Amid d. 3-Bromchinolin-5-Sulfonsäure. Sm. 255° (*J. pr.* [2] 40, 453). — IV, 295.
2) Amid d. 3-Bromchinolin-8-Sulfonsäure. Sm. 213° (*J. pr.* [2] 40, 451). — IV, 295.
3) Amid d. 5-Bromchinolin-6-Sulfonsäure. Sm. 195° (*J. pr.* [2] 40, 459). — IV, 295.
4) Amid d. 5-Bromchinolin-8-Sulfonsäure. Sm. 205° (*J. pr.* [2] 40, 457). — IV, 295.
5) Amid d. ?-Bromchinolin-8-Sulfonsäure. Sm. 185° (*J. pr.* [2] 37, 267). — IV, 296.
6) Bromamid d. Chinolin-8-Sulfonsäure. Sm. 137—146° u. Zers. $K + 2H_2O$, Ba + $2H_2O$ (*R.* 8, 184). — IV, 293.
- $C_9H_7O_2N_2ClS$ 1) Amid d. 7-Chlor-8-Oxychinolin-5-Sulfonsäure (*J. pr.* [2] 41, 39). — IV, 298.
- $C_9H_7O_2NClBr$ 1) β -Brom- β -[5-Chlor-2-Nitrophenyl]propionsäure. Sm. 142,5 bis 143,5° (*A.* 282, 156). — II, 1363.
- $C_9H_7O_2NClBr$ 1) α -Chlor- β -Oxy- β -[5-Brom-2-Nitrophenyl]propionsäure. Sm. 147 bis 148° (*A.* 284, 149). — II, 1577.
- $C_9H_8ONCl_2S$ 1) Verbindung (aus Chloral u. d. Amid d. Benzolthiocarbonsäure). Sm. 104° (*G.* 16, 182). — II, 1292.
- C_9H_8ONBrS 1) α -[p]-Bromphenyleystein. Sm. 152—153° (*H.* 5, 332). — II, 794.
- $C_9H_8ONBr_2J$ 1) ?-Dibromjod-2-Methylphenylamid d. Essigsäure. Sm. 121° (*A.* 192, 211). — II, 462.
- $C_9H_8O_2NBrS$ 1) Aethylimid d. 4-Brombenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 199—199,5° (*Am.* 8, 233). — II, 1303.
2) isom. ?-Aethylimid d. 4-Brombenzol-1-Carbonsäure-2-Sulfonsäure (*Am.* 8, 234). — II, 1303.
3) β -Bromäthylimid d. Benzol-1-Carbonsäure-2-Sulfonsäure. Sm. 96° (*B.* 29, 1051).
- $C_9H_8O_2NClS$ 1) 2-Chlorid d. 4-Nitrobenzol-1-Carbonsäureäthylester-2-Sulfonsäure. Sm. 67—68° (*Am.* 11, 183). — II, 1305.
- C_9H_8ONSHg 1) Aethyläther d. 4-Oxyphenylquecksilberrhodanid. Sm. 210° (*B.* 27, 260). — IV, 1710.
- $C_9H_{10}ONClS$ 1) Aethylester d. 4-Chlorphenylamidothionameisensäure. Sm. 102,5° (*A.* 176, 52). — II, 384.
- $C_9H_{10}ONBrS$ 1) Aethylester d. 4-Bromphenylamidothionameisensäure. Sm. 108° (105°) (*B.* 13, 231; 26, 2371). — II, 385.
- $C_9H_{10}O_2NClS$ 1) α -Amido- α -Merkaptopropion-4-Chlorphenyläthersäure (4-Chlorphenyleystein). Sm. 182—184° (*B.* 12, 1097). — II, 792.
- $C_9H_{10}O_2NBrS$ 1) α -Amido- α -Merkaptopropion-4-Bromphenyläthersäure (4-Bromphenyleystein). Sm. 181° u. Zers. HCl, Cu (*H.* 5, 315; *B.* 12, 1096). — II, 794.
- $C_9H_{10}O_2NJS$ 1) α -Amido- α -Merkaptopropion-4-Jodphenyläthersäure (4-Jodphenyleystein). Sm. 200° u. Zers. (*H.* 20, 589).
- $C_9H_{10}O_2ClBrS$ 1) Chlorid d. 2-Brom-4-Aethyl-1-Methylbenzol-?Sulfonsäure. Fl. (*B.* 28, 2653).
- $C_9H_{10}O_2ClFS$ 1) Chlorid d. ?-Fluor-1,2,4-Trimethylbenzol-?Sulfonsäure. Sm. 36—37° (*B.* 26, 1109). — II, 149.
- $C_9H_{10}O_3NBrS$ 1) 7-Brom-1,2,3,4-Tetrahydrochinolin-5-Sulfonsäure. Sm. 280 bis 285° (*J. pr.* [2] 55, 234). — IV, 196.
2) 6-Brom-1,2,3,4-Tetrahydrochinolin-8-Sulfonsäure. Sm. 245°. K , $Ca + 4H_2O$, Ba + $5H_2O$, Co + $6H_2O$, Ni + $5H_2O$, Ag (*J. pr.* [2] 55, 106). — IV, 196.
- $C_9H_{10}O_3ClFS$ 1) ?-Chlorfluor-1,2,4-Trimethylbenzol-?Sulfonsäure. Na + H_2O (*B.* 26, 1110). — II, 149.
- $C_9H_{10}O_3BrFS$ 1) ?-Bromfluor-1,2,4-Trimethylbenzol-?Sulfonsäure. Na + $2H_2O$ (*B.* 26, 1112). — II, 150.

- $C_9H_{10}O_4NCIS$ 1) α -[4-Chlorphenylsulfon]amidopropionsäure. Sm. 156° u. Zers. Cu (H. 16, 538). — II, 792.
- $C_9H_{10}O_4NBrS$ 1) α -Amido- α -[4-Bromphenylsulfon]propionsäure. Sm. 163—164° (H. 16, 540). — II, 793.
- 2) 3-Aethylester d. 4-Brombenzol-1-Carbonsäureamid-3[?]-Sulfonsäure. Sm. 128° (B. 28 [2] 990).
- 3) 1-Aethylester d. 4-Brombenzol-1-Carbonsäure-?-Sulfonsäuremonamid. Sm. 128° (A. 191, 22). — II, 1304.
- $C_9H_{11}ON_2JS$ 1) Aethyläther d. 3-Jod-4-Oxyphenylthioharnstoff. Sm. 163° (B. 29, 2596).
- $C_9H_{11}O_2NBr_2S$ 1) Amid d. 5,6-Dibrom-1,2,4-Trimethylbenzol-3-Sulfonsäure. Sm. über 250° u. Zers. (B. 19, 1222). — II, 150.
- $C_9H_{11}O_5NCIP$ 1) 6-Chlor-3-Nitro-2,4,5-Trimethylphenylphosphinsäure. Sm. 227 bis 228° u. Zers. (A. 294, 18). — IV, 1678.
- $C_9H_{11}NCIS P$ 1) 2,4,5-Trimethylphenylimid d. Thiophosphorsäuremonoehlorid (Sulfo-phosphazopseudocumolchlorid). Sm. 257° (B. 28, 1246).
- $C_9H_{11}ONSP$ 1) 2-Methylphenylimid d. Thiophosphorsäuremonoäthylester (Sulfo-phosphazo-o-Toluoläthylester). Sm. 176° (B. 28, 1243).
- 2) 4-Methylphenylimid d. Thiophosphorsäuremonoäthylester. Sm. 176° (B. 28, 1245).
- $C_9H_{12}O_2NCIS$ 1) Amid d. ?-Chlor-1,2,4-Trimethylbenzol-5-Sulfonsäure. Sm. 182° (B. 27 [2] 888).
- $C_9H_{12}O_2NBrS$ 1) Amid d. 2-Brom-4-Aethyl-1-Methylbenzol-?-Sulfonsäure. Sm. 143°. Ag (B. 28, 2653).
- 2) Amid d. 3-Brom-1,2,4-Trimethylbenzol-5-Sulfonsäure. Sm. 185° (187—188°) (B. 19, 1551; 21, 2823). — II, 149.
- 3) Amid d. 3-Brom-1,2,4-Trimethylbenzol-6-Sulfonsäure. Sm. 194,5° (B. 22, 1586). — II, 150.
- 4) Amid d. 5-Brom-1,2,4-Trimethylbenzol-6-Sulfonsäure. Sm. 186° (183—184°) (B. 19, 1218, 1554). — II, 149.
- 5) Amid d. 6-Brom-1,2,4-Trimethylbenzol-3-Sulfonsäure. Sm. 158° (B. 19, 1223). — II, 150.
- $C_9H_{12}O_2NJS$ 1) 2-Nitrobenzoldimethylsulfonjodid. Sm. 67—70°? (B. 29, 163).
- 2) Amid d. 2-Jod-1,3,5-Trimethylbenzol-4-Sulfonsäure. Sm. 156° (B. 26, 1102). — II, 151.
- $C_9H_{12}O_2NFS$ 1) Amid d. ?-Fluor-1,2,4-Trimethylbenzol-?-Sulfonsäure. Sm. 174° (B. 26, 1109). — II, 149.
- $C_9H_{14}O_6NSP$ 1) Trimethylester d. 4-Sulfophenylamidophosphorsäure. Sm. 114° (J. pr. [2] 20, 251). — II, 569.

C_9 -Gruppe mit sechs Elementen.

- $C_9H_5O_4NClBrS$ 1) Chlorid d. 3-Bromchinolin-5-Sulfonsäure. Sm. 82° (J. pr. [2] 40, 452). — IV, 295.
- 2) Chlorid d. 3-Bromchinolin-8-Sulfonsäure. Sm. 130° (J. pr. [2] 40, 450). — IV, 295.
- 3) Chlorid d. 5-Bromchinolin-6-Sulfonsäure. Sm. 95° (J. pr. [2] 40, 459). — IV, 295.
- 4) Chlorid d. 5-Bromchinolin-8-Sulfonsäure. Sm. 125° (J. pr. [2] 40, 457). — IV, 295.
- 5) Chlorid d. ?-Bromchinolin-8-Sulfonsäure. Sm. 88° (J. pr. [2] 37, 267). — IV, 296.
- $C_9H_{11}O_2NClFS$ 1) Amid d. ?-Chlorfluor-1,2,4-Trimethyl-?-Sulfonsäure. Sm. 171° (B. 26, 1110). — II, 149.
- $C_9H_{11}O_2NBrFS$ 1) Amid d. ?-Bromfluor-1,2,4-Trimethylbenzol-?-Sulfonsäure. Sm. 149° (B. 26, 1112). — II, 150.

C_{10} -Gruppe mit einem Element.

- $C_{10}H_4$ C 96,8 — H 3,2 — M. G. 124.
- 1) Kohlenwasserstoff. Sd. 175—180° (Bl. 37, 303).

$C_{10}H_8$

C 93,8 — H 6,2 — M. G. 128.

- 1) Naphtalin. Sm. 80°; Sd. 218,1°₇₆₀. Pikrat Sm. 149°. + K₂, 2 + 3SbCl₅. Lit. bedeutend. — II, 178.

 $C_{10}H_{10}$

C 92,3 — H 7,7 — M. G. 130.

- 1) 1,4-Dihydronaphtalin. Sm. 15,5°; Sd. 212° (Bl. 9, 288; B. 16, 3032; 20, 1705, 1711, 3075; 23, 208; A. 288, 74). — II, 183.
- 2) 3-Methylinden. Sd. 205—206°. Pikrat, Sm. 75—76° (B. 16, 517; 23, 1883; 25, 173; A. 247, 159). — II, 175.
- 3) 1,4-Diäthylbenzol (p-Divinylbenzol). Sd. bei 180° (B. 27, 2528).
- 4) α -Phenyl- α -Butin (Aethylphenylacetylen). Sd. 201—203° (J. 1876, 398; G. 22 [2] 98). — II, 175.
- 5) Phenylcrotonylen. Sd. 185—190° (A. 171, 230). — II, 175.
- 6) Kohlenwasserstoff (aus Tetrahydronaphtalin). Sd. 210—212° (B. 5, 679).

 $C_{10}H_{12}$

C 90,9 — H 9,1 — M. G. 132.

- 1) δ -Phenyl- α -Buten. Sd. 176—178° (A. 171, 227; 216, 125; 283, 323; B. 14, 1825). — II, 170.
- 2) α -Phenyl- β -Methylpropen (Butenylbenzol). Sd. 186—187° (182—183°) (J. 1877, 382; B. 9, 261; M. 18, 604). — II, 171.
- 3) α -Phenyl- β -Methylpropen (Isobutenylbenzol). Sd. 181° (184—186°) (Soc. 35, 138; A. 216, 118; 255, 274). — II, 171.
- 4) β -[4-Methylphenyl]propen. Sd. 198—200° (G. 21, 88). — II, 171.
- 5) 3-Allyl-1-Methylbenzol. Sd. 188—190° (Bl. [3] 9, 226; B. 26 [2] 771).
- 6) 4-Allyl-1-Methylbenzol. Sd. 192° (G. 14, 283, 505). — II, 171.
- 7) Dipyropentylen (Dicyklopentadien). Sm. 8°; Sd. 170°₇₆₀. 2 H₂SO₄ (B. 24 [2] 556; 29, 558; G. 26 [2] 383).
- 8) 1,2,3,4-Tetrahydronaphtalin. Sd. 204—205°₇₂₂ (B. 22, 631; 23, 1561; A. 288, 94). — II, 183.
- 9) α -Tetrahydronaphtalin. Sd. 205° (A. 155, 276; B. 5, 678; 16, 3028). — II, 183.
- 10) Kohlenwasserstoff (aus Phenol). Sm. 32,9°; Sd. 63° (A. 232, 349). — II, 171.

 $C_{10}H_{14}$

C 89,6 — H 10,4 — M. G. 134.

- 1) norm. Butylbenzol. Sd. 180° (A. 270, 166; B. 9, 261; 10, 296). — II, 30.
- 2) Isobutylbenzol. Sd. 167,5° (B. 3, 779; 8, 509; 9, 260, 1606; 15, 1066, 1425; 19, 1728; 26 [2] 693; Ph. Ch. 10, 301; 11, 590, 785; M. 9, 617). — II, 30.
- 3) sec. Butylbenzol (β -Phenylbutan). Sd. 170—172° (B. 9, 261; M. 9, 620). — II, 30.
- 4) tert. Butylbenzol (Trimethylphenylmethan). Sd. 167—167,5°₇₂₆ (M. 9, 615; B. 27, 1607, 1610; Bl. 41, 446; [3] 19, 72). — II, 30.
- 5) 2-Propyl-1-Methylbenzol (o-Cymol). Sd. 181—182° (B. 13, 897; 19, 3087). — II, 31.
- 6) 3-Propyl-1-Methylbenzol. Sd. 176—177,5° (B. 13, 899; Bl. [3] 9, 225; J. pr. [2] 43, 567). — II, 31.
- 7) 4-Propyl-1-Methylbenzol. Sd. 183—184° (B. 24, 443; Bl. 43, 322; Bl. [3] 13, 894). — II, 31.
- 8) 3-Isopropyl-1-Methylbenzol (m-Isocymol). Sd. 175—176° (A. 210, 1; 221, 158; 275, 158; 284, 324; 289, 161; B. 13, 1157, 1399; 16, 2258; 31, 1402; A. ch. [6] 1, 249; Bl. [3] 9, 226; G. 12, 487, 543). — II, 31.
- 9) 4-Isopropyl-1-Methylbenzol. Sd. 175°. 3 + 2AlCl₃, 3 + 2AlBr₃ (J. r. 11, 81). + 2CrO₂Cl₂ (A. ch. [5] 22, 258; G. 21, 89). Lit. bedeutend. — II, 31.
- 10) 1,2-Diäthylbenzol. Sd. 184—184,5° (B. 21, 3499). — II, 30.
- 11) 1,3-Diäthylbenzol. Sd. 181—182° (B. 21, 2829). — II, 30.
- 12) 1,4-Diäthylbenzol. Sd. 182—183° (A. 144, 285; 216, 211; B. 12, 1303; 15, 2911; 22, 315; Bl. [3] 7, 651). — II, 30.
- 13) p-Diäthylbenzol. Sd. 176—179° (179—185°) (Bl. 31, 540; 40, 100; A. 234, 99, 101). — II, 30.
- 14) 4-Aethyl-1,2-Dimethylbenzol. Sd. 189° (B. 16, 2258; 23, 2348; 31, 2077). — II, 32.
- 15) 4-Aethyl-1,3-Dimethylbenzol. Sd. 183—184° (A. 139, 192; B. 23, 992, 2348). — II, 32.

$C_{10}H_{14}$

- 16) 5-Aethyl-1,3-Dimethylbenzol. Sd. 185° (B. 7, 1433; 18, 655; 23, 992; A. 192, 217). — II, 32.
- 17) 2-Aethyl-1,4-Dimethylbenzol. Sd. 186° (B. 19, 2516; 23, 2348; Bl. [3] 19, 888). — II, 33.
- 18) p-Aethyl-p-Dimethylbenzol. Sd. 186—187° (A. 235, 323). — II, 32.
- 19) p-Aethyl-p-Dimethylbenzol (aus Mesityloxyd). Sd. 193—195° (Z. 1867, 689). — II, 33.
- 20) 1,2,3,4-Tetramethylbenzol (Prehnitol). Sm. —4°; Sd. 204° (B. 19, 1213, 1552; 20, 901, 3097; 21, 2827). — II, 33.
- 21) 1,2,3,5-Tetramethylbenzol (β -Isodurool). Sd. 195° (195—197°) (A. 198, 380; B. 8, 355; 12, 231; 14, 2629; 16, 2259; 20, 3097; A. ch. [6] 1, 461; Am. 15, 265). — II, 33.
- 22) 1,2,4,5-Tetramethylbenzol (Durool). Sm. 79—80°; Sd. 189—191° (193 bis 195°) (Z. 1870, 161; A. ch. [5] 19, 164; [6] 1, 461; B. 7, 692; 10, 1357; 11, 31; 12, 331; 15, 734; 18, 3032; 20, 409, 3097; A. 216, 200; Bl. 50, 677; J. 1882, 418). — II, 33.
- 23) isom. p-Tetramethylbenzol (B. 17, 1915). — II, 33.
- 24) Hexahydronaphtalin. Sd. 204,5—205,5° (199,5—200°) (J. r. 9, 183; A. 225, 112; G. 12, 495; 15, 84; B. 16, 796, 3032). — II, 184.
- 25) Kohlenwasserstoff (aus Camillenöl) (B. 4, 40). — III, 507.
- 26) Kohlenwasserstoff (aus Diterpintribromid). Sd. 183° (A. 264, 27). — II, 34.
- 27) Kohlenwasserstoff (aus Purpurogallin) = $(C_{10}H_{14})_n$. 3 isom. Formen. α - Sd. 195°; β - Sd. über 300°; γ - Sd. über 360° (B. 15, 1458).
- 28) Kohlenwasserstoff (aus Steinkohlentheer). Sd. 175—175,5° (B. 19, 2514). — II, 34.

 $C_{10}H_{16}$

- C 88,2 — H 11,8 — M. G. 136.
- 1) 4-Isopropyl-1-Methyl-1,2-Dihydrobenzol (Terpilen; $\Delta^{4,5}$ -Terpadien). Sd. 174° (B. 26, 233). — III, 532.
 - 2) Oktohydronaphtalin. Sd. 185—190° (J. r. 9, 183). — II, 184.
 - 3) Anhydrogeraniol. Sd. 172—176° (B. 24, 683). — III, 529.
 - 4) Balata (J. 1869, 789). — III, 552.
 - 5) Borneocamphen (Camphercamphen). Sm. 53,5—54°; Sd. 160—161° (A. ch. [5] 6, 383; [5] 14, 104; A. 197, 96, 127; 200, 341; 230, 233, 239; M. 2, 225; B. 25, 148; Ph. Ch. 10, 412). — III, 535.
 - 6) d-Camphen (Austracamphen) (J. 1862, 457). — III, 534.
 - 7) l-Camphen. Sm. 51—52°; Sd. 158,5—159,5°. Lit. bedeutend. — III, 534.
 - 8) i- α -Camphen. Sm. 47°; Sd. 157° (cor.) (A. ch. [5] 6, 370; Bl. [3] 11, 902). — III, 535.
 - 9) i- β -Camphen. Fest (A. ch. [5] 6, 374). — III, 535.
 - 10) Camphilen. Sd. 145° (A. 6, 277; 9, 59; 34, 314; 37, 195; P. 22, 199; Berx. J. 18, 333). — III, 536.
 - 11) Carvestren. Sd. 178° (B. 27, 3488; 31, 1404). — III, 529.
 - 12) Chinoterpen = $(C_{10}H_{16})_x$ (B. 17, 870). — II, 1861.
 - 13) Cicuten. Sd. 166° (Z. 1869, 248). — III, 542.
 - 14) Citronelloterpen. Sd. 168—173° (J. 1875, 852). — III, 536.
 - 15) Dipentin (Cajeputen, Cinen, Diisopren, Dipenten, Isoterebenten, Kautschin, i-Limonen, $\Delta^{1,2}$ -Terpadien). Sd. 181—182°. Lit. bedeutend. — III, 526.
 - 16) Divalerylen. Sd. 180° (J. 1880, 448; Bl. 33, 24). — III, 539.
 - 17) Eucalypten. Sd. 172—175° (B. 7, 626; A. 246, 278). — III, 547.
 - 18) Euterpen. Sd. 161—165° (B. 31, 2075).
 - 19) Fenchelen. Sd. 175—176° (A. 300, 311).
 - 20) Fenchén. Sd. 158—160° (A. 263, 149; 300, 313; Soc. 73, 276). — III, 529.
 - 21) D-d-Fenchén (A. 302, 376, 386).
 - 22) D-l-Fenchén (A. 302, 376, 386).
 - 23) Geraniän. Sd. 162—164° (A. 157, 239; B. 7, 626). — III, 529.
 - 24) Isocajeputen. Sd. 176—178° (J. 1860, 481, 482).
 - 25) Isoterebenten. d-Modif. Sd. 176—178°; l-Modif. Sd. 175° (A. ch. [3] 39, 16; [5] 6, 216). — III, 533.
 - 26) d-Limonen (Carven, Citren, Hesperiden). Sd. 168—168,5° (176,5°_{763,7}). Lit. bedeutend. — III, 523.
 - 27) l-Limonen. Sd. 175—176° (A. 245, 222; 246, 222; 252, 145). — III, 523.

$C_{10}H_{16}$

- 28) **Myrcen** (*C.* 1895 [2] 307).
- 29) **Oliben.** *Sd.* 160° (*J.* 1874, 919; *A.* 173, 2; 258, 181). — III, 543.
- 30) **d-Phellandren.** *Sd.* 171—172°₇₆₆ (*A.* 41, 74; 239, 41; 246, 233; 252, 102; 287, 373; *Z.* 1869, 579). — III, 529.
- 31) **l-Phellandren.** *Sd.* 171—172° (*A.* 246, 233, 282). — III, 530.
- 32) **Pilocarpen.** *Sd.* 178° (*Bl.* 24, 498). — III, 548.
- 33) **Pinen** (Terebenten, Terpin, Terpentinöl). *Sd.* 160°. 2 + HgCl₂, + 2 CrO₃Cl₂, Pikrat, Kaliumpikrat. Lit. bedeutend. — III, 516.
- 34) **i-Pinen.** *Sd.* 155—156° (*A.* 258, 344). — III, 519.
- 35) **Safren.** *Sd.* 155—157° (*A.* 152, 88). — III, 549.
- 36) **Shikimol.** *Sd.* 160° (*R.* 4, 36, 45). — III, 547.
- 37) **Skimmen.** *Sd.* 170—175° (*R.* 3, 205). — III, 550.
- 38) **Sylvestren** (1-Methyl-5-Isopropyl-1,2,3,4-Tetrahydrobenzol). *Sd.* 176 bis 177° (*J.* 1878, 389; *B.* 10, 1202; 14, 2531; 31, 2067; *A.* 230, 245; 239, 27; 245, 198; 252, 149). — III, 531.
- 39) **Tanaceten**, siehe Thujen $C_{10}H_{16}$. — III, 533.
- 40) **d-Terpen** (aus *Pinus cembra* L.). *Sd.* 156°_{748.5} (*J. r.* 21, 368). — III, 517.
- 41) **i-Terpen** (aus *Pinus abies*). *Sd.* 157°₇₆₀ (*J. r.* 21, 362). — III, 516.
- 42) **synth. Terpen** (aus synth. Pulegol). *Sd.* 173—175° (*B.* 29, 2957; *A.* 300, 273).
- 43) **d-Isoterpen.** *Sd.* 178,3°_{771.7} (*B.* 20, 1961). — III, 533.
- 44) **l-Isoterpen** (aus l-Terpenhydrat). *Sd.* 179,3° (*B.* 12, 2356). — III, 533.
- 45) **l-Isoterpen** (aus Terpentinöl). *Sd.* 176,7°₇₇₃ (*J. r.* 21, 362). — III, 516.
- 46) **Terpinen.** *Sd.* 179—182° (*A.* 227, 283; 230, 260; 238, 98; 239, 33; *Soc.* 63, 295; *B.* 27, 815). — III, 531.
- 47) **Terpinolen.** *Sd.* 183—185° (*A.* 230, 262; 239, 23; 291, 361; *B.* 27, 447). — III, 532.
- 48) **Terpinylen** (Terpilen). *Sd.* 175° (*B.* 12, 1132, 1754; *J.* 1878, 639; *A. ch.* [5] 19, 155). — III, 533.
- 49) **Thujen** (Tanaceten). *Sd.* 172—175° (*B.* 25, 3345; 30, 443; *A.* 272, 111). — III, 533.
- 50) **Isothujen.** *Sd.* 170—172° (*A.* 286, 99). — III, 533.
- 51) **Thymen.** *Sd.* 160—165° (*A.* 102, 119). — III, 550.
- 52) **Tolen.** *Sd.* 170° (154—160°) (*A.* 44, 304; 64, 372; 97, 72). — III, 544.
- 53) **Xanthoxylen.** *Sd.* 162° (*A.* 104, 237). — III, 544.
- 54) **Terpen** (aus *Abies Reginae Amaliae*). *Sd.* 156—192° (*J.* 1864, 536). — III, 541.
- 55) **Terpen** (aus Amidoamylalkohol). *Sd.* 155—165° (*B.* 17, 839). — III, 536.
- 56) **Terpene** (aus *Angelica Archangelica*). α -Terpen *Sd.* 158°; β -Terpen *Sd.* 171—175°; γ -Terpen *Sd.* 250° (*B.* 14, 2476, 2483; 15, 1742; 16, 799; 29, 1811; *Bl.* 37, 108; 39, 407; *J.* 1881, 1025). — III, 541.
- 57) **Terpen** (aus Apfelsinenschalenöl). Fl. (*A.* 39, 120; *B.* 24, 202). — III, 541.
- 58) **Terpen** (aus *Asa foedita*) (*B.* 23, 3531). — III, 545.
- 59) **Terpen** (aus *Athamanta oroselinum*). *Sd.* 163° (*A.* 51, 336). — III, 541.
- 60) **Terpen** (aus Bergamottöl) (*A.* 31, 317; 35, 313; 71, 348). — III, 541.
- 61) **Terpen** (aus Bernsteinöl). *Sd.* 160—170° (*Berz. J.* 24, 619; *A.* 54, 241; *J.* 1850, 494; *J. pr.* [1] 26, 79). — III, 541.
- 62) **Terpen** (aus Birkenrindenöl). *Sd.* 171° (*J.* 1863, 547).
- 63) **Terpen** (aus Brom- α -Dekanaphten). *Sd.* 163—164,5° (*J. r.* 25, 384). — III, 536.
- 64) **Terpen** (aus Calmusöl). *Sd.* 158—159° (*J.* 1874, 919; *A.* 173, 4). — III, 541.
- 65) **Terpen** (aus Canadabalsam). *Sd.* 167°. — III, 554.
- 66) **Terpen** (aus Cardamomöl) (*A.* 238, 100). — III, 546.
- 67) **Terpen** (aus Cascarillöl). *Sd.* 172° (*A.* 35, 307; *J.* 1863, 547). — III, 546.
- 68) **Terpen** (aus Charas). *Sd.* 170—175° (*Soc.* 69, 541).
- 69) **Terpen** (aus Citronellaöl) (*Am.* 11, 467). — III, 546.
- 70) **Terpen** (aus Citronenöl). *Sd.* 176° (165°; 174,8°) (*A.* 6, 280; 34, 317; 52, 171; 71, 348; 88, 346; 227, 290; *J.* 1857, 481; 1860, 40; 1863, 70; 1872, 813; 1875, 852; 1879, 944; *G.* 21, 322; *Bl.* 44, 460; *B.* 27, 354, 2026). — III, 542.
- 71) **Terpen** (aus Colophonium). *Sd.* 154—157° (*A. ch.* [6] 1, 240). — III, 537.
- 72) **Terpen** (aus Colophonium). *Sd.* 170—173° (*A. ch.* [6] 1, 240). — III, 537.

$C_{10}H_{16}$

- 73) Terpen (aus Copaivabalsam) = $(C_{10}H_{16})_x$. Sd. 252° (A. [69](#), [69](#)). — III, [540](#).
- 74) Terpen (aus Coriandrum sativum) = $(C_{10}H_{16})_x$ (B. [14](#), 2490).
- 75) Terpen (aus Cubebenöl). Sd. $158-163^\circ$ (B. [8](#), [13](#), 1357). — III, [546](#).
- 76) Terpen (aus β -Dekanaphten). Sd. $173-176^\circ$ (J. r. [25](#), [388](#); C. 1899 [1](#) 176). — III, [536](#).
- 77) Terpene (aus Dillöl). Sd. $155-160^\circ$ u. $170-175^\circ$ (J. [1863](#), [548](#); [1872](#), [813](#); [1874](#), [919](#); A. [227](#), [292](#)). — III, [547](#).
- 78) Terpen (aus Dostenöl). Sd. 161° (A. [32](#), [285](#)). — III, [542](#).
- 79) Terpene (aus Erechthites hieracifolia). Sd. 175° u. $240-310^\circ$ (B. [15](#), 2854). — III, [542](#).
- 80) Terpen (aus Eucalyptusöl). Sd. $150-151^\circ$ (B. [7](#), 65, 1429). — III, [547](#).
- 81) Terpen (aus Fichtentheer). Sd. $171-174^\circ$ (Bl. [3](#) [II](#), 988).
- 82) Terpen (aus Galbanumöl). Sd. $160-161^\circ$ (A. [119](#), [258](#)). — III, [542](#).
- 83) Terpen (aus Gardenia lucida-Harz). Sd. 158° (A. [200](#), 315). — III, [542](#).
- 84) Terpen (aus Gaultheriaöl). Sd. 160° (A. [52](#), 331). — III, [547](#).
- 85) Terpen (aus Gomartöl). Fl. (A. [71](#), [354](#)). — III, [542](#).
- 86) Terpen (aus Gurjunbalsam) = $(C_{10}H_{16})_x$. Sd. 255° (J. [1862](#), [461](#)). — III, [552](#).
- 87) Terpen (aus Hopfenöl). Sd. $166-171^\circ$ (Soc. [67](#), [55](#)). — III, [547](#).
- 88) Terpen (aus Illicium religiosum). Sd. $173-176^\circ$ (B. [14](#), 1721). — III, [547](#).
- 89) Terpen (aus Ingweröl) (A. [84](#), [353](#)). — III, [543](#).
- 90) Terpen (aus Lawendelöl). Sd. $200-210^\circ$ (A. [114](#), [198](#)). — III, [547](#).
- 91) Terpen (aus Latschenöl). Sd. 161° (J. [1860](#), [479](#); B. [14](#), 2532; [28](#) [2](#) [685](#); A. [227](#), [287](#)). — III, [543](#).
- 92) Terpen (aus Ledum palustre). Sd. 160° (J. [1861](#), [692](#)). — III, [548](#).
- 93) Terpen (aus Liebstocköl). Sd. 176° (C. 1897 [1](#) [499](#)).
- 94) Terpen (aus Limettöl). Sd. 176° (J. [1877](#), [957](#)). — III, [543](#).
- 95) Terpen (aus Lorbeeröl). Sd. 171° (A. [44](#), [309](#); [50](#), [155](#); J. [1863](#), [547](#)). — III, [543](#).
- 96) Terpen (aus Majoranöl). Sd. 178° (B. [15](#), 2855). — III, [543](#).
- 97) Terpen (aus Mastix) = $(C_{10}H_{16})_x$. Sd. $155-160^\circ$ (B. [14](#), 2419). — III, [560](#).
- 98) Terpen (aus Menthol) (B. [15](#), 944).
- 99) Terpen (aus Menthendibromid). Sd. $172-174^\circ$ (B. [25](#), 695). — II, [19](#).
- 100) Terpen (aus Methenglykol). Sd. $179-180^\circ$ (B. [27](#), 1640). — III, [536](#).
- 101) Terpen (aus Muskatnussöl). Sd. $163-164^\circ$ (J. [1873](#), [369](#); A. [131](#), [211](#); B. [6](#), [147](#); [23](#), 1804). — III, [543](#).
- 102) Terpen (aus Myrtenöl). Sd. $160-170^\circ$ (J. [1863](#), [548](#); B. [21](#), [163](#)). — III, [543](#).
- 103) Terpen (aus Pappelöl). Sd. $260-261^\circ$ (B. [6](#), [890](#)). — III, [543](#).
- 104) Terpen (aus Petersilienöl). Sd. $160-164^\circ$ (P. [46](#), [53](#); A. [208](#), [75](#); B. [9](#), [259](#)). — III, [543](#).
- 105) Terpen (aus Pfefferkrautöl). Sd. $178-180^\circ$ (B. [15](#), 819). — III, [548](#).
- 106) Terpen (aus Pinendibromid). Sm. $65-66^\circ$; Sd. 153° (C. 1897 [1](#) [1055](#)).
- 107) Terpen (aus Pfefferöl). Sd. 167.5° (A. [15](#), [159](#); [34](#), [326](#)). — III, [543](#).
- 108) Terpen (aus Quendelöl) (J. [1878](#), [981](#)). — III, [544](#).
- 109) Terpen (aus Rainfarrenöl). Sd. $160-165^\circ$ (B. [11](#), [452](#)). — III, [533](#).
- 110) Terpen (aus Rosenholzöl). Sd. 249° (J. [1863](#), [549](#)). — III, [544](#).
- 111) Terpen (aus Safranöl) (B. [17](#), 2230, 2233). — III, [544](#).
- 112) Terpen (aus Sequoia gigantea). Sd. 155° (B. [14](#), 2204). — III, [550](#).
- 113) Terpen (aus Spiköl). Sd. 175° (A. [114](#), [197](#), [198](#)). — III, [550](#).
- 114) Terpen (aus Templinöl). Sd. 172° (J. [1855](#), [642](#)). — III, [544](#).
- 115) Terpen (aus Wachholderöl). Sd. 163° (155°) (A. [7](#), [165](#); [34](#), [325](#); [227](#), [288](#); Z. [1867](#), [509](#)). — III, [544](#).
- 116) Kohlenwasserstoff (aus Diamylen). Sd. $155-160^\circ$ ($145-150^\circ$). HCl (A. [151](#), [52](#); J. r. [13](#), [447](#)). — I, [139](#).
- 117) Kohlenwasserstoff (aus Naphta). Sd. $173-176^\circ$ (J. pr. [2](#) [48](#), [191](#); J. r. [25](#), [384](#)).
- 118) Kohlenwasserstoff (aus d. Säure $C_{10}H_{18}O_2$ aus Petroleum) (B. [24](#), 1813).
- 119) Kohlenwasserstoff (aus thierischem Oel). Sd. 165.5°_{748} (B. [13](#), [73](#), [74](#)). — I, [139](#).
- 120) Kohlenwasserstoff (aus thierischem Oel). Sd. 172.5°_{748} (B. [13](#), [75](#)). — I, [139](#).

$C_{10}H_{16}$

C 87,0 — H 13,0 — M. G. 138.

- 1) $\alpha\gamma$ -Dekadiën. Sd. 168—170° (Bl. [3] 13, 884).
- 2) $\gamma\delta$ -Dimethyl- $\gamma\delta$ -Oktadiën. Sd. 167—170° (C. 1899 [1] 775).
- 3) δ -Propyl- $\alpha\delta$ -Heptadiën. Sd. 158° (B. 11, 2152; 16, 1223; J. pr. [2] 27, 389). — I, 136.
- 4) 1-Methyl-3-Isopropyl-1,2,3,4-Tetrahydrobenzol. Sd. 167—168°₇₄₄ (A. 289, 160; 297, 173).
- 5) 2-Methyl-4-Isopropyl-1,2,3,4-Tetrahydrobenzol (Menthen). Sd. 167,4° (A. 32, 289; 300, 282; B. 25, 143; 27, 1639; 28, 1619; 29, 1843; Soc. 39, 79; 41, 53; A. ch. [6] 7, 492; Ph. Ch. 10, 412). — II, 18.
- 6) 5-Aethyl-1,3-Dimethyl- β -Tetrahydrobenzol (β -Dekanaphten). Sd. 167,5 bis 169° (J. pr. [2] 48, 189; J. r. 25, 388; C. 1899 [1] 176).
- 7) isom. 5-Aethyl-1,3-Dimethyl- β -Tetrahydrobenzol. Sd. 169—171° (C. 1899 [1] 176).
- 8) isom. Menthen (aus Menthylamin). Sd. 153—156° (A. 278, 317).
- 9) Menthen (aus Terpinhydrat). Sd. 167—170° (Bl. 51, 8). — II, 18.
- 10) Dekahydronaphtalin. Sd. 173—180° (J. r. 8, 149). — II, 184.
- 11) Camphin (aus Campher). Sd. 167—170° (J. pr. [1] 25, 264). — I, 136.
- 12) Campholen. Sd. 163° (G. 22 [2] 114).
- 13) Cyklolinaloolen. Sd. 165—167° (B. 27, 2521).
- 14) Cynendihydrür. Sd. 166—167° (B. 17, 2612). — II, 17.
- 15) α -Dekanaphtylen. Sd. 159—162° (J. r. 15, 333; 25, 385).
- 16) Hydropinen. Sd. 148—149° (B. 26 [2] 491; Bl. [3] 11, 137). — II, 18.
- 17) Linaloolen. Sd. 165—168° (B. 27, 2520).
- 18) Rutylen. Sd. 150° (A. 135, 344). — I, 136.
- 19) Sebacin. Sm. 55°; Sd. über 300° (A. 103, 187). — I, 136.
- 20) Kohlenwasserstoff (aus Buchuöl). Sd. 174—176°₇₈₂ (J. pr. [2] 54, 441).
- 21) Kohlenwasserstoff (aus Brasilin). Sd. 170—175° (B. 27, 529).
- 22) Kohlenwasserstoff (aus Campher). Sd. 163° (B. 1, 96). — I, 137.
- 23) Kohlenwasserstoff (aus Campher). Sm. 120° (152°); Sd. 157—158° (A. ch. [5] 19, 148; M. 1, 589). — II, 18.
- 24) Kohlenwasserstoff (aus Dekylenbromid). Sd. 150° (A. 144, 249). — I, 136.
- 25) Kohlenwasserstoff (aus Harzessenz). Sd. 149—152° (Bl. 36, 215; 38, 252). — I, 137.
- 26) Kohlenwasserstoff (aus Rosenöl). Sd. 180—185° (J. pr. [2] 48, 306).
- 27) Kohlenwasserstoff (aus Terpentinöl). Sd. 165° (J. 1869, 332). — II, 18.
- 28) Kohlenwasserstoff (aus Terpinhydrat). Sd. 168—170° (B. 25, 697).

 $C_{10}H_{20}$

C 85,7 — H 14,3 — M. G. 140.

- 1) 1-Methyl-3-Isopropylhexahydrobenzol. Sd. 167—168°₇₅₈ (A. 297, 174).
- 2) 1-Methyl-4-Isopropylhexahydrobenzol (Menthonaphten). Sd. 169 bis 170,5° (171—173°) A. ch. [6] 1, 230; B. 25, 688; 27, 1683; 29, 317). — II, 15, 16.
- 3) 1,3-Diäthylhexahydrobenzol. Sd. 169—171°₇₆₀ (B. 28, 1343).
- 4) 1,3-Dimethyl-5-Aethylhexahydrobenzol (β -Dekanaphten). Sd. 168,5 bis 170°₇₅₂ (J. pr. [2] 48, 189; J. r. 25, 385; C. 1899 [1] 176).
- 5) α -Dekanaphten. Sd. 160—162° (J. r. 15, 332; 25, 382; J. pr. [2] 31, 352). — II, 16.
- 6) α -Terpentetrahydrür. Sd. 160—162° (J. 1869, 332; J. r. 15, 45; A. 268, 226; B. 16, 799). — II, 16.
- 7) β -Terpentetrahydrür. Sd. 164° (J. r. 15, 45; J. pr. [2] 31, 352). — II, 16.
- 8) Terpilenhydrür. Sd. 170° (A. ch. [5] 19, 158; J. r. 22, 297; B. 12, 1761). — II, 15.
- 9) Tetrahydrofenchen. Sd. 160—165° (A. 284, 326).
- 10) norm. Deken? Sd. 172° (B. 25, 478). — I, 123.
- 11) γ -Deken (Hexylbutylen)? Sd. 160—161° (A. 255, 135). — I, 123.
- 12) $\gamma\delta\delta$ -Trimethyl- γ -Hepten? Sd. 157—157,5°₇₅₀ (J. pr. [2] 54, 466).
- 13) isom. Deken (Diisoamylen). Sd. 154—156° (A. 30, 295; 52, 316; 128, 311; 157, 207; J. r. 7, 165, 246; 9, 75; 10, 229; Bl. [3] 7, 578; Z. 1865, 362; J. pr. [2] 23, 474; [2] 54, 457). — I, 123.
- 14) Deken (aus Bromdiisoamyl). Sd. 163,7°₇₄₄ (A. 220, 177). — I, 123.
- 15) Deken (aus Campher) (B. 11, 151; 16, 2257). — I, 123.
- 16) Deken (aus Erdöl). Sd. 175,8° (Z. 1866, 231). — I, 123.

- H_{20} 17) Deken (aus Fischthran). Sd. 174,6° (Z. 1868, 230). — I, 123.
 18) Deken (aus Paraffin). Sd. 170—172° (A. 165, 22). — I, 123.
 19) Deken (aus Petroleumdekan). Sd. 158—160° (Bl. 41, 165; J. 1863, 530). — I, 123.
 $\text{C}_{10}\text{H}_{22}$ 20) Kohlenwasserstoff (aus Terpentinöl). Sd. 160° (A. 155, 276).
 C 84,5 — H 15,5 — M. G. 142.
 1) norm. Dekan. Sm. —30 bis —32°; Sd. 173° (B. 15, 1695; A. 220, 179; Bl. 41, 105; Am. 21, 216). — I, 105.
 2) β -Methylnonan (Isobutylhexyl). Sd. 150—160° (J. 1855, 575). — I, 105.
 3) $\beta\eta$ -Dimethyloktan (Diisoamyl). Sd. 159,5°₇₄₂ (J. 1855, 573; A. 75, 267; 200, 88; 220, 172; 223, 104; B. 10, 1602). — I, 105.
 4) $\gamma\zeta$ -Dimethyloktan (akt. Diisoamyl). Sd. 159—162° (A. 220, 155; Bl. [3] 11, 1180). — I, 105.
 5) Dekan (aus Paraffin). Sd. 166—168° (A. 165, 23).
 6) Dekan (aus Rosenöl). Sd. 158—159°₇₄₅ (J. pr. [2] 48, 308).
 7) Dekan (aus Petroleum). Sd. 163—164° (Am. 19, 425, 446, 460, 483).
 8) Dekan (aus Petroleum). Sd. 173—174° (Am. 19, 429, 448, 464, 483).
 9) Kohlenwasserstoff (aus Steinkohlentheeröl). Sd. 171° (A. 184, 202). — I, 105.
 10) Kohlenwasserstoff (aus Terpentinöl). Sd. 155—162° (J. 1869, 332). — I, 105.
 C_{10}Cl_8 11) Kohlenwasserstoff (Z. 1867, 714).
 1) Oktochlornaphtalin. Sm. 203°; Sd. 403° (Bl. 9, 446; B. 9, 1487; 19, 1186). — II, 182.

C_{10} -Gruppe mit zwei Elementen.

- $\text{C}_{10}\text{HCl}_7$ 1) Heptachlornaphtalin. Sm. 194° (B. 16, 1019; 19, 1165). — II, 182.
 $\text{C}_{10}\text{H}_2\text{O}_4$ C 64,5 — H 1,1 — O 34,4 — M. G. 186.
 1) $\alpha\gamma\epsilon\eta$ -Oktatetraïn- $\alpha\delta$ -Dicarbonsäure (Tetraacetylendicarbonsäure) (B. 18, 2271). — II, 1883.
 $\text{C}_{10}\text{H}_2\text{O}_6$ C 55,0 — H 0,9 — O 44,0 — M. G. 218.
 1) Dianhydrid d. Benzol-1,2,3,4-Tetracarbonsäure (D. d. Prehnitsäure). Sm. 239° (A. 166, 328). — II, 2073.
 2) Dianhydrid d. Benzol-1,2,3,5-Tetracarbonsäure (D. d. α -Mellophan-säure). Sm. 238° (A. 166, 335; B. 17, 2517). — II, 2073.
 3) Dianhydrid d. 1,2,4,5-Tetracarbonsäure (D. d. Pyromellithsäure). Sm. 286° (A. Spl. 7, 37; Bl. [3] 11, 390). — II, 2073.
 $\text{C}_{10}\text{H}_2\text{O}_8$ C 48,0 — H 0,8 — O 51,2 — M. G. 250.
 1) Dianhydrid d. 3,6-Dioxybenzol-1,2,4,5-Tetracarbonsäure (A. 258, 282). — II, 2095.
 $\text{C}_{10}\text{H}_2\text{Cl}_6$ 1) Hexachlornaphtalin. Sm. 143°. — II, 182.
 $\text{C}_{10}\text{H}_2\text{Br}_6$ 1) Hexabromnaphtalin. Sm. 245—246° (B. 9, 1511). — II, 193.
 2) isom. Hexabromnaphtalin. Sm. 252° (A. ch. [6] 12, 347). — II, 193.
 $\text{C}_{10}\text{H}_3\text{Cl}_5$ 1) 1,2,3,4,8-Pentachlornaphtalin. Sm. 168,5° (A. 149, 9; B. 15, 1401; 16, 1016). — II, 188.
 2) isom. Pentachlornaphtalin. Sm. 177° (B. 10, 1843). — II, 189.
 3) isom. Pentachlornaphtalin. Sm. 131° (B. 15, 87).
 $\text{C}_{10}\text{H}_3\text{Br}_5$ 1) Pentabromnaphtalin (A. 135, 45). — II, 192.
 $\text{C}_{10}\text{H}_4\text{O}_4$ C 63,8 — H 2,1 — O 34,1 — M. G. 188.
 1) Naphtodichinon. Sm. 131° (Am. 2, 283). — II, 182.
 $\text{C}_{10}\text{H}_4\text{Cl}_4$ 1) 1,2,5,8-Tetrachlornaphtalin. Sm. 175° (B. 15, 87).
 2) α -Tetrachlornaphtalin. Sm. 130° (A. 160, 72; Bl. 28, 511). — II, 188.
 3) β -Tetrachlornaphtalin. Sm. 194° (B. 9, 318). — II, 188.
 4) γ -Tetrachlornaphtalin. Sm. 176° (Bl. 28, 512). — II, 188.
 5) δ -Tetrachlornaphtalin. Sm. 141° (B. 10, 1842). — II, 188.
 6) ϵ -Tetrachlornaphtalin. Sm. 180° (B. 10, 1844). — II, 188.
 7) ζ -Tetrachlornaphtalin. Sm. 159,5—160,5° (Bl. 36, 435). — II, 188.
 8) isom. Tetrachlornaphtalin. Sm. 140° (B. 19, 1184). — II, 188.
 $\text{C}_{10}\text{H}_4\text{Br}_4$ 1) 1,4,6,7-Tetrabromnaphtalin. Sm. 175° (A. 135, 44; G. 16, 146). — II, 192.

- $C_{10}H_4Br_4$ 2) isom. Tetrabromnaphtalin. Sm. 119—120° (G. 16, 149). — II, 192.
 $C_{10}H_4Br_3$ 1) Tetrabromnaphtalintetrabromid. Sm. 171—172° u. Zers. (G. 16, 146). — II, 192.
- $C_{10}H_5Cl_3$ 1) Trichlornaphtaline. Uebersicht (C. 1895 [2] 123).
 2) 1,2,3-Trichlornaphtalin. Sm. 81° (A. 180, 71; Bl. 28, 511; B. 19, 1183). — II, 187.
 3) 1,2,4-Trichlornaphtalin. Sm. 92° (B. 21, 893). — II, 187.
 4) 1,2,5-Trichlornaphtalin. Sm. 78° (74°) (B. 24 [2] 659). — II, 187.
 5) 1,2,6-Trichlornaphtalin. Sm. 97° (92,5°) (B. 21, 3498; 24 [2] 659, 719; C. 1895 [2] 123). — II, 187.
 6) 1,2,7-Trichlornaphtalin. Sm. 88° (84°) (B. 24 [2] 659; 25, 2487; C. 1895 [2] 121). — II, 187.
 7) 1,2,8-Trichlornaphtalin. Sm. 83° (C. 1895 [2] 120). — II, 187.
 8) 1,3,5-Trichlornaphtalin. Sm. 103° (B. 9, 317; 12, 2230; C. 1896 [1] 651). — II, 187.
 9) 1,3,6-Trichlornaphtalin. Sm. 80,5° (B. 24 [2] 710, 716, 717; C. 1895 [2] 122; 1897 [2] 552). — II, 187.
 10) 1,3,7-Trichlornaphtalin. Sm. 112,5—113° (B. 17 [2] 437; 24 [2] 706; C. 1897 [2] 552). — II, 187.
 11) 1,3,8-Trichlornaphtalin. Sm. 90° (87°) (B. 24 [2] 708; C. 1897 [2] 553). — II, 187.
 12) 1,4,5-Trichlornaphtalin. Sm. 131° (B. 9, 1187, 1733; Bl. 28, 511). — II, 187.
 13) 1,4,6-Trichlornaphtalin. Sm. 65—66° (69°) (B. 12, 962; 24, 3479; 24 [2] 709; Bl. 29, 500; J. pr. [2] 57, 3). — II, 188.
 14) 1,6,7-Trichlornaphtalin. Sm. 109,5° (B. 24 [2] 712; C. 1895 [2] 121). — II, 188.
 15) 2,3,6-Trichlornaphtalin. Sm. 90,5—91° (B. 19, 3174; 24 [2] 712). — II, 188.
 16) isom. ?-Trichlornaphtalin. Sm. 90° (B. 9, 926). — II, 188.
 17) isom. ?-Trichlornaphtalin. Sm. 90° (B. 18, 2927). — II, 188.
 18) isom. ?-Trichlornaphtalin. Sm. 91° (B. 21, 3498). — II, 188.
- $C_{10}H_5Cl_2$ 1) ?-Trichlornaphtalindichlorid. Sm. 93° (B. 10, 1842). — II, 190.
 2) ?-Trichlornaphtalindichlorid. Sm. 152° (Bl. 28, 507). — II, 190.
- $C_{10}H_5Br_3$ 1) 1,2,4-Tribromnaphtalin. Sm. 113—114° (B. 16, 421; 18, 2164; Soc. 43, 4; 47, 513). — II, 192.
 2) 1,2,6-Tribromnaphtalin. Sm. 118° (J. pr. [2] 43, 53). — II, 192.
 3) 1,4,5-Tribromnaphtalin. Sm. 85° (Bl. 28, 515). — II, 192.
 4) 1,4,6-Tribromnaphtalin. Sm. 96—98° (J. pr. [2] 57, 17).
 5) isom. Tribromnaphtalin. Sm. 86,5° (Bl. 28, 515). — II, 192.
 6) isom. Tribromnaphtalin. Sm. 75° (A. 135, 43). — II, 192.
- $C_{10}H_5Br_2$ 1) Tribromnaphtalindibromid (Gmelin 7, 34). — II, 192.
 $C_{10}H_5Br$ 1) Tribromnaphtalintetrabromid (Gmelin 7, 34). — II, 192.
 $C_{10}H_5O_2$ C 75,9 — H 3,8 — O 20,2 — M. G. 158.
 1) 1,2-Naphtochinon. Sm. 115—120° u. Zers. (A. 189, 153; 194, 202; 211, 36, 49; 268, 275; B. 14, 1310, 1493, 1658; 15, 205; 25, 982; 27, 3075; Soc. 63, 774; G. 25 [1] 79; Bl. [3] 19, 512). — III, 389.
 2) 1,4-Naphtochinon. Sm. 125°. Lit. bedeutend. — III, 370.
 3) Colophalumina (J. 1874, 922). — III, 562.
 4) Verbindung (aus d. Kohlenwasserstoff $C_{10}H_8$) (B. 9, 1209). — II, 293.
 5) Verbindung (aus Benzoylakrylsäure). subl. bei 270°; Sd. über 300° (B. 15, 887). — II, 1678.
- $C_{10}H_6O_3$ C 68,9 — H 3,4 — O 27,6 — M. G. 174.
 1) 7-Oxy-1,2-Naphtochinon. Sm. 194° (B. 23, 522; 30, 1123). — III, 395.
 2) 2-Oxy-1,4-Naphtochinon. Sm. 190° u. Zers. Na, Ba, Ag (A. 134, 377; 154, 321; 211, 80; B. 11, 1314; 14, 1496, 1900; 15, 688; 17, 3021; 27, 25; J. 1880, 734; Soc. 65, 323). — III, 381.
 3) 5-Oxy-1,4-Naphtochinon (Nucin; Juglon). Sm. 151—154°. Cu (J. 1858, 533; B. 10, 1544; 17, 1947, 2411; 18, 204; 20, 939; 25, 1659). — III, 386.
 4) 1,4-Diketo-1,2,3,4-Tetrahydronaphtalin-2,3-Oxyd ($\alpha\alpha$ -Diketotetrahydronaphtylenoxyd). Sm. 136° (B. 25, 3602; A. 286, 70). — III, 381.
 5) Anhydrid d. Phenylmaleinsäure. Sm. 119—119,5° (A. 258, 76). — II, 1862.

$C_{10}H_6O_3$
 $C_{10}H_6O_4$

- 6) Verbindung (aus Furfurol) (A. 239, 378). — III, 721.
 C 63,2 — H 3,1 — O 33,7 — M. G. 190.
- 1) 2,3-Dioxy-1,4-Naphtochinon (Isonaphtazarin). Sm. 276°. Ba, Pb, Ag₂ (B. 11, 1322; 25, 409, 3606). — III, 385.
- 2) 5,6-Dioxy-1,4-Naphtochinon (Naphtazarin). subl. (Ba, Ba[OH]₂) (A. 162, 330; 286, 27; B. 3, 905; 4, 251; 27, 3462; 28, 1455, 2234; J. 1861, 955). — III, 386.
- 3) Oxyjuglon. Zers. bei 220°. Na₂, Cu, Ag₂ (B. 18, 469). — III, 387.
- 4) $\alpha\beta$ -Diketo- $\alpha\beta$ -Di[2-Furanyl]äthan (Furil). Sm. 162° (B. 13, 1337; 16, 659; A. 211, 221). — III, 729.
- 5) α -[3,4-Dioxyphenyl]äthin-3,4-Methylenäther- β -Carbonsäure. Sm. 166° u. Zers. (Bl. [3] 17, 617).
- 6) 1,3-Diketo-2,3-Dihydroinden-2-Carbonsäure. Na₂ + H₂O (B. 26, 953). — II, 1874.
- 7) Phtalylessigsäure. Sm. 243–246° (oberh. 260°). Ag (B. 10, 392, 1552; 11, 1007; 14, 919; 17, 2526, 2620; 19, 2373; 26, 952; A. 236, 186). — II, 1872.
- 8) 1,2-Benzpyron-3-Carbonsäure (Cumarincarbonsäure). Sm. 187° u. Zers. Ba, Ag (Soc. 49, 366; J. pr. [2] 50, 25; B. 31, 2593, 2618, 2809). — II, 1962.
- 9) 1,2-Isobenzpyron-3-Carbonsäure (Isocumarin-3-Carbonsäure). Sm. 237° (235°). Ag (B. 25, 896, 1138, 1495; 27, 202, 206; A. 288, 135). — II, 1962.

$C_{10}H_6O_5$

- 10) Colophaluminsäure (J. 1874, 922). — III, 562.
 C 58,2 — H 2,9 — O 38,8 — M. G. 206.
- 1) ?-Trioxy-1,4-Naphtochinon (B. 4, 439). — III, 387.
- 2) 6-Oxy-1,2-Benzpyron-4-Carbonsäure (m-Oxycumarin- β -Carbonsäure). Sm. 279–280° (283°). Na + H₂O (G. 24 [2] 492). — II, 2012.
- 3) α ,2-Lakton d. α -Oxy- β -Keto- α -Phenyläthan- β ,2-Dicarbonsäure. Sm. 246° u. Zers. (B. 27, 741). — II, 2012.

$C_{10}H_6O_6$

- 1) Anhydrid d. 3,4,5-Trioxybenzol-3,4-Methylenäther-5-Methyläther-1,2-Dicarbonsäure (A. d. Cotarnsäure). Sm. 161–162° (A. 249, 166). — II, 2044.

$C_{10}H_6O_7$

- C 50,4 — H 2,5 — O 47,0 — M. G. 238.
- 1) Benzol-1,3-Dicarbonsäure-2-Ketocarbonsäure + 2H₂O. Sm. 238° u. Zers. K₂, Ca₂ + 4H₂O, Ba₂ + 4H₂O, Ag₂, Dianilinsalz (B. 26, 1797; 30, 695; A. 290, 206). — II, 2047.

$C_{10}H_6O_8$

- C 47,2 — H 2,3 — O 50,4 — M. G. 254.
- 1) Benzol-1,2,3,4-Tetracarbonsäure + 2H₂O (Prehnitsäure). Sm. 237° (wasserfrei). K + H₂O, Ba + 1(3)H₂O, Pb₂ (A. 166, 328; B. 16, 1746; 21, 907). — II, 2072.
- 2) Benzol-1,2,3,5-Tetracarbonsäure (α -Mellophansäure). Sm. 238° (A. 166, 335; B. 17, 2517). — II, 2073.
- 3) Benzol-1,2,4,5-Tetracarbonsäure + 2H₂O (Pyromellithsäure). Sm. 264° (wasserfrei). Ca₂ + 6H₂O, Pb₂ + H₂O, Ag₄ (A. Spl. 7, 37; A. 80, 281; B. 17, 2517; 27, 1589, 3408; J. pr. [2] 40, 141; Ph. Ch. 5, 398). — II, 2073.

$C_{10}H_6O_{10}$

- C 41,9 — H 2,1 — O 55,9 — M. G. 286.
- 1) Hydrocarboxylsäure oder $C_{10}H_6O_{12}$ (A. 124, 31). — I, 871.
- 2) 3,6-Dioxybenzol-1,2,4,5-Tetracarbonsäure + 1½H₂O. Na₂, Ag₄ (A. 237, 32). — II, 2095.

$C_{10}H_6N_2$

- C 77,9 — H 3,9 — N 18,2 — M. G. 154.
- 1) Nitril d. α -Phenyläthen- $\beta\beta$ -Dicarbonsäure. Sm. 87° (B. 28, 2253). — II, 1863.
- 2) Nitril d. Chinolin-5-Carbonsäure. Sm. 87–88°; Sd. oberh. 360° (M. 8, 581; B. 14, 2574; 15, 196, 684, 1980). — IV, 349.
- 3) Nitril d. isom. Chinolin-5-Carbonsäure + 1½H₂O. Sm. 74,5° (89° wasserfrei). (2HCl, PtCl₄) (B. 21, 397). — IV, 349.
- 4) Nitril d. Chinolin-6-Carbonsäure. Sm. 135° (131°) (B. 22, 2762). — IV, 349.
- 5) Nitril d. Chinolin-8-Carbonsäure. Sm. 84°. (2HCl, PtCl₄) (B. 15, 196, 684, 1980; 22, 1391). — IV, 351.

- $C_{10}H_8N_2$ 6) Nitril d. Isochinolin-5[oder 8]-Carbonsäure. Sm. 135°; subl. (2HCl, PtCl₄) (M. 15, 809). — IV, 351.
- $C_{10}H_6Cl_2$ 1) 1,2-Dichlornaphtalin. Sm. 34—35°; Sd. 280—282° (B. 9, 1089; 15, 2160; 20, 1991; 21, 896; 24, 3475; 25, 2487). — II, 185.
 2) 1,3-Dichlornaphtalin. Sm. 61°; Sd. 289° (Bl. 29, 415; B. 19, 2181; 20, 449; 21, 3445; 23, 954). — II, 186.
 3) 1,4-Dichlornaphtalin. Sm. 67—68°; Sd. 286—287°₇₄₀ (A. 151, 81; 160, 70; 247, 351; B. 9, 1089, 1187, 1189; Bl. 26, 242; 27, 409; 28, 516; J. pr. [2] 31, 348). — II, 186.
 4) 1,5-Dichlornaphtalin. Sm. 107°; subl. (Bl. 26, 450; B. 9, 317, 1188; 15, 205; A. 247, 353, 378; C. 1897 [2] 553). — II, 186.
 5) 1,6[= 2,5]-Dichlornaphtalin. Sm. 48° (Bl. 26, 448; 29, 499; B. 20, 2105; 25, 2081; 29, 1981; 31, 2419; A. 247, 379; 275, 256). — II, 186.
 6) 1,7[= 2,8]-Dichlornaphtalin. Sm. 62°; Sd. 286° (Bl. 29, 415; 45, 184; B. 18, 3158; 20, 2102; 25, 2083; A. 247, 379; C. 1897 [2] 553). — II, 186.
 7) 1,8-Dichlornaphtalin. Sm. 83° (B. 9, 1732; 10, 548; C. 1897 [2] 553). — II, 186.
 8) 2,3-Dichlornaphtalin. Sm. 120° (Am. 2, 211; B. 15, 2162; 24 [2] 712). — II, 186.
 9) 2,6-Dichlornaphtalin. Sm. 135°; Sd. 285° (Bl. 26, 245; 36, 433; 45, 184; B. 14, 1483; 20, 76). — II, 186.
 10) 2,7-Dichlornaphtalin. Sm. 114° (Bl. 26, 244; 36, 433; B. 20, 1432; A. 275, 280). — II, 187.
- $C_{10}H_6Cl_4$ 11) isom. [?]-Dichlornaphtalin. Sm. 94° (B. 15, 314). — II, 187.
 1) 1,2-Dichlornaphtalin- α -Tetrachlorid. Sm. 172° (Bl. 28, 506; A. 160, 67; B. 15, 1261). — II, 190.
 2) 1,2-Dichlornaphtalin- β -Tetrachlorid. Fl. (Bl. 28, 506). — II, 190.
 3) 1,4-Dichlornaphtalintetrachlorid (Bl. 28, 506; B. 15, 2161). — II, 190.
- $C_{10}H_6Br_2$ 4) 1,5-Dichlornaphtalintetrachlorid. Sm. 85° (B. 10, 1842). — II, 190.
 1) 1,2-Dibromnaphtalin. Sm. 67—68° (A. 222, 265; Soc. 43, 5; 63, 1055; G. 12, 425). — II, 191.
 2) 1,3-Dibromnaphtalin. Sm. 64° (B. 12, 1963; 25 [2] 750). — II, 191.
 3) 1,4-Dibromnaphtalin. Sm. 81—82°; Sd. 310° (A. 135, 43; 222, 267; B. 10, 294; 15, 528; 16, 421; 25 [2] 750; Bl. 28, 514; Soc. 43, 3; 67, 642). — II, 191.
 4) 1,5-Dibromnaphtalin. Sm. 130—131,5°; Sd. 325—326° (A. 152, 304; 222, 270; Bl. 28, 514; B. 15, 528; G. 11, 358). — II, 191.
 5) 1,6-Dibromnaphtalin. Sm. 61° (J. pr. [2] 43, 51). — II, 191.
 6) 1,7[= 2,8]-Dibromnaphtalin. Sm. 75° (A. 152, 304; B. 22, 619, 1403; 25 [2] 750; Soc. 47, 513). — II, 192.
 7) 1,8-Dibromnaphtalin. Sm. 108,5—109° (Soc. 63, 1059). — II, 192.
 8) 2,3-Dibromnaphtalin. Sm. 67,5—68° (A. 222, 266). — II, 192.
 9) 2,6-Dibromnaphtalin. Sm. 158° (Bl. 28, 517; B. 22, 1401). — II, 192.
 10) 2,7-Dibromnaphtalin. Sm. 140,5° (Bl. 28, 517). — II, 192.
- $C_{10}H_6Br_4$ 1) Dibromnaphtalin- α -Tetrabromid. Sm. 97—100° (A. 135, 48; G. 16, 142). — II, 193.
 2) Dibromnaphtalin- β -Tetrabromid. Sm. 173—174° (G. 16, 142). — II, 193.
- $C_{10}H_6J_2$ 1) 1,2-Dijodnaphtalin. Sm. 81° (Soc. 47, 522). — II, 194.
 2) 1,4-Dijodnaphtalin. Sm. 109—110° (Soc. 47, 521). — II, 194.
- $C_{10}H_6S$ 1) 1,4-Thionaphtalin. Sm. 155° u. Zers. (Soc. 67, 641; C. 1896 [2] 42).
 $C_{10}H_7N_3$ C 71,0 — H 4,1 — N 24,8 — M. G. 169.
 1) β,β -Naphtisotriazol. Sm. 187° (B. 27, 765). — IV, 1171.
 2) Verbindung (aus 1,8-Diamidonaphtalin) (B. 7, 315). — IV, 1541.
- $C_{10}H_7Cl$ 1) 1-Chlornaphtalin. Sd. 250—252° (260°). Lit. bedeutend. — II, 185.
 2) 2-Chlornaphtalin. Sm. 56°; Sd. 264—266°₇₈₁. Lit. bedeutend. — II, 185.
- $C_{10}H_7Cl_3$ 1) β -Chlornaphtalindichlorid (B. 11, 740).
 $C_{10}H_7Cl_5$ 1) 1-Chlornaphtalintetrachlorid. Sm. 131,5° (121°) (A. 160, 67; B. 11, 741; Bl. 28, 506). — II, 190.
 2) 2-Chlornaphtalintetrachlorid. Fl. (Bl. 28, 506). — II, 190.
- $C_{10}H_7Br$ 1) 1-Bromnaphtalin. Sd. 277°. Lit. bedeutend. — II, 190.
 2) 2-Bromnaphtalin. Sm. 59°; Sd. 281—282°. Pikrat (A. 183, 268; B. 17, 1179; 18, 1941; A. ch. [6] 12, 344; G. 20, 639). — II, 191.

- C₁₀H₇J** 1) 1-Jodnaphtalin. *Sd.* 305° (*A.* 147, 173; *A. ch.* [6] 12, 350; *B.* 19, 135; 29, 1408). — II, 194.
2) 2-Jodnaphtalin. *Sm.* 45,5°; *Sd.* 308—310° (*B.* 14, 804; 29, 1408). — II, 194.
- C₁₀H₇F** 1) 1-Fluornaphtalin. *Sm.* 216,5° (*B.* 22, 1845, 1846). — II, 185.
2) 2-Fluornaphtalin. *Sm.* 59°; *Sd.* 212,5° (*B.* 22, 1846; *C.* 1898 [1] 1224). — II, 185.
- C₁₀H₈O** C 83,3 — H 5,5 — O 11,1 — *M. G.* 144.
1) 1-Oxynaphtalin (α -Naphtol). *Sm.* 94°; *Sd.* 278—280°. *Pikrat* (*Sm.* 189 bis 190°). *Lit.* bedeutend. — II, 856.
2) 2-Oxynaphtalin (β -Naphtol). *Sm.* 122°; *Sd.* 285—286°. *Hg.* + *HgCl*, *Cu* + *CuCl₂* + 4*H₂O*. *Pikrat.* *Sm.* 155°. *Lit.* bedeutend. — II, 875.
3) Verbindung (aus Liebstöcköl) (*C.* 1897 [1] 499).
C 75,0 — H 5,0 — O 20,0 — *M. G.* 160.
- C₁₀H₈O₂** 1) 1,2-Dioxynaphtalin. *Sm.* 60° (*A.* 211, 58). — II, 981.
2) 1,3-Dioxynaphtalin. *Sm.* 124° (125°) (*B.* 29, 1609; *A.* 298, 388).
3) 1,4-Dioxynaphtalin. *Sm.* 173° (176°) (*A.* 176, 359; *Soc.* 37, 635). — II, 982.
4) 1,5-Dioxynaphtalin. *Sm.* 250° (*Bl.* 24, 513; *B.* 20, 938; *A.* 247, 356). — II, 983.
5) 1,6-Dioxynaphtalin. *Sm.* 134—135° (*J. pr.* [2] 39, 316; *B.* 26, 3034). — II, 983.
6) 1,7-Dioxynaphtalin. *Sm.* 178° (175°) (*A.* 241, 371; *B.* 29, 40). — II, 983.
7) 1,8-Dioxynaphtalin. *Sm.* 140° (*A.* 247, 357). — II, 983.
8) 2,3-Dioxynaphtalin. *Sm.* 159° (*B.* 27, 762). — II, 984.
9) 2,6-Dioxynaphtalin. *Sm.* 215—216° (*Z.* 1867, 302; *A.* 152, 306; 241, 369; *Soc.* 39, 140). — II, 984.
10) 2,7-Dioxynaphtalin. *Sm.* 190° (*B.* 9, 609; 10, 1233; 14, 2206; 20, 3161; 23, 520). — II, 984.
11) isom. *p*-Dioxynaphtalin (*Bl.* 19, 397). — II, 985.
12) $\alpha\beta$ -Difuryläthen (Furfurostilben). *Sm.* 101° (98°) (*A.* 134, 61; *B.* 24, 3598). — III, 694.
13) 4-Methyl-1,2-Benzpyron (β -Methylcumarin). *Sm.* 125—126° (*B.* 16, 2127). — II, 1656.
14) 3-Methyl-1,2-Isobenzpyron (3-Methylisocumarin). *Sm.* 73—74° (*B.* 25, 3565). — II, 1656.
15) 1-Acetylbenzofuran. *Sm.* 74—75° (*B.* 30, 1711).
16) 1,3-Diketo-2-Methyl-2,3-Dihydroinden. *Sm.* 84—85°; *Sd.* 150°_{16—18}. *Na* (*A.* 252, 81; *B.* 26, 2581). — III, 278.
17) Inden-2-Carbonsäure. *Sm.* 230°. *Ag* (*Soc.* 65, 238). — II, 1441.
18) 3-Methylphenylpropiolsäure. *Sm.* 109,5°. *Ag* (*B.* 20, 1215). — II, 1441.
19) Lakton d. γ -Oxy- γ -Phenylcrotonsäure? *Sm.* 93° (*B.* 24, 4077; *A.* 299, 17, 54). — II, 1658.
20) isom. Lakton d. γ -Oxy- γ -Phenylcrotonsäure. *Sm.* 227° u. *Zers.* (*A.* 299, 55).
21) Lakton d. α -[2-Oxyphenenyl]propen- β -Carbonsäure (Propioncumarin). *Sm.* 90°; *Sd.* 292,5° (*J.* 1875, 590; *Soc.* 39, 439, 446). — II, 1653.
22) Lakton d. 1-[α -Oxy- α -Propenyl]benzol-2-Carbonsäure (Aethylidenphtalid). *Sm.* 67—69° (63—64°) (*B.* 18, 3117; 19, 838). — II, 1659.
23) Anhydrid d. 1,4-Dimethylbenzol-2,3-Dicarbonsäure. *Sm.* 143,5° (*G.* 22 [2] 46). — II, 1854.
24) Methylester d. Phenylpropiolsäure. *Sd.* 159—160°₄ (*B.* 24, 2589; *R.* 15, 123 Anm.). — II, 1439.
C 68,1 — H 4,5 — O 27,3 — *M. G.* 176.
1) 1,2,3-Trioxynaphtalin. *Zers.* oberh. 250°. + *C₂H₄O₂* (*A.* 295, 17).
2) 1,2,4-Trioxynaphtalin (*A.* 154, 324; *B.* 28, 347). — II, 1027.
3) 1,4,5-Trioxynaphtalin (α -Hydrojuglon). *Sm.* 168—170° (*B.* 17, 2412; 18, 475, 2567). — II, 1027.
4) isom. Trioxynaphtalin (β -Hydrojuglon). *Sm.* 96—97° (*B.* 17, 2412; 18, 2569). — II, 1027.
5) 1,3,?-Trioxynaphtalin. *Sm.* 120—121° (*B.* 24 [2] 718). — II, 1027.
6) 3-Oxy-5-Acetylbenzofuran (m-Acetyl- α -o-Oxycumaron). *Sm.* 190° (*B.* 26, 347). — III, 733.

$C_{10}H_8O_2$

- 7) 7-Oxy-4-Methyl-1,2-Benzpyron (β -Methylumbelliferon). Sm. 185° (*J. pr.* [2] 24, 125; [2] 25, 82; [2] 35, 454; [2] 37, 470; *B.* 16, 2122; 17, 931; *A.* 261, 169; *Am.* 5, 434). — II, 1779.
- 8) 7-Oxy-5-Methyl-1,2-Benzpyron (Homoumbelliferon). Sm. 248° (*B.* 17, 1649). — II, 1781.
- 9) Methyläther d. 6-Oxy-1,2-Benzpyron (M. d. m-Oxycumarin). Sm. 103° (*B.* 14, 1996; *G.* 24 [2] 501). — II, 1775.
- 10) 7-Methyläther d. 7-Oxy-1,2-Benzpyron (M. d. Umbelliferon). Sm. 117 bis 118° (114°) (*B.* 12, 996; *M.* 10, 162). — II, 1773.
- 11) Dehydroacetylchinacetophenon. Sm. 220° (*B.* 25, 1303). — III, 137.
- 12) Dehydroacetylresacetophenon. Sm. 250° (*B.* 25, 1302). — III, 136.
- 13) α -Keto- $\alpha\beta$ -Di[2-Furanyl]äthan (Desoxyfuroin). Sm. 20°; Sd. 159—160° (*A.* 258, 224; *B.* 28 [2] 992). — III, 727.
- 14) α -[2-Methoxylphenyl]äthin- β -Carbonsäure (o-Cumarilmethyläthersäure). Sm. 124—126° u. Zers. (*Soc.* 39, 423). — II, 1675.
- 15) α -[4-Methoxylphenyl]äthin- β -Carbonsäure. Sm. 132—139° u. Zers. (*Bl.* [3] 17, 512).
- 16) γ -Keto- α -Phenylpropen- γ -Carbonsäure (Cinnamylameisensäure). *Ag* (*B.* 13, 2124; 14, 2472). — II, 1677.
- 17) γ -Keto- γ -Phenylpropen- α -Carbonsäure + x H₂O (β -Benzoylakrylsäure). Sm. 64° (u. 96—97°) (*B.* 15, 885; 26, 558; 32, 397). — II, 1677.
- 18) 2-Methylbenzofuran-1-Carbonsäure (β -Methyleumarilsäure). Sm. 188 bis 189°. NH₄ + H₂O, K + H₂O, Ba + 3H₂O, Ag (*B.* 19, 1292). — II, 1676.
- 19) Pinastrinsäure, siehe $C_{10}H_{14}O_6$.
- 20) Anhydrid d. α -Phenyläthan- $\alpha\beta$ -Dicarbonsäure (A. d. Phenylbernsteinsäure). Sm. 53—54° (150°); Sd. 204—206° (*B.* 14, 873; *A.* 258, 75; 293, 349). — II, 1848.
- 21) Anhydrid d. 1,3-Dimethylbenzol-4,5-Dicarbonsäure. Sm. 116° (*Am.* 20, 810).
- 22) 4-Aldehyd d. β -Phenylakrylsäure-4-Carbonsäure (p-Aldehydzimmtsäure). Sm. 247° (*A.* 231, 375). — II, 1677.
- 23) Aldehyd d. 4,5-Dioxybenzol-4,5-Methylenäther-2-Carbonsäure (Hydrastal). Sm. 78—79° (*B.* 22, 2333). — III, 107.
- 24) Aldehyd d. β -[3,4-Dioxyphenyl]akryl-3,4-Methylenäthersäure (A. d. Piperonylakrylsäure). Sm. 70°; Sd. 180—190° (*B.* 27, 2958). — III, 107.

 $C_{10}H_8O_4$

- 1) 1,2,5,8-Tetraoxynaphtalin. Sm. 154° u. Zers. (*A.* 286, 37).
- 2) 2-Tetraoxynaphtalin. Sm. 225° (*Am.* 2, 283). — II, 182.
- 3) 3,4-Dioxy-1,2-Diketo-1,2,3,4-Tetrahydronaphtalin. Sm. 95—96° (*B.* 25, 1175). — III, 276.
- 4) 5,7-Dioxy-4-Methyl-1,2-Benzpyron (Dioxymethylcumarin). Sm. 282 bis 284° (*B.* 17, 2189). — II, 1953.
- 5) 7,8-Dioxy-4-Methyl-1,2-Benzpyron (Dioxy- β -Methyleumarin; β -Methyldaphnetin). Sm. 235° (*J. pr.* [2] 26, 68; *B.* 16, 2127; 17, 2188). — II, 1953.
- 6) 6-Methyläther d. 6,7-Dioxy-1,2-Benzpyron (Chrysotropasäure; Scopolin). Sm. 198° (202—203°). + Pyridin (*J.* 1885, 1810; *B.* 31, 1190, 1192; *C.* 1898 [2] 635). — III, 568.
- 7) Methyläther d. Aeskuletin. Sm. 184° (*B.* 15, 2075). — III, 568.
- 8) β -Oxy- α -Keto- $\alpha\beta$ -Di[2-Furanyl]äthan (Furoin). Sm. 135° (*A.* 211, 218). — III, 728.
- 9) Anemonin. Sm. 156° (152°). + PbO (*A.* 32, 276; 38, 278; *J.* 1850, 509; *B.* 15, 2633; *Bl.* 47, 684; *Fr.* 25, 286; *M.* 17, 283). — III, 618.
- 10) Acetat d. 5-Oxy-2-Keto-1,2-Dihydrobenzofuran. Sm. 80,5° (*B.* 30, 299).
- 11) β -[3,4-Dioxyphenyl]akryl-3,4-Methylenäthersäure (Piperonylakrylsäure). Sm. 238° (232°). Ca, Zn, Ag (*B.* 13, 757; 31, 2608; *Soc.* 59, 153). — II, 1777.
- 12) Phenylfumarsäure? Sm. 161°. Ba, Ag₂ (*J. pr.* [2] 20, 186). — II, 1863.
- 13) $\alpha\gamma$ -Diketo- α -Phenylpropan- γ -Carbonsäure + H₂O (Benzoylbrenztraubensäure). Sm. 156—158° (*B.* 20, 2184; 21, 1132; 28, 813; *G.* 23 [2] 22; *A.* 293, 117). — II, 1862.
- 14) δ -Furanyl- $\alpha\gamma$ -Butadien- α -Ketocarbonsäure (Furfurakroleinbrenztraubensäure) (*B.* 31, 285).

$C_{10}H_8O_4$

- 15) **5-Oxy-2-Methylbenzofuran-1-Carbonsäure** + $\frac{1}{2}H_2O$ (m-Oxymethylcumarilsäure). Sm. 226° (wasserfrei) (B. 19, 2928). — III, 730.
- 16) **5-Methoxybenzofuran-1-Carbonsäure** (Oxycumarilmethyläthersäure). Sm. 195,5—196,5°. Ba + 4H₂O (B. 19, 1783). — II, 1861.
- 17) **α -Phenyläthen- $\alpha\beta$ -Dicarbonsäure** (Phenylmaleinsäure) (A. 258, 76). — II, 1862.
- 18) **α -Phenyläthen- $\beta\beta$ -Dicarbonsäure** (Benzalmalonsäure). Sm. 195—196° u. Zers. Ba, Ag₂ (A. 218, 135; Soc. 43, 405; 49, 358; Ph. Ch. 3, 369; 10, 419; B. 27, 283; 31, 2605). — II, 1863.
- 19) **Benzol-1-Carbonsäure-2-[Aethenyl- β -Carbonsäure]** (o-Zimmtcarbonsäure). Sm. 183—184° (173—175°). Pb, Ag₂ (B. 10, 2203; M. 9, 528). — II, 1864.
- 20) **Benzol-1-Carbonsäure-4-[Aethenyl- β -Carbonsäure]** (p-Zimmtcarbonsäure). Ag₂ (A. 231, 369). — II, 1865.
- 21) **2, α -Lakton d. α -Oxy- α -Phenyläthan-2, β -Dicarbonsäure** + H₂O (L. d. Benzhydrylicarbonsäure). Sm. 150—151°. Ag (B. 10, 1558, 2201). — II, 1952.
- 22) **2, β -Lakton d. β -Oxy- α -Phenyläthan-2, β -Dicarbonsäure** (Dihydroisocumarincarbonsäure). Sm. 153,5°. Ag (A. 288, 109, 134). — II, 1952.
- 23) **2, α -Lakton d. α -Oxy- α -Phenylmethan-2-Carbonsäure- α -Carbonsäuremethylester** (Phthalidcarbonsäuremethylester). Sm. 54—55° (B. 27, 744). — II, 1947.
- 24) **1,2-Lakton d. 3,4-Dioxy-1-[β -Oxyäthyl]benzol-3,4-Methylenäther-2-Carbonsäure**. Sm. 126—127° (Soc. 57, 1020). — II, 1929.
- 25) **1,2-Lakton d. Benzol-1-Methylcarbonsäure-2-Oxymethylcarbonsäure** + $1\frac{1}{2}H_2O$. Sm. 58° (140° wasserfrei). Ba + 4H₂O (B. 26, 223). — II, 1953.
- 26) **Anhydrid d. α -[2-Oxyphenyl]äthan- $\alpha\beta$ -Dicarbonsäure**. Sm. 134°; Sd. 220°₁₄ (A. 293, 368).
- 27) **Anhydrid d. 4-Oxybenzoläthyläther-1,2-Dicarbonsäure**. Sm. 118° (A. 286, 25; 296, 358). — II, 1936.
- 28) **Verbindung (Acetylaldehydophthalanhydrid)**. Sm. 60—63° (A. 239, 84; B. 21 [2] 353). — II, 1625.

 $C_{10}H_8O_5$

- C 57,7 — H 3,8 — O 38,5 — M. G. 208.
- 1) **Fraxetin**. Sm. 227° (J. 1859, 576; G. 21 [2] 452). — III, 583.
 - 2) **p-Trioxo-4-Methyl-1,2-Benzpyron** (Methyltrioxycumarin). Sm. 244 bis 246° (G. 23 [2] 614). — II, 2007.
 - 3) **5,6,7-Trioxo-4-Methylisobenzpyron** (5,6,7-Trioxo-4-Methylisocumarin) (B. 26, 420). — II, 2006.
 - 4) **α -Oxydi[2-Furanyl]essigsäure** (Furilsäure) (A. 211, 222). — III, 719.
 - 5) **3,5-Dioxy-2-Methylbenzofuran-1-Carbonsäure** + $\frac{1}{2}H_2O$ (Dioxymethylcumarilsäure). Sm. 281° (wasserfrei) (B. 19, 2935). — III, 731.
 - 6) **α -Keto- α -Phenyläthan- $\beta\beta$ -Dicarbonsäure** (Benzoylmalonsäure) (B. 16, 1044). — II, 1960.
 - 7) **α -Keto- α -Phenyläthan- α ,2-Dicarbonsäure** + H₂O (Benzoylessig-o-Carbonsäure). Sm. bei 90° u. Zers. Ag₂ (B. 10, 1553). — II, 1961.
 - 8) **β -Oxy- α -Phenyläthan- β ,2-Dicarbonsäure** (α -Oxy-o-Zimmtcarbonsäure). Pb (B. 25, 1142). — II, 1962.
 - 9) **α ,2-Lakton d. $\alpha\beta$ -Dioxy- α -Phenyläthan- β ,2-Dicarbonsäure**. Sm. 204,5° (202°). Ca, Ag (B. 25, 405, 893). — II, 2006.
 - 10) **α ,2-Lakton d. α -Oxy-4-Methoxyphenylmethan- α ,2-Dicarbonsäure** (5-Methoxyphthalidcarbonsäure). Sm. 169—170° (A. 296, 354).
 - 11) **α ,2-Lakton d. 4,5-Dioxy-1-[$\alpha\beta$ -Dioxyäthyl]benzol-4,5-Methylenäther-2-Carbonsäure** (Hydrastlakton). Sm. 154° (B. 26 [2] 1008). — II, 1992.
 - 12) **Anhydrid d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure** (A. d. Hemipinsäure). Sm. 166—167° (169°) (J. 1876, 807; J. pr. [2] 24, 371; M. 3, 368). — II, 1996.
 - 13) **Anhydrid d. 3,5-Dioxybenzoldimethyläther-1,2-Dicarbonsäure**. Sm. 147° (A. 296, 358).
 - 14) **Anhydrid d. 4,5-Dioxybenzoldimethyläther-1,2-Dicarbonsäure**. Sm. 175° (M. 6, 380; 9, 773). — II, 1999.
 - 15) **Methylester d. 3,4-Dioxybenzoldimethyläther-1-Ketocarbonsäure**. Sm. 66° (G. 21 [2] 177). — II, 1946.

$C_{10}H_8O_6$

C 53,6 — H 3,6 — O 42,8 — M. G. 224.

- 1) Physodein (*J.* 1856, 686). — III, 642.
- 2) Naphtoxalsäure. Ba, Ag₂ (*A.* 136, 347). — II, 2013.
- 3) 2-Dioxynaphtalinsäure. Sm. 126°. K + H₂O, Ca(NH₄)₂, BaH + 3H₂O, Ba, Ba(NH₄)₂ + 2H₂O, 4Pb + Pb(OH)₂, Pb + 5H₂O, 3Cu + 2H₂O, Cu(NH₄)₂ (*A.* 151, 69). — II, 2013.
- 4) Benzol-1,3-Dicarbonsäure-5-Methylcarbonsäure (s-Isophtaleinsäure). Ag₃ (*Bl.* 34, 635). — II, 2012.
- 5) α -Oxy- β -Keto- α -Phenyläthan- β ,2-Dicarbonsäure. Ba + H₂O (*B.* 27, 742). — II, 2012.
- 6) 5-Oxybenzolzomethyläther-1-Carbonsäure-2-Ketocarbonsäure. Ba + 2H₂O (*A.* 296, 359).
- 7) α ,2-Lakton d. α -Oxy- α -[3,4-Dioxyphenyl]äthan- β ,2-Dicarbonsäure (Normekoninessäure). Sm. 228°. Ba (*B.* 19, 2293). — II, 2044.
- 8) Monomethylester d. 4,5-Dioxybenzolzomethylenäther-1,2-Dicarbonsäure (M. d. Hydrastsäure). Sm. 136°. Ag (*A.* 271, 380). — II, 2000.
- 9) 2-Methylester d. Benzol-1,2,3-Tricarbonsäure. Sm. 203—205° (*A.* 240, 226).
- 10) Monomethylester d. Benzol-1,2,4-Tricarbonsäure (*A.* 186, 340). — II, 2010.
- 11) Monomethylester d. Benzol-1,3,5-Tricarbonsäure + H₂O. Sm. 205 bis 208° (*A.* 264, 294). — II, 2011.
- 12) Verbindung (aus Oxydehydracetsäure). Sm. 271° (*B.* 25, 334). — II, 2046.

 $C_{10}H_8O_7$

- 1) 3,4,5-Trioxybenzol-3,4-Methylenäther-5-Methyläther-1,2-Dicarbonsäure (Cotarnsäure). Sm. 178° (*A.* 249, 165; 254, 345). — II, 2043.
- 2) 5-Oxy-1-Methylbenzol-2,3,4-Tricarbonsäure (Cochenillesäure). Sm. 224—225°. Ca + 7H₂O, Ba₃ + 2H₂O, Ag₃ + H₂O (*B.* 30, 690, 1731, 1740). C 46,9 — H 3,1 — O 50,0 — M. G. 256.

 $C_{10}H_8O_8$

- 1) Diacetat d. 2,3,5,6-Tetraoxy-1,4-Benzochinon. Sm. 205° (*B.* 20, 3152). — III, 355.
- 2) 1,2-Pyron-5-Carbonsäure-4,8-Dimethylcarbonsäure (Citracumal-säure). Sm. 185° u. Zers. (*A.* 261, 199). — I, 869.

 $C_{10}H_8O_9$

- 1) Prehnomalsäure. Ag₄ (*B.* 4, 274; *A.* 166, 327). — II, 2090.

 $C_{10}H_8O_{10}$

- 1) Dihydrocarboxylsäure (*A.* 124, 28).

 $C_{10}H_8O_{12}$

- 1) β -Buten- $\alpha\alpha\beta\gamma\delta\delta$ -Hexacarbonsäure. Sm. 148° u. Zers. Na₆ + 10H₂O, Ag₆ (*M.* 9, 451). — I, 872.

 $C_{10}H_8N_2$

- 1) 2,3'-Bipyridyl. Sd. 287—289°. (2HCl, PtCl₄ + $\frac{1}{2}$ H₂O), Pikrat (*M.* 3, 599). — IV, 953.
- 2) 3,3'-Bipyridyl. Sm. 68°; Sd. 286—288° (291—292°₇₃₆). (2HCl, PtCl₄), Pikrat (*M.* 4, 590; *B.* 24, 327; *G.* 15, 276). — IV, 953.
- 3) 4,4'-Bipyridyl. Sm. 111—112°; Sd. 304,8°. 2HCl, (2HCl, ZnCl₂), (2HCl, HgCl₂), (2HCl, PtCl₄), 2HNO₃, (2HNO₃, 2AgNO₃), H₂SO₄ + 2H₂O (*A.* 154, 274; *M.* 3, 856; *J. pr.* [2] 44, 407). — IV, 953.
- 4) isom. Bipyridyl. Sm. 69,5°; Sd. 272,5°. (2HCl, PtCl₄), Pikrat, + CuCl₂, + CuSO₄ + H₂O (*M.* 10, 376; 19, 650). — IV, 953.
- 5) isom. Bipyridyl. Sd. 280—282°. 2HCl, (2HCl, PtCl₄), Pikrat (*B.* 19, 360). — IV, 954.
- 6) 3-Phenyl-1,2-Diazin. Sm. 102—103°; Sd. 330—332°. (2HCl, PtCl₄), (HCl, AuCl₃), HJ, Pikrat (*B.* 32, 401).
- 7) Base (aus Sparteinsulfat). (HCl, AuCl₃) (*B.* 26, 3039). — III, 933.
- 8) Nitril d. Phenyläthan- $\beta\beta$ -Dicarbonsäure. Sm. 78—79° (*B.* 32, 649).
- 9) Nitril d. Benzol-1,2-Di[Methylcarbonsäure] (N. d. o-Phenylendiessig-säure). Sm. 59—60° (*B.* 17, 447). — II, 1852.
- 10) Nitril d. Benzol-1,3-Di[Methylcarbonsäure]. Sm. 28—29°; Sd. 305 bis 310°₃₀₀ (*B.* 20, 42; *G.* 23 [2] 337). — II, 1852.
- 11) Nitril d. Benzol-1,4-Di[Methylcarbonsäure]. Sm. 98° (96°) (*B.* 5, 703; 9, 1767; 20, 44). — II, 1852.
- 12) Nitril d. Benzol-1-Carbonsäure-2-[Aethyl- α -Carbonsäure]. Sm. 36 bis 37°; Sd. 284—286° (*B.* 20, 2501). — II, 1853.

- $C_{10}H_8N_4$ C 65,2 — H 4,3 — N 30,4 — M. G. 184.
 1) Nitril d. 5-Methyl-1-Phenyl-1,2,4-Triazol-3-Carbonsäure. Sm. 108 bis 108,5° (B. 18, 1545; 19, 2599; 25, 185, 190). — IV, 1114.
- $C_{10}H_8Cl_2$ 1) Naphtalindichlorid (Berz. J. 16, 350; B. 11, 737; 24 [2] 713). — II, 189.
 $C_{10}H_8Cl_4$ 1) Naphtalintetrachlorid. Sm. 182° (A. 160, 66; Berz. J. 21, 506; Am. 2, 208; 19, 269; B. 9, 1088; 10, 379; 11, 738; J. pr. [2] 31, 348). — II, 189.
- $C_{10}H_8Br_4$ 1) Naphtalintetrabromid. Sm. 111° u. Zers. (Am. 19, 265).
 $C_{10}H_8S$ 1) 1-Merkaptonaphtalin (Thionaphtol). Sd. 285°. Pb, Hg (Z. 1869, 711; A. 132, 91; B. 22, 822; J. pr. [2] 41, 217). — II, 867.
 2) 2-Merkaptonaphtalin. Sm. 81°; Sd. 286°. Pb (Z. 1869, 711; B. 8, 463; 22, 824; J. pr. [2] 41, 220). — II, 886.
 3) 2-Phenylthiophen. Sm. 40–41° (B. 19, 3142). — III, 747.
 4) 3-Phenylthiophen. Sm. 56–57° (90–90,5°); Sd. 254° (B. 26, 2001; 30, 370). — III, 748.
 5) 2-Phenylthiophen. Sm. 330° (Bl. [3] 3, 958). — III, 748.
- $C_{10}H_8S_2$ 1) 1,5-Dimerkaptonaphtalin. Sm. 103° (B. 25, 2735). — II, 983.
 2) 2,6-Dimerkaptonaphtalin. Sm. 177–178° (B. 25, 2735). — II, 984.
 3) 2,7-Dimerkaptonaphtalin. Sm. 173–174° (180–181°); Sd. 210°₁₅. Pb (B. 23, 2371; 24, 145). — II, 985.
- $C_{10}H_7N$ C 83,9 — H 6,3 — N 9,8 — M. G. 143.
 1) 1-Amidonaphtalin (α -Naphtylamin). Sm. 50°; Sd. 300°. Salze meist bekannt. Lit. bedeutend. — II, 591.
 2) 2-Amidonaphtalin (β -Naphtylamin). Sm. 111–112°; Sd. 294°. Salze meist bekannt. Lit. bedeutend. — II, 592.
 3) 1-Phenylpyrrol. Sm. 62°; Sd. 234°. 2 + HgCl₂ (B. 14, 933; 28, 1905; J. pr. [2] 6, 148; Ph. Ch. 10, 423). — IV, 66.
 4) 2-Phenylpyrrol. Sm. 129°; Sd. 271–272°₇₃₆ (B. 28, 1905). — IV, 324.
 5) 2-Methylchinolin (Chinaldin). Sd. 246–247° (HCl, HgCl₂), (2HCl, PtCl₄), HJ, H₂SO₄, H₂Cr₂O₇, Pikrat. Lit. bedeutend. — IV, 307.
 6) 3-Methylchinolin. Sm. 10–14°; Sd. 250°₇₁₆. (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃), Pikrat (B. 17, 1715; 18, 1642; 20, 1916). — IV, 313.
 7) 4-Methylchinolin (Lepidin; Cincholepidin). Sd. 265,5°_{746,7}. HCl, (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃), HNO₃, H₂SO₄, H₂Cr₂O₇, Ditartrat, Pikrat, 2 + AgNO₃ (J. 1855, 550; M. 3, 76; R. 2, 1; B. 23, 2677; 31, 2153; J. r. 17, 362; A. 236, 94; J. pr. [2] 33, 418; Bl. 38, 546). — IV, 314.
 8) 6-Methylchinolin (p-Toluchinolin). Sd. 257,4–258,6°₇₄₆. HCl + 1/2 H₂O, (HCl, ClJ), (2HCl, PtCl₄ + 2H₂O), HJ, H₂SO₄ + H₂O, Pikrat (M. 2, 158; 12, 309; B. 18, 1616; 24, 2633; 27, 825; A. 242, 307; 273, 366; Ph. Ch. 22, 391; H. 20, 217). — IV, 318.
 9) 7-Methylchinolin (m-Toluchinolin). Sd. 259,7°₇₄₂. (2HCl, PtCl₄ + 2H₂O), H₂SO₄, (2 + 3H₂SO₄ + xH₂O), Pikrat (M. 3, 382; 7, 140; Ph. Ch. 22, 391; B. 15, 893). — IV, 321.
 10) 8-Methylchinolin (o-Toluchinolin). Sd. 247,3–248,3°_{741,3}. HCl + 2 1/2 H₂O, (2HCl, PtCl₄ + 2H₂O), H₂SO₄, Pikrat (M. 2, 154; B. 27, 825; 29, 705; Ph. Ch. 22, 391). — IV, 321.
 11) 1-Methylisochinolin. Sd. 248°. (2HCl, PtCl₄ + 4H₂O), H₂SO₄, H₂Cr₂O₇ (M. 11, 360; 15, 304; Ph. Ch. 22, 391). — IV, 323.
 12) 3-Methylisochinolin. Sm. 68°; Sd. 240°. (2HCl, PtCl₄ + H₂O), Pikrat (B. 25, 3570). — IV, 323.
 13) 4-Methylisochinolin. Sd. 256° (2HCl, PtCl₄), Pikrat (B. 21, 2300). — IV, 324.
 14) 6-Methylisochinolin. Sm. 83°; Sd. 263–264°. (2HCl, PtCl₄ + 2H₂O), Pikrat (M. 18, 3). — IV, 324.
 15) 8-Methylisochinolin. Sd. 258°. (2HCl, PtCl₄ + 2H₂O), Pikrat (M. 18, 2). — IV, 324.
 16) Iridolin. Sd. 252–257° (J. 1856, 536; 1863, 431). — IV, 324.
 17) Base (aus Methylketol). Sd. 250°. (2HCl, PtCl₄), HCl, AuCl₃ (B. 20, 2609). — IV, 324.
 18) Nitril d. α -Phenylpropen- γ -Carbonsäure (Styrylcyanid; γ -Cyanallylbenzol). Fl. (J. 1858, 447). — II, 1070.
 19) Nitril d. β -[2-Methylphenyl]akrylsäure. Sm. 169° (A. ch. [6] 29, 487). — II, 1427.

- C₁₀H₉N** 20) Nitril d. β -[3-Methylphenyl]akrylsäure. *Sd.* 170°₃₀ (*A. ch.* [6] 29, 478). — II, 1427.
- 21) Nitril d. β -[4-Methylphenyl]akrylsäure. *Sm.* 79—80° (*A. ch.* [6] 29, 483). — II, 1428.
- C₁₀H₉N₃** 22) Verbindung (Base aus Anilin u. Mannit). *Sd.* 275—280° (*J.* 1885, 1211). *C* 70,2 — *H* 5,3 — *N* 24,5 — *M. G.* 171.
- 1) Phenylazopyrrol. *Sm.* 62° (*B.* 19, 2252). — IV, 1482.
- 2) *p*-Amido-3-Phenyl-1,2-Diazin. *Sm.* 120—124° (*B.* 32, 403).
- 3) 4-Amido-2-Phenyl-1,3-Diazin + $\frac{1}{2}$ H₂O. *Sm.* 138—139° (wasserfrei). *HCl*, (2*HCl*, *PtCl₄*) (*B.* 30, 2029). — IV, 1167.
- C₁₀H₉N₅** *C* 60,3 — *H* 4,5 — *N* 35,2 — *M. G.* 199.
- 1) 3-Diazoamidopyridin. *Sm.* 173—174° u. *Zers.* (*B.* 31, 2495). — IV, 1582.
- C₁₀H₉Cl** 1) Verbindung (aus Methylinden). *Sd.* 240°₇₉₀ (*B.* 22, 1835). — II, 175.
- C₁₀H₉Br** 1) *p*-Brom-1,4-Dihydronaphtalin. *Sd.* 269—270° (*B.* 16, 796). — II, 184.
- C₁₀H₁₀O** *C* 82,2 — *H* 6,8 — *O* 10,9 — *M. G.* 146.
- 1) 2-Oxy-1,2-Dihydronaphtalin. *Sd.* 162—168°₂₆ (*B.* 26, 1839; *A.* 288, 100). — II, 856.
- 2) 1,2,3,4-Tetrahydronaphtalin-2,3-Oxyd. *Sm.* 43,5°; *Sd.* 257—259°₇₁₅ (*B.* 26, 1836; *A.* 288, 89). — II, 981.
- 3) 1-Keto-1,2,3,4-Tetrahydronaphtalin. *Fl.* (*Soc.* 75, 148).
- 4) 2-Keto-1,2,3,4-Tetrahydronaphtalin. *Sm.* 18°; *Sd.* 230—240° u. *Zers.* (138°₁₆). + *NaHSO₃* (*B.* 26, 1842; 27, 1547; *A.* 286, 275; 288, 112). — III, 164.
- 5) 1-Keto-2-Methyl-2,3-Dihydroinden. *Sd.* 244—246°₇₁₉ (*B.* 23, 1888). — III, 164.
- 6) 1-Keto-4-Methyl-2,3-Dihydroinden. *Sm.* 95° (*B.* 25, 2104). — III, 164.
- 7) 1-Keto-5-Methyl-2,3-Dihydroinden. *Sm.* 59° (*B.* 23, 1899; 25, 2106). — III, 164.
- 8) 1-Keto-6-Methyl-2,3-Dihydroinden. *Sm.* 63° (*B.* 23, 1898). — III, 164.
- 9) 5-Phenyl-2,3-Dihydrofuran (Phenyldehydropenton). *Sd.* 239—239,5°₇₂₀ (*Soc.* 51, 837; 59, 887). — III, 147.
- 10) 2,4-Dimethylbenzfuran (Dimethylcumaron). *Sd.* 210°₇₂₃ (*B.* 19, 1300). — II, 1679.
- 11) 3,6-Dimethylbenzfuran. *Sd.* 216°. *Pikrat* (*B.* 30, 1709).
- 12) 4,5-Dimethylbenzfuran. *Sd.* 221°. *Pikrat* (*B.* 30, 1709).
- 13) 4,6-Dimethylbenzfuran. *Sd.* 221—222°. *Pikrat* (*B.* 30, 1709).
- 14) γ -Keto- α -Phenyl- α -Buten (Benzylidenaceton). *Sm.* 41—42°; *Sd.* 260 bis 262° (*B.* 6, 254, 257; 14, 1461, 2461; 29, 383; *A.* 223, 139; 294, 275 *Anm.*; *Ph. Ch.* 10, 420). — III, 160.
- 15) Benzoyl-R-Trimethylen. *Sd.* 239—239,5°₇₂₀ (*Soc.* 47, 840). — III, 163.
- 16) Aethyläther d. 2-Oxyphenylacetylen. *Ag* (*A.* 269, 13). — II, 856.
- 17) Aldehyd d. α -Phenylpropen- β -Carbonsäure. *Sd.* 150°₁₀₀ (*B.* 19, 526). — III, 62.
- 18) Verbindung (aus Chloranethol). *Sd.* 235—245° (*A. Spl.* 8, 92). — II, 852.
- 19) Verbindung (aus Chlormethylbenzol u. Essigsäurephenylester). *Sm.* 39°; *Sd.* 290—300° (*Soc.* 37, 722). — II, 46.
- C₁₀H₁₀O₂** *C* 74,1 — *H* 6,2 — *O* 19,7 — *M. G.* 162.
- 1) Methylenäther d. 3,4-Dioxy-1-Allylbenzol (Shikimol; Safrol). *Sm.* 8°; *Sd.* 232° (*A.* 52, 396; 87, 376; 152, 89; *J.* 1876, 910; *R.* 4, 37; *B.* 17, 1935; 22, 2862; 23, 862; 24, 2872; 30, 956; *Ph. Ch.* 10, 415; *C.* 1896 [1] 994. — II, 974.
- 2) Methylenäther d. 3,4-Dioxy-1-Propenylbenzol (Isosafrol). *Sd.* 246 bis 248° (248,5—250,5°) (*B.* 17, 1935, 1940; 23, 859, 1160; 30, 956; *G.* 23 [2] 101; *Ph. Ch.* 10, 415; *Bl.* [3] 15, 659). — II, 977.
- 3) 1,4-Diacetylbenzol. *Sm.* 114° (*B.* 27, 2527). — III, 271.
- 4) *p*-Diacetylbenzol (Dimethylphtalylketon). *Sm.* 68°; *Sd.* 240° (*Bl.* 51, 167). — III, 271.
- 5) γ -Keto- α -[2-Oxyphenyl]- α -Buten (Methyl-*o*-Cumarketon). *Sm.* 139° (*B.* 18, 1906; 24, 3180). — III, 161.
- 6) α -Oxy- β -Benzoylpropen (Oxymethylenäthylphenylketon). *Sm.* 118—119° (*B.* 22, 3277). — III, 163.
- 7) $\alpha\beta$ -Diketo- α -Phenylbutan. *Sd.* 238—240° (*B.* 22, 2131). — III, 269.
- 8) $\alpha\gamma$ -Diketo- α -Phenylbutan (Benzoylaceton). *Sm.* 60—61°; *Sd.* 260—262°.

$C_{10}H_{10}O_2$

- Na, Cu, Ag (B. 16, 2239; 18, 2132; 20, 655, 2180; 21, 1150; 30, 954; A. 277, 189; 278, 137; 291, 51). — III, 269.
- 9) $\beta\gamma$ -Diketo- α -Phenylbutan (Methylbenzyldiketon). Sd. 175—176° (B. 22, 2132). — III, 271.
- 10) 5,6,7,8-Tetrahydro-1,4-Naphtochinon. Sm. 55,5° (B. 23, 1131; 31, 898). — III, 369.
- 11) α -Keto- α -Furanyl- $\alpha\gamma$ -Hexadien (Furfurakroleinaceton). Sm. 122—123° (B. 31, 283).
- 12) α -Phenylpropen- α -Carbonsäure (Methylatropasäure). Sm. 135° (G. 15, 514). — II, 1425.
- 13) α -Phenylpropen- β -Carbonsäure (α -Methylzimmtsäure; α -Benzylidenpropionsäure). Sm. 74°; Sd. 288°. Ba + $2\frac{1}{2}$ H₂O, Ag (J. 1877, 789; A. 193, 315; 204, 189; 216, 98; 227, 57, 248; B. 19, 527; 20, 3397; C. 1897 [2] 348; 1898 [1] 674). — II, 1425.
- 14) isom. α -Phenylpropen- β -Carbonsäure. Sm. 81°. Ca + 3 H₂O, Ba, Ag (C. 1898 [1] 674).
- 15) α -Phenylpropen- γ -Carbonsäure (γ -Phenylcrotonsäure; β -Benzylidenpropionsäure). Sm. 86°; Sd. 302°. Ca + 3 H₂O, Ba + 3 H₂O, Ag (J. 1877, 790; A. 216, 98, 113; 227, 258; 256, 64; 283, 297; 299, 27; B. 25, 1155; Ph. Ch. 10, 418; Soc. 75, 147). — II, 1424.
- 16) γ -Phenylpropen- α -Carbonsäure (γ -Phenylcrotonsäure). Sm. 65°. Ca + 3 H₂O, Ba + H₂O (A. 283, 302). — II, 1425.
- 17) β -Phenylpropen-2-Carbonsäure (1-Propenylbenzol-2-Carbonsäure). Sm. 60—61°. Ag (A. 248, 64). — II, 1428.
- 18) β -Phenylpropen-3-Carbonsäure (1-Propenylbenzol-3-Carbonsäure). Sm. 99° (A. 275, 160). — II, 1428.
- 19) β -Phenylpropen-4-Carbonsäure (1-Propenylbenzol-4-Carbonsäure). Sm. 160—161°. NH₄, Ba + H₂O, Cu + 7 H₂O, Ag (A. 219, 270; B. 3, 480; II, 1792, 2173). — II, 1428.
- 20) 1-Isopropenylbenzol-4-Carbonsäure. Sm. 255—260°. NH₄ + H₂O, Ca + $1\frac{1}{2}$ H₂O, Ba + H₂O, Cu, Ag (B. 11, 2173; 12, 1076). — II, 1429.
- 21) β -[2-Methylphenyl]akrylsäure. Sm. 169° (B. 23, 1029; 25, 2103). — II, 1427.
- 22) β -[3-Methylphenyl]akrylsäure. Sm. 115°. Ag (B. 17, 1474; 20, 1213; 23, 1899). — II, 1427.
- 23) β -[4-Methylphenyl]akrylsäure. Sm. 195,5° (197°) (B. 23, 1033, 1897). — II, 1428.
- 24) 2,3-Dihydroinden-2-Carbonsäure. Sm. 130°. Ba + x H₂O, Ag (B. 18, 378; Soc. 53, 8; 65, 233). — II, 1430.
- 25) Lakton d. γ -Oxy- γ -Phenylbuttersäure. Sm. 37°; Sd. 306° (B. 15, 890; 24, 4074; A. 208, 121; 216, 103; 288, 204; 299, 15). — II, 1583.
- 26) Lakton d. 1-[α -Oxyisopropyl]benzol-2-Carbonsäure (Dimethylphtalid). Sm. 67—68°; Sd. 270—271° (A. 248, 57). — II, 1585.
- 27) Aldehyd d. α -Keto- α -Phenylpropan- γ -Carbonsäure. Sd. 245°₁₇₅ (A. ch. [5] 26, 471). — III, 95.
- 28) Aldehyd d. β -[2-Methoxyphenyl]akrylsäure. Sm. 45—46°; Sd. 295° u. ger. Zers. (J. pr. [2] 51, 316). — III, 93.
- 29) Methylester d. β -Phenylakrylsäure. Sm. 36° (33,4°); Sd. 263° (259,6°) (B. 11, 1220; 29, 2907; A. 221, 74; J. pr. [2] 40, 346). — II, 1406.
- 30) Methylester d. isom. β -Phenylakrylsäure (M. der Isozimmtsäure). Fl. (B. 23, 513). — II, 1422.
- 31) Methylester d. Homococasäure. Fl. (A. 271, 198). — II, 1404.
- 32) Allylester d. Benzolcarbonsäure. Sd. 230°₃₀₈ (A. 96, 362; 100, 360; 102, 297; 278, 133; Ph. Ch. 1, 387). — II, 1141.
- 33) Verbindung (aus dem Lakton d. β -Brom- $\alpha\gamma$ -Dioxy- γ -Phenylbuttersäure). Sm. 87—88° (B. 27, 3112). — II, 1767.
C 67,4 — H 5,6 — O 27,0 — M. G. 178.
- 1) 3,4-Methylenäther d. 3,4-Dioxy-1-[γ -Oxypropyl]benzol (Cubebin). Sm. 125° (A. 31, 190; 36, 331; B. 10, 191; 23, 856; J. 1852, 670; 1877, 931). — II, 1113.
- 2) 6-Oxy-4-Keto-2-Furanyl-1,2,3,4-Tetrahydrobenzol. Sm. bei 150° u. Zers. (A. 294, 312).
- 3) 3,4-Methylenäther d. Aethyl-3,4-Dioxyphenylketon. Sm. 39°; Sd. 153—154°₁₁ (G. 22 [2] 184; B. 28, 2719). — III, 143.

 $C_{10}H_{10}O_3$

$C_{10}H_{10}O_3$

- 4) 3,4-Methylenäther d. 3,4-Dioxyphenyldimethylketon. Sm. 38° (*G.* 22 [2] 181). — II, 979.
- 5) Acetat d. Oxymethylphenylketon. Sm. 49—49,5° (40°); Sd. 270° (*B.* 4, 35; 10, 1488, 2010; *A.* 216, 308; *J.* 1883, 871). — III, 133.
- 6) Acetat d. Methyl-2-Oxyphenylketon. Sm. 89° (*B.* 25, 1310; 30, 1080; *Soc.* 75, 69). — III, 133.
- 7) Acetat d. Methyl-4-Oxyphenylketon. Sm. 54°; Sd. 160° (*Bl.* [3] 19, 140).
- 8) Acetcarbinolester d. Benzolcarbonsäure (Benzoat d. Oxydimethylketon). Sm. 23,5—24° (25°); Sd. 263—264° (*B.* 13, 639; *R.* 1, 54). — II, 1141.
- 9) γ -Oxy- α -Phenylpropen- γ -Carbonsäure (α -Oxy- γ -Phenylcrotonsäure). Sm. 137°. Ca, Ba, Ag (*B.* 29, 2582; *A.* 299, 20, 23).
- 10) α -[3-Oxyphenyl]propen- β -Carbonsäure. Sm. 130°. Zn, Ag (*B.* 28, 2000).
- 11) β -[3-Oxyphenyl]propen-4-Carbonsäure (4-Propenylsalicylsäure). Sm. 145—146°. Cu + 2H₂O, Ag (*B.* 19, 3313). — II, 1657.
- 12) polym. 4-Propenylsalicylsäure = (C₁₀H₁₀O₃)_n. Sm. 230° u. Zers. Cu + 1½H₂O, Ag (*B.* 19, 3314; 20, 2391). — II, 1657.
- 13) β -[6-Oxy-3-Methylphenyl]akrylsäure (Homocumarsäure) (*B.* 11, 787). — II, 1656.
- 14) β -[2-Methoxyphenyl]akrylsäure (o-Cumarmethyläthersäure, α -Modif.). Sm. 88—89°. Ba, Ag (*J.* 1877, 793; *Soc.* 39, 409, 448). — II, 1628.
- 15) isom. β -[2-Methoxyphenyl]akrylsäure (o-Cumarmethyläthersäure, β -Modif.). Sm. 182—183° (*J.* 1877, 793; *Soc.* 39, 448; *J. pr.* [2] 51, 320). — II, 1628.
- 16) β -[3-Methoxyphenyl]akrylsäure. Sm. 115° (*B.* 15, 2051). — II, 1634.
- 17) β -[4-Methoxyphenyl]akrylsäure. Sm. 171°. Na, Ag (*J.* 1877, 792; *B.* 15, 529; 20, 2530; 31, 2606; *A.* 242, 364; 294, 335; *G.* 11, 549; *Bl.* [3] 17, 511). — II, 1636.
- 18) β -Oxypropenphenyläther- α -Carbonsäure (β -Oxyisocrotonphenyläthersäure). Sm. 149—150° u. Zers. (*A.* 254, 240). — II, 666.
- 19) 2-Oxybenzolallyläther-1-Carbonsäure. Sm. 113°. Ag (*B.* 13, 796; *G.* 12, 449). — II, 1494.
- 20) 3-Oxybenzolallyläther-1-Carbonsäure. Sm. 148° (*G.* 12, 453; *B.* 16, 796). — II, 1517.
- 21) 4-Oxybenzolallyläther-1-Carbonsäure. Sm. 123° (*G.* 12, 451; *B.* 16, 796). — II, 1526.
- 22) γ -Keto- α -Phenylpropan- γ -Carbonsäure + 1½H₂O (Benzylbrenztraubensäure). Sm. 46—48° (48—50°). Ca + H₂O, Ba + H₂O, Ag (*A.* 299, 28; *B.* 31, 555, 3133).
- 23) β -Benzoylpropionsäure. Sm. 116°. Ca + 4H₂O, Ba, Co + 4H₂O, Pb + 2H₂O, Ag (*B.* 8, 1144; 15, 889; 17, 2114; 18, 3325; 20, 1375; 21, 1487; 22, 689; 28, 1724, 3216; 32, 398; *Bl.* 35, 17; 37, 5; [3] 17, 582; *A.* 256, 81; 268, 74; 299, 13, 23, 50; *Soc.* 47, 245; *A. ch.* [5] 26, 435; *C.* 1895 [2] 917; *Ph. Ch.* 10, 23). — II, 1657.
- 24) 2-Propionylbenzol-1-Carbonsäure. Sm. 91—92°. Ag (*B.* 11, 1014). — II, 1659.
- 25) 1,2-Dimethylbenzol-4-Ketocarbonsäure (o-Xylylglyoxylsäure). Sm. 92°. Ba (*B.* 20, 1766). — II, 1660.
- 26) 1,3-Dimethylbenzol-4-Ketocarbonsäure + H₂O. Sm. 60° (53—54°) (85° wassertfrei); Sd. 170°₁₀. Na + 1½H₂O, K + H₂O, Ca + 2(4½)H₂O, Ba + 2H₂O, Ag (*B.* 19, 231; *J. pr.* [2] 41, 485; [2] 43, 141; *Bl.* [3] 17, 368). — II, 1660.
- 27) 1,4-Dimethylbenzol-2-Ketocarbonsäure. Sm. 75°. Ca + 3H₂O, Ba + 6H₂O, Ag (*J. pr.* [2] 43, 144; *B.* 18, 1859; *Bl.* [3] 17, 940). — II, 1661.
- 28) 1-Oxy-2,3-Dihydroinden-3-Carbonsäure. Ag (*A.* 283, 353).
- 29) γ -Lakton d. $\alpha\gamma$ -Dioxy- γ -Phenylbuttersäure. Sm. 124—126° (*B.* 27, 3112). — II, 1767.
- 30) Lakton d. $\beta\gamma$ -Dioxy- γ -Phenylbuttersäure + ½H₂O. Sm. 76° (*A.* 268, 45). — II, 1766.
- 31) Lakton d. ρ -Dioxy- γ -Phenylbuttersäure. Sm. 94° (*A.* 268, 82). — II, 1767.

- C₁₀H₁₀O₃**
- 32) 1,2-Lakton d. 4-Oxy-1-Oxymethylbenzol-4-Aethyläther-2-Carbonsäure. Sm. 87° (A. 296, 355).
 - 33) Monaldehyd d. Benzol-1,2-Dicarbonsäuremonoäthylester. Sm. 66° (A. 239, 83). — II, 1625.
 - 34) Monaldehyd d. Benzol-1,4-Dicarbonsäuremonoäthylester (A. 231, 367). — II, 1627.
 - 35) Aldehyd d. 2-Acetoxy-1-Methylbenzol-3-Carbonsäure. Sd. 267° + NaHSO₃ (Bl. 33, 54). — III, 89.
 - 36) Aldehyd d. 4-Acetoxy-1-Methylbenzol-3-Carbonsäure. Sm. 57° + NaHSO₃ (B. 11, 786). — III, 88.
 - 37) Aldehyd d. 6-Acetoxy-1-Methylbenzol-3-Carbonsäure. Sm. 39—40°; Sd. 275°. + NaHSO₃ (B. 13, 138; Bl. 33, 35). — III, 89.
 - 38) Aldehyd d. β-[3,4-Dioxyphenyl-3-Methyläther]akrylsäure (Ferulaldehyd). Sm. 84° (B. 18, 3484). — III, 106.
 - 39) Aldehyd d. 4-Oxybenzoläthyläther-1-Ketocarbonsäure + H₂O. Sm. 98°. — III, 106.
 - 40) Methylester d. β-Oxy-α-Phenylakrylsäure. Sd. 135—136°, (A. 281, 398). — II, 1640.
 - 41) Methylester d. β-[3-Oxyphenyl]akrylsäure. Sm. 85° (B. 22, 2357). — II, 1634.
 - 42) Methylester d. β-Phenyl-β-Ketoäthan-α-Carbonsäure (M. d. Benzoylessigsäure). Fl. Na (Soc. 49, 154). — II, 1643.
 - 43) Methylester d. 4-Acetylbenzol-1-Carbonsäure. Sm. 92° (B. 12, 1072; 27, 2527; A. 219, 264). — II, 1650.
 - 44) Aethylester d. Benzolketocarbonsäure. Sd. 256—257° (B. 12, 629; J. pr. [2] 50, 142; A. 297, 376; C. 1896 [2] 92). — II, 1597.
 - 45) Benzylester d. α-Ketoäthan-α-Carbonsäure. Sd. 207—208° (Bl. [3] 13, 483).
 - 46) Allylphenylester d. Kohlensäure. Sd. 130°₇₀ (Bl. [3] 19, 771).
 - 47) Xantorhoeaharz (A. 44, 330). — III, 564.
 - 48) Verbindung (aus Lävulinsäure). Sm. 208° (A. 229, 277). — I, 598.
- C₁₀H₁₀O₄**
- C 61,8 — H 5,2 — O 33,0 — M. G. 194.
 - 1) 1,2,5,8-Tetraoxy-*p*-Dihydronaphtalin. Sm. 200° (B. 28, 1458).
 - 2) 1,2-Aethylidenäther d. 3-Acetoxy-1,2-Dioxybenzol. Sm. 185° (A. ch. [7] 1, 112). — II, 1016.
 - 3) Dimethyläther d. 3,5-Dioxy-2-Keto-1,2-Dihydrobenzofuran (D. d. Dioxyketocumaran). Sm. 136—138° (B. 30, 2153).
 - 4) *p*-Dioxy-1,4-Diacetylbenzol (Resodiacetophenon). Sm. 180° (Bl. [3] 6, 152). — III, 272.
 - 5) β-[2,4-Dioxyphenyl]akryl-4-Methyläthersäure. Sm. 180—185° u. Zers. (M. 10, 165). — II, 1774.
 - 6) β-[2,5-Dioxyphenyl]akryl-2-Methyläthersäure. Sm. 179—180° (B. 17, 1386). — II, 1775.
 - 7) β-[3,4-Dioxyphenyl]akryl-3-Methyläthersäure (Ferulasäure). Sm. 168 bis 169°. NH₃ + H₂O, K₂, Ag (A. 138, 64; B. 9, 416; 11, 650; J. 1885, 2093; M. 12, 452). — II, 1776.
 - 8) β-[3,4-Dioxyphenyl]akryl-4-Methyläthersäure (Isoferulasäure). Sm. 228°. K, Na, Ca + 2H₂O, Ba, Ag (B. 9, 686; 11, 654; 14, 955). — II, 1776.
 - 9) β-[3,4-Dioxyphenyl]propionmethylenäthersäure. Sm. 84°. Ca + H₂O, Ag (B. 13, 758; 20, 421). — II, 1762.
 - 10) 2-Acetoxy-1-Methylbenzol-4-Carbonsäure. Sm. 162° (Soc. 73, 852).
 - 11) α-Benzoxylpropionsäure. Sm. 112°. Ba + 6H₂O, Ag (A. 80, 42; 91, 359; 133, 277; Bl. [3] 17, 362). — II, 1153.
 - 12) 2-Oxybenzoylessigmethyläthersäure. Sm. 68° u. Zers. (B. 25, 1307). — II, 1778.
 - 13) α-[4-Oxyphenyl]äthan-2,β-Oxyd-4-Methyläther-β-Carbonsäure (Oxyhydrocumarilmethyläthersäure). Sm. 114° (B. 19, 1783). — II, 1779.
 - 14) γ-Oxy-α-Keto-α-Phenylpropan-γ-Carbonsäure. Sm. 125—126°. Ag (B. 26, 557). — II, 1782.
 - 15) γ-Oxy-α-[oder β-]Keto-α-Phenylpropan-γ-Carbonsäure (Phenylketo-oxybuttersäure). Sm. 118° (B. 25, 2561). — II, 1782.
 - 16) 2,3,5-Trimethyl-1,4-Benzochinon-6-Carbonsäure. Zers. bei 130°. Ag (A. 237, 11). — II, 1783.

- $C_{10}H_{10}O_4$ 17) α -Phenyläthan- $\alpha\alpha$ -Dicarbonsäure (Phenylmethylmalonsäure). Sm. 157° u. Zers. $Ca + H_2O$, Ag_2 (B. 28, 816). — II, 1851.
- 18) α -Phenyläthan- $\alpha\beta$ -Dicarbonsäure (Phenylbernsteinsäure). Sm. 167°. $Ca + 2H_2O$, Pb , Ag_2 (B. 14, 428, 873, 1693; A. 219, 30; 282, 83; 293, 348). — II, 1848.
- 19) α -Phenyläthan- $\beta\beta$ -Dicarbonsäure (Benzylmalonsäure). Sm. 117°. Ag_2 (A. 204, 175; 218, 139; J. pr. [2] 49, 128; R. 5, 280; Ph. Ch. 8, 450; B. 27, 1178). — II, 1848.
- 20) 1-Aethylbenzol-2,4-Dicarbonsäure. Sm. 266—267° (A. 293, 174).
- 21) 1-Aethylbenzol-3,5-Dicarbonsäure. Sm. 263—264°. $Ca + 3H_2O$, $Ba + 5H_2O$ (B. 23, 2379; 24, 1746). — II, 1853.
- 22) 1,2-[oder 1,4-]Dimethylbenzol-3,5-[oder 2,6-]Dicarbonsäure. Sm. 335,5°. $Ca + 3\frac{1}{2}H_2O$ (B. 28, 533). — II, 1853.
- 23) 1,3-Dimethylbenzol-2,5-Dicarbonsäure. Sm. 297—298°. $Ca + 2H_2O$ (B. 28, 534; Am. 20, 810). — II, 1853.
- 24) isom. 1,3-Dimethylbenzol-2,5-Dicarbonsäure? Sm. 206°. $Ba + 3H_2O$ (J. pr. [2] 41, 507). — II, 1853.
- 25) 1,3-Dimethylbenzol-4,5-Dicarbonsäure (Am. 20, 810).
- 26) 1,3-Dimethylbenzol-4,6-Dicarbonsäure (α -Cumidinsäure). Sm. oberh. 320°. $Ba + 1\frac{1}{2}H_2O$ (B. 19, 2509). — II, 1853.
- 27) 1,4-Dimethylbenzol-2,3-Dicarbonsäure. Sm. 96°. Ag_2 (G. 22 [2] 44). — II, 1854.
- 28) 1,4-Dimethylbenzol-2,5-Dicarbonsäure. $Ba + 2\frac{1}{2}H_2O$ (B. 19, 2510; J. pr. [2] 41, 512). — II, 1854.
- 29) 1-Methylbenzol-?-Carbonsäure-?-Methylcarbonsäure. Sm. 178° (Bl. [3] 3, 126). — II, 1853.
- 30) Benzol-1,2-Di[Methylcarbonsäure] (o-Phenylendiessigsäure). Sm. 150° (148,5—149°). $Ca + 2H_2O$, Ba , Ag_2 (B. 17, 447; A. 275, 352; 288, 76). — II, 1851.
- 31) Benzol-1,3-Di[Methylcarbonsäure]. Sm. 170°. K , $K_2 + 7H_2O$ (G. 23 [2] 338; B. 21, 42). — II, 1852.
- 32) Benzol-1,4-Di[Methylcarbonsäure]. Sm. 244° (240—241°). $Ca + 2H_2O$, $Ba + 2\frac{1}{2}H_2O$, Zn , Cu , Ag_2 (B. 5, 703; 9, 1766; 21, 45). — II, 1852.
- 33) Benzol-1-Carbonsäure-2-[Aethyl- α -Carbonsäure] (α -Methyl-o-Homophthalsäure). Sm. 146—147°. Ag_2 (B. 20, 2504). — II, 1852.
- 34) Benzol-1-Carbonsäure-2-[Aethyl- β -Carbonsäure] (o-Hydrozimmtcarbonsäure). Sm. 165—166°. Ba , Ag_2 (B. 10, 2203; 21, 1120; 22, 1915; 23, 1562; 25, 408, 895; 27, 740; A. 242, 39; 288, 111). — II, 1851.
- 35) Benzol-1-Carbonsäure-4-[Aethyl- α -Carbonsäure]. Sm. 223—223° (G. 21 [1] 82). — II, 1853.
- 36) Benzol-1-Carbonsäure-4-[Aethyl- β -Carbonsäure]. Sm. 277—278° (B. 22, 2272). — II, 1851.
- 37) γ -Keto- α -Furanyl- α -Penten- ϵ -Carbonsäure (δ -Furallävulinsäure). Sm. 115—116° (113°). $Ca + 2H_2O$, Ag (B. 24, 2776; 28, 918; A. 294, 167). — III, 714.
- 38) γ -Keto- α -Furanyl- α -Buten- β -Methylcarbonsäure (β -Furallävulinsäure). Sm. 153°. $Ca + 2H_2O$ (B. 26, 346). — III, 714.
- 39) γ -Lakton d. $\alpha\beta\gamma$ -Trioxy- γ -Phenylbuttersäure. Sm. 115—117° (B. 25, 2558). — II, 1930.
- 40) 1,2-Lakton d. 3,4-Dioxy-1-Oxymethylbenzol-3,4-Dimethyläther-2-Carbonsäure (Mekonin). Sm. 102—102,5°. Stearat (A. 5, 180; 86, 191; 98, 44; 301, 359; B. 9, 73; J. 1863, 446; 1876, 810; J. pr. [2] 24, 372; M. 3, 351; 4, 264). — II, 1927.
- 41) 1,2-Lakton d. 4,6-Dioxy-1-Oxymethylbenzol-4,6-Dimethyläther-2-Carbonsäure. Sm. 166—167° (A. 296, 355).
- 42) 1,2-Lakton d. 5,6-Dioxy-1-Oxymethylbenzol-5,6-Dimethyläther-2-Carbonsäure (Pseudomekonin; Dioxymethylphthalid). Sm. 123—124° (B. 20, 884; Soc. 57, 1072). — II, 1928.
- 43) Aldehyd d. Oxyessig-2-Acetoxyphenyläthersäure. Sd. 141° (Bl. [3] 19, 763).
- 44) Aldehyd d. 4-Acetoxy-3-Oxybenzol-3-Methyläther-1-Carbonsäure (Acetvanillin). Sm. 77° (B. 11, 647). — III, 104.
- 45) Aldehyd d. 6-Acetoxy-3-Oxybenzol-3-Methyläther-1-Carbonsäure. Sm. 63° (B. 14, 1905). — III, 92.

- C₁₀H₁₀O₄**
- 46) Aldehyd d. 2-Acetoxy-4-Oxybenzol-4-Methyläther-1-Carbonsäure. Sm. 86° (B. 13, 2374). — III, 98.
 - 47) Methylester d. Oxyessigphenyläthersäure-2-Carbonsäurealdehyd. Sm. 55–56° (B. 31, 2809).
 - 48) Methylester d. 3,4-Dioxyphenylessigmethylenäthersäure. Sd. 278 bis 280° (B. 24, 2885). — II, 1749.
 - 49) Methylester d. 2-Acetoxybenzol-1-Carbonsäure. Sm. 48,5° (J. pr. [2] 56, 154).
 - 50) Methylester d. 4-Acetoxybenzol-1-Carbonsäure. Sm. 85° (J. pr. [2] 49, 502). — II, 1527.
 - 51) Dimethylester d. Benzol-1,2-Dicarbonsäure. Sd. 282° (B. 16, 861; J. pr. [2] 40, 347). — II, 1793.
 - 52) Dimethylester d. Benzol-1,3-Dicarbonsäure. Sm. 64–65° (67–68°); Sd. 280–292° (A. 166, 340; B. 4, 262; 31, 1404; J. pr. [2] 40, 348; Soc. 75, 35). — II, 1826.
 - 53) Dimethylester d. Benzol-1,4-Dicarbonsäure. Sm. 140° (A. 121, 89; 132, 269; 245, 140; J. pr. [2] 40, 348). — II, 1832.
 - 54) Äthylester d. 3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure. Sm. 18,5°; Sd. 285,5–286,5° (A. 199, 69; R. 16, 46). — II, 1743.
 - 55) Monäthylester d. Benzol-1,2-Dicarbonsäure. Fl. Ba, Ag (Am. 1, 413; A. 214, 28; Soc. 61, 714). — II, 1793.
 - 56) Äthylester d. Phenylkohlenensäure-2-Carbonsäurealdehyd (Äe. d. 2-Aldehydphenylkohlenensäure). Sd. 197°₉₀ (B. 31, 2804).
 - 57) Äthylester d. α-Furanyläthen-β-Ketocarbonsäure (Äe. d. Furalbrenztraubensäure). Sm. 44–45° (B. 31, 281).
 - 58) Monacetat d. Methyl-2,4-Dioxyphenylketon. Sm. 72°; Sd. 303° (J. pr. [2] 23, 147; Am. 7, 276; B. 30, 297). — III, 135.
 - 59) Monoacetat d. Methyl-2,5-Dioxyphenylketon. Sm. 91° (B. 31, 1216).
 - 60) Diacetat d. αζ-Dioxy-βδ-Hexadiin. Sm. 35° (C. 1897 [1] 281).
 - 61) Diacetat d. 1,2-Dioxybenzol (A. 107, 246). — II, 910.
 - 62) Diacetat d. 1,3-Dioxybenzol. Sd. 278° (A. 138, 78; J. pr. [2] 23, 149; B. 16, 552). — II, 918.
 - 63) Diacetat d. 1,4-Dioxybenzol. Sm. 123–124° (A. 200, 244; 209, 128; B. 11, 470; 27, 1942). — II, 941.
 - 64) Verbindung (aus Abietinsäure). Zers. bei 137° (M. 15, 639). — II, 1437.
 - 65) Verbindung (aus Acetessigsäureäthylester u. α-Bromisobuttersäureäthylester). Sm. 169° (Soc. 71, 1194).
- C₁₀H₁₀O₅**
- 1) p-Trioxo-1,4-Diacetylbenzol (Gallodiacetophenon). Sm. 188–189° (Bl. [3] 6, 154). — III, 272.
 - 2) Colein (J. 1877, 933). — III, 659.
 - 3) 3,4-Dioxy-1-[β-Oxyäthyl]benzol-3,4-Methylenäther-2-Carbonsäure (Oxyäthylpiperonylcarbonsäure). Sm. 146°. Ag (Soc. 57, 1020, 1060). — II, 1929.
 - 4) 2,4-Dioxybenzoldimethyläther-1-Ketocarbonsäure + H₂O. Sm. 65 bis 70° (108° wasserfrei) (C. 1896 [2] 378; Bl. [3] 17, 946).
 - 5) 3,4-Dioxybenzoldimethyläther-1-Ketocarbonsäure (Veratrinketon-säure). Sm. 100° (138–139° wasserfrei). Pb (B. 11, 142; 23, 1165; C. 1896 [2] 92, 378; Bl. [3] 17, 945). — II, 1946.
 - 6) 1,3-Dioxybenzol-p-Monäthyläther-p-Ketocarbonsäure (Resoreylglyoxyläthyläthersäure). Sm. 152–154° (M. 14, 43). — II, 1946.
 - 7) 4-Oxy-2-Acetoxybenzol-4-Methyläther-1-Carbonsäure. Sm. 140° (B. 24, 2852). — II, 1736.
 - 8) 3-Oxy-4-Acetoxybenzol-3-Methyläther-1-Carbonsäure. Sm. 142° (B. 8, 1142). — II, 1744.
 - 9) 4-Oxy-3-Acetoxybenzol-3-Methyläther-1-Carbonsäure. Sm. 206 bis 207° (B. 11, 130; J. pr. [2] 39, 352). — II, 1744.
 - 10) β-[2,4,5-Trioxyphenyl]akryl-5-Methyläthersäure. Na₂ (B. 31, 1192).
 - 11) α-Oxy-α-Phenyläthan-αβ-Dicarbonsäure (α-Oxy-α-Phenylbernsteinsäure). Sm. 187–188° (A. 258, 76). — II, 1951.
 - 12) β-Oxy-α-Phenyläthan-αβ-Dicarbonsäure (β-Oxy-α-Phenylbernsteinsäure). Sm. 150–160° (A. 258, 80). — II, 1951.
 - 13) β-Oxy-α-Phenyläthan-ββ-Dicarbonsäure (Benzyltartronsäure). Sm. 143° u. Zers. Ca, Ba (A. 209, 245). — II, 1952.

$C_{10}H_{10}O_5$

- 14) α -Oxy- α -Phenyläthan-2, β -Dicarbonsäure (o-Benzhydrylicarbonsäure). Ba + 2H₂O, Ag₂ (B. 10, 1558, 2201). — II, 1952.
- 15) α -[2-Oxyphenyl]äthan- $\alpha\beta$ -Dicarbonsäure. Sm. 150°. Ca, Ba (A. 293, 366).
- 16) 5-Oxy-1,3-Dimethylbenzol-2,6-Dicarbonsäure. Sm. 228° u. Zers. (A. 281, 109). — II, 1953.
- 17) 3-Oxy-1-Methylbenzoldimethyläther-2,5-Dicarbonsäure. Sm. 267° (Soc. 75, 195).
- 18) 4-Oxy-1-Methylbenzoldimethyläther-3,6-Dicarbonsäure. Sm. 250° (B. 27 [2] 595).
- 19) 4-Oxybenzoldimethyläther-1,2-Dicarbonsäure + H₂O. Sm. 163° (wasserfrei) (A. 286, 24; 296, 357). — II, 1935.
- 20) 2-Oxybenzoldimethyläther-1,4-Dicarbonsäure. Sm. 253—254° (J. 1879, 520). — II, 1938.
- 21) Anemonsäure. Sm. 208° (A. 38, 284; Fr. 25, 286; M. 17, 291). — III, 618.
- 22) Larixinsäure. Sm. 153°; subl. bei 93° (A. 123, 191). — II, 1954.
- 23) Plumeriasäure. Sm. 139°. K₄ + 3H₂O, Ca + 4(5)H₂O, Ca₃ + 8H₂O, Ag₃ + H₂O, Ag₃ + 3H₂O (A. 181, 161). — II, 1954.
- 24) 1,2-Lakton d. 3,4-Dioxy-1-Dioxymethylbenzol-1,3 [oder 1,4]-Dimethyläther-2-Carbonsäure (Pseudomethylester d. Methylnoropiansäure). Sm. 67—71° (B. 30, 693).
- 25) Aldehyd d. Apiolsäure. Sm. 102°; Sd. 315° (B. 21, 1193, 1626). — III, 109.
- 26) Aldehyd d. isom. Apiolsäure. Sm. 75° (B. 29, 1805).
- 27) 4-Aldehyd d. Oxyessig-3-Methoxyphenylessigsäure-4-Carbonsäure (Vanillinoxysäure). Sm. 188°. Cu, Ag (B. 19, 3055; 28, 1871). — III, 104.
- 28) 1-Aldehyd d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure (Opiansäure). Sm. 145° (150°). Na + 3H₂O, K + 3½H₂O, Ba + 2H₂O, Pb + 2H₂O, Ag + ½H₂O, Pseudotropinsalz. Lit. bedeutend. — II, 1939.
- 29) 1-Aldehyd d. 5,6-Dioxybenzoldimethyläther-1,2-Dicarbonsäure (Pseudoopiansäure). Sm. 121—122°. Ag (Soc. 57, 1064, 1075). — II, 1945.
- 30) Isopiansäure. Sm. 210—211°. Pb, Cu, Ag, + NaHSO₃ (B. 10, 397). — II, 1946.
- 31) 1-Aldehyd-3-Methylester d. 5,6-Dioxybenzol-5-Methyläther-1,3-Dicarbonsäure (Methylester d. Aldehydovanillinsäure). Sm. 134—135° (B. 10, 369). — II, 1945.
- 32) Methylester d. Hämatomsäure. Sm. 147° (B. 30, 360, 1985; A. 288, 46; J. pr. [2] 57, 290).
- 33) Dimethylester d. 4-Oxybenzol-1,2-Dicarbonsäure. Sm. 102° (A. 233, 233). — II, 1935.
- 34) Dimethylester d. 4-Oxybenzol-1,3-Dicarbonsäure. Sm. 96° (B. 11, 378). — II, 1937.
- 35) Dimethylester d. 5-Oxybenzol-1,3-Dicarbonsäure. Sm. 159—160° (B. 13, 496; J. pr. [2] 25, 515). — II, 1937.
- 36) Dimethylester d. 2-Oxybenzol-1,4-Dicarbonsäure. Sm. 94° (B. 10, 146). — II, 1938.
- 37) 1-Aethylester d. 4-Oxybenzol-1,3-Dicarbonsäure. Sm. 194—195° (J. pr. [2] 44, 12). — II, 1937.
- 38) Monoäthylester d. α -[2-Furanyl]äthen- $\beta\beta$ -Dicarbonsäure (M. d. Furalmalonsäure). Sm. 102,5°. Ag (B. 21, 1082). — III, 718.

 $C_{10}H_{10}O_6$

- 1) Oxyessig-1,3-Phenyläthersäure (Resorcindiacetsäure). Sm. 193—193,5°. Ag₂ (B. 12, 1640). — II, 918.
- 2) 2,3,4,5-Tetraoxybenzol-2,5-Dimethyläther-3,4-Methylenäther-1-Carbonsäure? (Apiolsäure). Sm. 175°. Cu, Ag (B. 21, 1624, 2132; 22, 2489; G. 22 [1] 562; 22 [2] 30). — II, 1991.
- 3) isom. Apiolsäure. Sm. 151—152° (B. 29, 1805).
- 4) $\alpha\beta$ -Dioxy- α -Phenyläthan- β ,2-Dicarbonsäure. Ag₂ (B. 25, 893). — II, 2006.
- 5) α -Oxy- α -[4-Oxyphenyl]äthan- $\beta\beta$ -Dicarbonsäure. Sm. 232°. Na₂ (J. pr. [2] 54, 539).
- 6) Oxyessig-1,2-Phenyläthersäure. Sm. 172—174° (Bl. [3] 21, 108).

- C₁₀H₁₀O₈**
- 7) 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure + 2H₂O (Hemipinsäure). Sm. 160—161° (180°). NH₄ + H₂O, K + 2¹/₂H₂O, Ag₂ (J. 1867, 520; 1876, 806; A. Spl. 7, 150; A. 50, 17, 43; 86, 194; 162, 327; M. 3, 348, 376; 4, 265; 9, 766; 16, 76; 18, 462; B. 16, 2589; 19, 2924; 28, 1427; Soc. 55, 71; 67, 18). — II, 1994.
 - 8) 3,5-Dioxybenzoldimethyläther-1,2-Dicarbonsäure + H₂O. Sm. 158° (A. 296, 357).
 - 9) 4,5-Dioxybenzoldimethyläther-1,2-Dicarbonsäure + 2H₂O (m-Hemipinsäure). Sm. 174—175°. Ag, Ag₂ (M. 6, 380; 8, 514; 9, 771; 12, 488; 18, 462; Ph. Ch. 3, 268). — II, 1999.
 - 10) 4,5-Dioxybenzoldimethyläther-1,3-Dicarbonsäure (Isohemipinsäure). Sm. 245—246°. Ca, Ba, Pb (B. 10, 398). — II, 2000.
 - 11) 2,5-Dioxybenzoldimethyläther-1,4-Dicarbonsäure. Sm. 265° (A. 258, 298). — II, 2002.
 - 12) Isohemipinsäure + 2H₂O. Sm. 146—148° u. Zers. Ag. — II, 1998.
 - 13) 3-Oxybenzoldimethyläther-1-Carbonsäure-4-Oxyessigsäure (Vanillinsäureoxyessigsäure). Sm. 256°. Cu (B. 19, 3056). — II, 1744.
 - 14) α-Phenyläthan-β,2,4-Tricarbonsäure (Propionisophtalsäure). Sm. 265 bis 266° (A. 293, 171).
 - 15) 1-Methyl-1,2-Dihydrobenzol-1,3,5-Tricarbonsäure. Sm. 195° u. Zers. Ba₂ + 8¹/₂H₂O (A. 305, 135).
 - 16) Acetyloxydehydracetsäure. Sm. 165—167° (Soc. 51, 492). — II, 1929.
 - 17) Säure (aus Bromtetransäure). Sm. 209° u. Zers. (A. 291, 235).
 - 18) Säure (aus Gummiharz). Sm. 265° u. Zers. (B. 11, 850). — II, 2007.
 - 19) Methylester d. Dehydracetsäure. Sm. 65° (A. 273, 199).
 - 20) Dimethylester d. 1,2-Phenylendikohlensäure. Sm. 41° (B. 28, 1875).
 - 21) Dimethylester d. 1,3-Phenylendikohlensäure. Sm. 44—45° (B. 28, 1874).
 - 22) Dimethylester d. 1,4-Phenylendikohlensäure. Sm. 115° (B. 28, 1874).
 - 23) Dimethylester d. 2,3-Dioxybenzol-1,4-Dicarbonsäure. Sm. 145° (J. pr. [2] 44, 4). — II, 2001.
 - 24) Monäthylester d. 4,5-Dioxybenzol-1,2-Dicarbonsäure. Sm. 182° (M. 12, 498). — II, 1999.
 - 25) Monäthylester d. 2,5-Dioxybenzol-1,4-Dicarbonsäure. Sm. 184° Ca + 5H₂O, Ba + 5H₂O (A. 211, 331). — II, 2001.
 - 26) Äthylester d. Acetylkomensäure. Sm. 104° (J. pr. [2] 24, 277). — I, 780.
 - 27) Acetylmethylester d. 3,4,5-Trioxymethyl-1-Carbonsäure + 3H₂O (Gallacetol) (B. 26, 420). — II, 1921.
- C₁₀H₁₀O₇**
- 1) Physodin (J. 1856, 686). — III, 642.
 - 2) 2-Acetyl-1,4-Diketo-hexahydrobenzol-3,6-Dicarbonsäure? Zers. bei 145° (B. 25, 327). — II, 2045.
- C₁₀H₁₀O₆**
- 1) P-Tetrahydrobenzol-1,2,4,5-Tetracarbonsäure + 2H₂O (Hydropyromellithsäure) (A. 166, 337; 258, 205; A. Spl. 7, 38). — II, 2068.
 - 2) Isohydropyromellithsäure. Sm. 220° (A. Spl. 7, 26). — II, 2068.
 - 3) Hydroprehnitsäure (A. 166, 333). — II, 2069.
 - 4) Hydromellophansäure (A. 166, 337). — II, 2069.
 - 5) Anhydrid d. Diacetyl-1-Mannozuckersäure. Sm. 155° (B. 22, 524, 525). — I, 854.
 - 6) Anhydrid d. Diacetylzuckersäure. Sm. 188° (A. 149, 239; B. 48, 720; B. 22, 525). — I, 852.
- C₁₀H₁₀O₁₀**
- 1) Trihydrocarboxylsäure (A. 124, 25).
- C₁₀H₁₀N₂**
- 1) Allylimidophenylimidomethan. Sd. 150—165°₁₀ (C. 1899 [1] 831).
 - 2) isom. Allylimidophenylimidomethan? Sm. 105°. (2HCl, PtCl₄), + HgCl₂ (J. 1861, 498; C. 1899 [1] 831). — II, 451.
 - 3) 1,2-Diamidonaphtalin. Sm. 95—96°. 2HCl, H₂SO₄ (B. 15, 2193; 18, 800, 2427; 19, 179, 803; 22, 1376; 29, 1978; A. 255, 155). — IV, 917.
 - 4) 1,3-Diamidonaphtalin. Sm. 96°. 2HCl (B. 20, 973; 28, 1953). — IV, 921.

$C_{10}H_{10}N_2$

- 5) 1,4-Diamidonaphtalin. Sm. 120°. 2HCl, H_2SO_4 (A. 137, 362; 183, 238; B. 15, 2192; 22, 1381). — IV, 921, 923.
- 6) 1,5-Diamidonaphtalin. Sm. 189,5°. 2HCl, 2HJ, H_2SO_4 , Oxalat (A. 52, 361; 85, 329; 247, 361; Z. 1865, 556; B. 3, 33; 7, 306; 11, 1651; 29, 1983; 30, 773). — IV, 923.
- 7) 1,6-Diamidonaphtalin. Sm. 77,5°. 2HCl, H_2SO_4 (B. 25, 2080; 29, 1981; 31, 2419). — IV, 924.
- 8) 1,7-Diamidonaphtalin. Sm. 117,5° (B. 25, 2082; 29, 41). — IV, 924.
- 9) 1,8-Diamidonaphtalin. Sm. 66,5°. HJ, 2HJ, H_2SO_4 , Oxalat (B. 3, 29; 7, 309; 11, 1651; 20, 1353; 30, 775; A. 247, 363). — IV, 924.
- 10) 2,3-Diamidonaphtalin. Sm. 191° (B. 27, 764). — IV, 925.
- 11) 2,6-Diamidonaphtalin. Sm. 216° (B. 26, 3033). — IV, 924.
- 12) 2,7-Diamidonaphtalin. Sm. 159°; Sd. 203°₃₀ (B. 22, 1384). — IV, 925.
- 13) 1-Naphtylhydrazin. Sm. 116—117°; Sd. 203°₃₀. HCl (B. 17, 551; 31, 2909; A. 232, 236). — IV, 925.
- 14) 2-Naphtylhydrazin. Sm. 124—125° (A. 232, 242; B. 28, 1539; 31, 2909). — IV, 928.
- 15) 3-Methyl-1-Phenylpyrazol. Sm. 37°; Sd. 254—255°₇₃₀. (2HCl, PtCl₄ + 3H₂O) (B. 21, 1143; 22, 178; 24, 1890; 25, 766; 27, 1175; A. 238, 199; 253, 55; 278, 275, 290; 279, 221; G. 23 [1] 345). — IV, 506.
- 16) 4-Methyl-1-Phenylpyrazol. Sd. 264—266°. (2HCl, PtCl₄ + 2H₂O) (G. 23 [1] 487). — IV, 515.
- 17) 5-Methyl-1-Phenylpyrazol. Sd. 262°₇₃₄. (2HCl, PtCl₄ + 2H₂O) (B. 22, 178; A. 278, 266, 290, 293; 295, 315). — IV, 515.
- 18) 1-Methyl-5-Phenylpyrazol. Sd. 280—281°. (2HCl, PtCl₄ + 2H₂O), Pikrat (B. 28, 698). — IV, 906.
- 19) 3-Methyl-5-Phenylpyrazol. Sm. 128°; Sd. 326—327°. HCl, (2HCl, PtCl₄), Pikrat (A. 279, 248; B. 28, 2952). — IV, 935.
- 20) 1-[2-Methylphenyl]pyrazol. Sd. 246,5°. (2HCl, PtCl₄), 2 + PtCl₄ (G. 18, 368). — IV, 497.
- 21) 1-[4-Methylphenyl]pyrazol. Sm. 32,5—33°; Sd. 258—259°. (2HCl, PtCl₄ + 2H₂O), 2 + PtCl₄ (G. 18, 362). — IV, 498.
- 22) 1-Benzylimidazol. Sm. 70—71°; Sd. 310°. (2HCl, PtCl₄) (B. 16, 539). — IV, 502.
- 23) 2-Methyl-5-Phenylimidazol. Sm. 158—159°. HCl, (2HCl, PtCl₄ + 2H₂O) (B. 21, 2195). — IV, 937.
- 24) 4-Methyl-5-Phenylimidazol. Sm. 178°. (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 30, 1523). — IV, 937.
- 25) 1-[4-Methylphenyl]imidazol. Sd. 285°. (2HCl, PtCl₄), + AgNO₃, Pikrat (B. 25, 2365). — IV, 502.
- 26) Bipyridin. Sd. 286—290°₇₃₅. (2HCl, PtCl₄) (A. 154, 281; M. 3, 880; J. 1878, 440). — IV, 937.
- 27) Nikotyrin (Isobipyridin). Sd. 274—275° (280—281°₇₄₄). (HCl, HgCl₂), (2HCl, PtCl₄ + 2H₂O), Pikrat (Bl. 34, 452; B. 27, 2536; 28, 1911; 31, 2018). — IV, 857.
- 28) 3-Amido-2-Methylchinolin. Sd. 270°. (2HCl, PtCl₄) (B. 21, 1980). — IV, 931.
- 29) 4-Amido-2-Methylchinolin. Sm. 162—163° (168°); Sd. 333°. HCl, (2HCl, PtCl₄), H_2SO_4 , $H_2Cr_2O_7$, Pikrat (B. 26, 2228; A. 279, 18). — IV, 931.
- 30) 7-Amido-2-Methylchinolin + H₂O. Sm. 104—105° wasserfrei (B. 17, 1702; 22, 246). — IV, 932.
- 31) 8-Amido-2-Methylchinolin. Sm. 56°. HCl (B. 17, 1701). — IV, 932.
- 32) 2-Amido-4-Methylchinolin. Sm. 130—131°; Sd. 320°. HCl, (2HCl, PtCl₄), H_2SO_4 , $H_2Cr_2O_7$, Pikrat (A. 245, 382; 279, 17). — IV, 932.
- 33) 6-Amido-4-Methylchinolin. Sm. 168—170° (B. 23, 2671, 2685). — IV, 932.
- 34) 5-Amido-6-Methylchinolin. Sm. 145° (B. 23, 3657). — IV, 933.
- 35) 8-Amido-6-Methylchinolin. Sm. 62—64° (B. 23, 3670). — IV, 933.
- 36) 5-Amido-8-Methylchinolin. Sm. 143° (B. 23, 3674). — IV, 933.
- 37) 7-Amido-8-Methylchinolin. Sm. 129°. (2HCl, PtCl₄), $H_2Cr_2O_7$, Pikrat (A. 274, 360). — IV, 933.
- 38) 2-Aethyl-1,3-Benzdiazin. Sd. 247—249°₇₃₃. HCl + H₂O (B. 28, 283). — IV, 933.

- C₁₀H₁₀N₂** 39) 2,4-Dimethyl-1,3-Benzdiazin + 2H₂O. Sm. 72°; Sd. 249°₇₁₃. HCl, Pikrat (B. 26, 1350, 1384). — IV, 934.
 40) 2,6-Dimethyl-1,3-Benzdiazin. Sm. 79°; Sd. 255°₇₁₆. HCl, Pikrat (B. 28, 729). — IV, 934.
 41) 2,6-Dimethyl-1,4-Benzdiazin. Sm. 54°; Sd. 267—269°. (2HCl, PtCl₄) (A. 237, 368; B. 20, 2544). — IV, 935.
 42) Nitril d. α-Imido-α-Phenylpropan-β-Carbonsäure (Imidobenzoylcyanäthyl). Sm. 97° (J. pr. [2] 39, 189; [2] 52, 109). — II, 1658.
 43) Nitril d. β-Imido-β-[4-Methylphenyl]propionsäure (4-Toluacetodinitril). Sm. 108°. HBr (J. pr. [2] 52, 110).
 44) Nitril d. β-Methylamido-α-Phenylakrylsäure. Sm. 73—75° (J. pr. [2] 55, 338).
- C₁₀H₁₀N₄** C 64,5 — H 5,4 — N 30,1 — M. G. 186.
 1) Diäthényl-1,2,3,4-Tetraamidobenzol. Sm. 145°. (2HCl, PtCl₄), 2 Pikrat (B. 22, 1652). — IV, 1243.
 2) Diäthényl-1,2,3,5-Tetraamidobenzol + H₂O. Sm. 210°. 2HCl + H₂O, (2HCl, PtCl₄ + H₂O), H₂SO₄ + H₂O, Pikrat (B. 20, 329). — IV, 1274.
 3) Diäthényl-1,2,4,5-Tetraamidobenzol. Sm. oberh. 360°. (2HCl, PtCl₄), H₂SO₄ (B. 20, 337). — IV, 1274.
 4) 2,6-Diamido-4-Phenyl-1,3-Diazin. 2HCl (J. pr. [2] 47, 207). — IV, 954.
 5) Nitril d. Aethylidenamidophenylhydrazonesäure (Aethylidenphenylhydrazinecyanid). Sm. 95,5—96,5° (B. 25, 184). — IV, 747.
- C₁₀H₁₀Cl₄** 1) 2,4,5,6-Tetrachlor-3-Isopropyl-1-Methylbenzol. Sm. 158,5° (B. 16, 617). — II, 55.
 2) 2,4,5,6-Tetrachlor-1,3-Diäthylbenzol. Sm. 45°; Sd. 290° (A. ch. [6] 6, 500). — II, 54.
- C₁₀H₁₀Br₂** 3) 1,2,4,5-Tetra[Chlormethyl]benzol. Sm. 144° (Bl. 46, 198). — II, 55.
 1) 2,3-Dibrom-1,2,3,4-Tetrahydronaphtalin. Sm. 73,5—74° (B. 20, 1707; A. 288, 97 Anm.). — II, 183.
- C₁₀H₁₀Br₄** 1) 3,4,5,6-Tetrabrom-1,2-Diäthylbenzol. Sm. 64,5° (B. 21, 3501). — II, 69.
 2) 2,4,5,6-Tetrabrom-1,3-Diäthylbenzol. Sm. 74° (B. 21, 2830). — II, 69.
 3) 2,3,5,6-Tetrabrom-1,4-Diäthylbenzol. Sm. 112° (B. 22, 316). — II, 69.
 4) 1,4-Di[αβ-Dibromäthyl]benzol. Sm. 156,5° (157°) (B. 27, 2528; Bl. [3] 7, 652). — II, 69.
 5) Tetrabromderivat d. Kohlenw. C₁₀H₁₄ (aus Steinkohlentheer). Sm. 212° (B. 19, 2514). — II, 34.
- C₁₀H₁₀J₄** 1) αβ-Dijod-α-Phenyl-α-Buten (Phenyläthylacetylendijodid). Sd. 140—145°, (G. 22 [2] 92, 98). — II, 171.
- C₁₀H₁₀S₂** 1) αα-Dithienyläthan. Sd. 270—280° (B. 30, 2039, 2041).
- C₁₀H₁₁N** C 82,8 — H 7,6 — N 9,6 — M. G. 145.
 1) 6-Amido-2-Methylinden. Sm. 98°; Sd. 271—272°₇₁₈. (2HCl, PtCl₄) (B. 19, 1249). — II, 591.
 2) 1-Aethylindol. Sd. 247° (252—253° i. D.). Pikrat (B. 17, 566; 30, 2811). — IV, 218.
 3) 3-Aethylindol. Sd. 282—284°₇₈₀. Pikrat (B. 20, 3415). — IV, 224.
 4) 1,2-Dimethylindol. Sm. 56° (A. 236, 153). — IV, 220.
 5) 1,3-Dimethylindol. Sd. 230—255° (A. 236, 163). — IV, 222.
 6) 1,5-Dimethylindol. Sd. 242—245° (A. 232, 216). — IV, 222.
 7) 2,3-Dimethylindol. Sm. 106°. Pikrat (A. 236, 128; Bl. [3] 6, 826; B. 20, 429; 21, 123; 29, 2471; M. 16, 185). — IV, 224.
 8) 2,5-Dimethylindol. Sm. 114—115°. Pikrat (A. 239, 227). — IV, 226.
 9) isom.-?Dimethylindol. Sd. bei 270°. Pikrat (Sm. 149°) (B. 21, 3439). — IV, 226.
 10) isom.-?Dimethylindol. Sd. 275°. Pikrat (Sm. 155—156° u. Zers.) (B. 21, 3439). — IV, 226.
 11) 2-Methyl-1,2-Dihydrochinolin. Sd. 245—247°. (2HCl, PtCl₄), Pikrat (B. 31, 691).
 12) 1-Methyl-3,4-Dihydroisochinolin. Sd. 237—242°. (2HCl, PtCl₄) (B. 26, 1905). — IV, 227.
 13) Base (aus Isobutylidenphenylhydrazin). Fl. 2 + ZnCl₂ + 1/2 C₂H₄O, Pikrat (M. 16, 850). — IV, 227.

- C₁₀H₁₁N** 14) Base (aus Nikotin). Sd. 250—270°. (2HCl, PtCl₄) (A. 196, 179). — IV, 227.
- 15) Nitril d. α -Phenylbuttersäure. Sd. 243—245° (A. 250, 153). — II, 1382.
- 16) Nitril d. α -[4-Methylphenyl]propionsäure. Sd. 246,5—247,5° (G. 21, 80). — II, 1389.
- 17) Nitril d. 1-norm. Propylbenzol-4-Carbonsäure. Sd. 227° (B. 17, 1229). — II, 1383.
- 18) Nitril d. 1-Isopropylbenzol-4-Carbonsäure. Sd. 239° (243—244°_{33A}) (A. 65, 51; 108, 320; B. 5, 764; 30, 2006; G. 16, 282; 26 [1] 460). — II, 1386.
- 19) Nitril d. 1-Methyl-4-Aethylbenzol-2[oder 3]-Carbonsäure. Sd. 235° u. Zers. (B. 28, 2651).
- 20) Nitril d. 1,2,4-Trimethylbenzol-5-Carbonsäure. Sm. 57,5°; Sd. 250° (B. 18, 93). — II, 1390.
- 21) Nitril d. 1,3,5-Trimethylbenzol-2-Carbonsäure. Sm. 55° (53°); Sd. 225—230° (235—238°) (A. 278, 212; B. 28, 748, 3210). — II, 1390.
- C₁₀H₁₁N₃** C 69,4 — H 6,3 — N 24,3 — M. G. 173.
- 1) 1,2,6 oder 1,2,7-Triamidonaphtalin. 2HCl, 2 + 3H₂SO₄ (B. 23, 2544). — IV, 1162.
- 2) 2-Triamidonaphtalin. 2HJ, 3HJ, 2H₂SO₄ (Bl. 3, 263). — IV, 1163.
- 3) α -Methylenamido- α -Methylenhydrazon- α -[4-Methylphenyl]methan (Dimethylen-p-Tolenylhydrazidin). Sm. 193° (B. 30, 1879; A. 298, 4). — IV, 1139.
- 4) 2,4,5-Trimethyldiazobenzolcyanid. Sm. 38—39°. + AgCN (B. 30, 2544; 31, 636). — IV, 1533.
- 5) 3-Methyl-1-[4-(?)Amidophenyl]pyrazol. Sm. 99° (A. 279, 221). — IV, 506.
- 6) 5-Methyl-1-[4-Amidophenyl]pyrazol. Sm. 201—202° (A. 279, 225). — IV, 516.
- 7) 5-Imido-3-Methyl-1-Phenyl-4,5-Dihydropyrazol. Sm. 116° (J. pr. [2] 55, 143). — IV, 767.
- 8) 3,4-Dimethyl-1-Phenyl-1,2,5-Triazol. Sm. 34—35°; Sd. 255° (J. pr. [2] 57, 165; A. 262, 303; B. 21, 2759). — IV, 1107.
- 9) 3,4-Diamido-2-Methylchinolin. HCl (B. 21, 1983). — IV, 1163.
- 10) Nitril d. β -Phenylhydrazonbuttersäure. Sm. 97° (J. pr. [2] 47, 131; [2] 55, 143). — IV, 767.
- C₁₀H₁₁N₅** C 59,7 — H 5,5 — N 34,8 — M. G. 201.
- 1) 5-Benzylidenhydrazido-3-Methyl-1,2,4-Triazol. Sm. 263°. HCl (A. 303, 43). — IV, 1315.
- C₁₀H₁₁Cl** 1) 2-Chlor-1,2,3,4-Tetrahydronaphtalin. Fl. (B. 23, 210). — II, 184.
- C₁₀H₁₁Cl₃** 1) 2-Trichlor-2-Diäthylbenzol (Gemisch). Sd. 269° (A. ch. [6] 6, 491). — II, 54.
- C₁₀H₁₁Br** 1) Brombutenylbenzol (Soc. 35, 140).
- 2) Bromisobutenylbenzol. Fl. (Soc. 35, 140). — II, 69.
- C₁₀H₁₁Br₃** 1) Brombutenylbenzobromid (Soc. 35, 140).
- 2) Bromisobutenylbenzobromid. Sm. 63,5° (Soc. 35, 140). — II, 69.
- 3) 4-Brom-1-[$\alpha\beta$ -Dibrom-norm. Butyl]benzol. Sm. 76,5° (B. 24, 1337). — II, 68.
- 4) 2-Tribrom-1,4-Diäthylbenzol. Sm. 105—106° (Bl. [3] 7, 652). — II, 69.
- 5) 3,5,6-Tribrom-4-Aethyl-1,2-Dimethylbenzol. Sm. 93° (94—95°) (B. 23, 992; 31, 2079). — II, 70.
- 6) 2,5,6-Tribrom-4-Aethyl-1,3-Dimethylbenzol. Sm. 94—95° (90—91°) (B. 23, 989; A. 235, 325). — II, 70.
- 7) 2,4,6-Tribrom-5-Aethyl-1,3-Dimethylbenzol. Sm. 216—217° (218°); Sd. über 360° (B. 7, 1434; 25, 1534; C. 1899 [1] 176). — II, 70.
- C₁₀H₁₂O** C 81,0 — H 8,1 — O 10,8 — M. G. 148.
- 1) δ -Oxy- δ -Phenyl- α -Buten. Sd. 228—229° (Bl. [3] 9, 600). — II, 1071.
- 2) Oxybutenylbenzol. Sd. 224—226° (J. 1876, 398). — II, 1070.
- 3) 2-Oxy-1-Isobutenylbenzol. Sd. 223—225° (Soc. 35, 143). — II, 854.
- 4) 4-Oxy-1-Isobutenylbenzol. Sd. 230—235° (Soc. 35, 145). — II, 854.
- 5) Methyläther d. 2-Oxy-1-Allylbenzol. Sd. 222—223° (B. 11, 515). — II, 850.

$C_{10}H_{12}O$

- 6) Methyläther d. 4-Oxy-1-Allylbenzol (Esdragol). Sm. 21°; Sd. 226° (232°) (B. 11, 515; 22, 2743; 23, 862; 29, 344; Ph. Ch. 10, 415; Bl. [3] 11, 34; [3] 19, 153; Am. 19, 853; Soc. 33, 213; 39, 434). — II, 850.
- 7) Methyläther d. 2-Oxy-1-Propenylbenzol. Sd. 220—223° (Bl. [3] 15, 914, 1023; Am. 19, 846).
- 8) Methyläther d. 3-Oxy-1-Propenylbenzol. Sd. 226—229° (Bl. [3] 15, 914, 1024).
- 9) Methyläther d. 4-Oxy-1-Propenylbenzol (Anethol). Sm. 21,6°; Sd. 232°. Pikrat. Lit. bedeutend. — II, 850.
- 10) polym. Anethol (Anisoīn) = $(C_{10}H_{12}O)_x$. Sm. 140—145° (A. 41, 63; 52, 402; 65, 230; J. 1863, 552; J. pr. [1] 36, 267; [1] 77, 490; Am. 19, 856). — II, 851.
- 11) polym. Anethol (Isoanethol). Sd. 244—245°₁₀₀ (J. 1863, 552; Am. 19, 860). — II, 851.
- 12) polym. Anethol (Metanethol). Sm. 132°; Sd. über 300° u. Zers. (J. pr. [1] 36, 267; A. 187, 70; Bl. [3] 15, 779; Am. 19, 858). — II, 851.
- 13) polym. Anethol (fl. Metanethol). Sd. 232,5° (J. pr. [1] 36, 272; J. 1863, 552; Am. 19, 854). — II, 851.
- 14) polym. Anethol (Photoanethol). Sm. 207° (G. 21, 183; Am. 19, 861). — II, 851.
- 15) Aethyläther d. α -Oxy- α -Phenyläthen (Ae. d. β -Phenylvinylalkohol). Sd. 217° (B. 14, 1868). — II, 1062.
- 16) Benzyläther d. β -Oxypropen. Sd. 191—192° (B. 29, 1647).
- 17) 2-Oxy-1,2,3,4-Tetrahydronaphtalin. Sd. 264°₁₁₆ (B. 23, 205). — II, 854.
- 18) 5-Oxy-1,2,3,4-Tetrahydronaphtalin. Sm. 68,5—69°; Sd. 264,5—265°₇₀₅ (B. 21, 1893; 23, 215; 31, 896). — II, 854.
- 19) 6-Oxy-1,2,3,4-Tetrahydronaphtalin. Sm. 58°; Sd. 275°₁₀₇ (B. 23, 885). — II, 855.
- 20) β -Keto- α -Phenylbutan (Aethylbenzylketon). Sd. 223—226° (B. 5, 501). — III, 148.
- 21) γ -Keto- α -Phenylbutan. Sd. 235—236°. + NaHSO₃ + H₂O (A. 187, 15; B. 14, 890; 15, 1876; 29, 383). — III, 148.
- 22) β -Keto- α -[4-Methylphenyl]propan (p-Tolylaceton). Sd. 232—233° (G. 21, 100). — III, 150.
- 23) Propylphenylketon. Sd. 220—222°. + 2CrO₃Cl₂ (B. 6, 498, 560; 15, 360, 731; 18, 2130; Bl. 37, 4; A. ch. [5] 26, 467). — III, 147.
- 24) Isopropylphenylketon. Sd. 217° (B. 6, 1255; 22, 3250; M. 18, 600). — III, 150.
- 25) Aethyl-4-Methylphenylketon. Sd. 237—239° (G. 21, 95). — III, 150.
- 26) Methyl-4-Aethylphenylketon. Sd. 235° (Bl. [3] 9, 700). — III, 150.
- 27) Methyl-2,4-Dimethylphenylketon. Sd. 222°₇₀₀ (241°) (B. 19, 230; Bl. [3] 9, 701; [3] 17, 910, 1044; J. pr. [2] 43, 120; Soc. 63, 110). — III, 151.
- 28) Methyl-2,5-Dimethylphenylketon. Sd. 224—225° (232—233°₇₀₀) (B. 18, 1856; 31, 1300; Bl. [3] 9, 702). — III, 152.
- 29) Methyl-3,4-Dimethylphenylketon. Sd. 246—247° (J. pr. [2] 41, 409; Soc. 63, 81; Bl. [3] 9, 701). — III, 151.
- 30) 2-Methyl-3,4-Dihydrocumarin. Sd. 224—225° (B. 28, 502).
- 31) Aldehyd d. α -Phenylpropan- β -Carbonsäure. Sd. 226—227° (B. 23, 1080; G. 21, 78). — III, 54.
- 32) Aldehyd d. α -[4-Methylphenyl]äthan- α -Carbonsäure. Sd. 222—223°. + NaHSO₃ (B. 17, 1932; 23, 1075; G. 19, 531). — III, 54.
- 33) Aldehyd d. 1-Isopropylbenzol-4-Carbonsäure (Cuminol). Sd. 237°. K, Na, + NaHSO₃ + H₂O (A. 38, 70; 85, 275; 92, 67; 94, 316; 108, 387; 128, 300; Z. 1867, 351; B. 10, 149; 12, 76; 15, 166; G. 14, 278). — III, 54.
- 34) Aldehyd d. 1-Aethylbenzol-4-Methylcarbonsäure. Fl. Zers. bei 220° (A. ch. [5] 22, 255). — III, 54.
- 35) Aldehyd d. 1,2,3-Trimethylbenzol-5-Carbonsäure. Sm. 52° (B. 24, 2413). — III, 57.
- 36) Aldehyd d. 1,2,4-Trimethylbenzol-5-Carbonsäure. Sm. 43,5°; Sd. 121°₁₀ (Bl. [3] 17, 370).
- 37) Aldehyd d. 1,3,5-Trimethylbenzol-2-Carbonsäure. Sd. 235—240° (237°) (B. 24, 3544; 28, 746; C. 1898 [2] 952). — III, 57.

$C_{10}H_{12}O$

38) Aldehyd d. Isocuminsäure? Sm. 80°; Sd. 220°. + NaHSO₃ (A. ch. [5] 22, 295). — III, 57.

39) Aldehyd d. Terecuminsäure. Sd. 219—220° (A. ch. [5] 22, 259). — III, 57.

 $C_{10}H_{12}O_2$

C 73,2 — H 7,3 — O 19,5 — M. G. 164.

1) 2-Oxy-1-[γ -Oxybutenyl]benzol. Sm. 47—48° (B. 24, 3183). — II, 1111.

2) 4-Methyläther d. 2,4-Dioxy-1-Allylbenzol. Sd. 245—250° (B. 17, 2132). — II, 980.

3) 3-Methyläther d. 3,4-Dioxy-1-Allylbenzol (Eugenol). Sd. 247,5° (252°). + NH₃, Na, K + H₂O, Ba. Lit. bedeutend. — II, 972.

4) 4-Methyläther d. 3,4-Dioxy-1-Allylbenzol. Sd. 254—255° (J. pr. [2] 39, 349; B. 23, 862; Ph. Ch. 10, 415). — II, 973.

5) 3-Methyläther d. 3,4-Dioxy-1-Propenylbenzol (Isoeugenol). Sd. 258 bis 262° (B. 15, 2065; 23, 862; 24, 2871; 27, 2455; Ph. Ch. 10, 415; J. pr. [2] 56, 269). — II, 976.

6) Methylenäther d. 3,4-Dioxy-1-Propylbenzol. Sd. 228° (B. 23, 1162). — II, 980.

7) Äthylidenäther d. $\alpha\beta$ -Dioxy- α -Phenyläthan. Sd. 222° (Bl. [3] 21, 230).

8) Benzylidenäther d. $\alpha\gamma$ -Dioxypropan (Benzylidentrimethylenglykol). Sm. 49—51°; Sd. 125°₁₄ (B. 27, 1537). — III, 8.

9) 4-Methylphenylglycidäther. Sd. 210°₂₀₀ u. ger. Zers. (B. 24, 2148). — II, 742.

10) 1-Methyläther d. 1,2-Dioxy-2,3-Dihydroinden. Sd. 150—151°₁₃₅ (B. 32, 31).

11) 1,3-Dioxy-1,2,3,4-Tetrahydronaphtalin. Sm. 49°; Sd. 175—178°₂₀ (B. 26, 1840; A. 288, 107). — II, 981.

12) 2,3-Dioxy-1,2,3,4-Tetrahydronaphtalin. Sm. 135° (B. 26, 1834; A. 288, 95). — II, 981.

13) 5,8-Dioxy-1,2,3,4-Tetrahydronaphtalin. Sm. 172—172,5° (B. 23, 1132). — II, 981.

14) γ -Keto- α -[2-Oxyphenyl]butan. Sm. 47—48° (B. 24, 3183; 28, 502). — III, 149.

15) γ -Oxypropylphenylketon. Fl. (Soc. 59, 887). — III, 147.

16) Propyl-4-Oxyphenylketon. Sm. 91° (Soc. 55, 548). — III, 148.

17) Methyläther d. β -Keto- α -[4-Oxyphenyl]propan. Sd. 260—265° (Bl. [3] 17, 861).

18) Methyläther d. Äthyl-4-Oxyphenylketon (p-Propionylanisol). Sm. 29°; Sd. 273—275° (B. 23, 1203; 28, 2715; 29, 688). — III, 141.

19) Äthyläther d. Methyl-2-Oxyphenylketon. Sm. 43° (38,5—39,5°); Sd. 243—244° (B. 27, 3036; A. 269, 10). — III, 133.

20) Äthyläther d. Methyl-4-Oxyphenylketon. Sm. 36—37° (39°) (B. 23, 1205; R. 10, 219; Bl. [3] 19, 350). — III, 134.

21) Phenyläther d. γ -Oxy- β -Ketobutan. Sd. 235—240° (Bl. [3] 6, 817). — II, 655.

22) 4-Methylphenyläther d. α -Oxy- β -Ketopropan. Sd. 240° (R. 28, 1254).

23) 5-Propyl-2-Methyl-1,4-Benzochinon. Sm. 18° (Bl. [3] 13, 979). — III, 364.

24) 5-Isopropyl-2-Methyl-1,4-Benzochinon (Thymochinon). Sm. 45,5°; Sd. 232° (J. 1854, 592; J. pr. [2] 3, 53; [2] 15, 410; [2] 23, 172, 190; B. 10, 297; 11, 289; 18, 3194; Bl. [3] 7, 32, 99; [3] 19, 13; A. 279, 371; C. 1895 [1] 1161). — III, 364.

25) 2,3,5,6-Tetramethyl-1,4-Benzochinon. Sm. 111° (A. 237, 5; B. 21, 1420; 29, 2172, 2176; J. pr. [2] 51, 538). — III, 362.

26) 2-Oxy-1,1-Dimethylbenzisofuran (Dimethylhydrophtalid). Sm. 89—90° (A. 248, 61). — II, 1585.

27) α -Phenylbuttersäure. Sm. 42°; Sd. 270—272°. Ca + 2H₂O, Ag (A. 250, 154). — II, 1382.

28) γ -Phenylbuttersäure. Sm. 47,5° (51,7°); Sd. bei etwa 290°. Ca + H₂O, Ba (A. ch. [5] 26, 459; A. 216, 107; 256, 74; 288, 204; 299, 28; B. 26, 464; Soc. 75, 146). — II, 1381.

29) α -Phenylpropan- β -Carbonsäure (α -Benzylpropionsäure; β -Phenylisobuttersäure). Sm. 37°; Sd. 272°. Ag (A. 204, 181). — II, 1381.

30) α -[4-Methylphenyl]propionsäure. Sm. 40—41°; Sd. 280° (B. 23, 1076; G. 21, 81). — II, 1389.

$C_{10}H_{12}O_2$

- 31) β -[2-Methylphenyl]propionsäure. Sm. 102° (B. 25, 2104). — II, 1383.
- 32) β -[3-Methylphenyl]propionsäure. Sm. 125° Ag (B. 17, 2330). — II, 1384.
- 33) isom. β -[3-Methylphenyl]propionsäure. Ag (B. 23, 111). — II, 1384.
- 34) isom. β -[3-Methylphenyl]propionsäure. Sm. 40° (42–43°) (B. 20, 1215; 23, 1899). — II, 1384.
- 35) β -[4-Methylphenyl]propionsäure. Sm. 116° (117–118°; 120°). Ca + H₂O, Ba (B. 23, 1033, 1898; J. pr. [2] 37, 26). — II, 1384.
- 36) 2,4-Dimethylphenylelessigsäure. Sm. 102° (106°); Sd. 265° (300–302°). K + H₂O, Ca + 4½ H₂O, Ba + H₂O, Ag + H₂O (J. pr. [2] 40, 487; B. 20, 2469; 21, 534; C. 1896 [2] 381). — II, 1389.
- 37) 2,5-Dimethylphenylelessigsäure. Sm. 128°. Na + H₂O, K, Ca + 3 H₂O, Ba (C. 1897 [2] 411).
- 38) 3,5-Dimethylphenylelessigsäure. Sm. 97° (100°); Sd. 273°₇₃₅. K + H₂O, Mg + 5 H₂O, Ca + 3 H₂O, Ba + 4 H₂O, Ag (B. 16, 965, 1578; Bl. 40, 316). — II, 1382.
- 39) 1-norm. Propylbenzol-2-Carbonsäure. Sm. 58° (B. 11, 1014). — II, 1382.
- 40) 1-norm. Propylbenzol-4-Carbonsäure. Sm. 140° (138–139°; 141°). Ca + 3 H₂O, Sr + 2½ H₂O, Ba + 2 H₂O, Pb + 2 H₂O, Ag (B. 10, 1746; 11, 1866; 15, 698; 17, 1229; 21, 2231; 22, 2278; A. 216, 228; J. pr. [2] 34, 102). — II, 1383.
- 41) 1-Isopropylbenzol-2-Carbonsäure. Sm. 51°. Ba, Ag (A. 248, 63). — II, 1384.
- 42) isom. β -1-Isopropylbenzol-2-Carbonsäure. Zers. bei 200°. Mg + 6 H₂O, Ca + 2 H₂O, Ba + 2 H₂O, Pb + 2 H₂O, Cu + 2½ H₂O, Ag (B. 19, 3013). — II, 1384.
- 43) 1-Isopropylbenzol-4-Carbonsäure (Cuminsäure). Sm. 116,5° (115°). Mg + 6 H₂O, Ca + 5 H₂O, Ba + 2 H₂O, Ag. Lit. bedeutend. — II, 1384.
- 44) 1,2,3-Trimethylbenzol-4-Carbonsäure. Sm. 167,5°. Ca + 4 H₂O (B. 19, 1214; 29, 954, 1398). — II, 1390.
- 45) 1,2,3-Trimethylbenzol-5-Carbonsäure (α -Isodurylsäure). Sm. 215°. Ca + 5 H₂O, Sr + 5 H₂O, Ba + 4 H₂O (A. 198, 385; B. 15, 1855; 27, 3446; 29, 955). — II, 1390.
- 46) 1,2,4-Trimethylbenzol-5-Carbonsäure (Cumylsäure; Durylsäure). Sm. 149–150°. Ca + 2 H₂O, Ba + 7 H₂O (Z. 1870, 449; A. 216, 206; 237, 3; 244, 54; B. 11, 31; J. pr. [2] 41, 512). — II, 1390.
- 47) 1,2,4-Trimethylbenzol-6-Carbonsäure (γ -Isodurylsäure). Sm. 127°. Ca + 2 H₂O (A. 198, 387; B. 15, 1855; 27, 3446). — II, 1391.
- 48) 1,3,5-Trimethylbenzol-2-Carbonsäure. Sm. 152°. Ca + 2 H₂O, Ba + 2 H₂O (J. pr. [2] 41, 506; B. 15, 1855; 24, 3544; 27, 1580, 3446; A. 198, 387). — II, 1391.
- 49) Isocuminsäure. Sm. 51°; Sd. 116–117° (A. ch. [5] 22, 218, 287). — III, 57.
- 50) Säure (aus Phenylelessigsäure). Sd. 290–295° (A. 221, 48). — II, 1310.
- 51) Aldehyd d. 5-Oxy-1,2,4-Trimethylbenzol-6-Carbonsäure. Sm. 105 bis 106° (B. 17, 2976). — III, 90.
- 52) Methylester d. α -Phenylpropionsäure. Sd. 221° (A. 250, 152). — II, 1370.
- 53) Methylester d. β -Phenylpropionsäure. Sd. 238–239° (A. 137, 334; 221, 77). — II, 1357.
- 54) Methylester d. 3-Methylphenylelessigsäure. Sd. 228–229° (M. 9, 854). — II, 1373.
- 55) Aethylester d. Phenylelessigsäure. Sd. 229° (226°) (B. 2, 208; 30, 949; Soc. 37, 481; R. 12, 279; J. pr. [2] 50, 142; A. 296, 361). — II, 1310.
- 56) Aethylester d. β -Isophenylelessigsäure. Sd. 115°₁₅ (B. 31, 403).
- 57) Aethylester d. 1-Methylbenzol-2-Carbonsäure. Sd. 219,5°₁₁₁ (B. 12, 2301). — II, 1329.
- 58) Aethylester d. 1-Methylbenzol-3-Carbonsäure. Sd. 224,5–226,5°₇₁₀ (B. 12, 2301). — II, 1336.
- 59) Aethylester d. 1-Methylbenzol-4-Carbonsäure. Sd. 228° (225°) (A. 63, 295; B. 12, 616). — II, 1340.
- 60) Aethylester d. 1,4-Methylen-1,2-Dihydrobenzol-4-Carbonsäure? Sd. 225–227° (B. 27, 2453). — II, 1356.

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- 61) norm. Propylester d. Benzolcarbonsäure. *Sd.* 229,5° (*A.* 161, 228; 234, 316; *M.* 2, 695; *J. pr.* [2] 36, 5). — II, 1140.
- 62) Isopropylester d. Benzolcarbonsäure. *Sd.* 218° (*A.* 161, 51; *Bl.* 12, 225; *B.* 14, 608). — II, 1140.
- 63) Phenylester d. norm. Buttersäure. *Sd.* 227—228° (*cor.*) (*Soc.* 55, 548). — II, 662.
- 64) Benzylester d. Propionsäure. *Sd.* 219—220° (*A.* 193, 312). — II, 1051.
- 65) Acetat d. α -Oxy- α -Phenyläthan. *Sd.* 224° (*B.* 9, 373). — II, 1064.
- 66) Acetat d. β -Oxy- α -Phenyläthan. *Sd.* 213—216° (217—220°) (*Z.* 1871, 132; *B.* 7, 141). — II, 1063.
- 67) Acetat d. 3-Oxy-1-Aethylbenzol. *Sd.* 222—223° (*Bl.* [3] 11, 212). — II, 757.
- 68) Acetat d. 4-Oxy-1-Aethylbenzol. *Sd.* 223—226° (*G.* 14, 485). — II, 757.
- 69) Acetat d. 4-Oxy-1,3-Dimethylbenzol. *Sd.* 226° (*B.* 11, 25). — II, 758.
- 70) Acetat d. 2-Oxy-1,4-Dimethylbenzol. *Sd.* 237° (*B.* 11, 28). — II, 759.
- 71) Acetat d. 3-Oxymethyl-1-Methylbenzol. *Sd.* 226° (*Z.* 1866, 489; *B.* 15, 1747). — II, 1064.

 $C_{10}H_{12}O_3$

C 66,7 — H 6,7 — O 26,6 — M. G. 180.

- 1) 3-Methyläther d. 3,4-Dioxy-1-[γ -Oxypropyl]benzol (Coniferylalkohol). *Sm.* 73—74° (*B.* 7, 612; 8, 1130; 11, 672). — II, 1113.
- 2) α -Aethyläther- $\alpha\beta$ -[1,2-Phenylen]äther d. $\alpha\alpha\beta$ -Trioxyäthan (Brenzkatechinäthoxyläthan). *Sd.* 247° (*cor.*) (*Bl.* [3] 19, 762).
- 3) Benzylidenäther d. $\alpha\beta\gamma$ -Trioxypropan (Benzylidenglycerin). *Sm.* 66° (*B.* 27, 1537; *A.* 136, 127). — III, 8.
- 4) Methyläther d. Methylresacetophenon. *Sm.* 80—81° (83—84°) (*M.* 15, 439; *Soc.* 67, 997). — III, 146.
- 5) 4-Methyläther d. Aethyl-2,4-Dioxyphenylketon (Isomethylpānon). *Sm.* 58° (*B.* 25, 1288, 1298). — III, 142.
- 6) Dimethyläther d. Methyl-2,4-Dioxyphenylketon. *Sm.* 40° (*B.* 24, 2461). — III, 135.
- 7) Dimethyläther d. Methyl-3,4-Dioxyphenylketon (Acetoveratron). *Sm.* 48—49°; *Sd.* 207° (*B.* 24, 2864; 27, 1989; *Bl.* [3] 17, 1021). — III, 138.
- 8) 4-Aethyläther d. Methyl-2,4-Dioxyphenylketon. *Sm.* 48° (49°) (*M.* 15, 438; *B.* 28, 2307; 31, 698; 32, 325; *J. pr.* [2] 53, 40). — III, 135.
- 9) 5-Aethyläther d. Methyl-2,5-Dioxyphenylketon. *Sm.* 57° (*B.* 32, 328).
- 10) Monoäthyläther d. Isoresacetophenon. *Sm.* 108° (*J. pr.* [2] 53, 40). — III, 137.
- 11) 3-Oxy-5-Isopropyl-2-Methyl-1,4-Benzochinon. *Sm.* 166—167° (*J. pr.* [2] 3, 57; [2] 15, 400; *B.* 10, 49, 77, 611, 1219; 14, 97; 16, 900). — III, 368.
- 12) 6-Oxy-5-Isopropyl-2-Methyl-1,4-Benzochinon. *Sm.* 181—183° (*B.* 23, 1392). — III, 368.
- 13) Methyläther d. 5-Oxy-2-Propyl-1,4-Benzochinon. *Sm.* 111° (*B.* 23, 2294). — III, 364.
- 14) 3,4-Diacetyl-2,5-Dimethylfuran. *Sm.* 63° (62,5°) (*Am.* 15, 532; *G.* 23 [2] 307). — III, 728.
- 15) α -Oxy- γ -Phenylbuttersäure. *Sm.* 104,5—105°. *Ag.* (*A.* 299, 32).
- 16) β -Oxy- γ -Phenylbuttersäure. *Sm.* 98°. *Ca* + H_2O , *Ba* + H_2O , *Ag.* (*A.* 283, 305). — II, 1583.
- 17) γ -Oxy- γ -Phenylbuttersäure. *Sm.* 75°. *Ca* + $3H_2O$, *Ba*, *Ag.* (*B.* 15, 889; *A.* 216, 105; 227, 259; 228, 178; *A. ch.* [5] 26, 455). — II, 1583.
- 18) α -Oxy- α -Methyl- β -Phenylpropionsäure (Methylbenzylglykolsäure). *Sm.* 97—99° (*B.* 12, 815). — II, 1584.
- 19) β -Oxy- α -Methyl- β -Phenylpropionsäure. *Sm.* 95°. *Ag.* (*Soc.* 49, 159; 59, 1010; *C.* 1897 [2] 349). — II, 1584.
- 20) α -Methyl- β -[3-Oxyphenyl]propionsäure. *Sm.* 63°. *Ag.* (*B.* 28, 2000).
- 21) α -Oxy- β -[3-Methylphenyl]propionsäure. *Fl.* *Ca.* (*B.* 23, 113). — II, 1584.
- 22) α -Oxy- α -[2,4-Dimethylphenyl]essigsäure. *Sm.* 103° (119°) (*J. pr.* [2] 41, 486; [2] 43, 143). — II, 1584.
- 23) α -Oxy- α -[2,5-Dimethylphenyl]essigsäure. *Sm.* 114° (*J. pr.* [2] 43, 147). — II, 1585.
- 24) α -Oxybutterphenyläthersäure. *Sm.* 99°. NH_4 , *Ag.* (*B.* 29, 1421).

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- 25) γ -Oxybutterphenyläthersäure. Sm. 60° ($64-65^\circ$). Ag (B. 24, 2640; Soc. 69, 168). — II, 665.
 - 26) α -Oxy- α -Phenylpropionmethyläthersäure (B. 14, 1598).
 - 27) α -[4-Oxyphenylmethyläther]propionsäure. Sm. $103,4^\circ$. Ba + $2H_2O$ (B. 7, 1732). — II, 1570.
 - 28) β -[2-Oxyphenylmethyläther]propionsäure. Sm. $85-86^\circ$ (92°) (Soc. 39, 415; J. pr. [2] 51, 321 Anm.). — II, 1562.
 - 29) β -[3-Oxyphenylmethyläther]propionsäure. Sm. 51° (B. 15, 2051). — II, 1564.
 - 30) β -[4-Oxyphenylmethyläther]propionsäure. Sm. 101° . Ba + $2H_2O$, Ag (J. 1877, 792; 20, 2532). — II, 1565.
 - 31) α -Oxyphenylessigäthyläthersäure. Pb, Ag (Z. 1868, 143). — II, 1551.
 - 32) 4-Oxyphenylessigäthyläthersäure. Sm. 88° (B. 12, 1440). — II, 1544.
 - 33) 2-Oxy-1-Propylbenzol-3-Carbonsäure. Sm. $93-94^\circ$. Ba + $2\frac{1}{2}H_2O$, Pb + $2\frac{1}{2}H_2O$, Ag (J. 1878, 585). — II, 1581.
 - 34) 4-Oxy-1-Propylbenzol-3-Carbonsäure. Sm. 98° . Ba + $3H_2O$, Pb + $2H_2O$, Ag (J. 1878, 585). — II, 1581.
 - 35) 2-Oxy-1-Isopropylbenzol-3-Carbonsäure. Sm. $71-72^\circ$. Ag (G. 16, 126). — II, 1581.
 - 36) 4-Oxy-1-Isopropylbenzol-3-Carbonsäure. Sm. $120,5^\circ$. Ca, Ba, Pb, Ag (J. 1878, 806; B. 19, 1415). — II, 1581.
 - 37) 2-Oxy-1-Isopropylbenzol-4-Carbonsäure (Thymooxycuminsäure). Sm. $141-143^\circ$. Na + $2\frac{1}{2}H_2O$, Na, + $1\frac{1}{2}H_2O$, Ba, Cd, Ag (B. 11, 1571; 13, 1663; 19, 3307; M. 1, 216; A. 109, 20). — II, 1582.
 - 38) isom. 2-Oxy-1-Isopropylbenzol-4-Carbonsäure (β -Oxycuminsäure). Sm. $166-170^\circ$ (B. 12, 433). — II, 1582.
 - 39) 3-Oxy-1-Isopropylbenzol-4-Carbonsäure (Isooxycuminsäure). Sm. 94° . Ca, Ba (B. 11, 1061; 12, 432; 19, 270, 3312). — II, 1582.
 - 40) 1-[α -Oxyisopropyl]benzol-2-Carbonsäure. K (A. 248, 59). — II, 1585.
 - 41) 1-[α -Oxyisopropyl]benzol-3-Carbonsäure. Sm. $123-124^\circ$. Ag (A. 275, 159; 284, 325; B. 31, 1404). — II, 1585.
 - 42) 1-[α -Oxyisopropyl]benzol-4-Carbonsäure. Sm. $155-156^\circ$. Ca + $2\frac{1}{2}H_2O$, Ba + H_2O , Pb, Cu + $3H_2O$, Ag + $\frac{1}{4}H_2O$ (B. 11, 1285, 1790, 2172; 15, 699; 19, 583; 31, 1402; A. 219, 248). — II, 1585.
 - 43) 6-Oxy-3-Aethyl-1-Methylbenzol-5-Carbonsäure. Sm. $147-149^\circ$ (A. 195, 284). — II, 1583.
 - 44) 6-Oxy-1,2,4-Trimethylbenzol-5-Carbonsäure (Oxydurylsäure). Sm. 148° . Ca + $2H_2O$ (B. 18, 2844). — II, 1583.
 - 45) 5-Oxy-1,2,4-Trimethylbenzol-6-Carbonsäure (Oxy- β -Isodurylsäure). Sm. 181° (B. 21, 884). — II, 1583.
 - 46) 6-Oxy-1,2-Dimethylbenzoldimethyläther-4-Carbonsäure. Sm. 170 bis 171° (Soc. 75, 193).
 - 47) 6-Oxy-1,3-Dimethylbenzoldimethyläther-4-Carbonsäure. Sm. 171° (B. 27 [2] 595).
 - 48) 1-Oxymethylbenzoläthyläther-4-Carbonsäure. Sm. 87° (B. 28, 1144).
 - 49) 4-Oxy-1-Methylbenzoläthyläther-3-Carbonsäure (A. 244, 67). — II, 1546.
 - 50) 6-Oxy-1-Methylbenzoläthyläther-3-Carbonsäure. Sm. 199° . Ca + $2H_2O$ (Am. 4, 375; A. 244, 66). — II, 1549.
 - 51) 3-Oxy-1-Methylbenzoläthyläther-4-Carbonsäure. Sm. $108-110^\circ$ (J. 1879, 519). — II, 1550.
 - 52) 4-Oxybenzolpropyläther-1-Carbonsäure. Sm. $141,5-142,5^\circ$. Ba + H_2O (Am. 11, 328). — II, 1526.
 - 53) 2-Oxybenzolisopropyläther-1-Carbonsäure. Fl. Ca + $2H_2O$, Ba + $2H_2O$, Ag + $\frac{1}{2}H_2O$ (A. 150, 6). — II, 1494.
 - 54) Aldehyd d. 3,4-Dioxybenzol-3-Methyläther-4-Aethyläther-1-Carbonsäure. Sm. $64-65^\circ$ (B. 8, 1129). — III, 101.
 - 55) Methylester d. 6-Oxy-1,2-Dimethylbenzol-4-Carbonsäure. Sm. 148 bis 149° (Soc. 75, 188).
 - 56) Methylester d. 4-Oxy-1,3-Dimethylbenzol-5-Carbonsäure. Fl. (A. 195, 278). — II, 1571.
 - 57) Methylester d. 6-Oxy-1,3-Dimethylbenzol-4-Carbonsäure. Sm. 149° (B. 27 [2] 595).

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- 58) Methylester d. 2-Oxy-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 130° (B. 12, 608). — II, 1571.
- 59) Methylester d. α -Oxyphenylessigmethyläthersäure. Sd. 246° (B. 14, 2393). — II, 1551.
- 60) Methylester d. Oxyessig-2-Methylphenyläthersäure. Sd. 248° (G. 22 [2] 543). — II, 738.
- 61) Methylester d. Oxyessig-3-Methylphenyläthersäure. Sd. 258° (G. 20, 508). — II, 744.
- 62) Methylester d. Oxyessig-4-Methylphenyläthersäure. Sd. 257° (G. 22 [2] 543). — II, 750.
- 63) Methylester d. 6-Oxy-1-Methylbenzolmethyläther-3-Carbonsäure. Sm. 67° (B. 12, 824). — II, 1548.
- 64) Methylester d. 2-Oxy-1-Methylbenzolmethyläther-4-Carbonsäure (B. 11, 1587). — II, 1549.
- 65) Methylester d. 2-Oxybenzoläthyläther-1-Carbonsäure. Sd. 245° (B. 17, 486; A. 197, 18). — II, 1494.
- 66) Aethylester d. α -Oxyphenylessigsäure. Sm. 34°; Sd. 253—255° (J. pr. [2] 31, 389; B. 25, 1684; A. 139, 300). — II, 1551.
- 67) Aethylester d. 1- α -Oxyphenylessigsäure (B. 31, 1421).
- 68) Aethylester d. 4-Oxyphenylessigsäure. Sd. 314°_{700.5} (B. 12, 1440; 22, 2141). — II, 1543.
- 69) Aethylester d. 5-Oxy-1-Methylbenzol-2-Carbonsäure. Sm. 92—93°; Sd. 306—308° (A. 297, 46).
- 70) Aethylester d. 2-Oxy-1-Methylbenzol-3-Carbonsäure. Sd. 248° (B. 23, 2939). — II, 1545.
- 71) Aethylester d. 4-Oxy-1-Methylbenzol-3-Carbonsäure. Sd. 251° (J. pr. [2] 14, 455; B. 23, 2939). — II, 1546.
- 72) Aethylester d. 2-Oxy-1-Methylbenzol-4-Carbonsäure. Sm. 74—75° (B. 11, 1587). — II, 1549.
- 73) Aethylester d. 3-Oxy-1-Methylbenzol-4-Carbonsäure. Sd. 254° (B. 23, 2939). — II, 1550.
- 74) Aethylester d. Oxyessigphenyläthersäure. Sd. 251° (J. pr. [2] 20, 276; [2] 51, 357). — II, 664.
- 75) Aethylester d. 2-Oxybenzolmethyläther-1-Carbonsäure. Sd. 235° (A. 139, 141; 197, 18; B. 17, 486). — II, 1494.
- 76) Aethylester d. 3-Oxybenzolmethyläther-1-Carbonsäure. Sd. 163° (A. 296, 351).
- 77) Aethylester d. 4-Oxybenzolmethyläther-1-Carbonsäure. Sm. 7°; Sd. 269—270° (A. 56, 310; 217, 14; Soc. 55, 551). — II, 1526.
- 78) Propylester d. 2-Oxybenzol-1-Carbonsäure. Sd. 238—240° (J. 1874, 333; J. pr. [2] 36, 365). — II, 1492.
- 79) Propylester d. 4-Oxybenzol-1-Carbonsäure. Sm. 96,2° (J. pr. [2] 36, 368). — II, 1525.
- 80) Aethyl-2-Methylphenylester d. Kohlensäure. Sd. 235—237° (B. 13, 699). — II, 738.
- 81) Aethyl-3-Methylphenylester d. Kohlensäure. Sd. 245—247° (B. 13, 700). — II, 744.
- 82) Aethyl-4-Methylphenylester d. Kohlensäure. Sd. 245° (B. 13, 700). — II, 750.
- 83) Propylphenylester d. Kohlensäure. Sd. 210—220°₇₅₀ (Bl. [3] 19, 769).
- 84) Isopropylphenylester d. Kohlensäure. Sd. 220°₇₅₀ (Bl. [3] 19, 770).
- 85) Acetat d. β -Oxyäthylphenyläther. Sd. 241—243° (M. 15, 675).
- 86) Acetat d. 3,4-Dioxy-1-Methylbenzolmonomethyläther. Sd. 246 bis 248° (B. 9, 418; 10, 58). — II, 958.

 $C_{10}H_{12}O_4$

- C 61,2 — H 6,1 — O 32,7 — M. G. 196.
- 1) 3,4-Methylenäther d. 3,4-Dioxy-1-[$\beta\gamma$ -Dioxypropyl]benzol. Sm. 82 bis 83° (78,5°) (B. 24, 2881, 3489). — II, 1116.
 - 2) 3,4-Methylenäther-1,1-Dimethyläther d. 3,4-Dioxy-1-Dioxymethylbenzol (Piperonaldimethylacetal). Sd. 271—272°₇₅₇ (267—269°) (B. 30, 3058; 31, 1016).
 - 3) α ,4-Dimethyläther d. Oxymethyl-2,4-Dioxyphenylketon. Sm. 66 bis 68° (M. 12, 187). — III, 139.
 - 4) Dimethyläther d. Methyl-?-Trioxyphenylketon (D. d. Gallacetophenon). Sm. 77—78° (Soc. 67, 997). — III, 139.

$C_{10}H_{12}O_4$

- 5) Dimethyläther d. Methyl-2,4,6-Trioxyphenylketon. Sm. 85 — 88° (B. 30, 2152).
- 6) 2-Keto-3-Propionyl-6-Aethyl-2,3-Dihydropyron (Dehydropropionyl-essigsäure). Sm. 72° (A. 273, 202).
- 7) 3,6-Dioxy-5-Isopropyl-2-Methyl-1,4-Benzochinon (Dioxythymochinon). Sm. 220° (213°). Ba + H₂O, Pb (J. pr. [2] 3, 62; B. 10, 1223; 14, 95). — III, 369.
- 8) Diäthyläther d. 2,5-Dioxy-1,4-Benzochinon. Sm. 183° (B. 23, 1213). — III, 349.
- 9) Tetraoxytetrahydronaphtalin (Naphtenalkohol). Pb, (A. 136, 344). — II, 185.
- 10) Cantharidin. Sm. 218° (J. 1855, 755; 1857, 566; 1860, 597; 1880, 1004; 1882, 366; Z. 1865, 676; Fr. 23, 283; 25, 251; G. 23 [1] 130; B. 10, 1504; 12, 577; A. 15, 315; M. 18, 396; 19, 708). — III, 622.
- 11) Isocantharidin. Sm. 75—76°. Ba, Ag, (G. 21 [2] 58; M. 19, 718). — III, 625.
- 12) Physcianin (= Atrarsäure C₁₀H₁₆O₈). Sm. 143° (A. 284, 189; B. 30, 359, 1985; G. 12, 257; J. pr. [2] 57, 287). — III, 642.
- 13) Xanthoxylin. Sm. 80° (A. 89, 251; 104, 238). — III, 650.
- 14) γ -Keto- α -Furanylbutan- β -Methylcarbonsäure (β -Furyllävulinsäure). Sm. 100—101° (B. 26, 351). — III, 714.
- 15) γ -Keto- α -Furanylpentan- ϵ -Carbonsäure (δ -Furyllävulinsäure). Sm. 98° (B. 26, 347, 351). — III, 714.
- 16) $\alpha\beta$ -Dioxy- γ -Phenylbuttersäure? Fl. (B. 25, 2562). — II, 1767.
- 17) $\alpha\gamma$ -Dioxy- γ -Phenylbuttersäure. Ag (B. 24, 4077). — II, 1766.
- 18) $\beta\gamma$ -Dioxy- γ -Phenylbuttersäure. Sm. 117°. Ca, Ba + H₂O, Ag (A. 268, 46). — II, 1766.
- 19) ρ -Dioxy- γ -Phenylbuttersäure. Ba (A. 268, 85). — II, 1767.
- 20) β -[3,4-Dioxyphenyl]propion-3-Methyläthersäure (Hydroferulasäure). Sm. 89—90° (B. 11, 650). — II, 1762.
- 21) β -[3,4-Dioxyphenyl]propion-4-Methyläthersäure (Hydroisoferulasäure). Sm. 146° (B. 11, 656; 14, 965). — II, 1762.
- 22) 3-Oxy-1-[α -Oxyisopropyl]benzol-4-Carbonsäure. Sm. 173° (B. 17, 722). — II, 1768.
- 23) 2,5-Dioxyphenylessigdimethyläthersäure. Sm. 124,5° (H. 15, 248; 20, 221). — II, 1748.
- 24) 3,4-Dioxyphenylessigdimethyläthersäure + xH₂O. Sm. 98 — 99° (wasserfrei) (B. 11, 143). — II, 1749.
- 25) 2-Oxy-1-[α -Oxyisopropyl]benzol-4-Carbonsäure. Sm. 130—135°. Cu + H₂O, Ag (B. 19, 3310). — II, 1768.
- 26) 3,6-Dioxy-1,2,4-Trimethylbenzol-5-Carbonsäure. Sm. 210° u. Zers. (A. 237, 14). — II, 1768.
- 27) 3,4-Dioxybenzol-3-Methyl-4-Aethyläther-1-Carbonsäure (Aethylvanillinsäure). Sm. 193—194° (190°); subl. Ba + 4H₂O (A. 179, 379; B. 8, 1130; Am. 4, 77; G. 11, 416). — II, 1742.
- 28) Aurantiamarinsäure (Bl. 46, 501). — II, 1768.
- 29) Cantharsäure. Sm. 278°. K, Pb + xH₂O, Cu, Ag (B. 10, 1505; 11, 2121; 19, 1086, 1405; G. 21 [2] 52; M. 19, 708). — III, 624.
- 30) Rhizoninsäure. Sm. 186°. K + H₂O, Ba + 3H₂O, Cu + 3H₂O (J. pr. [2] 58, 531).
- 31) Säure (aus Isodehydracetsäureäthylester). Sm. 221° u. Zers. K₂, Ba + 2(4)H₂O, Cu + 3½H₂O (A. 259, 158). — I, 734.
- 32) $\alpha\delta$ -Lakton d. δ -Oxy- β -Methyl- $\alpha\gamma$ -Pentadien- $\alpha\gamma$ -Dicarbonsäuremonäthylester (Monäthylester d. Mesitenlaktoncarbonsäure). Sm. 24 bis 25°; Sd. 290—294° (A. 259, 155; B. 26, 757; 30, 483). — I, 776.
- 33) Aldehyd d. $\alpha\beta\gamma$ -Trioxy- γ -Phenylbuttersäure (Phenyltetrose). Fl. (B. 25, 2559). — III, 108.
- 34) Aldehyd d. 2,4,5-Trioxybenzoltrimethyläther-1-Carbonsäure. Sm. 114° (J. r. 19, 3; B. 32, 289). — III, 108.
- 35) Methylester d. 2,6-Dioxy-1-Methylbenzol-6-Methyläther-3-Carbonsäure. Sm. 76—77° (See. 67, 993).
- 36) Methylester d. 4,5-Dioxy-1-Methylbenzol-5-Methyläther-3-Carbonsäure. Sm. 92° (B. 19, 2326). — II, 1751.

- C₁₀H₁₂O₄**
- 37) Methylester d. 2,3-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 47°; Sd. 184—185°₅₀ (A. 301, 355).
 - 38) Methylester d. 3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 59—60° (58°); Sd. 283° (J. 1876, 601; B. 11, 127; M. 14, 456). — II, 1742.
 - 39) Methylester d. 3,5-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 81°; Sd. 298° (M. 8, 429). — II, 1747.
 - 40) Dimethylester d. 1,2-Dihydrobenzol-1,4-Dicarbonsäure (A. 251, 284; 258, 18). — II, 1760.
 - 41) Dimethylester d. 1,2-Dihydrobenzol-3,6-Dicarbonsäure. Sm. 85° (A. 251, 284, 304). — II, 1759.
 - 42) Dimethylester d. 1,2-Dihydrobenzol-4,5-Dicarbonsäure (A. 258, 192). — II, 1759.
 - 43) Dimethylester d. cis-1,4-Dihydrobenzol-1,4-Dicarbonsäure. Sm. 77° (A. 251, 295; 258, 17). — II, 1761.
 - 44) Dimethylester d. 1,4-Dihydrobenzol-2,5-Dicarbonsäure. Sm. 130°; subl. (A. 245, 146, 245; J. pr. [2] 43, 3). — II, 1760.
 - 45) Aethylester d. 2,5-Dioxyphenylacessigsäure. Sm. 119—120° (H. 15, 247). — II, 1748.
 - 46) Aethylester d. 2,5-Dioxy-1-Methylbenzol-2-Carbonsäure (Ac. d. Homooxysalicylsäure). Sm. 97—98° (M. 2, 463). — II, 1755.
 - 47) Aethylester d. 3,5-Dioxy-1-Methylbenzol-4-Carbonsäure. Sm. 132° (A. 39, 31; 54, 265; 68, 64; 117, 314; Berz. J. 11, 650). — II, 1752.
 - 48) Aethylester d. 3,4-Dioxybenzol-3-Methyläther-1-Carbonsäure. Sm. 44°; Sd. 291—293° (B. 10, 59). — II, 1741.
 - 49) Aethylester d. 2-Methoxyphenylkohlsäure. Sd. 175—180°₅₀ (Bl. [3] 19, 891).
 - 50) Aethylester d. Dehydracetsäure. Sm. 93—94° (91,6°) (B. 9, 1100; Soc. 65, 261). — II, 1756.
 - 51) Acetat d. 1,2,3-Trioxymethyläther. (B. 11, 337). — II, 1012.
 - 52) Acetat d. 2-Trioxymethyläther. Sm. 68° (B. 24, 2610). — II, 1023.
 - 53) Diacetat d. Isobenzoglykol. Sm. 121°; Sd. bei 300° (J. 1880, 441; B. 27, 1942). — I, 415.
 - 54) Monobenzoat d. αβγ-Trioxypentan. Fl. (BERTHELOT, Chim. org. synth. 2, 108). — II, 1142.
 - 55) Verbindung (aus Oxymesitendicarbonsäuremonäthylester) (A. 222, 231). — I, 777.
- C₁₀H₁₀O₅**
- C 56,6 — H 5,6 — O 37,7 — M. G. 212.
- 1) αβγ-Trioxymethyläther-γ-Phenylbuttersäure. Ba, Ag, Strychninsalz (B. 25, 2557; 27, 3109). — II, 1930.
 - 2) β-[2,4,5-Trioxymethyläther]propion-5-Methyläthersäure. Na₂ (B. 31, 1192).
 - 3) 3,4,5-Trioxymethyläther-4,5-Dimethyläther-1-Methylcarbonsäure (Iridinsäure). Sm. 118°. Ba + 5H₂O (B. 26, 2015). — II, 1927.
 - 4) 3,4-Dioxy-1-Oxymethylbenzol-3,4-Dimethyläther-2-Carbonsäure (Mekoninsäure). Ba, Cu, Ag (B. 11, 240; J. pr. [2] 24, 373). — II, 1927.
 - 5) 5,6-Dioxy-1-Oxymethylbenzol-5,6-Dimethyläther-2-Carbonsäure (Pseudomekoninsäure). Ag (Soc. 57, 1073). — II, 1928.
 - 6) 2,3,4-Trioxymethyläther-1-Carbonsäure. Sm. 99° (B. 21, 2024). — II, 1918.
 - 7) 2,5,2-Trioxymethyläther-1-Carbonsäure. Sm. 108—109° (B. 16, 2113 Anm.). — II, 1926.
 - 8) 2,4,6-Trioxymethyläther-1-Carbonsäure (Asaronsäure). Sm. 144°; Sd. 300° (J. r. 19, 3). — II, 1919.
 - 9) 3,4,5-Trioxymethyläther-1-Carbonsäure. Sm. 167°. Ca + 1½H₂O (B. 21, 2022; 26, 2019; 30, 2331; M. 15, 297; G. 18, 216). — II, 1921.
 - 10) Hydrat d. α-Benzoyloxypropionsäure (A. 133, 269). — II, 1154.
 - 11) Hydroplumeriasäure (A. 181, 171). — II, 1931.
 - 12) Anhydrid d. Camphensäure. Sm. 205° u. Zers. (Soc. 69, 76).
 - 13) Anhydrid d. cis-Camphotricarbonsäure. Sm. 220° (C. 1896 [2] 248; Soc. 69, 970).
 - 14) Anhydrid d. i-trans-Camphotricarbonsäure. Sm. 250° (253—254°) (B. 29 [2] 862; C. 1896 [2] 248; 1899 [1] 172; Soc. 69, 957; 71, 958).

- C₁₀H₁₂O₅**
- 15) Anhydrid d. act. trans-Camphotricarbonsäure. Sm. 253—254° (C. 1899 [1] 172).
 - 16) Lakton d. β-Diacetylbernsteinsäuremonoäthylester (Aethylester d. Isocarbopyrotitarsäure). Sm. 110°; Sd. 280°₁₅ (B. 22, 159; 27, 1158). — III, 716.
 - 17) Methylester d. 3,4,5-Trioxybenzol-3,5-Dimethyläther-1-Carbonsäure. Sm. 83,5° (G. 18, 216; B. 30, 2333). — II, 1921.
 - 18) Methylester d. α-[2-Furanyl]äthan-αβ-Dicarbonsäure. Sd. 162 bis 163°₃₀ (B. 31, 1121).
 - 19) Dimethylester d. 2,5-Dimethylfuran-3,4-Dicarbonsäure. Sm. 63 bis 64°; Sd. 266°₇₅₆ (B. 22, 155). — III, 716.
 - 20) Dimethylester d. 2-Methylfuran-3-Carbonsäure-5-Methylcarbonsäure. Fl. (A. 246, 12). — III, 717.
 - 21) Monoäthylester d. 2,5-Dimethylfuran-3,4-Dicarbonsäure. Sm. 83° (81°). Ca + 3H₂O, Ba + 4H₂O, Ag (A. 201, 152; 250, 195; B. 17, 2864; 22, 153). — III, 716.
 - 22) 3[oder 5]-Aethylester d. 2-Methylfuran-3-Carbonsäure-5-Methylcarbonsäure. Sm. 75,5—76° (A. 246, 13; 250, 178). — III, 717.
 - 23) Diäthylester d. Furan-2,5-Dicarbonsäure. Sm. 47° (A. 193, 190; J. pr. [2] 25, 49). — III, 715.
 - 24) βγ-[p]Dioxypropylester d. 2-Oxybenzol-1-Carbonsäure. Fl. (B. 10, 1817). — II, 1492.
- C₁₀H₁₂O₆**
- 25) Verbindung (aus Carvol). Sm. 125° (A. 275, 156). — II, 768.
C 52,6 — H 5,3 — O 42,1 — M. G. 228.
 - 1) 2,3,4,5-Tetraoxybenzol-3,4,5-Trimethyläther-1-Carbonsäure. Sm. 191° u. Zers. (M. 19, 605).
 - 2) 2,3,4,5-Tetraoxybenzol-? Trimethyläther-1-Carbonsäure. Sm. 139 bis 140° (B. 29, 1803).
 - 3) 1,2-Diacetyl-R-Tetramethylen-1,2-Dicarbonsäure + 2H₂O. Sm. 210° u. CO₂-Entw. (Soc. 51, 27). — I, 825.
 - 4) 2-Methyl-1,2,3,4-Tetrahydrobenzol-2,4,6-Tricarbonsäure + H₂O. Sm. 220—222° (A. 305, 149).
 - 5) isom. Methyltetrahydrobenzoltricarbonsäure. Sm. 198—205° (A. 305, 151).
 - 6) Anemonolsäure (J. 1885, 1813; M. 17, 286, 298). — III, 619.
 - 7) Anhydrid[p] d. α-Oxy-γ-Ketobutan-α-Carbonsäure (A. d. α-Oxylävulin-säure). Sm. 263° u. Zers. (A. 264, 259). — I, 669.
 - 8) Anhydrid[p] d. β-Oxy-γ-Ketobutan-α-Carbonsäure (A. d. β-Oxylävulin-säure). Sm. 240° u. Zers. (A. 264, 237). — I, 669.
 - 9) Doppelanhydrid d. Essigsäure u. trans-R-Tetramethylen-1,3-Di-carbonsäure (Soc. 73, 338).
 - 10) β-Lakton d. π-w-Dioxycamphotricarbonsäure. Sm. 220° (C. 1896 [2] 248; Soc. 69, 963).
 - 11) γ-Lakton d. π-w-Dioxycamphotricarbonsäure. subl. bei 240° (C. 1896 [2] 248; Soc. 69, 964).
 - 12) Dimethylester d. 1,4-Diketo-hexahydrobenzol-2,5-Dicarbonsäure (D. d. Succinylbernsteinsäure). Sm. 152° (A. 229, 52). — I, 823.
 - 13) Monäthylester d. 1,4-Diketo-hexahydrobenzol-2,5-Dicarbonsäure (Monäthylester d. Succinylbernsteinsäure). Sm. 98° u. Zers. (100°) (A. 211, 319; B. 10, 109; 16, 135). — I, 823.
C 49,2 — H 4,9 — O 45,9 — M. G. 244.
- C₁₀H₁₂O₇**
- 1) Monanhydrid d. Hexan-αγδζ-Tetracarbonsäure. Sm. 130—135° (Soc. 65, 831).
- C₁₀H₁₂O₈**
- C 46,2 — H 4,6 — O 49,2 — M. G. 260.
 - 1) Hexahydrobenzol-1,1,3,3-Tetracarbonsäure. Zers. bei 218—220°. Ag₄ (Soc. 59, 803, 994; 61, 706). — I, 866.
 - 2) Dimethylester d. Diacetoxylmaleinsäure. Sm. 101,5° (Soc. 69, 550).
 - 3) Dimethylester d. Anhydroäpfelsäure (aus Crassulaceen). Sm. 102° (B. 31, 1443).
 - 4) Tetramethylester d. Aethentetracarbonsäure. Sm. 121° (B. 29, 1283, 1505, 1746).
 - 5) Farbstoff (aus Heidelbeeren) (C. 1895 [2] 1084).
C 43,5 — H 4,3 — O 52,2 — M. G. 276.
 - 1) Diacetylisozuckersäure. Sm. 174° (B. 27, 129).
- C₁₀H₁₂O₉**
- 1) Diacetylisozuckersäure. Sm. 174° (B. 27, 129).

$C_{10}H_{11}O_{12}$

C 37,0 — H 3,7 — O 59,3 — M. G. 324.

1) Säure (aus Lävulinsäure). Ag_3 (B. 20, 1325). — I, 601. $C_{10}H_{12}N_2$

C 75,0 — H 7,5 — N 17,5 — M. G. 160.

1) γ -[4-Methylphenyl]azopropen. Sm. 96–97°; Sd. 110°_{20–20} (B. 26, 2180). — IV, 1382.

2) 1-Phenyl-3-Methyl-4,5-Dihydropyrazol. Sm. 72–74° (73–75°); Sd. 289° (B. 26, 108; 28, 713; A. 253, 56). — IV, 488, 937.

3) 1-[2-Methylphenyl]-4,5-Dihydropyrazol. Sd. 271° (G. 18, 371). — IV, 488.

4) 1-[4-Methylphenyl]-4,5-Dihydropyrazol. Sm. 60,5°; Sd. 281–282° (G. 18, 364). — IV, 488.

5) 2-Phenyl-3,4,5,6-Tetrahydro-1,3-Diazin (Trimethylenbenzenylamidin). Fl. (2HCl, PtCl₄) (B. 21, 2337; 26, 2122). — IV, 841.

6) 3-Methyl-2-Aethylindazol. Fl. HCl (A. 227, 321). — IV, 869.

7) 3-Methyl-1-Aethylisindazol. Sm. 30°; Sd. 234–235°₇₄₁. (2HCl, PtCl₄), H₂SO₄ (A. 221, 289; 227, 335). — IV, 870.

8) 2-Methyl-1-Aethylbenzimidazol. Sm. 179–180° (J. pr. [2] 41, 166). — IV, 876.

9) isom. 2-Methyl-1-Aethylbenzimidazol? (Acetaldehydin). Sd. 257°₆₀. HJ + H₂O, HNO₃ (B. 27, 2188). — IV, 876.

10) 5-Methyl-2-Aethylbenzimidazol. Sm. 166° (B. 23, 1879). — IV, 885.

11) 1,2,5-Trimethylbenzimidazol. Sm. 142°. HCl + $\frac{1}{2}$ H₂O, (2HCl, PtCl₄) (B. 20, 1878; 24, 2083; 26, 196; 28, 3043; A. 273, 283). — IV, 881.12) 2,5,7-Trimethylbenzimidazol. HCl, (2HCl, PtCl₄), HNO₃ (B. 5, 922). — IV, 886.13) 2,4-Dimethyl-1,4-Dihydro-1,3-Benzdiazin. Sd. 280°₇₇. (2HCl, PtCl₄), Pikrat (B. 26, 1897). — IV, 886.14) 2-Aethyl-3,4-Dihydro-1,3-Benzdiazin. Sm. 99–102°. H₂Cr₂O₇ (B. 25, 3037). — IV, 886.15) 3-Aethyl-3,4-Dihydro-1,3-Benzdiazin. Fl. (2HCl, PtCl₄), Pikrat (B. 25, 3039). — IV, 871.

16) 2,3-Dimethyl-3,4-Dihydro-1,3-Benzdiazin. Sm. 75–77°; Sd. 300 bis 305° (B. 24, 3096). — IV, 884.

17) 2,4-Dimethyl-1,2-Dihydro-2,3-Benzdiazin. HCl, (2HCl, PtCl₄), Pikrat (B. 30, 3031). — IV, 885.18) Dihydronikotyrin. Sd. 248°. (2HCl, PtCl₄), Pikrat (B. 31, 2020).19) Nitril d. 2-Amido-1-Isopropylbenzol-4-Carbonsäure. Sm. 45°; Sd. 305°. HCl, (2HCl, PtCl₄) (B. 2, 183). — II, 1388.

20) Nitril d. 2-Amido-1,3,5-Trimethylbenzol-6-Carbonsäure. Sm. 160° (A. 278, 218). — II, 1392.

21) Nitril d. 1-Dimethylamidomethylbenzol-4-Carbonsäure. (2HCl, PtCl₄) (B. 28, 1141).22) Nitril d. α -Phenylamidobuttersäure. Sm. 39° (B. 25, 2035). — II, 434.23) Nitril d. γ -Phenylamidobuttersäure. (2HCl, PtCl₄), Pikrat (B. 25, 3042). — II, 434.24) Nitril d. β -Phenylamidoisobuttersäure. Sm. 93–94° (B. 15, 2040). — II, 435.25) Nitril d. α -[2-Methylphenyl]amidopropionsäure. Sm. 72–73° (B. 15, 2038). — II, 471.26) Nitril d. α -[4-Methylphenyl]amidopropionsäure. Sm. 81–82° (B. 15, 2037). — II, 507. $C_{10}H_{12}N_4$

C 63,8 — H 6,4 — N 29,8 — M. G. 188.

1) β -Tetraamidonaphtalin. 4HJ (Bl. 3, 267). — IV, 1273.

2) 3-Methylimido-2-Methyl-1-Phenyl-2,3-Dihydro-1,2,4-Triazol. Fl. Pikrat (G. 29 [1] 27).

3) 3,4-Dimethyl-1-[β -Amidophenyl]-1,2,5-Triazol. Sm. 123–124°. HCl (J. pr. [2] 57, 167). — IV, 1107.4) 5-[4-Isopropylphenyl]-1,2,3,4-Tetrazol. Sm. 189°. NH₄, Ba + 3H₂O (B. 30, 2010). — IV, 1273.5) 6,7-Diamido-2,3-Dimethyl-1,4-Benzdiazin + H₂O. subl. bei 130 bis 140°. + C₂H₆O (B. 22, 443). — IV, 1244.

6) 5,7-Diamido-2,3-Dimethyl-1,4-Benzdiazin. Sm. 228° (B. 30, 541). — IV, 1243.

- C₁₀H₁₁N₆** C 55,5 — H 5,5 — N 38,9 — M. G. 216.
 1) 5-[4-Dimethylamidophenyl]azo-1,2,4-Triazol. Sm. 250° u. Zers. (A. 303, 50).
- C₁₀H₁₁Cl₂** 1) *p*-Dichlor-3-Isopropyl-1-Methylbenzol. Sd. 280° (A. 210, 53).
 2) 2,5-Dichlor-4-Isopropyl-1-Methylbenzol. Sd. 240–244° (B. 10, 1252; G. 26 [2] 406). — II, 55.
 3) 4-Isopropyl-1-Dichlormethylbenzol. Sd. 255–260° (A. 70, 45; 106, 258; A. Spl. 2, 311). — II, 55.
 4) *p*-Dichlor-*p*-Diäthylbenzol. Sd. 247° (A. ch. [6] 6, 482). — II, 54.
 5) 5,6-Dichlor-1,2,3,4-Tetramethylbenzol. Sm. 195° (B. 26, 2944).
 6) 3,6-Dichlor-1,2,4,5-Tetramethylbenzol. Sm. 189–190°; Sd. 275° (B. 25, 1523; 26, 2944). — II, 55.
- C₁₀H₁₁Cl₄** 1) Tetrachloreicuten. Fl. (Z. 1869, 248). — III, 542.
 2) Tetrachlorterebenten (A. 37, 190).
- C₁₀H₁₁Br₂** 1) $\alpha\alpha$ -Dibrombutylbenzol. Fl. (B. 18, 1276). — II, 68.
 2) $\alpha\delta$ -Dibrombutylbenzol. Fl. (Soc. 59, 891). — II, 68.
 3) $\gamma\delta$ -Dibrombutylbenzol. Fl. (A. 171, 229; 216, 125). — II, 68.
 4) $\alpha\beta$ -Dibromisobutylbenzol. Sm. 70–71° (J. 1877, 382; B. 9, 261; 18, 1276; Soc. 35, 140; M. 18, 604). — II, 68.
 5) $\alpha\beta$ -Dibromisobutylbenzol. Fl. (Soc. 35, 138). — II, 69.
 6) 3,5-Dibrom-1-Isobutylbenzol. Sd. 276–277°₁₁₈ (B. 21, 2956). — II, 69.
 7) 4,5-Dibrom-2-Propyl-1-Methylbenzol. Sd. 285° (J. pr. [2] 43, 573). — II, 69.
 8) 2,5-Dibrom-4-Propyl-1-Methylbenzol. Sd. 283–284° (J. pr. [2] 43, 578). — II, 69.
 9) 4,6-Dibrom-3-Isopropyl-1-Methylbenzol. Sd. 281–283° (272–273°) (J. pr. [2] 43, 568; A. 235, 282). — II, 69.
 10) 2,5-Dibrom-4-Isopropyl-1-Methylbenzol. Sd. 272° (B. 13, 903; G. 18, 518). — II, 70.
 11) 1,4-Di[α -Bromäthyl]benzol. Sm. 112° (B. 27, 2528).
 12) *p*-Dibrom-*p*-Aethyl-*p*-Dimethylbenzol. Sm. 196–202° (Z. 1867, 689). — II, 70.
 13) 5,6-Dibrom-1,2,3,4-Tetramethylbenzol. Sm. 210° (B. 19, 1213; 25, 1527). — II, 70.
 14) 4,6-Dibrom-1,2,3,5-Tetramethylbenzol. Sm. 199° (209°) (B. 8, 356; 15, 1853; 27, 3443; Am. 15, 266). — II, 70.
 15) 3,6-Dibrom-1,2,4,5-Tetramethylbenzol. Sm. 202–203° (199°); Sd. 317° (Z. 1870, 162; J. 1879, 372; A. ch. [6] 1, 515; B. 20, 2838). — II, 70.
 16) Dibromlaurol? Sm. 201° (A. ch. [5] 14, 93). — II, 71.
- C₁₀H₁₁Br₄** 1) Tetrabromterpen (aus Colophonium). Fl. (A. ch. [6] 1, 240). — III, 537.
- C₁₀H₁₁S** 1) Benzyläther d. β -Merkaptopropen. Sd. 225° (B. 29, 1652).
- C₁₀H₁₁O₂** 1) Verbindung (aus Muskatnussöl) = (C₁₀H₁₁O₂)₂. 2 isom. Verb. Sd. 260 bis 280° u. 280–290° (B. 6, 147). — III, 543.
- C₁₀H₁₁N** C 81,6 — H 8,8 — N 9,5 — M. G. 147.
 1) Methylallylphenylamin. Sd. 213°₇₅₅. Pikrat (B. 32, 524).
 2) γ -Benzylamidopropen (Allylbenzylamin). Sd. 205–208° (B. 32, 80).
 3) Propylimidomethylbenzol (Propylbenzylidenamin). Sd. 208–210°₇₄₄ (A. 245, 282). — III, 28.
 4) 1-Amido-1,2,3,4-Tetrahydronaphtalin. Sd. 246,5°. HCl, (2HCl, PtCl₄ + 2H₂O), HNO₃ (B. 22, 964; Soc. 75, 152). — II, 586.
 5) 2-Amido-1,2,3,4-Tetrahydronaphtalin. Sd. 249,5°₇₁₀ u. geringer Zers. HCl, (HCl, HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), HNO₃, HNO₂, H₂CO₃, H₂SO₄, H₂Cr₂O₇, Acetat (B. 21, 850, 1115; 23, 876; 27, 1450; Am. 16, 455). — II, 587.
 6) 5-Amido-1,2,3,4-Tetrahydronaphtalin. Sd. 275°₇₁₂. HCl, (HCl, HgCl₂), HNO₃, H₂SO₄ + $\frac{1}{2}$ H₂O, Oxalat, Pikrat (B. 21, 1789). — II, 586.
 7) 6-Amido-1,2,3,4-Tetrahydronaphtalin. Sm. 38°; Sd. 275–277°₇₁₃ (B. 23, 882). — II, 588.
 8) 1,2-Dimethyl-2,3-Dihydroindol. Sd. 222–225°₇₃₃ (B. 26, 1294). — IV, 188.
 9) 2,2-Dimethyl-2,3-Dihydroindol. Sd. 210°. HCl, (2HCl, PtCl₄) (B. 25, 2977). — IV, 206.
 10) 2,3-Dimethyl-2,3-Dihydroindol. Sd. 229–231°₇₅₀ (A. 242, 371). — IV, 206.

- C₁₀H₁₃N**
- 11) 3,3-Dimethyl-2,3-Dihydroindol. Sm. 34—35°; Sd. 224—230°₇₅₆. (2HCl, PtCl₄), Oxalat (B. 29, 2471; M. 16, 864; 18, 116). — IV, 206.
 - 12) 2-Aethyl-1,3-Dihydroisindol. Sd. 219—220°. (2HCl, PtCl₄) (B. 31, 1706).
 - 13) 1-Methyl-1,2,3,4-Tetrahydrochinolin (Kairolin). Sd. 242—244°₇₃₀. HCl, (2HCl, PtCl₄), Sulfat, Pikrat, Pikrolonat (B. 14, 889; 16, 732; 18, 595, 2388; 28, 1172; 32, 734 Anm.; Ph. Ch. 22, 391). — IV, 191.
 - 14) 2-Methyl-1,2,3,4-Tetrahydrochinolin. Sd. 243—246°₆₉₉ (253°). HCl, (2HCl, PtCl₄), Pikrat (B. 14, 889; 16, 732, 2467; 17, 1698; 27, 77, 2693; 29, 2980; A. 242, 358; Bl. [3] 19, 405). — IV, 203.
 - 15) d-2-Methyl-1,2,3,4-Tetrahydrochinolin. Sd. 250°. Bitartrat (B. 27, 77). — IV, 205.
 - 16) 4-Methyl-1,2,3,4-Tetrahydrochinolin. Sd. 250—253°₇₄₀ (B. 19, 3300). — IV, 205.
 - 17) 6-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 38°; Sd. 262,3°₇₁₉. HCl (B. 24, 2067). — IV, 205.
 - 18) 8-Methyl-1,2,3,4-Tetrahydrochinolin. Sd. 255—257°₇₁₇. HCl, Pikrat (B. 21, 866; 24, 2061; 25, 2805). — IV, 205.
 - 19) 1-Methyl-1,2,3,4-Tetrahydroisochinolin. (2HCl, PtCl₄), Pikrat (G. 23 [2] 410). — IV, 201.
 - 20) Base (aus α-Methylketol). Fl. (A. 242, 359). — IV, 206.
 - 21) Base (aus Ochsenfibrin). Sd. 200°. (2HCl, PtCl₄) (J. Th. 1887, 487). — IV, 207.
 - 22) Base (aus 1,2-Phenylendiessigsäurenitril). Oxalat (G. 22 [2] 512). — IV, 206.
 - 23) Base (aus d. Verb. C₁₄H₁₈N₂). Sd. 275—285° (B. 20, 2457). — IV, 943.
 - 24) Verbindung (aus Gelsemininjodmethylat (C. 1896 [1] 111).
C 68,6 — H 7,4 — N 34,0 — M. G. 175.
- C₁₀H₁₃N₃**
- 1) 6-Amido-1,2,5-Trimethylbenzimidazol. Sm. 237—237,5°. 2HCl, Pikrat (B. 31, 2517).
 - 2) 7-Amido-1,2,5-Trimethylbenzimidazol. Sm. 129—130°. + ½CH₃O, 2HCl, Pikrat (B. 31, 2521).
 - 3) Nitril d. α-[β-Phenylhydrazido]buttersäure. Sm. 37° (B. 25, 2037). — IV, 740.
 - 4) Nitril d. α-[β-Phenylhydrazido]isobuttersäure. Sm. 70° (B. 17, 1458; 25, 3320). — IV, 740.
- C₁₀H₁₃Cl**
- 1) α-Chlorbutylbenzol. Fl. (B. 7, 1128). — II, 54.
 - 2) 4-Chlor-1-Isobutylbenzol. Sd. 216° (J. pr. [2] 36, 399). — II, 54.
 - 3) 3-[β-Chlorpropyl]-1-Methylbenzol. Sd. 218—220° (Bl. [3] 9, 226). — II, 54.
 - 4) 5-Chlor-3-Isopropyl-1-Methylbenzol. Sd. 222—223° (B. 29, 170).
 - 5) 2-Chlor-4-Isopropyl-1-Methylbenzol. Sd. 216—218°₇₄₆ (B. 6, 1090; 10, 1249; 29, 315; G. 18, 299; Soc. 73, 854). — II, 55.
 - 6) 3-Chlor-4-Isopropyl-1-Methylbenzol. Sd. 213—214°_{735,6} (B. 11, 364; 29, 316; J. pr. [2] 3, 64; G. 16, 288). — II, 55.
 - 7) 4-Isopropyl-1-Chlormethylbenzol. Sd. 225—229° (G. 14, 277). — II, 55.
 - 8) 4-Chlorisopropyl-1-Methylbenzol. Sd. 228° u. Zers. (G. 21, 86; J. 1875, 414; 1879, 369). — II, 55.
 - 9) 2-Chlor-2-Diäthylbenzol. Sd. 216—219° (A. ch. [6] 6, 413). — II, 54.
 - 10) 2-Chlor-1,2,3,4-Tetramethylbenzol. Sd. 240° (B. 25, 1524). — II, 55.
 - 11) 3-Chlor-1,2,4,5-Tetramethylbenzol. Sm. 48°; Sd. 237—238° (B. 25, 1523; 26, 2944). — II, 55.
- C₁₀H₁₃Cl₃**
- 1) Pentachlormenthen (Bl. 26, 86).
- C₁₀H₁₃Br**
- 1) 2-Brom-1-Butylbenzol. Sd. 240—242° (B. 24, 1336). — II, 68.
 - 2) 4-Brom-1-[sec.]Butylbenzol. Sd. 235,5—237°₇₃₉ (M. 9, 847). — II, 68.
 - 3) 3-Brom-1-Isobutylbenzol. Sd. 231—232°₇₁₀ (B. 21, 2944). — II, 68.
 - 4) 4-Brom-1-Isobutylbenzol. Sd. 233—233,5°₇₃₉ (M. 9, 617, 846). — II, 68.
 - 5) 2-Brom-1-[tert.]Butylbenzol. Sd. 230—230,5°₇₃₆ (M. 9, 617, 848). — II, 69.
 - 6) 4-Brom-3-Isopropyl-1-Methylbenzol. Sd. 224° (A. 235, 293). — II, 69.
 - 7) 6-Brom-3-Isopropyl-1-Methylbenzol. Sd. 225° (B. 15, 41; A. 235, 281). — II, 69.
 - 8) 2-Brom-4-Isopropyl-1-Methylbenzol. Sd. 233—235° (B. 5, 267; 19, 1732; A. 172, 311). — II, 69.

- C₁₀H₁₃Br** 9) 3-Brom-4-Isopropyl-1-Methylbenzol. *Sd.* 232—233°_{740,9} (*B.* 19, 1731; *G.* 18, 292). — II, 69.
- 10) ?-Brom-1,3-Diäthylbenzol. *Sd.* 238° (*B.* 21, 2830). — II, 69.
- 11) 6-Brom-4-Aethyl-1,3-Dimethylbenzol. *Sd.* 247—248° (*B.* 25, 1534). — II, 70.
- 12) ?-Brom-1,2,3,4-Tetramethylbenzol. *Sm.* 30°; *Sd.* 265° (*B.* 25, 1526). — II, 70.
- 13) ?-Brom-1,2,3,5-Tetramethylbenzol. *Sd.* 252—254° (*A.* 198, 388). — II, 70.
- 14) 3-Brom-1,2,4,5-Tetramethylbenzol. *Sm.* 61°; *Sd.* 262—263° (*A.* 198, 388; 216, 210; *B.* 20, 2837). — II, 70.
- C₁₀H₁₃Br₃** 1) Tribromcamphen. *Sm.* 72—73° (75—76°) (*J.* 1887, 755; *Soc.* 71, 287). — III, 535.
- C₁₀H₁₃J** 1) 4-Jod-1-Isobutylbenzol. *Sd.* 255—256° (*B.* 17, 1233). — II, 77.
- 2) 3-Jod-1,2,4,5-Tetramethylbenzol. *Sm.* 80°; *Sd.* 285—290° (*B.* 25, 1522). — II, 77.
- C₁₀H₁₄O** C 80,0 — H 9,3 — O 10,7 — M. G. 150.
- 1) α-Oxy-α-Phenylbutan. *Fl.* (*Soc.* 59, 886). — II, 1065.
- 2) γ-Oxy-α-Phenylbutan. *Sm.* 68° (*B.* 6, 255). — II, 1065.
- 3) α-Oxy-α-Phenyl-β-Methylpropan. *Sd.* oberh. 300° (*J. pr.* [2] 46, 481). — II, 1066.
- 4) α-Oxy-β-[4-Methylphenyl]propan. *Sd.* 239° (*G.* 21, 85). — II, 1066.
- 5) α-Oxy-α-[3,4-Dimethylphenyl]äthan. *Sd.* 255—260° (*J. pr.* [2] 41, 410). — II, 1066.
- 6) 4-Oxy-1-tert. Butylbenzol. *Sm.* 97,5—98° (99°); *Sd.* 236—238°. Na (*A.* 211, 242; *B.* 14, 1474, 1843; 15, 150, 153; 23, 2418; *R.* 12, 178; *J. pr.* [2] 36, 390; *Am.* 16, 635; *Bl.* [3] 19, 757). — II, 765.
- 7) 2-Oxy-4-Propyl-1-Methylbenzol. *Sd.* 239,4—240,5° (cor.) (*Bl.* [3] 13, 896).
- 8) 3-Oxy-β-norm-Propyl-1-Methylbenzol. *Sd.* 230—235°₇₃₄ (*G.* 12, 167, 332). — II, 765.
- 9) 5-Oxy-3-Isopropyl-1-Methylbenzol (s-Carvakrol). *Sm.* 54°; *Sd.* 241° (*B.* 27, 2347).
- 10) 6-Oxy-3-Isopropyl-1-Methylbenzol. *Sd.* 231° (*A.* 210, 40; *B.* 19, 1413). — II, 766.
- 11) ?-Oxy-3-Isopropyl-1-Methylbenzol. *Sd.* 227,5—229,5°₇₅₈ (*G.* 12, 552). — II, 766.
- 12) 2-Oxy-4-Isopropyl-1-Methylbenzol (Carvakrol). *Sd.* 236,5—237°. Na. Lit. bedeutend. — II, 766.
- 13) 3-Oxy-4-Isopropyl-1-Methylbenzol (Thymol). *Sm.* 51,5° (50°); *Sd.* 231,8°. Na, Al. Lit. bedeutend. — II, 769.
- 14) 3-Oxy-β-Isopropyl-1-Methylbenzol. *Sd.* 237,7° (*G.* 12, 505). — II, 765.
- 15) 4-β-Oxy-1,3-Diäthylbenzol. *Sd.* 225° (*B.* 21, 2830). — II, 774.
- 16) 2-Oxy-1,4-Diäthylbenzol. *Sd.* 126—127°₁₇ (*B.* 22, 317). — II, 775.
- 17) ?-Oxy-2-Aethyl-1,4-Dimethylbenzol. *Sm.* 37°; *Sd.* 245° (*B.* 23, 990). — II, 775.
- 18) 5-Oxy-1,2,3,4-Tetramethylbenzol. *Sm.* 86—87° (80—81°); *Sd.* 266° (248—250°) (*B.* 21, 645, 907). — II, 775.
- 19) 4-Oxy-1,2,3,5-Tetramethylbenzol. *Sm.* 108° (*B.* 15, 1854). — II, 775.
- 20) 3-Oxy-1,2,4,5-Tetramethylbenzol. *Sm.* 117°; *Sd.* 249—250° (*B.* 18, 2843). — II, 775.
- 21) ?-Oxy-?-Tetramethylbenzol. *Sm.* 80—81° (*B.* 17, 1916). — II, 775.
- 22) 4-Isopropyl-1-Oxymethylbenzol (4-Isopropylbenzylalkohol; Cuminalkohol). *Sd.* 246,6° (242°) (*A.* 92, 66; 192, 224; *B.* 10, 153; *G.* 14, 498). — II, 1066.
- 23) 2,4,5-Trimethyl-1-Oxymethylbenzol (2,4,5-Trimethylbenzylalkohol). *Sm.* 168° (*B.* 24, 2411). — II, 1066.
- 24) 3,4,5-Trimethyl-1-Oxymethylbenzol (3,4,5-Trimethylbenzylalkohol). *Sm.* 78° (*B.* 24, 2413). — II, 1067.
- 25) Methyläther d. 2-Oxy-1-Propylbenzol. *Sd.* 207—209° (*B.* 12, 295). — II, 761.
- 26) Methyläther d. 4-Oxy-1-Propylbenzol. *Sd.* 214—214,5° (*B.* 12, 295). — II, 761.

- C₁₀H₁₄O**
- 27) Dihydroanethol (Methyläther d. 4-Oxy-1-norm. Propylbenzol?). *Sd.* 220° (*B.* 13, 145). — II, 852.
 - 28) Methyläther d. 2-Oxy-1-Isopropylbenzol. *Sd.* 198—199°₇₅₁ (*G.* 16, 114). — II, 761.
 - 29) Methyläther d. 3-Oxy-1-Isopropylbenzol. *Sd.* 212—213° (*B.* 23, 1163). — II, 761.
 - 30) Methyläther d. 4-Oxy-1-Isopropylbenzol. *Sd.* 212—213° (*J.* 1876, 455). — II, 762.
 - 31) Methyläther d. 5-Oxy-1,2,4-Trimethylbenzol. *Sd.* 209—211° (213 bis 214°) (*B.* 17, 1918; 18, 2657). — II, 763.
 - 32) Methyläther d. 2-Oxy-1,3,5-Trimethylbenzol. *Sd.* 200—203° (*B.* 8, 60). — II, 764.
 - 33) Aethyläther d. α -Oxy- α -Phenyläthan. *Sd.* 185—187° (*Z.* 1871, 131). — II, 1063.
 - 34) Aethyläther d. 3-Methyl-1-Oxymethylbenzol. *Sd.* 202°₇₄₀ (*B.* 15, 1746). — II, 1064.
 - 35) Aethyläther d. 4-Methyl-1-Oxymethylbenzol. *Sd.* 203°₇₄₀ (*B.* 15, 1745). — II, 1064.
 - 36) Aethyläther d. 2-Oxy-1-Aethylbenzol. *Sd.* 189—192° (*B.* 31, 1824).
 - 37) Aethyläther d. 4-Oxy-1-Aethylbenzol. *Sd.* 200° (*G.* 14, 485). — II, 757.
 - 38) Aethyläther d. 2-Oxy-1,4-Dimethylbenzol. *Sd.* 205° (198,8°₇₄₀) (*B.* 18, 2665; *J. pr.* [2] 35, 25). — II, 759.
 - 39) Propyläther d. Oxymethylbenzol. *Sd.* 196° (*B.* 32, 80).
 - 40) norm. Propyläther d. 2-Oxy-1-Methylbenzol. *Sd.* 204,1° (*A.* 243, 38). — II, 737.
 - 41) norm. Propyläther d. 3-Oxy-1-Methylbenzol. *Sd.* 210,6° (*A.* 243, 42). — II, 743.
 - 42) norm. Propyläther d. 4-Oxy-1-Methylbenzol. *Sd.* 210,4° (*A.* 243, 45). — II, 748.
 - 43) norm. Butyläther d. Oxybenzol. *Sd.* 210,3° (*A.* 243, 36). — II, 653.
 - 44) Isobutyläther d. Oxybenzol. *Sd.* 198° (*B.* 3, 780; 19, 1820). — II, 653.
 - 45) Camphenon. *Sm.* 168—170° (*O.* 23 [2] 351; 24 [2] 47, 318). — III, 500.
 - 46) Isocamphenon. *Sm.* 92° (*G.* 26 [2] 47). — III, 501.
 - 47) β -[4-Keto-5-Phenyl-1,2,3,4-Tetrahydro-2-Phenyl]propen (Carvon). *Sd.* 224,5—225°. *HCl*, *HBr* (*J.* 1863, 548; *J. pr.* [2] 34, 322; *A.* 85, 246; 281, 136; 305, 224; *B.* 1, 203; 6, 1088; 14, 1376; 19, 562; 20, 488, 491, 2071; 25, 1114; 28, 2145, 2148; *Ph. Ch.* 27, 534). — II, 768.
 - 48) Pinocarvon. *Sd.* 222—224° (*A.* 277, 150; 279, 387; 300, 286). — III, 114.
 - 49) Dehydrocampher. *Sm.* 160° (*B.* 14, 1376). — III, 496.
 - 50) Eucarvol (Eucarvon; 1-Methyl-4-Propyl-2-Keto-2,3-Dihydrobenzol?). *Sd.* 210—215° (*B.* 27, 812; *A.* 305, 237). — II, 769.
 - 51) 2-Keto-1,1-Bi[R-Pentamethylen] (Bicyklo-Penten-Pentanon). *Sd.* 253 bis 254° (*A.* 275, 313; *B.* 29, 2963).
 - 52) Keton (aus sulfocamphersaurem NH₃). *Sd.* 195—196° (*B.* 20, 2963).
 - 53) Aldehyd d. Camphensäure. *Sm.* 67°; *Sd.* 220° (*B.* 26 [2] 232).
 - 54) Aldehyd d. Terebentensäure. *Sd.* 205—207° (*B.* 26 [2] 232).
 - 55) Verbindung (aus Myrrhenöl). *Sd.* 262—263° (*B.* 23 [2] 494). — III, 548.
 - 56) Verbindung (aus Polychroit). *Sd.* 208—210° (*Z.* 1867, 555). — III, 602.
 - 57) Verbindung (aus Terpentinal). *Sd.* 180—205° (*B.* 29 [2] 658).
- C₁₀H₁₄O₂**
- C 72,3 — H 8,4 — O 19,3 — M. G. 166.
- 1) $\alpha\delta$ -Dioxybutylbenzol. *Sm.* 75°; *Sd.* 200° (*A. ch.* [5] 26, 476; *Soc.* 59, 890). — II, 1099.
 - 2) 1,4-Di[α -Oxyäthyl]benzol. *Fl.* (*B.* 27, 2527). — II, 1099.
 - 3) 2,5-Dioxy-4-Propyl-1-Methylbenzol. *Sm.* 138° (*Bl.* [3] 13, 980).
 - 4) 2,5-Dioxy-4-Isopropyl-1-Methylbenzol (Hydrothymochinon). *Sm.* 139,5°; *Sd.* 290° (*A.* 101, 121; 102, 121; 170, 363; *J. pr.* [2] 3, 54; [2] 23, 178). — II, 970.
 - 5) 3,6-Dioxy-1,2,4,5-Tetramethylbenzol (Durohydrochinon). *Sm.* 210 bis 224° (*B.* 29, 2174).
 - 6) 3-Methyläther d. 3,4-Dioxy-1-Propylbenzol. *Sd.* 240—241° (*M.* 4, 188). — II, 969.

$C_{10}H_{14}O_2$

- 7) 2-Methyläther d. 5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol. Sm. 101° (A. 302, 117).
- 8) Dimethyläther d. $\beta\beta$ -Dioxy- α -Phenyläthan. Sd. 219—221°₇₅₄ (cor.) (B. 31, 1990).
- 9) Dimethyläther d. 2,5-Dioxy-1,4-Dimethylbenzol. Sm. 108° (B. 23, 3251). — II, 969.
- 10) Monäthyläther d. 1,4-Di[Oxymethyl]benzol. Sd. 250—252° (Bl. 16, 193; 42, 153). — II, 1097.
- 11) Methyläthyläther d. 3,4-Dioxy-1-Methylbenzol. Sd. 223—224° (A. 106, 352). — II, 958.
- 12) Diäthyläther d. 1,2-Dioxybenzol. Sm. 43—45° (A. 159, 246; M. 10, 152). — II, 909.
- 13) Diäthyläther d. 1,3-Dioxybenzol. Sm. 12,4°; Sd. 234,4—235,2° (B. 11, 1569; 20, 1141; J. 1872, 546; M. 11, 301; 16, 883). — II, 916.
- 14) Diäthyläther d. 1,4-Dioxybenzol. Sm. 71—72° (B. 12, 1502; A. 215, 145). — II, 940.
- 15) Methylpropyläther d. 1,2-Dioxybenzol. Sd. 240—245° (Bl. 29, 270). — II, 909.
- 16) Methylpropyläther d. 1,3-Dioxybenzol. Sd. 226° (M. 5, 489). — II, 916.
- 17) Methylpropyläther d. 1,4-Dioxybenzol. Sm. 24° (M. 5, 234). — II, 940.
- 18) Methylphenyläther d. $\alpha\gamma$ -Dioxypropan. Sd. 230—231° (B. 24, 2639). — II, 655.
- 19) Methyl-4-Methylphenyläther d. $\alpha\beta$ -Dioxyäthan. Sd. 230° (B. 24, 195). — II, 749.
- 20) Äthylphenyläther d. $\alpha\beta$ -Dioxyäthan. Sd. 230° (Bl. 40, 324; M. 15, 677; Soc. 69, 171, 1503). — II, 655.
- 21) β -[3,5-Diketo-4-Methylhexahydrophenyl]propen. Sm. 193—194° (B. 31, 1811).
- 22) Campherchinon. Sm. 198° (A. 274, 85; 281, 346; G. 23 [1] 88; 24 [2] 321; B. 27, 1446; 30, 657; Soc. 69, 323). — III, 501.
- 23) Triäthylbuttersäure. Sd. 250—260° (A. 202, 310). — I, 537.
- 24) 3-Isopropyl-1,2-Dihydrobenzol-6-Carbonsäure (Dihydrocuminsäure). Sm. 130—133°; Sd. 176°₁₄; subl. bei 100°. Ag (B. 29, 1926).
- 25) Camphensäure. Sm. 65°; Sd. 263—264° (B. 26 [2] 232).
- 26) Dehydrocamphenylsäure. Sm. 147,5—148° (C. 1897 [1] 1056).
- 27) Lakton d. 3-Oxy-1,1,2-Trimethyl-2,3-Dihydro-R-Penten-5-Methylcarbonsäure (Campholenlakton). Sm. 32—34°; Sd. 160—161°₂₈ (B. 30, 417; Bl. [3] 15, 28).
- 28) d-Carvenolid. Sm. 41—42° (A. 305, 250).
- 29) l-Carvenolid. Sm. 41—42° (A. 305, 250).
- 30) i-Carvenolid. Sm. 71—72°; Sd. 123°₁₀ (A. 286, 126).
- 31) Pulegenolid. Sm. 44—45°; Sd. 265—268° (A. 300, 262, 265).
- 32) Verbindung (aus Campherchinon). Sm. 113° (B. 31, 3259).

 $C_{10}H_{14}O_3$

- C 65,9 — H 7,7 — O 26,4 — M. G. 182.
- 1) $\alpha\gamma\delta$ -Trioxy- α -Phenylbutan. Fl. (Bl. [3] 13, 124).
 - 2) Monomethyläther d. 3,4,5-Trioxy-1-Propylbenzol. Sd. 290°. K₂ (M. 4, 182). — II, 1024.
 - 3) Monomethyläther d. 2,4,6-Trioxy-1,3,5-Trimethylbenzol. Sm. 120 bis 121° (M. 19, 264).
 - 4) Trimethyläther d. 4-Oxy-1-Dioxymethylbenzol. Sd. 253°₇₆₄ (B. 30, 3058).
 - 5) Trimethyläther d. 3,4,5-Trioxy-1-Methylbenzol. Sd. 326—327° (B. 26, 2018). — II, 1023.
 - 6) 1,1-Dimethyläther-4-Äthyläther d. 4-Oxy-1-Dioxymethylbenzol. Sd. 249—250° (B. 31, 1016).
 - 7) Diäthyläther d. 1,2,3-Trioxybenzol. Sm. 79°; Sd. 262° (B. 9, 126; 11, 799; M. 2, 212). — II, 1011.
 - 8) Diäthyläther d. 1,3,5-Trioxybenzol. Sm. 88—89° (75°) (B. 17, 2106; M. 17, 462; 18, 355, 745). — II, 1012.
 - 9) β -[2,4-Dimethylphenyl]äther d. $\alpha\alpha\beta$ -Trioxyäthan. Sm. 62° (B. 30, 1708).

$C_{10}H_{14}O_8$

- 10) β -[2,5-Dimethylphenyl]äther d. $\alpha\alpha\beta$ -Trioxyäthan. Sm. 63—64° (B. 30, 1708).
- 11) β -[3,4-Dimethylphenyl]äther d. $\alpha\alpha\beta$ -Trioxyäthan. Sm. 38° (B. 30, 1707).
- 12) β -[4-Aethylphenyl]äther d. $\alpha\alpha\beta$ -Trioxyäthan. Sm. 49° (B. 30, 1708).
- 13) 2,4-Diketo-6-Oxy-1,1,3,3-Tetramethyl-1,2,3,4-Tetrahydrobenzol? (Tetramethylphloroglucin) (M. 11, 104, 287). — II, 1024.
- 14) Pinarin. Sm. 66—68° (B. 29, 2788).
- 15) d-Ketopinsäure. Sm. 234°. Ca, Ba, Strychninsalz (C. 1897 [2] 550; Soc. 69, 1401).
- 16) β -Anhydrodigitsäure. Sm. 262—263° (B. 27 [2] 882). — III, 582.
- 17) Anhydrid d. R-Tetramethylenearbonsäure. Sd. 160° (B. 21, 2697). — I, 515.
- 18) Anhydrid d. α -Buten- γ -Carbonsäure? (Anhydrid d. Angelikasäure) (A. 86, 260). — I, 513.
- 19) Anhydrid d. ξ -Methyl- γ -Hepten- $\alpha\gamma$ -Dicarbonsäure (A. d. Isovaleralglutarsäure). Sd. 320° (A. 282, 357).
- 20) Anhydrid d. d-Camphersäure. Sm. 216—217°; Sd. über 270° (A. 87, 294; 274, 80; A. ch. [5] 14, 86; [6] 18, 385; [6] 23, 221; B. 10, 1881; 26, 285; 30, 657, 661; Ph. Ch. 10, 419; C. 1895 [2] 971). — I, 725.
- 21) Anhydrid d. l-Camphersäure (C. 1895 [2] 971).
- 22) Anhydrid d. i-Camphersäure. Sm. 223° (A. 127, 124; B. 12, 1756; C. 1895 [2] 971). — I, 726.
- 23) Anhydrid d. l-Isocamphersäure. Sm. 221°; Sd. 305° (B. 22 [2] 403). — I, 726.
- 24) Anhydrid d. Pseudocamphersäure. Sm. 53—54° (Soc. 73, 40).
- 25) Lakton d. Divalonsäure (Divalolakton). Sm. 39°; Sd. 309° u. ger. Zers. (A. 256, 126; 267, 203). — I, 694.
- 26) Lakton d. Säure $C_{10}H_{16}O_4$ (aus Dibromcampholid). Sm. 174° (C. 1896 [1] 306; Soc. 69, 43).
- 27) Aethylester d. 5-Oxy-3-Methyl-1,2-Dihydrobenzol-6-Carbonsäure. Sd. 150—152°₂₅ (B. 26, 881; 30, 641, 643, 956).
- 28) Aethylester d. 1-Keto-5-Methyl-1,2,3,4-Tetrahydrobenzol-2-Carbonsäure. Sd. 148—152°₂₅ (B. 26, 881; 30, 641, 643).
- 29) Aethylester d. Methyluvinsäure. Sd. 218—219° (A. 250, 209). — III, 709.
- 30) Verbindung (aus Cantharidin). Sm. 129° (G. 23 [1] 122). — III, 625.

 $C_{10}H_{14}O_4$

- 1) 3,4,5-Trimethyläther d. 3,4,5-Trioxy-1-Oxymethylbenzol. Sd. 228°₂₅ (A. 263, 252). — II, 1116.
- 2) Tetramethyläther d. 1,2,3,4-Tetraoxybenzol. Sm. 89° (B. 22, 2483; 29, 1808). — II, 1030.
- 3) Tetramethyläther d. 1,2,3,5-Tetraoxybenzol. Sm. 47°; Sd. 271° (B. 21, 610). — II, 1031.
- 4) 1,4-Diäthyläther d. 1,2,4,5-Tetraoxybenzol. Sm. 138° (B. 23, 1214). — II, 1031.
- 5) s-Tetracetyläthan. Sm. 191,2° (187°) (Am. 15, 529; G. 23 [2] 305).
- 6) Camphorylsuperoxyd (A. 129, 285; Soc. 45, 93; B. 29, 1728). — I, 726.
- 7) Tulucunin (J. 1859, 583). — III, 649.
- 8) Säure (aus Natriummälonsäurediäthylester, Allyljodid u. Isobutyljodid). Sm. 129° (B. 14, 337). — I, 732.
- 9) 3,5-Lakton d. 3-Oxy-1,1,2-Trimethyl-R-Pentamethylen-3,5-Dicarbonsäure (Camphansäure). Sm. 201°. Ba + 3 $\frac{1}{2}$ H₂O, Cd + 3 H₂O (A. 162, 264; 163, 333; 227, 3; B. 18, 3112; 26, 1201, 3047; 27, 3505; 28, 2165; M. 2, 229; C. 1895 [2] 972; Soc. 69, 65). — I, 771.
- 10) d-Camphansäure. Sm. 200° (C. 1895 [2] 972).
- 11) l-Camphansäure. Sm. 200—201° (C. 1895 [2] 972).
- 12) cis- π -Camphansäure (Lakton d. cis- π -Oxycamphersäure). Sm. 226° (C. 1896 [1] 308; 1896 [2] 247; Soc. 69, 943).
- 13) trans- π -Camphansäure (Lakton d. trans- π -Oxycamphersäure). Sm. 163 bis 164° (C. 1896 [1] 307; 1896 [2] 247; 1897 [2] 302; Soc. 69, 929).
- 14) d-trans- π -Camphansäure + H₂O (C. 1899 [1] 172).
- 15) l-trans- π -Camphansäure + H₂O. Sm. 164—165° (wasserfrei) (Soc. 71, 971; C. 1899 [1] 172).

$C_{10}H_{14}O_4$

- 16) **i-trans- π -Camphansäure.** Sm. 226° (*Soc.* 71, 983).
- 17) **Anhydrid d. π -Oxycamphersäure.** Sm. 86—87° u. 89—90° (*C.* 1896 [1] 307).
- 18) **Anhydrid d. Cineolsäure.** Sm. 77—78°; Sd. 157°₁₃₋₁₃ (*A.* 258, 320). — I, 772.
- 19) **Methylester d. 6-Oxy-4-Keto-2,2-Dimethyl-1,2,3,4-Tetrahydrobenzol-3-Carbonsäure.** Sm. 102° (*A.* 294, 300).
- 20) **Dimethylester d. cis-1,2,3,4-Tetrahydrobenzol-1,4-Dicarbonsäure.** Sm. 3° (*A.* 251, 284). — II, 1733.
- 21) **Dimethylester d. 1,2,3,4-Tetrahydrobenzol-1,6-Dicarbonsäure.** Fl. (*A.* 258, 200). — II, 1732.
- 22) **Dimethylester d. trans-1,2,3,4-Tetrahydrobenzol-2,3-Dicarbonsäure.** Sm. 39—40° (*A.* 258, 211). — II, 1733.
- 23) **Dimethylester d. 1,2,3,4-Tetrahydrobenzol-2,5-Dicarbonsäure.** Sm. 39° (*A.* 245, 161; *J. pr.* [2] 43, 5). — II, 1833.
- 24) **Dimethylester d. 1,2,3,4-Tetrahydrobenzol-5,6-Dicarbonsäure.** Fl. (*A.* 258, 203). — II, 1732.
- 25) **Aethylester d. α -Mesityloxydoxalsäure.** Sm. 21—22°. NH_4 , Cu + H_2O , Fe (*A.* 291, 125, 137).
- 26) **Aethylester d. β -Mesityloxydoxalsäure.** Sm. 59—60°; Sd. 260—263° (*A.* 291, 119, 137).
- 27) **Diäthylester d. $\alpha\gamma$ -Butadien- $\alpha\delta$ -Dicarbonsäure (D. d. Mukonsäure).** Sm. 63—64° (*Soc.* 57, 373). — I, 730.
- 28) **Diäthylester d. Dimethylfumarsäure.** Sd. 235—240° (*B.* 15, 1319).
- 29) **Diallylester d. $\alpha\beta$ -Dioxyäthan- $\alpha\beta$ -Dicarbonsäure.** Sd. 249—250°_{759.3} (*Ph. Ch.* 1, 387). — I, 656.
- 30) **Diacetat d. $\gamma\delta$ -Dioxy- $\alpha\epsilon$ -Hexadien (Divinylglykoldiacetat).** Sd. 128 bis 129°₄₀ (GRINER, thèse 67). — I, 415.
- 31) **Verbindung (aus d. Diäthylester d. ζ -Keto- β -Methylheptan- $\delta\epsilon$ -Dicarbonsäure).** Sm. 178—179° (*A.* 292, 239).
- 32) **Verbindung (aus d. isom. Verbindung $C_{10}H_{14}O_4$, Sm. 178—179°).** Sm. 141—142° (*A.* 292, 242).

 $C_{10}H_{14}O_5$

- C 56,1 — H 6,5 — O 37,4 — M. G. 214.
- 1) **Cantharidinsäure.** NH_4 , $(NH_4)_2$, K_2 + H_2O , Cd + H_2O , $(K_2$, Cu + $2H_2O$), Ag_2 + $2H_2O$ (*Z.* 1867, 464; 1868, 308; *J.* 1872, 841; *B.* 12, 580; 19, 1083). — III, 622.
- 2) **Isocantharidinsäure + H_2O .** Sm. 153° (155—160°). Ba + $5H_2O$, Ag_2 + $3H_2O$ (*B.* 24, 1998; *M.* 19, 721).
- 3) **Homoterpenoylameisensäure.** Sm. 126—129° (*B.* 29, 1916).
- 4) **Pinoylameisensäure.** Sm. 78—80°. Ag, Ag_2 (*B.* 29, 1911, 2615, 2789).
- 5) **δ -Oxy- β -Methyl- $\alpha\gamma$ -Pentadienäthyläther- $\alpha\gamma$ -Dicarbonsäure (Oxymesitendicarbonäthyläthersäure).** Sm. 72°. Ag (*A.* 274, 276).
- 6) **w-Oxy-cis- π -Camphansäure.** Sm. 264—265° (*C.* 1896 [1] 308; 1896 [2] 248; *Soc.* 69, 947; 75, 143).
- 7) **Methylester d. α -Camphoronsäureanhydrid.** Sm. 138° (141—142°); Sd. 166—167°₁₃ (*B.* 28, 318; *A.* 292, 95; 302, 62).
- 8) **Methylester d. β -Camphoronsäureanhydrid.** Sm. 45°; Sd. 156°₁₀ (*B.* 28, 318; *A.* 292, 96; 302, 63).
- 9) **Monäthylester d. δ -Oxy- β -Methyl- $\alpha\gamma$ -Pentadien- $\alpha\gamma$ -Dicarbonsäure (M. d. Oxymesitendicarbonsäure).** Sm. 76°. $(NH_4)_2$, Pb + H_2O , Cu + H_2O (*B.* 16, 741; *A.* 222, 22). — II, 776.
- 10) **Monäthylester d. Methylidihydrohexandicarbonsäure.** Sm. 114°. Ag (*Soc.* 51, 741). — I, 777.
- 11) **Monäthylester d. γ -Acetyl- $\beta\delta$ -Diketopentan- γ -Carbonsäure (M. d. Triacetyllessigsäure).** Sd. 212—214° (*A.* 266, 103). — I, 777.
- 12) **Diäthylester d. α -Keto- β -Buten- $\alpha\gamma$ -Dicarbonsäure.** Sd. 225° (*Bl.* [3] 9, 378).

 $C_{10}H_{14}O_6$

- C 52,2 — H 6,1 — O 41,7 — M. G. 230.
- 1) **$\beta\eta$ -Diketooktan- $\gamma\zeta$ -Dicarbonsäure (Aethylendiacetessigsäure; Diacetyl-adipinsäure) (*Soc.* 57, 215). — I, 821.**
- 2) **$\gamma\zeta$ -Diketooktan- $\alpha\vartheta$ -Dicarbonsäure.** Sm. 156—157°. $(NH_4)_2$, Ca + $2H_2O$, CaH, Ba + H_2O , Zn, Ag_2 (*B.* 28, 920; *A.* 294, 168).
- 3) **α -Hepten- $\delta\delta\epsilon$ -Tricarbonsäure (Allylbutenyltricarbonsäure).** Sm. 123° (*B.* 25, 488). — I, 821.

- C₁₀H₁₄O₆**
- 4) $\alpha\delta$ -Diketo- $\gamma\gamma$ -Dimethylpentan- α -Carbonsäure- β -Methylcarbonsäure (Isodiketocamphersäure). Sm. 197° (B. 28, 2174).
 - 5) Camphensäure. Sm. 199—200° u. Zers. NH₄, (NH₄)₂, Ba, Pb₂ (Soc. 59, 649; 69, 74). — I, 821.
 - 6) cis-Camphotricarbonsäure. Sm. 145—150°. Ag₂ (C. 1896 [2] 248; Soc. 69, 966).
 - 7) trans-Camphotricarbonsäure. Sm. 195° (196°). Ca, Ag₂ (C. 1896 [1] 308; 1896 [2] 248; B. 29 [2] 861; Soc. 69, 951).
 - 8) i-trans-Camphotricarbonsäure. Sm. 224—225° (Soc. 71, 985; C. 1899 [1] 172).
 - 9) Säure aus d. Kohlenw. C₁₂H₂₀ (aus Dimethylallylcarbinol), oder C₁₀H₁₄O₆ (B. 16, 1223).
 - 10) Monomethylester d. Camphoransäure + H₂O (M. d. α -Oxycamphoronsäure). Sm. 81—83° (157° wasserfrei) (B. 28, 321; A. 299, 155).
 - 11) Trimethylester d. 1-Methyl-R-Trimethylen-1,2,3-Tricarbonsäure. Sm. 77° (B. 27, 877).
 - 12) Monäthylester d. $\beta\epsilon$ -Diketoheptan- $\gamma\delta$ -Dicarbonsäure (M. d. γ -Diacetylbernsteinsäure). Sm. 150—152° u. Zers. (A. 293, 105).
 - 13) Diäthylester d. $\beta\gamma$ -Diketobutan- $\alpha\delta$ -Dicarbonsäure (D. d. Ketipinsäure). Sm. 76—77° (82—83°); Sd. 220—230°₉₀ (A. 246, 328; 249, 184; B. 26, 870). — I, 816.
 - 14) Diäthylester d. α -Oxy- γ -Keto- α -Buten- $\alpha\beta$ -Dicarbonsäure (D. d. α -Acetyl- β -Oxyfumarsäure). Sd. 134—136°₁₀ (A. 276, 220).
 - 15) Diäthylester d. α -Acetoxyläthen- $\alpha\beta$ -Dicarbonsäure (D. d. Acetoxylfumarsäure). Sd. 150°₁₈ (A. 276, 217).
 - 16) Diacetat d. Mannitan (A. 180, 94, 95; A. ch. [3] 47, 315; [5] 6, 112). — I, 417.
 - 17) Diacetat d. Isomannid. Sd. 197—198°₂₈ (Bl. 41, 122). — I, 417.
 - 18) Agoniadin (Z. 1870, 371). — III, 569.
- C₁₀H₁₄O₇**
- C₁₀H₁₄O₈**
- 1) Mannitansuccinat (J. 1858, 435). — I, 656.
C 45,8 — H 5,7 — O 55,5 — M. G. 246.
 - 2) Hexan- $\alpha\gamma\delta\epsilon$ -Tetracarbonsäure. Sm. 215—218° u. Zers. Ag₄ (Soc. 65, 830).
 - 3) Hexan- $\beta\beta\epsilon\epsilon$ -Tetracarbonsäure (Dimethyldicarboxyladipinsäure). Sm. bei 170° (200°). K₄, Ag₄ (B. 27, 1579; Soc. 65, 1004).
 - 4) Hexan- $\gamma\gamma\delta\delta$ -Tetracarbonsäure. K₄ (Am. 16, 582).
 - 5) Dimethylester d. Diacetyl-d-Weinsäure. Sm. 103°; Sd. 182—183°₉₁ (B. 14, 2790; 15, 2243; 25 [2] 859; J. 1882, 856; 1884, 465; Bl. [3] 11, 309; Soc. 73, 194). — I, 796.
 - 6) Dimethylester d. Diacetyl-l-Weinsäure. Sm. 103° (A. 247, 113). — I, 798.
 - 7) Dimethylester d. Diacetyltraubensäure. Sm. 86° (A. 247, 115, 116). — I, 801.
 - 8) Tetramethylester d. Aethan- $\alpha\alpha\beta\beta$ -Tetracarbonsäure. Sm. 138° (135°) (B. 25, 1154, 1158; 29, 1278, 1505; Ph. Ch. 10, 420; Soc. 67, 770). — I, 858.
 - 9) $\alpha\beta$ -Diäthylester d. Aethan- $\alpha\alpha\beta\beta$ -Tetracarbonsäure + 1½ H₂O. Sm. 132—133° u. Zers. (A. 214, 72). — I, 858.
 - 10) Diäthylester d. Oxallyldioxyessigsäure. Sm. 58° (J. pr. [2] 51, 360).
 - 11) Diacetat des 2. Mannitanhydrid. Sd. 197—198°₂₈ (B. 15, 3086).
C 40,8 — H 4,7 — O 54,4 — M. G. 294.
 - 12) Diacetylnorisozuckersäure. Sm. 174° (B. 27, 129).
C 74,1 — H 8,6 — N 17,3 — M. G. 162.
 - 13) β -Imido- β -Dimethylamido- α -Phenyläthan. (2HCl, PtCl₂) (B. 17, 1426). — IV, 850.
 - 14) β -Methylimido- β -Methylamido- α -Phenyläthan. HCl, (2HCl, PtCl₂) (B. 17, 1426). — IV, 850.
 - 15) α -Imido- α -Amido- α -[4-Isopropylphenyl]methan (4-Isopropylbenzamidin). HCl (Sm. 190°). (2HCl, PtCl₂), Pikrat (B. 30, 2007). — IV, 860.
 - 16) α -Imido- α -Aethylamido- α -[4-Methylphenyl]methan. HCl, (2HCl, PtCl₂ + 4H₂O) (PINNER, Imidoäther 187). — IV, 851.
 - 17) α -Imido- α -Dimethylamido- α -[4-Methylphenyl]methan. HCl (B. 21, 2655). — IV, 851.

$C_{10}H_{14}N_2$

- 6) α -Methylimido- α -Methylamido- α -[4-Methylphenyl]methan. HCl, (2HCl, PtCl₄ + 2H₂O) (B. 21, 2654). — IV, 851.
- 7) d-1,5-Diamido-1,2,3,4-Tetrahydronaphtalin. 2HCl (B. 23, 292). — IV, 862.
- 8) l-1,5-Diamido-1,2,3,4-Tetrahydronaphtalin. 2HCl (B. 23, 292). — IV, 862.
- 9) i-1,5-Diamido-1,2,3,4-Tetrahydronaphtalin. Sm. 77°; Sd. 264°₈₀. 2HCl, (2HCl, PtCl₄), H₂SO₄ + 2H₂O (B. 22, 944). — IV, 861.
- 10) 5,6-Diamido-1,2,3,4-Tetrahydronaphtalin. Sm. 84°; Sd. 220°₈₁. 2HCl, 2HNO₃ (B. 22, 1377). — IV, 861.
- 11) 5,8-Diamido-1,2,3,4-Tetrahydronaphtalin. 2HCl (B. 22, 1382). — IV, 861.
- 12) s-Isobutylidenphenylhydrazin. Sd. 178—180°_{as} (M. 16, 184, 851 Anm.).
- 13) uns-Allyl-4-Methylphenylhydrazin. Sd. 160—170°₉₀. HCl (B. 26, 2179). — IV, 804.
- 14) $\alpha\alpha$ -Dimethyl- β -[α -Phenyläthyliden]hydrazin (Acetophenondimethylhydrazin). Sd. 165°₁₉₀ (B. 16, 663). — III, 130.
- 15) 1,2,3,4-Tetrahydro-1-Naphtylhydrazin (B. 22, 630). — IV, 862.
- 16) α -Methylphenylhydrazonpropan. Sd. 198°₁₇₀ (A. 236, 162). — IV, 747.
- 17) β -Methylphenylhydrazonpropan. Sd. 215—216° (A. 236, 152). — IV, 766.
- 18) β -4-Methylphenylhydrazonpropan. Sm. 50—52°. HCl, HBr, HNO₃ (A. 239, 227; B. 30, 1017). — IV, 810.
- 19) 2-Methyl-1-Phenyltetrahydropyrazol. Sd. 175—180°₉₀ (A. 274, 328). — IV, 497.
- 20) 3-Phenylhexahydro-1,2-Diazin. Fl. HNO₃, Pikrat (B. 32, 402).
- 21) Nikotin. Sd. 246,7°₄₃. Salze meist bek. Lit. bedeutend. — IV, 854.
- 22) Isonikotin. Sm. 78°; Sd. oberh. 260°. (2 + 4HCl + 3HgCl₂), (2HCl, PtCl₄ + H₂O), 2HNO₃ (M. 3, 867). — IV, 860.
- 23) Metanikotin. Sd. 275—278°. 2HCl, (2HCl, PtCl₄), (2HCl, 2AuCl₃), 2HBr, (2HBr, Br₂), Pikrat + H₂O (B. 27, 1059, 2866; 28, 461; Ph. Ch. 16, 218). — IV, 859.
- 24) Nikotidin (Hexahydrobipyridyl). Sd. 287—289°. (2HCl, PtCl₄) (M. 4, 597). — IV, 863.
- 25) p-Amido-1-Methyl-1,2,3,4-Tetrahydrochinolin. (2HCl, PtCl₄) (B. 18, 2391). — IV, 191.
- 26) 8-Amido-8-Methyl-1,2,3,4-Tetrahydrochinolin. 2HCl (B. 24, 2071). — IV, 863.
- 27) 6-Amido-8-Methyl-1,2,3,4-Tetrahydrochinolin. 2HCl (B. 21, 866; 24, 2065). — IV, 322.
- 28) 2-Aethyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 86—88° (B. 25, 3038). — IV, 637.
- 29) 2,4-Dimethyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sd. 235—250° (B. 26, 1384). — IV, 863.
- 30) Nitril d. Camphersäure. subl. (A. 197, 334). — I, 1480.
- 31) Farbstoff (aus 1,4-Tetramethyldiamidobenzol). H₄Fe(CN)₆ (B. 12, 1808). — IV, 582.
- 32) Verbindung (aus 1,4-Diamidobenzol u. Isobuttersäurealdehyd). (2HCl, PtCl₄) (B. 22, 2725). — IV, 596.

 $C_{10}H_{14}N_4$

- C 63,2 — H 7,3 — N 29,5 — M. G. 190.
- 1) α -Imido- α -Phenylazoamidobutan. Sm. 154° u. Zers. (PINNER, Imidoäther 125). — IV, 1582.
 - 2) 1,4-Di[Imidoamidomethyl]benzol. Sm. 182°. 2HCl (B. 21, 2660). — IV, 1265.

 $C_{10}H_{14}Cl_2$

- 1) Dichlorcamphen. Sm. 72—73° (C. 1895 [1] 1063; Soc. 69, 1559). — III, 536.
- 2) Chlorid d. Oxyisocampher. Fl. (M. 2, 229). — III, 497.

 $C_{10}H_{14}Cl_3$

- 1) Verbindung (aus Kautschuk) (Soc. 53, 679). — III, 551.

 $C_{10}H_{14}Br_2$

- 1) Dibromcamphen (J. 1887, 756). — III, 535.

 $C_{10}H_{14}Br_4$

- 1) α -Tetrabromhydrocamphen. Sm. 164° (168°) (Bl. 38, 579; J. 1885, 765; Soc. 71, 285). — II, 18.
- 2) β -Tetrabromhydrocamphen. Sm. 138° (143—144°) (J. 1885, 764; Soc. 71, 286). — II, 18.

- $C_{10}H_4Br_4$ 3) Tetrabromid d. Kohlenw. $C_{10}H_4$ (aus Dipentintribromid). Sm. 103 bis 104° (A. 264, 31). — II, 34.
- 4) Tetrabromid d. Kohlenw. $C_{10}H_4$ (aus Dipentintribromid). Sm. 154 bis 155° (A. 264, 29). — II, 34.
- $C_{10}H_{14}Br_6$ 1) Verbindung (aus Terpentin). Sm. 150° (Soc. 71, 287).
- $C_{10}H_{14}S$ 1) 2-Merkapto-4-Isopropyl-1-Methylbenzol. Sd. 235—236°. Hg, + HgCl, Ag, Ag + AgNO₃ (A. 172, 327; B. 6, 479, 669, 935; J. pr. [2] 8, 168). — II, 828.
- 2) 3-Merkapto-4-Isopropyl-1-Methylbenzol. Sd. 230—231°. Pb, Hg (A. 172, 325). — II, 828.
- $C_{10}H_{14}S_2$ 3) 2-Merkapto-1,4-Diäthylbenzol. Sm. 113°₁₈ (B. 22, 317). — II, 828.
- $C_{10}H_{15}N$ 1) Verbindung (aus Kautschuk) (C. 1895 [2] 266).
C 80,5 — H 10,1 — N 9,4 — M. G. 149.
- 1) α -Amidobutylbenzol. Sd. 220—220,5°₇₄₈. HCl, (2HCl, PtCl₄) (B. 28, 1857).
- 2) α -Amidoisobutylbenzol. Sd. 213,5—215°₇₄₈. HCl, (2HCl, PtCl₄) (B. 28, 1859).
- 3) 3-Amido-1-Isobutylbenzol. Sd. 229°₇₀₅. HCl, (2HCl, PtCl₄), Oxalat (B. 21, 2947). — II, 556.
- 4) 4-Amido-1-Isobutylbenzol. Sm. 17°; Sd. 235—237°. HCl, (2HCl, PtCl₄), HBr, HJ, H₂SO₄ (B. 14, 1472, 2186; 16, 115; 18, 1009; 20, 1255, 2353; A. 211, 237). — II, 556.
- 5) 2-Amido-1-Pseudobutylbenzol. Sd. 233—235°. HCl, (2HCl, PtCl₄), HNO₃, H₂SO₄ (B. 22, 2415). — II, 558.
- 6) 4-Amido-1-Pseudobutylbenzol. Sd. 239,4—240,4°_{780,2}. HCl, (2HCl, PtCl₄), HNO₃, H₂SO₄ (B. 23, 2416). — II, 558.
- 7) 4-Amido-3-Isopropyl-1-Methylbenzol. Sd. 232—233°. H₂SO₄, Oxalat (A. 221, 163). — II, 558.
- 8) 2-Amido-4-Isopropyl-1-Methylbenzol (Carvakrylamin). Sd. 241 bis 242°. HCl, (2HCl, PtCl₄), H₂SO₄ + H₂O (B. 20, 1262; 21, 2127; 25, 3352; 26, 2086; A. 279, 374, 383). — II, 559.
- 9) 3-Amido-4-Isopropyl-1-Methylbenzol (p-Cymidin). Sd. 230°. HCl, (2HCl, PtCl₄), H₂SO₄ + 2 $\frac{1}{2}$ H₂O (B. 15, 168; 20, 1260). — II, 559.
- 10) 2-Amido-4-Isopropyl-1-Methylbenzol. Sd. 250°. (2HCl, PtCl₄) (A. 98, 245). — II, 559.
- 11) 2-Amido-1,3-Diäthylbenzol. Fl. HCl (B. 21, 2830). — II, 562.
- 12) 2-Amido-1,4-Diäthylbenzol. Sd. 140—142°₂₀. HCl (B. 22, 316). — II, 562.
- 13) 6-Amido-4-Aethyl-1,3-Dimethylbenzol. Sd. 144—145°₂₀. H₂SO₄ + H₂O (B. 25, 1535). — II, 561.
- 14) 2-Amido-3-Aethyl-1,4-Dimethylbenzol. Sd. 237°. HCl + 3H₂O, H₂SO₄ (Soc. 61, 421). — II, 561.
- 15) 5-Amido-1,2,3,4-Tetramethylbenzol. Sm. 64—66°; Sd. 259—260°. HCl, H₂SO₄ (B. 21, 644, 905). — II, 562.
- 16) 4-Amido-1,2,3,5-Tetramethylbenzol (Isoduridin). Sm. 23—24°; Sd. 255°. (2HCl, PtCl₄) (B. 18, 1149; 21, 642). — II, 562.
- 17) 2-Amido-2-Tetramethylbenzol. Sm. 14°; Sd. 252—253°. HCl, (2HCl, PtCl₄) (B. 17, 1913). — II, 563.
- 18) norm. Butylamidobenzol. Sd. 235°₇₂₀. HCl, Pikrat (B. 18, 3365). — II, 335.
- 19) Isobutylamidobenzol. Sd. 242° (231—232°). HCl, HBr, HJ (G. 12, 268; J. 1883, 703; B. 21, 1111). — II, 336.
- 20) Methylisopropylamidobenzol. Sd. 212° (220—222°). HCl (J. 1883, 702; B. 19, 2786). — II, 335.
- 21) Diäthylamidobenzol. Sd. 213,5°₇₆₀. HCl, (2HCl, PtCl₄), (2HCl + SnBr₄), HBr, (HBr, Br₂), (2HBr + SnBr₄) (A. 74, 135; J. 1882, 524; Ph. Ch. 1, 383; Soc. 61, 437; B. 16, 30; 19, 1948; 31, 1145; G. 23 [1] 344). — II, 333.
- 22) 2-Propylamido-1-Methylbenzol. Sd. 230°₇₀₅ (B. 25, 2319). — II, 45.
- 23) 4-Propylamido-1-Methylbenzol. Sd. 235° (230—233°). HCl, Oxalat, Dioxalat (B. 25, 2321; Soc. 59, 35). — II, 485.
- 24) 4-Isopropylamido-1-Methylbenzol. Sd. 230—231°₇₅₆ (219—221°). HCl, Oxalat (B. 25, 2315; Soc. 59, 34). — II, 485.
- 25) 4-Dimethylamido-1-Aethylbenzol. Sm. 80° (B. 20, 2422). — II, 557.

- C₁₀H₁₅N**
- 26) 3-Aethylamido-1,2-Dimethylbenzol. Sd. 227—228°. HCl, (2HCl, PtCl₄) (A. 263, 325). — II, 540.
 - 27) 2-Aethylamido-1,3-Dimethylbenzol. Sd. 217—218°. (2HCl, PtCl₄) (M. 19, 645).
 - 28) 3-Dimethylamido-1,2-Dimethylbenzol. Sd. 199—200°. HCl, (2HCl, PtCl₄) (A. 263, 328). — II, 540.
 - 29) 2-Dimethylamido-1,3-Dimethylbenzol. Sd. 195—196°. (2HCl, PtCl₄) (M. 19, 644).
 - 30) 4-Dimethylamido-1,3-Dimethylbenzol. Sd. 203—205°. (2HCl, PtCl₄) (B. 18, 32). — II, 543.
 - 31) 5-Dimethylamido-1,3-Dimethylbenzol. Sd. 226,5—227,5° (B. 24, 563). — II, 545.
 - 32) 2-Dimethylamido-2-Dimethylbenzol. Sd. 196° (B. 5, 712). — II, 548.
 - 33) 2-Dimethylamido-2-Dimethylbenzol. Sd. 87° (B. 6, 446). — II, 548.
 - 34) 2-Dimethylamido-2-Dimethylbenzol. Sd. 203° (B. 5, 714). — II, 548.
 - 35) 5-Methylamido-1,2,4-Trimethylbenzol. Sm. 44°; Sd. 237°. (2HCl, PtCl₄) (B. 15, 2896). — II, 551.
 - 36) Aethyl-β-Phenyläthylamin. HCl, (2HCl, PtCl₄), HBr (A. 184, 308). — II, 538.
 - 37) Propylbenzylamin. Sd. 210°₇₄₁. (2HCl, PtCl₄) (A. 245, 283). — II, 516.
 - 38) 4-Isopropylbenzylamin (Cumylamin). Sd. 225—227°₇₃₄. HCl, (2HCl, PtCl₄), HNO₃, H₂SO₄ (A. Spl. 1, 141; B. 2, 185, 186; 20, 2414; 22, 931; A. 245, 304). — II, 560.
 - 39) 2,4,5-Trimethylbenzylamin. Sm. 64,5°. HCl, (HCl, HgCl₂), (2HCl, PtCl₄), (HJ, BiJ₃), H₂SO₄ (B. 24, 2409). — II, 562.
 - 40) 3,4,5-Trimethylbenzylamin. Sm. 123°. HCl, (HCl, HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃) (B. 24, 2411). — II, 563.
 - 41) 2,6-Dimethyl-4-Propylpyridin. Sd. 193—196°₇₁₈. (2HCl, PtCl₄) (A. 246, 37). — IV, 139.
 - 42) Coridin. Sd. 211°. (2HCl, PtCl₄) (J. 1861, 502). — IV, 140.
 - 43) Base (aus Fibrin). Fl. (J. pr. [2] 27, 429). — III, 589.
 - 44) Base (aus Oximidopinendibromid). (2HCl, PtCl₄) (J. 1875, 392). — III, 522.
 - 45) Ptomain (aus Fleisch). Sd. 230°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HBr (Bl. [3] 1, 158; [3] 6, 207; [3] 11, 255; B. 24 [2] 319). — IV, 140.
 - 46) Camphimid. (2HCl, PtCl₄) (B. 13, 1406; 14, 1375). — III, 496.
 - 47) Nitril d. 1,1,5-Trimethyl-2,3-Dihydro-R-Penten-2-Methylcarbon-säure (N. d. α-Campholensäure). Sd. 226—227° (B. 16, 2981; 17, 806, 2070; 20, 485; 26, 922; 28, 1083, 2167; 29, 3006; G. 16, 133; A. 269, 330). — I, 1469.
 - 48) Nitril d. 1,2,2-Trimethyl-2,3-Dihydro-R-Penten-3-Methylcarbon-säure (N. d. β-Campholensäure). Sd. bei 220—230° (B. 28, 1083, 2167; 28 [2] 12; 30, 243).
 - 49) Nitril d. β-Dimethyl-αε-Heptadien-α-Carbonsäure (N. d. Geranium-säure). Sd. 110°₁₀ (B. 26, 2717; 28, 2134).
 - 50) Nitril d. Isogeraniumsäure. Sd. 97°₁₀ (87—88°₁₁) (Bl. [3] 15, 1002; B. 26, 2727; 31, 886).
 - 51) Nitril d. Fencholensäure. Sd. 217—218°. HCl, HBr, HJ (A. 259, 328; 263, 137; 269, 329). — I, 1469.
 - 52) Nitril d. Licarinsäure. Sd. 137—138°₁₅ (B. 26 [2] 404).
 - 53) Nitril d. Pulegensäure. Sd. 218—220° (A. 289, 351).
- C₁₀H₁₅N₃**
- 1) 5-Hydrazido-1-Amido-1,2,3,4-Tetrahydronaphtalin. Fl. HCl (B. 22, 962). — IV, 1139.
- C₁₀H₁₅N₃**
- C 58,5 — H 7,3 — N 34,2 — M. G. 205.
- 1) Isoamyladenin. Sm. 148—150° (H. 18, 442). — IV, 1320.
- C₁₀H₁₅Cl**
- 1) 5-Chlor-3-Methyl-1-Isopropyl-1,2-Dihydrobenzol. Sd. 100°₁₅ (B. 29, 169).
 - 2) 3-Chlor-4-Isopropyl-1-Methylbenzol-2-Dihydrobenzol. Sd. 212° (B. 29, 316).
 - 3) Chlorcamphen. Fest. Sd. 202° (Soc. 71, 289).
 - 4) Chlorfenchon. Sm. 89—90°; Sd. 120—125°₃₀ (190—192°₇₀) (Soc. 71, 1159; 73, 705).
 - 5) Myristicolechlorid (B. 6, 148). — III, 507.

- $C_{10}H_{15}Br$ 1) Bromcamphen. *Sd.* 226—227° (*A.* 230, 236, 900; *B.* 29, 546). — III, 535.
- $C_{10}H_{15}Br_2$ 1) Bromterpendibromid (aus Colophonium). *Sm.* 233° (*A. ch.* [6] 1, 240).
- $C_{10}H_{15}Br_3$ 1) Verbindung (aus Kautschuk) (*Soc.* 53, 679). — III, 551.
- $C_{10}H_{15}P$ 1) Diäthylphenylphosphin. *Sd.* 221,9° (cor.). HCl , $2HCl$, $(2HCl, PtCl_2)$, HJ , $2HJ$ (*A.* 181, 345; *B.* 15, 2018). — IV, 1654.
- 2) Dimethyl-2,4-Dimethylphenylphosphin. *Sd.* 230° (233°). + CS_2 (*B.* 15, 2016; 31, 2919). — IV, 1676.
- $C_{10}H_{15}As$ 1) Diäthylphenylarsin. *Sd.* 240° (*A.* 201, 212; *B.* 15, 1953). — IV, 1687.
- $C_{10}H_{16}O$ C 79,0 — H 10,4 — O 10,5 — M. G. 152.
- 1) Agaricol. *Sm.* 223° (*J.* 1886, 1823). — III, 645.
- 2) Alantol. *Sd.* 200° (*B.* 6, 1508; 9, 154). — III, 485.
- 3) Alban. *Sm.* 140° (*J.* 1852, 644; 1859, 518). — III, 552.
- 4) Allo-Lemonal. *Sd.* 233—235°₇₆₀ (*J. pr.* [2] 58, 85; *C. r.* 122, 84; *B.* 31, 3003, 3196).
- 5) Aniscampher. *Sd.* 190—193° (*B.* 13, 145). — II, 852.
- 6) Anthemol (Alkohol). *Sd.* 213,5—214,5° (*A.* 195, 104). — I, 258.
- 7) d-Campher. *Sm.* 176,4°; *Sd.* 209,1°. *Lit.* bedeutend. — III, 485.
- 8) l-Campher. *Sm.* 172°; *Sd.* 204° (*J.* 1863, 555; *Bl.* 24, 19; *A. ch.* [5] 14, 29; *Ph. Ch.* 3, 237). — III, 501.
- 9) i-Campher (*B.* 12, 1756). — III, 502.
- 10) Isocampher. *Sd.* 216° (*G.* 26 [2] 36, 229; *B.* 29, 2816). — III, 502.
- 11) Carvenol (Camphenol; Oxycamphen). *Sd.* 250° (104°₁₀) (*Soc.* 71, 290; 73, 853; *C.* 1897 [2] 303).
- 12) d-Caron. *Sd.* bei 210° u. Zers. (*B.* 27, 1919, 3491; 28, 639, 1598; 31, 1405, 2898; *J. pr.* [2] 56, 256). — III, 502.
- 13) Carvenon (1-Keto-2-Methyl-5-Isopropyl-1,2,3,4-Tetrahydrobenzol). *Sd.* 233° (*A.* 277, 122; 286, 130; 287, 381; *B.* 28, 1592; 30, 957; 31, 2895; *J. pr.* [2] 56, 253; *Ph. Ch.* 27, 534). — III, 503.
- 14) Carveol. *Sd.* 235° (*A.* 277, 122; *B.* 27, 1921). — III, 504.
- 15) Carvotanacetone. *Sd.* 228—229° (*B.* 27, 895; 28, 1959). — III, 504.
- 16) Citral (Rhodinal; Geranial; Likareal; Aldehyd d. β -Dimethyl- α -Heptadien- α -Carbonsäure). *Sd.* 224—226° u. Zers. + $NaHSO_3$, + $2NaHSO_3$ (*Am.* 12, 557; *Bl.* [3] 9, 803; *B.* 23, 2966; 24, 201, 202; 26, 2709; 26 [2] 404; 28, 2133; 31, 820, 2313, 3001, 3195, 3278, 3324; 32, 107, 115; *J. pr.* [2] 45, 599; [2] 58, 81; *G.* 26 [2] 254; *Ph. Ch.* 27, 536). — III, 506.
- 17) Citriodoraledehyd. *Sd.* 228—229°₇₆₀. + $2NaHSO_3$ (*J. pr.* [2] 58, 76; *Am.* 12, 553; *B.* 31, 3002, 3196).
- 18) Dihydrocarvon. *Sd.* 221—222°. HCl (*A.* 275, 116; 279, 377; 281, 154; *B.* 28, 1960, 2147; 30, 957; 31, 2898; *J. pr.* [2] 56, 252, 256; *Ph. Ch.* 27, 535). — III, 504.
- 19) Isodihydrocarvon. *Sd.* 199° (*A.* 277, 152; 279, 386). — III, 505.
- 20) Dihydroeucarvon (3-Keto-2,5,5-Trimethyl-1,2,3,4-Tetrahydro-R-Hepten). *Sd.* 86—88°₁₄ (*B.* 27, 1922, 3487; 31, 2071). — III, 505.
- 21) d-Fenchon. *Sm.* 5—6°; *Sd.* 192—193° (*A.* 259, 325; 263, 131, 146; *Bl.* [3] 15, 616). — III, 505.
- 22) l-Fenchon. *Sm.* 5°; *Sd.* 192—194° (*A.* 272, 102). — III, 506.
- 23) i-Fenchon. *Sd.* 193° (*Bl.* [3] 19, 415).
- 24) Hartin. *Sm.* 230° u. Zers. (*Berz. J.* 24, 588). — III, 633.
- 25) Kamillenöl. *Sd.* 150—165° (*B.* 4, 37). — III, 507.
- 26) Myristicol. *Sd.* 212—218° (*B.* 6, 147; 21, 471). — III, 507.
- 27) Pinocamphon. *Sd.* 211—213° (*A.* 300, 287).
- 28) Pinocarveol. *Sd.* 215—218° (*A.* 277, 140). — III, 509.
- 29) Pinol. *Sd.* 183—184° (*A.* 253, 251; 259, 315; 268, 222; 277, 115; 281, 147; *J. r.* 28, 566; *Ph. Ch.* 27, 537). — III, 507.
- 30) Pulegon (Parapulegon). *Sd.* 221—222° (99—101°₁₄). HCl , HBr , + $NaHSO_3$ (*A.* 32, 286; 262, 3; 289, 337; *B.* 25 [2] 110; 28, 652, 1965; 29, 915, 2955; 30, 29, 957; *Ph. Ch.* 27, 533). — III, 509.
- 31) synth. Pulegon. *Sd.* 214—215° (*B.* 29, 1597, 2955; *A.* 300, 268).
- 32) Isopulegon. *Sd.* 90°₁₂ (*B.* 29, 914; 30, 28; *C.* 1897 [2] 305).
- 33) Sabinol. *Sd.* 208—209° (*B.* 31, 2029).
- 34) Salviol. *Sd.* 197—203° (*J.* 1878, 981; *Soc.* 37, 678).

$C_{10}H_{16}O$

- 35) Terpenon (aus Bisnitrosotetrahydrocarvon). Sd. 233—235° (B. 29, 35). — III, 511.
- 36) Thujon (Tanaceton). Sd. 203°. + NaHSO₄ (B. 11, 451; 25, 3343; 27, 895; 28, 1965; 30, 423, 435; A. 272, 101; 286, 91; Ph. Ch. 27, 532). — III, 511.
- 37) Isothujon. Sd. 230—231° (A. 286, 101; B. 28, 1958; 30, 426; Ph. Ch. 27, 532). — III, 512.
- 38) Ursen. Sm. 198—200° (J. 1854, 659; 1855, 723; Z. 1866, 382).
- 39) 1-Keto-2-Isopropyl-5-Methyl-1,2,3,4-Tetrahydrobenzol. Sd. 217 bis 219° (B. 30, 644).
- 40) 1-Keto-3-Isopropyl-5-Methyl-1,2,3,4-Tetrahydrobenzol. Sd. 244° (A. 288, 328, 357; B. 26, 1089).
- 41) 4-Acetyl-5-Methyl-1-Aethyl-2,3-Dihydro-R-Penten. Sd. 210—215° (Soc. 57, 252). — I, 1014.
- 42) 4-Acetyl-1,1,5-Trimethyl-2,3-Dihydro-R-Penten (aus Isolauronolsäure). Sd. 202—204° (C. 1897 [1] 814; Bl. [3] 19, 704).
- 43) Keton (aus Corianderöl). Sd. 185—186° (B. 14, 2505). — I, 1014.
- 44) Keton (aus Nitrosomenthen). Sd. 206—208°. 2 H₂S (Am. 18, 771).
- 45) Verbindung (aus Asa foetida) = (C₁₀H₁₆O)_x. Sd. 133—145° (B. 23, 3532). — III, 545.
- 46) Verbindung (aus Camphenglykol) (B. 23, 2314). — I, 271.
- 47) Verbindung (aus Galbanumöl) = (C₁₀H₁₆O)_x. Sd. 281° (B. 4, 39; A. 119, 263). — III, 507.
- 48) Verbindung (aus Kamillenöl oder Wermuthöl) = (C₁₀H₁₆O)_x. Sd. 270 bis 300° (B. 4, 38; A. 170, 292). — III, 507.
- 49) Verbindung (aus Ledum palustre). Sd. 240—242° (J. 1861, 692). — III, 548.
- 50) Verbindung (Keton aus Pinoltribromid). Sd. 213—218° (214—217°) (A. 281, 156; B. 28, 2711).
- 51) Verbindung (aus Pulegium micranthum). Sd. 227° (J. 1854, 595). — III, 511.
- 52) Verbindung (aus Skimmia japonica). Sd. 225—235° (R. 3, 205). — III, 550.

 $C_{10}H_{16}O_2$

- C 71,4 — H 9,5 — O 19,1 — M. G. 168.
- 1) Isoamyläther d. 2-Oxymethylfuran. Sd. 196—198° (A. 272, 300). — III, 697.
- 2) ξ -Diketo- β -Methyl- β -Nonen. Sd. 233—234° Cu (Bl. [3] 17, 748).
- 3) ξ -Keto- ϵ -Aethanoyl- β -Methyl- γ -Hepten. Sd. 218—220° Ca, Cu (B. 28, 2121; C. 1896 [2] 289).
- 4) 2,5-Diketo-1,4-Diäthylhexahydrobenzol. cis-Verb. Sm. 49—50°; trans-Verb. Sm. 12° (B. 26, 232).
- 5) 3-Acetyl-4-Keto-1-Isopropyl-R-Pentamethylen. Sd. 130—132°₂₅. Cu (B. 29, 32).
- 6) 3-Isobutyryl-4-Keto-1-Methyl-R-Pentamethylen. Sd. 115—116°₂₅. Cu (B. 29, 28).
- 7) Campherol. Sm. 197—198° (H. 3, 435). — I, 866.
- 8) α -Campholid. Sm. 210—212° (216°) (Bl. [3] 15, 8, 984; C. 1896 [1] 650).
- 9) isom. Campholid. Sm. 176—177° (C. 1896 [1] 307; Soc. 69, 55).
- 10) β -Oxycampher (aus Amidocampher). Sm. 154—155° (B. 13, 1404). — III, 497.
- 11) Oxyisocampher (aus Borneol). Sm. 248—249° u. Zers. (M. 2, 228). — III, 497.
- 12) isom. Oxycampher (aus Camphen). Sm. 59—61° (A. 200, 358). — III, 497.
- 13) isom. Oxycampher (aus Campherchinon). Sm. 203—205° (B. 30, 662).
- 14) isom. Oxycampher (aus Chlorcampher). Sm. 137° (A. 146, 83).
- 15) d-Oxycaron. Sd. 134—135°₁₉ (B. 31, 3212).
- 16) Diosphenol (Diostearopten). Sm. 82°; Sd. 220° u. Zers. (232°₁₅₅) (G. 15, 195; J. 1880, 1081; J. pr. [2] 54, 436; C. 1896 [2] 551). — III, 545.
- 17) Pinolglykolanhydrid. Sd. 206—207° (A. 291, 354). — III, 509.
- 18) β -Dimethyl- α -Heptadien- α -Carbonsäure (Geraniumsäure). Sd. 153°₁₃. Ag (B. 23, 3556; 24, 203; 26, 2717; 28, 2134; 31, 823; C. 1896 [1] 707). — I, 534.
- 19) Isogeraniumsäure (1,1,5-Trimethyl-1,2,3,4-Tetrahydrobenzol-6-Carbon-

- säure). Sm. 103,5°; Sd. 138°₁₁. Ag (B. 26, 2725; 31, 886; Bl. [3] 15, 1004; C. 1896 [1] 707).
- C₁₀H₁₆O₂** 20) **1,1,5-Trimethyl-2,3-Dihydro-R-Penten-2-Methylcarbonsäure** (α -Campholensäure; Oxycampher). Sd. 258—261° (256°). Ca, Ba + 4H₂O (B. 15, 2135, 2336; 17, 2070, 2400; 18, 2229; 20, 484; 26, 922; 26 [2] 195; 28, 1083, 2169, 2172; 29, 3010; M. 3, 217; 4, 643; A. 269, 334; 289, 15; Bl. [3] 13, 834; C. 1895 [2] 279; 1896 [2] 381). — I, 533.
- 21) **1,2,2-Trimethyl-2,3-Dihydro-R-Penten-3-Methylcarbonsäure** (β -Campholensäure). Sm. 52°; Sd. 245°. NH₄, Ca (B. 28, 1083, 2169; 30, 246, 409; C. 1895 [1] 50; 1895 [2] 279).
- 22) **Camphinsäure**. Cu (A. ch. [5] 14, 70; C. r. 93, 72; Bl. 31, 529). — I, 533.
- 23) **isom. Camphinsäure** (Bl. 44, 117). — I, 533.
- 24) **Camphorensäure**. Sm. 161°. Na (C. 1896 [1] 306; Soc. 69, 52).
- 25) **Fencholensäure**. Sd. 260—261°. Ag (A. 259, 330; 269, 334). — I, 534.
- 26) **Licarinsäure**. Fl. (B. 26 [2] 404).
- 27) **Pulegensäure**. Sd. 150—155°₁₉. Ag (A. 289, 349; 300, 259).
- 28) **Säure** (aus Aethylbutyrat u. Na). Sm. 52,5°; Sd. 305—307° (A. 246, 132). — I, 534.
- 29) **Säure** (aus Chlordihydropulegensäuremethylester). Sd. 256—260° u. ger. Zers. (A. 300, 261).
- 30) **3,5-Lakton d. 3-Oxy-1,1,2-Trimethyl-R-Pentamethylen-5-Methylcarbonsäure** (Dihydrocampholenlakton). Sm. 32°; Sd. 256° (B. 28, 1084, 2170; 30, 404).
- 31) **Lakton d. Säure C₁₀H₁₆O₂** (aus Pfefferminzöl). Erstarrt bei 23°; Sd. 251°₇₅₉ (B. 28 [2] 610).
- 32) **Lakton** (aus Chlordihydropulegensäuremethylester). Sd. 125—127°₁₅ (A. 300, 261).
- 33) **Lakton** (aus α - oder β -Fenchocarbonsäure). Sm. 64,5° (A. 300, 305).
- 34) **Methylester d. Isolauronolsäure**. Sd. 203—204°₁₆₀ (Bl. [3] 15, 1195; Soc. 73, 833).
- 35) **Aethylester d. $\alpha\zeta$ -Heptadien- δ -Carbonsäure** (Ae. d. Diallylessigsäure). Sd. 195° (Bl. 29, 228). — I, 533.
- 36) **Aethylester d. Säure C₈H₁₂O₂** (aus Pfefferminzöl). Sd. 221—223° (C. 1895 [1] 547).
- 37) **Methyldiallylcarbinolester d. Essigsäure** (Acetat d. δ -Oxy- δ -Methyl- $\alpha\zeta$ -Heptadien). Sd. 177,3° (A. 185, 171). — I, 413.
- C₁₀H₁₆O₂** 38) **Acetat eines Alkohols C₈H₁₄O** (aus Holzöl). Sd. 172—175° (B. 27, 1546). C 65,2 — H 8,7 — O 26,1 — M. G. 184.
- 1) **Triallyläther d. Trioxymethan** (Orthoameisensäuretriallyläther). Sd. 196—205° (B. 18, 482). — I, 312.
- 2) **γ -Keto- β -Methyl- β -Okten- γ -Carbonsäure**. Sm. 57° (Bl. [3] 17, 751).
- 3) **1,1,2-Trimethyl-R-Pentamethylen-3,4-Oxyd-5-Methylcarbonsäure** (Campholenoxydsäure). Sm. 128—129°. Ag (B. 30, 415, 417; Bl. [3] 15, 28).
- 4) **4-Keto-1,1,2-Trimethyl-R-Pentamethylen-5-Methylcarbonsäure?** Sd. bei 270° (B. 28, 2175).
- 5) **Campholonsäure**. Fl. (B. 30, 252).
- 6) **Diosphenolsäure**. Fl. Na (C. 1896 [2] 551).
- 7) **Nopinsäure**. Sm. 126—128°. Na, Ag (B. 29, 25, 1923).
- 8) **D-d-Oxyfenchensäure**. Sm. 138—139° (A. 302, 378).
- 9) **D-l-Oxyfenchensäure**. Sm. 152—153°. Ag (A. 263, 152; 284, 333; 300, 314; 302, 377). — I, 625.
- 10) **L-d-Oxyfenchensäure**. Sm. 152—153° (A. 302, 379).
- 11) **3-Keto-1,1,2-Trimethyl-R-Pentamethylen-5-Methylcarbonsäure** (l-Pinonsäure). Sm. 98—99°; Sd. 178—180°₁₂ (B. 29, 3015).
- 12) **d-Carvenolsäure**. Sm. 133° (A. 305, 254).
- 13) **l-Carvenolsäure**. Sm. 133° (A. 305, 254).
- 14) **i-Carvenolsäure**. Sm. 135—136° (A. 305, 251).
- 15) **i-Pinonsäure**. Sd. 310—315° (B. 28, 1345; 29, 23, 129, 529, 2777, 2785).
- 16) **α -Pinonsäure**. Sm. 103—105° (B. 29, 23, 326, 529, 2777, 2785).
- 17) **α -Tanacetketocarbonsäure** (α -Thujaketonsäure). Sm. 75—76° (74,5°); Sd. 169°₁₀. Ag (A. 272, 113; 275, 164; B. 25, 3347; 30, 423, 431). — II, 1484.
- 18) **β -Tanacetketocarbonsäure** (β -Thujaketonsäure). Sm. 78°; Sd. 169°₁₀. Ag (B. 25, 3347; 30, 423, 432, 436; A. 272, 114; 275, 164). — II, 1485.

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- 19) Isothujaketonsäure. Sd. 271—273° u. Zers. (B. [30](#), [426](#)).
- 20) Oxycamphinsäure. Fl. (A. ch. [15](#) [14](#), [74](#)). — I, [625](#).
- 21) Säure (aus Abietinsäure). Sm. [123°](#) (M. [15](#), [638](#)). — II, [1436](#).
- 22) Säure + H₂O (aus Campherchinon). Sm. 67—68° (97—98° wasserfrei). (B. [30](#), [3157](#)).
- 23) Säure (aus Terpenhypochlorid) (Z. [1868](#), [170](#)).
- 24) Anhydrid d. Oktan- $\alpha\beta$ -Dicarbonsäure (Anhydrid d. Sebacinsäure). Sm. 78° (A. ch. [6](#) [22](#), [363](#); G. [24](#) [1] [477](#)). — I, [687](#).
- 25) Anhydrid d. $\beta\epsilon$ -Dimethylhexan- $\gamma\delta$ -Dicarbonsäure. Sd. [255](#)—[257°](#) (A. [292](#), [170](#)).
- 26) Anhydrid d. Dihydrocamphersäure. Sm. 103—104° (Soc. [73](#), [26](#)).
- 27) Laktone d. β -Oxy- ζ -Keto- β -Methylheptan- γ -Methylcarbonsäure (Methoxyheptanonolid). Sm. [63](#)—[64°](#) (A. [275](#), [150](#); [277](#), [110](#); [291](#), [342](#); B. [28](#), [1775](#), [1778](#); [29](#), [326](#), [2616](#); [31](#), [3217](#)).
- 28) d-Laktone d. β -Oxy- ζ -Keto- β -Methylheptan- γ -Methylcarbonsäure. Sm. 48—49° (B. [31](#), [3216](#)).
- 29) [2,4-Laktone](#) d. [3,4-Dioxy-1,1,3-Trimethylhexahydrobenzol-2-Carbonsäure](#) (Oxyjonolaktone). Sm. 130° (B. [31](#), [858](#)).
- 30) [3,5-Laktone](#) d. [3,5-Dioxy-1,1,2-Trimethyl-R-Pentamethylen-5-Methylcarbonsäure](#) (Oxydihydrocampholenlaktone). Sm. 144°; Sd. [273](#) bis [275°](#) (B. [28](#), [2174](#); [30](#), [411](#)).
- 31) Oxylaktone (aus Pulegensäure). Sm. [95°](#) Ag (A. [300](#), [263](#)).
- 32) Oxylaktone (aus Pulegensäure). Sm. 129—130°; Sd. [185°](#)₉₀ (A. [289](#), [353](#); [300](#), [264](#)).
- 33) Ketolaktone (aus Thujamenthon). Sm. 41° (B. [30](#), [427](#)).
- 34) Methylester d. Säure C₉H₁₄O₃ (aus Terpentinöl). Sd. 130—135°₁₄ (B. [29](#), [881](#)).
- 35) Aethylester d. δ -Oxy- $\alpha\zeta$ -Heptadien- δ -Carbonsäure (Aethylester d. Oxydiallylessigsäure). Sd. [213,6°](#) (A. [185](#), [185](#)). — I, [624](#).
- 36) Aethylester d. ϵ -Keto- δ -Methyl- α -Hexen- δ -Carbonsäure (Ae. d. Methylallylacetylessigsäure). Sd. 210° (A. [226](#), [207](#)). — I, [624](#).
- 37) Aethylester d. ϵ -Keto- β -Methyl- γ -Hexen- δ -Carbonsäure (Ae. d. Isobutyridenacetessigsäure). Sd. 219—222° (A. [218](#), [174](#); B. [31](#), [736](#)). — I, [624](#).
- 38) Verbindung (aus Terpen) (B. [29](#) [2] [658](#)).
C [60,0](#) — H [8,0](#) — O [32,0](#) — M. G. [200](#).

 $C_{10}H_{16}O_4$

- 1) [1,1,2-Trimethyl-R-Pentamethylen-2,5-Dicarbonsäure](#) (d-Camphersäure). Sm. 187°; subl. 163—164°. + $\frac{1}{2}$ Aceton. Salze meist bek.; Constit. (B. [28](#), [2164](#)). Lit. bedeutend. — I, [723](#).
- 2) l-Camphersäure. Sm. 187° (J. [1863](#), [556](#); Ph. Ch. [3](#), [47](#); B. [27](#), [2002](#); [29](#), [1701](#)). — I, [726](#).
- 3) i-Camphersäure (Paracamphersäure). Sm. 202—203°. Ba (A. [127](#), [121](#); B. [12](#), [1756](#); [27](#), [2002](#), [2010](#); [29](#), [1700](#); Ph. Ch. [3](#), [47](#)). — I, [726](#).
- 4) d-Isocamphersäure. Sm. 172° (C. r. [110](#), [722](#); B. [27](#), [2002](#); [29](#), [1701](#)).
- 5) l-Isocamphersäure. Sm. [172,5°](#) (B. [22](#) [2] [403](#); [26](#), [1639](#); [27](#), [2002](#); [29](#), [1701](#)). — I, [726](#).
- 6) i-Isocamphersäure. Sm. [191°](#) (C. r. [110](#), [722](#); B. [27](#), [2002](#); [29](#), [1701](#)).
- 7) Mesocamphersäure (Gemisch aus d-Camphersäure u. l-Isocamphersäure). Sm. 113° (?). Ca (A. [163](#), [327](#); [169](#), [179](#); [191](#), [146](#); B. [6](#), [680](#); [22](#) [2] [403](#); [26](#), [1639](#); [27](#), [2003](#)). — I, [726](#).
- 8) Cholecamphersäure (Choloïdonsäure). K + H₂O, K₂, Ca + 2H₂O, Ba + $4\frac{1}{2}$ H₂O, Ba₃ + 20H₂O, Pb + 3H₂O, Ag₂ (A. [50](#), [243](#); [57](#), [145](#); [194](#), [239](#); J. r. [11](#), [312](#); B. [12](#), [1519](#); [13](#), [1052](#); [19](#), [1522](#); Bl. [38](#), [133](#)). — I, [727](#).
- 9) Pseudocamphersäure. Sm. 119—120°. Ag₂ (Soc. [73](#), [39](#)).
- 10) $\beta\beta$ -Diketnonan- γ -Carbonsäure ($\alpha\epsilon$ -Diacetylcaprinsäure). Fl. (Soc. [55](#), [333](#)). — I, [694](#).
- 11) ζ -Methyl- γ -Hepten- $\alpha\gamma$ -Dicarbonsäure (Isovaleralglutarsäure). Sm. 57°. Ca + H₂O, Ba + H₂O, Ag₂ (A. [282](#), [344](#)).
- 12) Digitsäure. Sm. 192°. Ba + 6H₂O (B. [24](#), [345](#); [32](#), [341](#)). — III, [581](#).
- 13) α -Anhydrodigitsäure. Sm. 245° (B. [27](#) [2] [882](#)). — III, [582](#).
- 14) Divalonsäure (Dimethyloxetonecarbonsäure). Sm. 130° u. Zers. Ca, Ba (A. [256](#), [128](#)). — I, [694](#).
- 15) Pinophansäure. Sm. [203°](#) (C. [1897](#) [1] [816](#)).
- 16) Säure (aus α -Bromisovaleriansäureäthylester). Fl. Ag₂ (B. [22](#), [54](#)). — I, [727](#).
- 17) Säure (aus Dibromcampholid). Sm. 203°. Ba (C. [1896](#) [1] [306](#); Soc. [69](#), [44](#)).

$C_{10}H_{16}O_4$

- 18) Säure (aus Thujon oder Tanaceton). Sm. 146—147° u. Zers. Ag_2 (A. [275](#), [180](#)).
- 19) Lakton d. γ -Oxy- β -Methylheptan- $\gamma\zeta$ -Dicarbonsäure. Sm. bei 100° (B. [31](#), 2894).
- 20) $\delta\zeta$ -Lakton d. δ -Oxy- β -Methylheptan- $\epsilon\zeta$ -Dicarbonsäure (L. d. α -Methylisobutylitaminsäure; α -Methylisobutylparakonsäure). Sm. 142°. $Ca + 2H_2O$, $Ba + 2H_2O$, Ag (A. [255](#), [108](#)). — I, [758](#).
- 21) $\delta\eta$ -Lakton d. δ -Oxy- β -Methylheptan- $\epsilon\eta$ -Dicarbonsäure? Sm. 117,5° (A. [282](#), [352](#)).
- 22) $\delta\zeta$ -Lakton d. ζ -Oxy- β -Methylheptan- $\delta\zeta$ -Dicarbonsäure. Sm. 80° (Soc. [73](#), [58](#)).
- 23) $\alpha\gamma$ -Lakton d. γ -Oxy- $\beta\epsilon$ -Dimethylhexan- $\alpha\beta$ -Dicarbonsäure (L. d. β -Methylisobutylitaminsäure; β -Methylisobutylparakonsäure). Sm. 83°. $Ca + 2H_2O$, $Ba + 4H_2O$, Ag (A. [255](#), [120](#)). — I, [759](#).
- 24) $\alpha\gamma$ -Lakton d. γ -Oxyhexan- $\alpha\beta$ -Dicarbonsäure- β -Aethylester (Aethylester d. Propylparakonsäure). Sd. 288—289° u. ger. Zers. (A. [256](#), [106](#); [304](#), [242](#)). — I, [756](#).
- 25) $\beta\delta$ -Lakton d. β -Oxy- β -Methylpentan- $\delta\epsilon$ -Dicarbonsäure- ϵ -Aethylester. Sd. 276° (A. [304](#), [277](#), [293](#)).
- 26) $\gamma\epsilon$ -Lakton d. γ -Oxy- β -Methylpentan- $\delta\epsilon$ -Dicarbonsäure- ϵ -Aethylester (Aethylester d. Isopropylparakonsäure). Sd. 282° (A. [304](#), [259](#)).
- 27) $\alpha\gamma$ -Lakton d. α -Oxy- β -Isopropylpropan- $\alpha\gamma$ -Dicarbonsäure- α -Aethylester? (Aethylester d. Terpenylsäure). Sm. 37,5°; Sd. 305° (A. [180](#), [84](#); [256](#), [111](#), [112](#); J. 1883, [111](#)). — I, [757](#).
- 28) Dimethylester d. trans-Hexahydrobenzol-1,2-Dicarbonsäure. Sm. 33° (A. [258](#), [216](#)). — II, 1731.
- 29) Dimethylester d. trans-Hexahydrobenzol-1,4-Dicarbonsäure. Sm. 71° (58°) (B. [19](#), 1806; A. [245](#), [171](#); [258](#), [41](#); J. pr. [2] [43](#), [7](#)). — II, 1834.
- 30) Aethylester d. $\delta\beta$ -Diketo- γ -Aethylpentan- γ -Carbonsäure (Aethylester d. Diacetyläthyllessigsäure). Sd. 224—235° u. Zers. (R. [3](#), [265](#)). — I, [694](#).
- 31) Diäthylester d. R-Tetramethylen-1,1-Dicarbonsäure. Sd. 220—221°₇₃₀ (Soc. [51](#), [4](#); B. [28](#), 2827). — I, [718](#).
- 32) Diäthylester d. cis-R-Tetramethylen-1,2-Dicarbonsäure. Sd. 238 bis 242°₇₃₀ (Soc. [51](#), [22](#); [65](#), [584](#)). — I, [718](#).
- 33) Diäthylester d. R-Tetramethylen-1,3-Dicarbonsäure (D. d. Homoitakonsäure). Sd. 230° (A. [208](#), [338](#); J. r. [12](#), [449](#)). — I, [717](#).
- 34) Diäthylester d. 1-Methyl-R-Trimethylen-2,2-Dicarbonsäure (D. d. Methylvinakonsäure). Sd. 106—107° (221—222°₇₆₀) (B. [28](#), [10](#); A. [294](#), [114](#)).
- 35) Diäthylester d. α -Buten- $\alpha\beta$ -Dicarbonsäure (D. d. Aethylfumarsäure). Sd. 122—123°₁₅ (B. [29](#), 1791).
- 36) Diäthylester d. α -Buten- $\alpha\gamma$ -Dicarbonsäure (D. d. Methylglutakonsäure). Sd. 244—246° (Soc. [63](#), [880](#)).
- 37) Diäthylester d. α -Buten- $\delta\delta$ -Dicarbonsäure (D. d. Allylmalonsäure). Sd. 222—223° (cor.) (Soc. [45](#), [538](#); A. [204](#), [168](#); B. [28](#), [2630](#)). — I, [716](#).
- 38) Diäthylester d. β -Buten- $\beta\gamma$ -Dicarbonsäure (D. d. Dimethylfumarsäure). Sd. 235—240° (B. [15](#), 1319). — I, [717](#).
- 39) Diäthylester d. β -Methylpropen- $\alpha\alpha$ -Dicarbonsäure (D. d. Isopropylmalonsäure). Sd. 175—178°₁₉₀ (B. [28](#), [786](#)).
- 40) Diäthylester d. mal. β -Methylpropen- $\alpha\gamma$ -Dicarbonsäure (D. d. mal. Acetrotensäure). Sd. 244—246° (A. ch. [6] [24](#), [110](#)). — I, [715](#).
- 41) Diäthylester d. isom. β -Methylpropen- $\alpha\gamma$ -Dicarbonsäure (D. d. Homomesakonsäure). Sd. 240—242° (A. [222](#), [34](#)). — I, [715](#).
- 42) Diisopropylester d. Fumarsäure. Sd. 225—226° u. Zers. (J. r. [20](#), 256; A. [248](#), [191](#)). — I, [699](#).
- 43) Diisopropylester d. Maleinsäure. Sd. 232—235° u. Zers. (J. r. [20](#), [256](#); A. [248](#), [194](#)). — I, [702](#).
- 44) Diacetat d. 1,4-Dioxyhexahydrobenzol (cis-Form). Sm. 34—36°; Sd. 145—147°₂₅ (A. [278](#), [93](#)).
- 45) Diacetat d. 1,4-Dioxyhexahydrobenzol (trans-Form). Sm. 102—103°. Sd. 145—147°₂₅ (B. [25](#), [1038](#); A. [278](#), [93](#)). — I, [414](#).
C 55,5 — H 7,4 — O 37,0 — M. G. 216.
- 1) α -Oxycampfersäure (A. [145](#), [212](#); B. [28](#), 2151). — I, [771](#).

 $C_{10}H_{16}O_5$



- 2) **trans- π -Oxycamphersäure.** Sm. 131°. Ba (C. 1896 [1] 307; 1896 [2] 247; Soc. 69, 938).
- 3) **Oxyhomopinsäure.** Sm. 130—133° (B. 29, 2789).
- 4) **Oxysebacinsäure.** Sm. 143°. Na₂ (B. 20, 2886). — I, 771.
- 5) **δ -Keto- $\gamma\gamma$ -Dimethylpentan- α -Carbonsäure- β -Methylcarbonsäure (Isoketocamphersäure).** Sm. 129—130,5° (128—129°). Ba + H₂O (B. 26, 925; 28, 1348, 2173; 29, 2615, 3017, 3024).
- 6) **Cineolsäure.** Sm. 196—197° u. Zers. Ca + 4H₂O, Ag₂ + H₂O (A. 246, 268; 258, 320; C. 1898 [2] 1055). — I, 771.
- 7) **Dimethylester d. α -Keto- $\beta\beta$ -Dimethylbutan- $\alpha\gamma$ -Dicarbonsäure.** Sd. 164—165°₁₀ (B. 27, 2134; 28, 2158).
- 8) **Diäthylester d. α -Ketobutan- $\alpha\beta$ -Dicarbonsäure (Diäthylester d. α -Aethyl- β -Oxalfumarsäure; D. d. Aethyloxaleessigsäure).** Sd. 136—138°₂₀ (A. 246, 337; 276, 228; B. 31, 194). — I, 765.
- 9) **Diäthylester d. β -Ketobutan- $\alpha\alpha$ -Dicarbonsäure (D. d. Propionylmalonsäure).** Sd. 239—242°. Na (B. 20, 1326; Am. 14, 512). — I, 765.
- 10) **Diäthylester d. β -Ketobutan- $\alpha\gamma$ -Dicarbonsäure (D. d. Methylaceton-dicarbonsäure).** Sd. 193—195°₁₂₀ (B. 24, 4101). — I, 765.
- 11) **Diäthylester d. β -Ketobutan- $\gamma\gamma$ -Dicarbonsäure (Diäthylester d. Acetyl-methylmalonsäure).** Sd. 129,5—130°₂₀ (Am. 14, 510).
- 12) **Diäthylester d. β -Ketobutan- $\gamma\delta$ -Dicarbonsäure (D. d. Acetylbernsteinsäure).** Sd. 254—256° (A. 188, 219; 206, 310; 216, 35; 234, 36; Soc. 45, 517; 71, 330, 1165). — I, 765.
- 13) **Diäthylester d. α -Keto- β -Methylpropan- $\alpha\beta$ -Dicarbonsäure (D. d. Dimethyloxaleessigsäure).** Sd. 225—230° (B. 31, 197).
- 14) **Diäthylester d. β -Oxyäthenäthyläther- $\alpha\alpha$ -Dicarbonsäure (Diäthylester d. Oxymethylenmalonäthyläthersäure).** Sd. 280° (B. 26, 2731; A. 297, 75).
- 15) **Diäthylester d. α -Oxyäthenäthyläther- $\alpha\beta$ -Dicarbonsäure (Diäthylester d. Oxyfumaräthyläthersäure).** Sd. 136°₁₆ (A. 276, 226).
- 16) **Diäthylester d. α -Oxyäthenäthyläther- $\alpha\beta$ -Dicarbonsäure (Diäthylester d. Oxymaleinäthyläthersäure).** Sd. bei etwa 146—150°₁₈ (M. 14, 493).
- 17) **Diäthylester d. γ -Carboxybutan- β -Carbonsäure (Diäthylester d. Acet-methyleessigkohlenensäure).** Sd. 136°₁₀ (Am. 14, 511).
- 18) **Diäthylester d. Terechrysinsäure.** Fl. (A. 64, 379). — I, 766.
- 19) **Diäthylester d. Säure C₈H₈O₅.** Sd. 136—139°₁₅ (B. 25, 1774). — I, 765.
- 20) **Diacetat d. Hexandioxydhydrat (aus Diallylcarbinol).** Fl. (J. r. 21, 322). — I, 416.
- 21) **Diacetat d. Hexandioxydhydrat.** Sd. 141°₁₈ (A. ch. [6] 22, 452). — I, 317.



C 51,7 — H 6,9 — O 41,4 — M. G. 232.

- 1) **β -Methylhexan- $\beta\gamma\gamma$ -Tricarbonsäure.** Sm. 167—168° u. Zers. (B. 23, 1937). — I, 815.
- 2) **$\beta\delta$ -Dimethylpentan- $\beta\gamma\delta$ -Tricarbonsäure (α -Tetramethyltricarballylsäure).** Sm. 156° (B. 23, 667; Ph. Ch. 10, 566). — I, 815.
- 3) **isom. $\beta\delta$ -Dimethylpentan- $\beta\gamma\delta$ -Tricarbonsäure.** Sm. 135° (B. 23, 667; Ph. Ch. 10, 566). — I, 815.
- 4) **d-Säure (aus d. α -Säure C₁₃H₁₈O₆ aus Santonsäure) (C. 1896 [2] 1114).**
- 5) **i-Säure (aus d. α -Säure C₁₃H₁₈O₆ aus Santonsäure).** Sm. 125—126°. Ba₃ + 2H₂O, Ag₃ (G. 23 [2] 462; C. 1896 [1] 1114). — II, 2068.
- 6) **Säure (aus Bromcamphorensäure).** Sm. 184°. Ag₂ (C. 1896 [1] 306; Soc. 69, 49).
- 7) **Säure (aus d. Kohlenw. C₁₂H₂₀ aus Dimethylallylcarbinol), oder C₁₀H₁₄O₆** (B. 16, 1223).
- 8) **β -Anhydrid d. $\beta\beta\delta\delta\delta$ -Penta[Oxymethyl]- γ -Oxy-norm. Valeriansäure- γ -Lakton.** Sm. 174—176° (A. 276, 69).
- 9) **Monomethylester d. Camphoronsäure.** Sm. 125—126° (B. 28, 318; A. 292, 98).
- 10) **Methylester d. δ -Oxy- δ -Acetoxyl- γ -Keto- β -Methylbutan- δ -Methyläther- β -Carbonsäure.** Sm. 54°; Sd. 220—240° u. ger. Zers. (B. 30, 863).
- 11) **Methylester d. l- $\alpha\beta$ -Dipropionoxylpropionsäure.** Fl. (Soc. 69, 116).
- 12) **Diäthylester d. β -Oxy- α -Ketoäthanäthyläther- $\alpha\beta$ -Dicarbonsäure (D. d. Oxaloxyleessigäthyläthersäure).** Sd. 155—156°₁₇ (B. 24, 433). — I, 807.

- C₁₀H₁₆O₆** 13) Diäthylester d. α -Acetoxyläthan- $\alpha\beta$ -Dicarbonsäure* (D. d. Acetyl-äpfelsäure). *Sd.* 265,7°₁₂₀ (*A.* 129, 183; *B.* 18, 166; *Soc.* 69, 824). — *I*, 743.
- 14) Triäthylester d. Methantricarbonsäure. *Sm.* 29°; *Sd.* 253°. *Na* (*B.* 12, 752, 1236; 14, 618; 25, 1775; *J. pr.* [2] 37, 476; *A.* 214, 31; *R.* 9, 221; *Am.* 14, 499; 15, 527; *Bl.* [3] 19, 80). — *I*, 807.
- 15) norm. Propylester d. $\alpha\beta$ -Di[Acetoxyl]propionsäure. *Sd.* 258°_{700,4} (*Soc.* 63, 1423, 1430).
- 16) Isopropylester d. $\alpha\beta$ -Di[Acetoxyl]propionsäure. *Sd.* 246—248°_{700,4} (*Soc.* 63, 1424, 1430).
- 17) Triacetat d. $\alpha\beta\gamma$ -Trioxybutan. *Sd.* 261,8°_{710,2} (*M.* 1, 835). — *I*, 416.
- 18) Triacetat d. $\alpha\beta\delta$ -Trioxybutan. *Sd.* 163—164°₁₇ (*B.* 27, 2437).
- 19) polym. Glycidacetat. *Sd.* 258—261° (*J. pr.* [2] 20, 191; [2] 55, 425). — *I*, 415.
- C₁₀H₁₆O₇** C 48,4 — H 6,4 — O 45,1 — M. G. 248.
- 1) β -Oxy- β -Methylbutan- δ -Carbonsäure- $\gamma\gamma$ -Dimethylcarbonsäure (Oxy-isobutyryltriacetsäure). *K_s* (*J. pr.* [2] 41, 523). — *I*, 844.
- 2) Diäthylester d. β -Oxypropan- $\alpha\beta\gamma$ -Tricarbonsäure (D. d. Citronensäure). *Na* (*B.* 8, 869). — *I*, 839.
- 3) Diäthylester d. d-Acetylweinsäure (*A. Spl.* 5, 283; *Bl.* [3] 13, 205). — *I*, 796.
- 4) Diäthylester d. Acetyltraubensäure (*A. Spl.* 5, 286). — *I*, 801.
- 5) Diäthylester d. Isozuckersäure. *Sm.* 101° (*B.* 27, 127).
- 6) Diacetat d. Dulcitan (*A. ch.* [4] 27, 158). — *I*, 417.
- 7) Diacetat d. Quercit (*A.* 190, 288). — *I*, 416.
- C₁₀H₁₆O₈** C 45,4 — H 6,1 — O 48,5 — M. G. 264.
- 1) Atrarsäure (Physcianin = C₁₀H₁₂O₈). *Sm.* 140—141° (*G.* 12, 257; *A.* 288, 48; 295, 225; *B.* 30, 359). — *II*, 2083.
- 2) Diacetat d. Glykose (*Bl.* 12, 204). — *I*, 1048.
- C₁₀H₁₆N₂** C 73,1 — H 9,7 — N 17,1 — M. G. 164.
- 1) 2,3-Diamido-1-Isobutylbenzol. *Sm.* 109°. Oxalat (*B.* 21, 2951). — *IV*, 645.
- 2) 3,4-Diamido-1-Isobutylbenzol. *Sm.* 97,5°; *Sd.* 280—282°. 2HCl, Oxalat, Pikrat (*B.* 20, 3254). — *IV*, 646.
- 3) 4-Amido-1-Isobutylamidobenzol. *Sm.* 39° (*A.* 243, 299). — *IV*, 583.
- 4) 2,5-Diamido-4-Isopropyl-1-Methylbenzol. 2HCl (*B.* 18, 3200; 23, 3562). — *IV*, 647.
- 5) 3-Amido-1-Diäthylamidobenzol. *Sd.* 276—278°. 2HCl (*B.* 19, 200, 550). — *IV*, 571.
- 6) 4-Amido-1-Diäthylamidobenzol. *Sd.* 260—262°. (2HCl, PtCl₄) (*M.* 4, 297). — *IV*, 583.
- 7) 1,2-Di[β -Amidoäthyl]benzol. *Fl.* Pikrat (*G.* 22 [2] 511). — *IV*, 647.
- 8) 5,6-Diamido-1,2,3,4-Tetramethylbenzol. *Sm.* 140°. 2HCl + H₂O (*B.* 21, 906). — *IV*, 647.
- 9) 3,6-Diamido-1,2,4,5-Tetramethylbenzol. *Sm.* 149° (*B.* 28, 968; *A.* 237, 4). — *IV*, 646.
- 10) 1,2-Di[Dimethylamido]benzol. *Sd.* 215—218°. 2HCl, (2HCl, PtCl₄) (*B.* 25, 2839). — *IV*, 555.
- 11) 1,3-Di[Dimethylamido]benzol. *Sm.* —2°; *Sd.* 266—267°₇₄₀ (266°₇₆₁). 2HCl + 2H₂O (*B.* 12, 1814; 30, 3110; *J.* 1863, 422; *R.* 7, 3). — *IV*, 571.
- 12) 1,4-Di[Dimethylamido]benzol. *Sm.* 51°; *Sd.* 260°. 2HCl, (2HCl, PtCl₄), 2H₂SO₄ (*B.* 12, 526, 1807; *J.* 1863, 422). — *IV*, 582.
- 13) α -Amido- β -[2,4-Dimethylphenyl]amidoäthan (2,4-Dimethylphenyl-äthylendiamin). *Sd.* 273—275°. HCl, (2HCl, PtCl₄) (*B.* 24, 2197). — *II*, 543.
- 14) α -Amido- γ -[2-Methylphenyl]amidopropan (2-Methylphenyltrimethylen-diamin). *Sd.* 280—282°. 2HCl, Oxalat (*G.* 18, 372). — *II*, 459.
- 15) α -Amido- γ -[4-Methylphenyl]amidopropan (4-Methylphenyltrimethylen-diamin). *Sd.* 286—287° (283°₇₆₃). 2HCl, (2HCl, PtCl₄), Oxalat, 2Pikrat (*G.* 18, 366; *B.* 30, 2499). — *II*, 487.
- 16) uns-Isobutylphenylhydrazin. *Sd.* 245°. H₂SO₄ (*B.* 30, 2820; *A.* 252, 282). — *IV*, 659.

- $C_{10}H_{16}N_2$ 17) 5-[α -Dimethylamidoäthyl]-2-Methylpyridin. Fl. (2 HCl, 2 AuCl₃) (B. 28, 1771). — IV, 826.
- 18) 2,5-Dimethyl-3,6-Diäthyl-1,4-Diazin. Sd. 215–217°. + x H₂O (Sm. 42,5°). (2 HCl, PtCl₄) + AgNO₃ (B. 14, 1463, 2158; 19, 2525; 27, 1037; Bl. [3] 6, 834). — IV, 837.
- 19) Dihydronikotin. Sd. 263–264°. (2 HCl, PtCl₄ + H₂O) (J. 1883, 1337). — IV, 857.
- 20) Base (aus Fuselöl) (B. 12, 1432). — IV, 831.
- 21) Nitril d. Sebacinsäure. Sd. 199–200°₁₅ (B. 25, 2252). — I, 1479.
- $C_{10}H_{16}N_4$ C 54,5 — H 7,3 — N 38,2 — M. G. 220.
- $C_{10}H_{16}Cl_2$ 1) Aethylanilbiguanid. H₂SO₄ (G. 21 [2] 153). — IV, 1329.
- 1) α -Dichlorhydrocamphen (Campherchlorid). Sm. 155–155,5° (165°) (A. 115, 29; 196, 263; 197, 336; 200, 361; M. 1, 319; B. 14, 1378; Soc. 71, 288). — III, 488.
- 2) β -Dichlorhydrocamphen (Soc. 71, 288).
- 3) Chlorfenchhydrochlorid. Sd. 107–109°₁₆ (Soc. 73, 704).
- 4) Trieyklendichlorid. Sm. 165–168° (C. 1899 [1] 501).
- 5) Terpendichlorid. Sd. 110–112°₁₀ (A. 270, 201). — III, 527.
- $C_{10}H_{16}Cl_4$ 1) Dichlordipentindihydrochlorid. Sm. 108°; Sd. 160–165°₁₀ (A. 270, 198). — III, 527.
- $C_{10}H_{16}Br_2$ 1) Dibromhydrocamphen. Sm. 55,5° (J. 1885, 763). — II, 18.
- 2) Camphendibromid. Sm. 90° (B. 29, 900). — III, 535.
- 3) Pinendibromid. Sm. 169–170° (A. 264, 7; B. 29, 890; Soc. 69, 1009). — III, 521.
- 4) d-Terpendibromid (aus Pinus cembra). Fl. (J. r. 21, 370). — III, 517.
- 5) Terpendibromid (aus Fichtentheer) (Bl. [3] 11, 988).
- $C_{10}H_{16}Br_4$ 1) Dipentintetrabromid. Sm. 124–125° (A. 225, 311; 227, 279; 246, 226; 264, 19; B. 27, 440). — III, 528.
- 2) isom. Dipentintetrabromid (B. 28, 2297; A. 281, 131). — III, 528.
- 3) Limonentetrabromid. Sm. 104–105° (A. 227, 280; 252, 145). — III, 524.
- 4) Pinentetrabromid (Soc. 69, 1010).
- 5) Sylvestrentetrabromid. Sm. 135–136° (A. 239, 30; 252, 150). — III, 531.
- 6) Terpentetetrabromid (aus Colophonium). Sm. 120° (A. ch. [6] 1, 240). — III, 537.
- 7) Terpinolentetrabromid. Sm. 112–113° u. ger. Zers. (A. 230, 262; 275, 107). — III, 533.
- 8) Tetrabromdihydrocymol? Sm. 205° (B. 27, 2087).
- 9) Tetrabromid d. Terpen C₁₀H₁₆ (aus Fichtentheer). Fl. (Bl. [3] 11, 988).
- 10) Verbindung (aus Kautschuk) (Soc. 53, 679). — III, 551.
- $C_{10}H_{16}S$ 1) Thiocampher. Fest. Sd. bei 220° (B. 3, 593). — III, 498.
- $C_{10}H_{17}N$ C 79,5 — H 11,2 — N 9,3 — M. G. 151.
- 1) ?-Triäthylpyrrol. Sd. 200–205° (B. 23, 2563). — IV, 76.
- 2) l-Isoamyl-?-Dihydropyridin. Sd. 201–203°. (2 HCl, PtCl₄) (B. 14, 1501). — IV, 69.
- 3) 1,3,4,5,6-Pentamethyl-1,2-Dihydropyridin? Sd. 180–190°. (HCl, AuCl₃), HJ (B. 21, 2863; 22, 657, 2507). — IV, 76.
- 4) Aethyltropidin. (HCl, AuCl₃), HJ (B. 12, 946; 14, 232; A. 217, 122). — III, 782.
- 5) Amidophellandren. Fl. (2 HCl, PtCl₄), H₂SO₄ (G. 16, 228). — III, 530.
- 6) Amidopinen (Pinyllamin). Sd. 207–208°. HCl, (2 HCl, PtCl₄), HNO₃, H₂SO₄, Oxalat, Rhodanid (A. 268, 199). — IV, 78.
- 7) Amidoterpen. Sd. 197–200°. HCl, (2 HCl, PtCl₄), Oxalat (G. 16, 341; 18, 222). — IV, 76.
- 8) Campherimin. Sm. 95°; Sd. 104°₁₇. HCl, (HCl, AuCl₃), HNO₃ (B. 28, 1080; 29, 2807; G. 26 [2] 31). — IV, 77.
- 9) d-Carvylamin. 2 isom. Formen. Sd. 98–100°₁₄. HCl (B. 20, 486; 26, 2084; 30, 2069). — IV, 78.
- 10) l-Carvylamin. Sd. 98°₁₄ (B. 30, 2073).
- 11) Fenchonimin. HCl, HNO₃ (B. 29, 2819). — IV, 78.
- 12) Nitril d. β -Dimethyl- γ -Hepten- γ -Carbonsäure. Sd. 100°₁₉ (M. 17, 140; C. 1895 [2] 287).

- C₁₀H₁₇N** 13) Nitril d. Campholsäure. Sm. 72—73°; Sd. 217—219° (*G.* 22 [1] 213). — I, 1469.
- 14) Nitril d. d-Citronellalsäure. Sd. 104—106°₁₄ (*B.* 26, 2255; 30, 35; *A.* 296, 124).
- 15) Nitril d. Menthonensäure (Menthonnitril). Sd. 225—226° (*A.* 278, 308; 296, 124).
- C₁₀H₁₇N₃** C 67,0 — H 9,5 — N 23,5 — M. G. 179.
- 1) 3,4,5-Triamido-1-[tert.]Butylbenzol. Sm. 156—157°. 3HCl, Oxalat (*J. pr.* [2] 48, 100). — IV, 1134.
- 2) Di[Amidoäthyl]amidobenzol (Diamidodiäthylanilin). Sd. über 300°. 2HBr, Pikrat (*B.* 22, 2226). — II, 347.
- 3) 4-Amido-1,3-Di[Dimethylamido]benzol. Sd. 209,4°₁₁₂. 2HCl, (2HCl, 2SnCl₂), 2HBr, 2HJ, 2Pikrat (*B.* 30, 3111). — IV, 1122.
- 4) Amidomethyläthylisopropyl-1,3-Diazin. Sm. 153—154° (*J. pr.* [2] 39, 198). — IV, 1134.
- 5) 6-Amido-2,4,5-Triäthyl-1,3-Diazin. Sm. 183—184° (*J. pr.* [2] 39, 247). — IV, 1134.
- 6) 6-Methylamido-5-Methyl-2,4-Diäthyl-1,3-Diazin (Methylkylanäthin). Sm. 74°; Sd. 257—258°. (2HCl, PtCl₂), 2 + AgNO₃ (*J. pr.* [2] 26, 343). — IV, 1133.
- 7) Nitril d. α -Imidodiisovaleriansäure. Sm. 52°. HCl (*A.* 205, 23; *J.* 1880, 809; *B.* 13, 907). — I, 948.
- C₁₀H₁₇Cl** 1) 6-Chlor-5-Isopropyl-2-Methyl-1,2,3,4-Tetrahydrobenzol^p Sd. 210 bis 212° (*B.* 25, 687; 29, 315). — II, 19.
- 2) α -Camphylchlorid. Sd. 209—210° (*C.* 1898 [2] 888).
- 3) Chlorrythylen (*Z.* 1867, 393).
- 4) Chlorid d. Borneol (Bornylchlorid). Sm. 157° (157—159°) (*A.* 112, 366; 197, 93, 200, 343; 230, 231; *A. ch.* [5] 6, 382; *M.* 1, 588; *B.* 29, 544, 697; *Bl.* [3] 15, 374). — III, 470.
- 5) Chlorid d. Isoborneol (Isobornylchlorid). Sd. 150—152° (*B.* 29, 697; *Bl.* [3] 15, 373).
- 6) Chlorid d. Coriandrol. Fl. (*B.* 14, 2494). — III, 475.
- 7) Chlorid d. l-Fenchylalkohol. Sd. 84—86°₁₄ (*A.* 263, 148; 302, 375, 382; *Soc.* 73, 276). — III, 476.
- 8) Chlorid d. α -Menthon. Sd. 205—208° (*B.* 25, 694). — III, 478.
- 9) Salzsäures Camphen. Sm. 147° (i. HCl-Atm.) (149—151°) (*A. ch.* [5] 6, 363; *Bl.* [3] 15, 373). — III, 534.
- 10) Camphenhydrochlorid. Sm. 157° (*B.* 29, 546). — III, 534.
- 11) i- α -Camphenhydrochlorid. Sm. 145° (*A. ch.* [5] 6, 372). — III, 535.
- 12) i- β -Camphenhydrochlorid. Sm. 147° (*A. ch.* [5] 6, 374). — III, 535.
- 13) Dipentinhydrochlorid. Sd. 145°₁₄₀ (*Bl.* 24, 110, 112; *A. ch.* [5] 6, 222). — III, 527.
- 14) Divalerylenhydrochlorid. Sd. 115—120°₃₀ (*Bl.* 33, 24). — III, 539.
- 15) Limonenhydrochlorid. Sd. 97—98°₁₁₋₁₂ (*A.* 270, 189). — III, 523.
- 16) Olibenhydrochlorid. Sm. 127° (*A.* 173, 3). — III, 543.
- 17) Pinenhydrochlorid (Terpenhydrochlorid). Sm. 125°; Sd. 210°. Lit. bedeutend. — III, 520.
- 18) isom. Pinenhydrochlorid. Fl. Sd. 120°₄₀ (*A.* 84, 350; *B.* 12, 1131; *J. r.* 12, 56; *A. ch.* [3] 37, 225; *Bl.* 40, 323). — III, 521.
- 19) Xanthoxylenhydrochlorid (*A.* 104, 238). — III, 544.
- 20) Terpenhydrochlorid (aus Abies Reginae Amaliae). Fl. (*J.* 1864, 536). — III, 541.
- 21) Terpenhydrochlorid (aus Angelica Archangelica). Sm. 127° (*B.* 15, 1742). — III, 541.
- 22) Terpenhydrochlorid (aus Athamanta oroselinum). Sd. 190° (*A.* 51, 337). — III, 541.
- 23) Terpenhydrochlorid (aus Ingweröl). Fl. (*A.* 84, 353). — III, 543.
- 24) Terpenhydrochlorid (aus Muskatnussöl) (*J.* 1862, 461; *A.* 131, 212). — III, 543.
- 25) i-Terpenhydrochlorid (aus Pinus abies). Sm. 126,5° (*J. r.* 21, 362). — III, 516.
- 26) d-Terpenhydrochlorid (aus Pinus cembra). Sm. 125° (*J. r.* 21, 370). — III, 517.
- C₁₀H₁₇Cl₃** 1) Trichlor- α -Dekanaphten. Sd. 180—190° (*J. r.* 25, 383).

- C₁₁H₁₇Cl₂** 2) Chlordipentindihydrochlorid. Sm. 87°; Sd. 145—150°₁₀ (A. 270, 197). — III, 527.
- C₁₀H₁₇Br** 1) 1-Brom-4-Isopropyliden-1-Methylhexahydrobenzol (1-Brom-*A*⁸-Terpan). Sm. 34—35° (B. 28, 229). — III, 521.
2) 2-Brom-5-Aethyl-1,3-Dimethyl-2-Tetrahydrobenzol. Sd. 100—110° (C. 1899 [1] 176).
3) Bornylbromid. Sm. 74—75° (A. 197, 98). — III, 470.
4) Pinenhydrobromid. i-Modif. Sm. 81°; l-Modif. Sm. 87° (A. 239, 7; 252, 156; B. 10, 84; G. 18, 223). — III, 521.
- C₁₀H₁₇Br₂** 1) 1,4-Dibrom-4-[α -Bromisopropyl]-1-Methylhexahydrobenzol. Sm. 109—110° (A. 264, 25; B. 27, 449; 28, 2297). — III, 528.
2) 1,2,4-Tribrom-1-Methyl-4-Isopropylhexahydrobenzol. Fl. (B. 27, 440).
- C₁₀H₁₇J** 1) Limonenhydrojodid. Fl. (J. 1873, 370). — III, 524.
2) Pinenhydrojodid. Fl. (A. 37, 183). — III, 521.
3) Jodid d. Coriandrol. Fl. (B. 14, 2495). — III, 475.
- C₁₀H₁₈O** C 77,9 — H 11,7 — O 10,4 — M. G. 154.
1) Auranthiol. Sd. 93—95°₁₅ (B. 25, 1186). — III, 468.
2) d-Borneol. Sm. 203—204°; Sd. 212°. Na, 2 + HBr, 2 + HJ. Lit. bedeutend. — III, 468.
3) l-Borneol. Sm. 208,8° (J. 1874, 537, 538; 1886, 1666; A. 45, 34; 101, 95; 105, 67; A. ch. [5] 14, 21; [6] 27, 396; Bl. [3] 15, 368; B. 11, 455, 26 [2] 685; Ph. Ch. 27, 541). — III, 471.
4) i-Borneol. Sm. 210,5° (B. 12, 1755; A. ch. [5] 14, 26; [6] 27, 429; Soc. 57, 963; Ph. Ch. 3, 237). — III, 472.
5) Isoborneol. Sm. 216° (212°). subl. (J. pr. [2] 49, 1, 15; [2] 55, 39; B. 29, 544; Ph. Ch. 27, 545). — III, 473.
6) Camphenol. Sm. 185,5—190°; Sd. 208—211° (A. ch. [6] 9, 509). — III, 473.
7) Campholalkohol. Sd. 203° (G. 22 [2] 115).
8) Carvanon. Sd. 214—219° (Soc. 73, 857).
9) Cineol (Cajeputol, Eucalyptol, Terpan). Sd. 176°. Lit. bedeutend. — III, 474.
10) Coriandrol (d-Linalool). Sd. 194—198° (J. 1852, 624; B. 14, 2485; 24, 206; Bl. [3] 9, 914; J. pr. [2] 58, 119). — III, 475.
11) Dihydrocarveol. Sd. 224—225° (A. 275, 110; B. 28, 2141; Ph. Ch. 27, 540). — III, 475.
12) Dihydroeucarveol. Sd. 109—110°₂₁ (B. 27, 1922). — III, 476.
13) Dihydroisocampher. Sd. 203° (G. 26 [2] 40; B. 29, 2817). — III, 276.
14) Diosmelaeopten. Sd. 204—206° (207—209°₇₅₇) (G. 15, 195; J. 1880, 1081; J. pr. [2] 54, 439; C. 1896 [2] 552). — III, 545.
15) Fenchonol. Sd. 183—184° (A. 284, 338). — III, 476.
16) Fencholenalkohol. Sd. 96°₁₇ (A. 269, 375; 300, 310). — III, 476.
17) Isofencholenalkohol. Sd. 218° (A. 284, 336; 300, 309). — III, 476.
18) d-Fenchylalkohol. Sm. 40—41° (42°); Sd. 200° (201°) (A. 272, 104; Bl. [3] 19, 414). — III, 476.
19) l-Fenchylalkohol. Sm. 45°; Sd. 201° (A. 263, 143; 284, 331; Soc. 73, 276; Ph. Ch. 27, 545). — III, 476.
20) i-Fenchylalkohol. Sm. 33—35° (A. 272, 108). — III, 476.
21) Galgantöl (Berx. J. 24, 479). — III, 476.
22) Geraniol (Licarhodol; Rhodinol; Roseol; 9-Oxy- $\beta\zeta$ -Dimethyl- $\beta\zeta$ -Oktadien). Sd. 228°₈₀₀. 2 + CaCl₂. Lit. bedeutend. — IV, 476.
23) Hexahydroanethol. Sm. 18—19°; Sd. 198° (B. 13, 146). — II, 852.
24) Hopfenöl. Sd. 210° (J. 1853, 516; 1854, 654; J. pr. [2] 28, 448). — III, 477.
25) Lavendol. Sd. 197°₁₉₉ (J. pr. [2] 45, 596; B. 25, 1187). — III, 477.
26) d-Licarhodol. Sd. 112—114°₉ (Bl. [3] 17, 591).
27) d-Linalool, siehe Coriandrol C₁₀H₁₈O.
28) l-Linalool (γ -Oxy- $\gamma\eta$ -Dimethyl- $\alpha\zeta$ -Oktadien; Likareol). Sd. 190—195° (A. ch. [5] 25, 427; Bl. [3] 9, 802, 1002; B. 25, 1183; 26, 2711; 26 [2] 490; 28, 2131, 2137; 29, 692; 31, 832; J. pr. [2] 45, 602; [2] 58, 109; J. 1881, 1026; C. 1895 [2] 406; 1896 [1] 1125; Ph. Ch. 27, 541). — III, 477.
29) Melissenöl. Sd. 204—209° (B. 14, 208). — III, 480.

$C_{10}H_{18}O$

- 30) α -Menthon. *Sd.* 206,3° (*Soc.* [41](#), [50](#); *B.* [25](#), [617](#), [692](#); *Bl.* [3] [19](#), [789](#)). — III, [478](#).
- 31) d-Menthon. *Sd.* 206—208° (*A.* [250](#), [334](#); *J. r.* [27](#), [490](#); *J. pr.* [2] [55](#), [19](#)). — III, [479](#).
- 32) l-Menthon. *Sd.* 207°. *K.* (*A.* [250](#), [325](#); *J. r.* [27](#), [471](#), [491](#); *A.* [289](#), [73](#); *J. pr.* [2] [55](#), [18](#)). — III, [478](#).
- 33) i-Menthon. *Sd.* 204—206° (*Am.* [16](#), [399](#)). — III, [480](#).
- 34) Nerolol. *Sd.* 88—94°₁₈ (*B.* [26](#), [2711](#) *Anm.*). — III, [480](#).
- 35) Osmitesöl. *Sd.* 178° (*A.* [89](#), [214](#)). — III, [481](#).
- 36) Pinocampheol. *Sd.* 218—219° (*A.* [300](#), [288](#)).
- 37) Pulegol. *Sd.* 108—110°₁₄ (*B.* [30](#), [25](#)).
- 38) syn. Pulegol. *Sd.* 215° (*B.* [29](#), [2957](#); *A.* [300](#), [272](#)).
- 39) Isopulegol. *Sd.* 91°₁₈ (*B.* [29](#), [913](#); [30](#), [27](#); *C.* [1897](#) [2] [305](#)). — III, [481](#).
- 40) Tanacetylalkohol (Thujylalkohol). *Sd.* 210—212° (92,5°₁₁) (*B.* [25](#), [3344](#); *A.* [272](#), [109](#); [275](#), [179](#)). — III, [481](#).
- 41) d-Terpenhydrat (aus *Pinus cembra*). *Fest. Sd.* oberh. 210° (*J. r.* [21](#), [370](#)). — III, [517](#).
- 42) Terpeneol (Menthenol; Terpenhydrat; Terpienol). *Sm.* 35°; *Sd.* 218°. *Lit.* bedeutend. — III, [482](#).
- 43) i-Terpeneol. *Sm.* 32°; *Sd.* 114—118°₁₀ (*A. ch.* [6] [9](#), [513](#)). — III, [483](#).
- 44) d-Terpeneol. *Sm.* 33—35°; *Sd.* 213,7—217,7°₁₀₀ (*B.* [20](#), [1957](#); *J. pr.* [2] [58](#), [114](#)). — III, [483](#).
- 45) l-Terpeneol. *Sm.* 32°; *Sd.* 215—218° (*J. r.* [28](#), [132](#)). — III, [483](#).
- 46) act. Terpeneol (aus Limonenmonochlorhydrat). *Sd.* 215° (*B.* [28](#), [2190](#)). — III, [483](#).
- 47) i-Tetrahydrocarvon. *Sd.* 220—221° (*A.* [277](#), [133](#); [287](#), [376](#); *B.* [28](#), [1962](#)). — III, [484](#).
- 48) act. Tetrahydrocarvon. *Sd.* 220—223° (*B.* [26](#), [822](#); [28](#), [1600](#)). — III, [484](#).
- 49) Tetrahydroeucarvon (3-Keto-1,1,4-Trimethyl-R-Heptamethylen). *Sd.* 108 bis 115°₉₀ (*B.* [31](#), [2071](#)).
- 50) l-Oxy-4-Isopropyliden-1-Methylhexahydrobenzol (*d*⁴(⁸)-Terpenol). *Sm.* 69—70° (*B.* [27](#), [444](#)). — III, [481](#).
- 51) 5-Oxy-1,1,2,2,4-Pentamethyl-2,3-Dihydro-R-Penten. *Sd.* 93—95°₁₁ (*A.* [296](#), [317](#)).
- 52) 3-Keto- β -Methyl- β -Nonen. *Sd.* 203—205°₁₀₀ (*Bl.* [3] [21](#), [88](#)).
- 53) δ -Oxy- δ -Propyl- α - ζ -Heptadien (Diallylpropylcarbinol). *Sd.* 194° (*A.* [193](#), [362](#); *J. r.* [10](#), [272](#); *J. pr.* [2] [26](#), [111](#)). — I, [257](#).
- 54) δ -Oxy- δ -Isopropyl- α - ζ -Heptadien (Diallylisopropylcarbinol). *Sd.* 182 bis 185° (*J. r.* [11](#), [29](#); *A.* [197](#), [70](#)). — I, [257](#).
- 55) Divalerylenhydrat. *Sd.* 175—177° (*Z.* [1867](#), [174](#); *A.* [143](#), [373](#)). — I, [257](#).
- 56) Alkohol (aus Hopfenöl). *Sd.* 145—150°₆₀ (*Soc.* [67](#), [55](#)).
- 57) Alkohol (aus Kuro-moji-Oel). *Sd.* 218° (*B.* [24](#), [81](#)). — III, [547](#).
- 58) Alkohol (aus Nitromenthon). *Sd.* 210—215° (*Am.* [16](#), [398](#)). — III, [485](#).
- 59) Alkohol (aus dem Keton $C_{10}H_{16}O$). *Sd.* 218—220° (*A.* [281](#), [157](#); *B.* [28](#), [2711](#)).
- 60) Alkohol (aus d. Keton $C_{10}H_{16}O$ aus Isolauronolsäure). *Sd.* 205° (*C.* [1897](#) [1] [814](#); *Bl.* [3] [19](#), [704](#)).
- 61) Alkohol (aus Methylallylcarbinol). *Sd.* 207—215° (*J. pr.* [2] [30](#), [215](#)). — I, [257](#).
- 62) 5-Keto-3-Isopropyl-1-Methylhexahydrobenzol (α -Menthon). *Sd.* 220°₁₄₀ (*A.* [297](#), [172](#)).
- 63) 2-Keto-1,3-Diäthylhexahydrobenzol. *Sd.* 205—207°₁₆₇ (*B.* [28](#), [1342](#)).
- 64) Thujamenthon (Keton). *Sd.* 208—211° (*A.* [286](#), [104](#); *B.* [28](#), [1959](#); [30](#), [427](#)). — III, [484](#).
- 65) Keton (aus 4-Oxy-5-Aethyl-1,3-Dimethylhexahydrobenzol). *Sd.* 213—218° (*C.* [1899](#) [1] [176](#)).
- 66) Keton (aus Isobutyrylchlorid u. Zinkmethyl). *Sd.* 189—191° (*A.* [188](#), [139](#)). — I, [1010](#).
- 67) Aldehyd d. d-Citronellalsäure (Citronellal). *Sd.* 205—208°. + $NaHSO_3$, + 2 $NaHSO_3$ (*Am.* [11](#), [460](#); [12](#), [553](#); [14](#), [205](#); *B.* [20](#), [1017](#); [25](#) [2] [644](#); [26](#), [2254](#); [27](#), [2027](#); [29](#), [904](#), [918](#); [30](#), [34](#); [31](#), [2902](#), [3306](#); *J.* [1872](#), [815](#); [1875](#), [852](#); *Ph. Ch.* [27](#), [535](#)). — III, [474](#).

- C₁₀H₁₈O**
- 68) Aldehyd d. 1-Citronellalsäure (1-Citronellal). Fl. (B. 30, 35).
 69) Menthocitronellal. Sd. bei 200° (A. 296, 131).
 70) Aldehyd d. β₂-Dimethyl-γ-Hepten-γ-Carbonsäure (Diisovaleraldehyd). Sd. 187–191°₄₂ (B. 2, 552; 3, 135; 5, 481; 6, 983; 8, 370; 28, 2117; 28 [2] 608; Z. 1866, 465; 1870, 251, 415; Bl. 18, 64; A. 117, 68; 126, 242; M. 17, 129; 18, 193; C. 1895 [2] 287). — I, 961.
 71) Aldehyd d. Säure C₁₀H₁₈O₂ (aus Menthylamin). Fl. (A. 278, 317).
 72) Verbindung (aus Baldrianöl). Sd. 205–215° (B. 11, 454). — III, 545.
 73) Verbindung (aus Cardamomöl). Sd. 205–220° (A. 238, 101). — III, 546.
 74) Verbindung (aus Formylbornylamin). Sm. 159° (A. 269, 351). — IV, 56.
- C₁₀H₁₈O₂**
- C 70,6 — H 10,6 — O 18,8 — M. G. 170.
- 1) 4-Oxy-5-Keto-1-Methyl-4-Isopropylhexahydrobenzol. Sd. 104,5 bis 105,5°_{13,5} (B. 27, 1640).
 - 2) Diäthyläther d. γδ-Dioxy-αε-Hexadien (Divinylglykoldiäthyläther). Sd. 224–226° (GRINER, these 85). — I, 311.
 - 3) Camphenglykol. subl. über 100°; Sm. 192° u. Zers. (B. 23, 2312). — I, 271.
 - 4) Camphorogenol. Sd. 212–213° (Soc. 47, 782). — III, 546.
 - 5) Pinenglykol. Sd. 150–152°₂₁ (B. 27, 2271).
 - 6) Pinolhydrat (Sobrerol). act. Modif. Sm. 150°; i-Modif. Sm. 130,5–131°; Sd. 270–271° (A. 80, 107; 259, 313; 277, 115; 291, 351; Soc. 59, 315; B. 29, 1195, 1202). — III, 508.
 - 7) Glykol (aus Menthan-1, 2, 8-triol). Sm. 63–64°; Sd. 259–260°_{7,54} (B. 29, 1200).
 - 8) Alkohol (aus Diosphenol). Sm. 159° (C. 1896 [2] 552).
 - 9) Alkohol (aus Terpentinsel). Sd. 191–191,5° (B. 27, 2272; 29, 1198).
 - 10) βδ-Diketodekan (Acetylmethylhexylketon). Sm. –6°; Sd. 228–229°. Cu (B. 22, 1015; R. 16, 119). — I, 1020.
 - 11) βδ-Diketo-γ-Methylnonan (α-Methyldiacetylpentan). Sd. 232–235°₃₅₀ (Soc. 55, 346). — I, 1020.
 - 12) βδ-Diketo-γ-Isoamylpentan (Isoamylacetylaceton). Sd. 220–225° (A. ch. [6] 12, 249). — I, 1020.
 - 13) β-Nonen-α-Carbonsäure. Sm. 10°. Ca, Ba, Ag (A. 227, 90). — I, 522.
 - 14) β₂-Dimethyl-γ-Hepten-γ-Carbonsäure (Amydekylensäure). Sd. 241,5°. Na, K, Ca + 1½ H₂O, Ba, Cd, Ag (J. 1870, 680; B. 5, 481; 10, 455 Anm.; 12, 193; M. 17, 137, Soc. 73, 66). — I, 522.
 - 15) Amenylvaleriansäure. Sd. 268–270°. Na (A. 202, 297). — I, 522.
 - 16) 1-Isopropylhexahydrobenzol-4-Carbonsäure. Sm. 94–95°; Sd. 269°. K, Ca, Ba, Ag (J. pr. [2] 57, 95).
 - 17) Dekanaphtensäure (J. r. 19, 156). — I, 522.
 - 18) Campholsäure. Sm. 95°; Sd. 250° (260°). NH₄, Na + 5H₂O, K + 2H₂O, Mg, Ca + H₂O, Ba + 3H₂O, Sr, Zn, Ni, Co, Cu, Ag (A. 38, 337; 107, 249; 145, 202; 162, 259; A. ch. [5] 14, 99; Ph. Ch. 3, 405; G. 22 [1] 208; Bl. [3] 11, 426, 486). — I, 521.
 - 19) Isocampholsäure. Sd. 256–257°_{7,60}. NH₄, Na, K, Mg, Ca, Sr, Zn, Cu, Ag (B. 27 [2] 667; Bl. [3] 11, 906; [3] 13, 769).
 - 20) d-Citronellalsäure. Sd. 257° (141–143°_{1,2}). Ag (Am. 14, 208; B. 26, 2256; 29, 905, 918; 30, 33, 35).
 - 21) l-Citronellalsäure. Sd. 143–144°₁₄. Ag (B. 30, 36).
 - 22) i-Citronellalsäure. Sd. 157–157,5°₂₃ (B. 31, 2901).
 - 23) Dekakrylsäure. Sm. 86° (Z. 1868, 383). — I, 522.
 - 24) Menthonensäure. Sd. 257–261°. Ag (A. 278, 312; 296, 120).
 - 25) Säure (aus Bourbongeraniumöl). Ag (C. 1898 [2] 360).
 - 26) Säure (aus Petroleum). Fl. (B. 24, 1810). — I, 523.
 - 27) Säure (aus Purginsäure). Sd. 176°_{1,35} (C. 1897 [1] 419).
 - 28) Lakton d. γ-Oxynonan-α-Carbonsäure. Sd. 281° (A. 227, 92; B. 27, 3126). — I, 578.
 - 29) Lakton d. ε-Oxy-β₂-Dimethylheptan-α-Carbonsäure? Sd. 155 bis 165°₂₅ (B. 29, 30).
 - 30) Methylester d. Oktonaphtencarbonsäure. Sd. 211–213° (B. 24, 2723). — I, 521.

- $C_{10}H_{18}O_2$
- 31) Isoamylester d. α -Buten- γ -Carbonsäure (Isoamylester d. Angelikasäure). Sd. 200—201° (A. [195](#), [100](#)). — [I](#), [513](#).
 - 32) Isoamylester d. β -Buten- β -Carbonsäure (Isoamylester d. Tiglinsäure). Sd. 204—205° (A. [195](#), [101](#)). — [I](#), [513](#).
 - 33) Oktonaphtenylester d. Essigsäure (Acetat d. Oktonaphtenol). Sd. [195](#) bis [200°](#) (J. r. [24](#), [203](#)). — [I](#), [412](#).
 - 34) Acetat d. δ -Oxy- ϵ -Methyl- α -Hepten (A. d. Isobutylallylcarbinol). Sd. [178,5](#)—[179,5°](#)₁₀₀ (B. [27](#), [2435](#); Bl. [\[3\]](#) [11](#), [361](#)).
 - 35) Acetat d. [cis-5-Oxy-1,3-Dimethylhexahydrobenzol](#). Sd. 204—205°₁₄ (A. [297](#), [162](#)).
 - 36) Acetat d. [trans-5-Oxy-1,3-Dimethylhexahydrobenzol](#). Sd. 195—196° (A. [289](#), [145](#)).
 - 37) Methyl-R-Pentamethylenmethylcarbinolester d. Essigsäure (Acetat d. 1-Methyl-2-[α -Oxyäthyl]-R-Pentamethylen). Sd. 145—150°₁₃₀ (Soc. [57](#), [249](#)). — [I](#), [412](#).
- $C_{10}H_{18}O_3$
- 38) Propionat d. δ -Oxy- ϵ -Methyl- α -Hexen. Sd. 178—180° (Bl. [\[3\]](#) [15](#), [886](#)). C [64,5](#) — H [9,7](#) — O [25,8](#) — M. G. [186](#).
 - 1) [cis](#)-Pinolglykol. Sm. 125°; Sd. 158—159°₁₂ (A. [259](#), [311](#); [268](#), [223](#); [281](#), [149](#); [291](#), [355](#); B. [28](#), [2710](#); C. [1898](#) [\[2\]](#) [543](#)). — [III](#), [508](#).
 - 2) [trans](#)-Pinolglykol. Sm. [128,5](#)—[129°](#); Sd. 281—282° (J. r. [26](#), [528](#); B. [27](#), [1644](#); [28](#), [2710](#); [29](#), [888](#); C. [1898](#) [\[2\]](#) [543](#)). — [III](#), [508](#).
 - 3) Terpendioxydhydrat? (Soc. [38](#), [521](#) — [III](#), [520](#)).
 - 4) l-Ketoterpin. Sm. [78](#)—[80°](#); Sd. [163](#)—[165°](#)₁₆; Zers. bei 250°. Na (B. [31](#), [3214](#)).
 - 5) [3-Oxy- \$\beta\$ - \$\epsilon\$ -Dimethyl- \$\beta\$ -Hepten- \$\eta\$ -Carbonsäure](#). Sd. 170°; (C. [1896](#) [\[1\]](#) [707](#); B. [31](#), [826](#)).
 - 6) β -Keto- γ -Methyloktan- η -Carbonsäure ($\alpha\epsilon$ -Dimethyl- ϵ -Acetylcapronsäure). Sd. 215—217°₁₁. Ag (Soc. [59](#), [584](#)). — [I](#), [611](#).
 - 7) ϵ -Keto- β - ϵ -Dimethylheptan- α -Carbonsäure (Oxymenthylsäure). Sd. 288 bis [290°](#) (186—187°₂₀). Cu, Ag (A. ch. [\[6\]](#) [7](#), [447](#); Ph. Ch. [3](#), [405](#); B. [27](#), [1643](#), [1914](#); [29](#), [27](#); A. [289](#), [368](#)). — [I](#), [611](#).
 - 8) ϵ -Keto- β -Isopropylhexan- α -Carbonsäure. Sm. 40°; Sd. 192°₃₀ (B. [29](#), [31](#)).
 - 9) [3-Oxy-1,1,2-Trimethyl-R-Pentamethylen-5-Methylcarbonsäure](#) (syn-Oxydihydrocampholensäure). Sm. 105° (B. [28](#), [1084](#), [2171](#); [30](#), [408](#)).
 - 10) Oxysäure (aus Pfefferminzöl). Sm. 93° (B. [28](#) [\[2\]](#) [610](#)).
 - 11) Säure (aus Campholid). Sm. 179°. Ba (C. [1896](#) [\[1\]](#) [307](#); Soc. [69](#), [57](#)).
 - 12) Anhydrid d. Valeriansäure. Sd. 215° (A. [84](#), [107](#)). — [I](#), [463](#).
 - 13) Anhydrid d. Isovaleriansäure. Fl. (G. [25](#) [\[2\]](#) [133](#)).
 - 14) Anhydrid d. Trimethylessigsäure. Sd. 190° (A. [173](#), [374](#)). — [I](#), [463](#).
 - 15) Anhydrid d. Lecasterinsäure (Lecasterid). Sm. 105° (B. [30](#), [364](#); J. pr. [\[2\]](#) [58](#), [494](#)).
 - 16) Aldehyd d. γ -Acetoxyl- $\beta\delta$ -Dimethylpentan- β -Carbonsäure. Sd. [136](#) bis [139°](#)₁₈ (M. [17](#), [644](#)).
 - 17) Methylester d. γ -Keto- δ -Methylheptan- δ -Carbonsäure (M. d. α -Propyl- α -Propionylpropionsäure). Sd. 219—220° (A. [245](#), [93](#)). — [I](#), [610](#).
 - 18) Methylester d. Oxäthenylisoönanthsäure. Sd. 245—250° (A. [218](#), [78](#)). — [I](#), [610](#).
 - 19) Methylester d. Säure $C_9H_{16}O_3$ (aus Cineolsäure). Sd. 125°₁₃ (A. [271](#), [26](#)). — [I](#), [610](#).
 - 20) Aethylester d. δ -Ketoheptan- γ -Carbonsäure (Ae. d. α -Butyrylbuttersäure). Sd. 217—219° u. Zers. (Bl. [\[3\]](#) [2](#), [388](#)). — [I](#), [608](#).
 - 21) Aethylester d. ϵ -Keto- β -Methylhexan- δ -Carbonsäure (Ae. d. Isobutylacetessigsäure). Sd. 217—218° (A. [190](#), [306](#); B. [7](#), [501](#); [28](#), [2623](#); Bl. [\[3\]](#) [13](#), [183](#)). — [I](#), [602](#).
 - 22) Aethylester d. β -Keto- γ -Methylhexan- γ -Carbonsäure (Ae. d. Methylpropylacetessigsäure). Sd. 214° (215—217°) (A. [226](#), [287](#); B. [17](#), [918](#)). — [I](#), [608](#).
 - 23) Aethylester d. δ -Keto- γ -Methylhexan- γ -Carbonsäure (Ae. d. α -Aethyl- α -Propionylpropionsäure). Sd. 205—207° (A. [231](#), [233](#)). — [I](#), [608](#).
 - 24) Aethylester d. β -Keto- γ -Aethylpentan- γ -Carbonsäure (Ae. d. Diäthylacetessigsäure). Sd. 218° (A. [138](#), [211](#); [186](#), [191](#); [226](#), [205](#); [231](#), [235](#); J. pr. [\[2\]](#) [6](#), [160](#); [\[2\]](#) [50](#), [135](#), [142](#); Z. [1871](#), [249](#); Am. [4](#), [28](#)). — [I](#), [602](#).
 - 25) Aethylester d. δ -Keto- $\beta\beta$ -Dimethylpentan- α -Carbonsäure. Sd. 104°₁₁ (A. [299](#), [179](#)).

$C_{10}H_{18}O_3$

- 26) Aethylester d. δ -Keto- $\beta\gamma$ -Dimethylpentan- γ -Carbonsäure (Ae. d. Methylisopropylacetessigsäure). Sd. 208—210° (R. 5, 231). — I, 610.
- 27) Aethylester d. β -Oxypropenisobutyläther- α -Carbonsäure. Sd. 247,3° (A. 256, 211). — I, 590.
- 28) Aethylester d. trans-1-Oxymethylhexahydrobenzol-2-Carbonsäure. Sd. 160—162°₃₂ (A. 300, 176).
- 29) Propylester d. β -Oxypropenpropyläther- α -Carbonsäure. Sd. 229,7° (A. 256, 214). — I, 589.
- 30) Isobutylester d. β -Oxypropenäthyläther- α -Carbonsäure. Sm. 11°; Sd. 206,4° (A. 256, 216). — I, 589.
- 31) Isobutylester d. β -Ketopentan- γ -Carbonsäure (I. d. Aethylacetyl-essigsäure). Sd. 211—215° (A. 257, 357). — I, 604.
- 32) Acetat d. γ -Oxy- $\beta\beta\delta$ -Trimethylpentan- $\gamma\delta$ -Oxyd (Oxocetenolester d. Essigsäure). Sd. 200—202° (J. r. 14, 204). — I, 414.
- 33) Monacetat d. δ -Oxy- γ -Keto- $\beta\epsilon$ -Dimethylhexan. Sd. 230—235° (Bl. [3] 13, 1049).

 $C_{10}H_{18}O_4$

- C 59,4 — H 8,9 — O 31,7 — M. G. 202.
- 1) Diacetonerythrit. Sm. 56°; Sd. 105—106°₁₀ (B. 28, 2531).
 - 2) Isovalerylsuperoxyd (J. 1863, 318). — I, 464.
 - 3) β -Oxy- ζ -Keto- β -Methylheptan- γ -Methylcarbonsäure. K (B. 28, 1783).
 - 4) $\alpha\beta$ -Dioxy- $\beta\zeta$ -Dimethyl- $\alpha\epsilon$ -Heptadien- α -Carbonsäure. Fl. (B. 26, 2719; 28, 2133).
 - 5) Oktan- $\alpha\theta$ -Dicarbonsäure (Sebacinsäure). Sm. 133—135,5°; Sd. 294,5°₁₀₀ (164°). Salze meist bek. Lit. bedeutend. — I, 686.
 - 6) Oktan- $\beta\zeta$ -Dicarbonsäure. Sm. 78°. Ag₂ (Soc. 65, 994).
 - 7) Oktan- $\gamma\zeta$ -Dicarbonsäure. Sm. 51—53°. Ag₂ (Soc. 65, 1009).
 - 8) isom. Oktan- $\gamma\zeta$ -Dicarbonsäure. Sm. 136°. Ca + 2H₂O, Ag₂ (Soc. 65, 1009).
 - 9) Oktan- η -Dicarbonsäure. Sm. 116°; Sd. 294°₁₀₀. Ag₂ (R. 13, 212).
 - 10) β -Methylheptan- $\alpha\alpha$ -Dicarbonsäure (sec. Heptylmalonsäure). Sm. 97 bis 98°. Ba, Ag₂ (B. 13, 1651). — I, 687.
 - 11) β -Methylheptan- $\alpha\eta$ -Dicarbonsäure (Methylazelaänsäure). Sm. 43—45°. Ag₂ (Soc. 53, 218). — I, 687.
 - 12) γ -Methylheptan- $\beta\zeta$ -Dicarbonsäure (Trimethylpimelinsäure). Sd. 213 bis 215°₁₅ (B. 28, 2943).
 - 13) $\beta\epsilon$ -Dimethylhexan- $\gamma\delta$ -Dicarbonsäure (α -Form, ϵ -Diisopropylbernsteinsäure). Sm. 167—168° (180°). Salze meist bek. (B. 22, 49; A. 292, 162). — I, 687.
 - 14) isom. $\beta\epsilon$ -Dimethylhexan- $\gamma\delta$ -Dicarbonsäure? (β -Form). Sm. 199—200°. Salze meist bek. (B. 22, 52; A. 292, 163). — I, 688.
 - 15) $\gamma\delta$ -Dimethylhexan- $\beta\epsilon$ -Dicarbonsäure? Sm. 184—194° (A. 195, 122). — I, 687.
 - 16) 2,3-Dioxy-1,1,3-Trimethylhexahydrobenzol-2-Carbonsäure. Sm. 195—196° (B. 26, 2726; 31, 886).
 - 17) 3,4-Dioxy-1,1,3-Trimethylhexahydrobenzol-2-Carbonsäure. Sm. 177,5° (B. 31, 858).
 - 18) 3,5-Dioxy-1,1,2-Trimethyl-R-Pentamethylen-5-Methylcarbonsäure (α -Syndioxydihydrocampholensäure). Sm. 91° (B. 28, 2174; 30, 411).
 - 19) 3,5-Dioxy-1,1,2-Trimethyl-R-Pentamethylen-5-Methylcarbonsäure (α -Antidioxydihydrocampholensäure). Sm. 144—145°. Ag (A. 269, 340; B. 28, 2172; 29, 3014). — I, 688.
 - 20) 3,4-Dioxy-1,1,2-Trimethyl-R-Pentamethylen-5-Methylcarbonsäure (β -Dioxydihydrocampholensäure). Sm. 146° (B. 28, 2175; 30, 247).
 - 21) Dihydrocamphersäure. Sm. 105—106°. Ag₂ (Soc. 73, 23).
 - 22) Ipomsäure. Sm. 109° (C. 1897 [1] 419).
 - 23) Säure (aus Diosphenol). Sm. 97° (C. 1896 [2] 552).
 - 24) Säure (aus Jalapinolsäure). Sm. 89—91°. Ag₂ (J. pr. [2] 57, 464).
 - 25) Dimethylester d. Hexan- $\alpha\zeta$ -Dicarbonsäure (D. d. Korksäure). Fl. (A. 28, 260). — I, 681.
 - 26) Dimethylester d. $\beta\gamma$ -Dimethylbutan- $\beta\gamma$ -Dicarbonsäure. Sm. 31° (A. 292, 179).
 - 27) Aethylester d. Oxytetrinsäure. Sd. 225° (A. ch. [5] 20, 478).
 - 28) Aethylester d. α -Butyroxylobuttersäure. Sd. 215° (A. 142, 373). — I, 561.

$C_{10}H_{18}O_4$

- 29) Aethylester d. γ -Oxy- β -Ketopentan- γ -Carbonsäure? (Ae. d. Aethyl-acetoxyessigäthyläthersäure?). Sd. 210,1° (A. 234, 194). — I, 676.
- 30) Monoäthylester d. $\beta\gamma$ -Dimethylbutan- $\beta\gamma$ -Dicarbonsäure. Fl. (A. 292, 179).
- 31) Diäthylester d. Butan- $\alpha\alpha$ -Dicarbonsäure (D. d. Propylmalonsäure). Sd. 221° (193,5—194,5°₂₀) (Soc. 45, 514; M. 9, 309; B. 28, 2619). — I, 671.
- 32) Diäthylester d. Butan- $\alpha\beta$ -Dicarbonsäure (D. d. Aethylbernsteinsäure). Sd. 223—226° (230—231°) (A. 192, 151; 242, 125; B. 29, 1791). — I, 675.
- 33) Diäthylester d. Butan- $\alpha\delta$ -Dicarbonsäure (D. d. Adipinsäure). Sd. 245° (Z. 1865, 302). — I, 670.
- 34) Diäthylester d. Butan- $\beta\beta$ -Dicarbonsäure (D. d. Methyläthylmalonsäure). Sd. 207—208° (A. 204, 146). — I, 671.
- 35) Diäthylester d. fum. Butan- $\beta\gamma$ -Dicarbonsäure (D. d. fum. Dimethylbernsteinsäure). Sd. 219,5° (230—235°) (M. 2, 546; B. 22, 651; A. ch. [6] 20, 390; Ph. Ch. 10, 421). — I, 672.
- 36) Diäthylester d. mal. Butan- $\beta\gamma$ -Dicarbonsäure (D. d. mal. Dimethylbernsteinsäure). Sd. 221—222° (B. 22, 646; 23, 641; A. ch. [6] 20, 390). — I, 672.
- 37) Diäthylester d. β -Methylpropan- $\alpha\alpha$ -Dicarbonsäure (D. d. Isopropylmalonsäure). Sd. 213—214° (A. 204, 144; Soc. 45, 514; B. 28, 2620; 29, 1864). — I, 671.
- 38) Diäthylester d. β -Methylpropan- $\alpha\beta$ -Dicarbonsäure (D. d. uns-Dimethylbernsteinsäure). Sd. 215° (A. 242, 138, 201). — I, 674.
- 39) Diäthylester einer isom. Butan- β -Dicarbonsäure. Sd. 221—222° (B. 22, 389). — I, 673.
- 40) Dipropylester d. Aethan- $\alpha\beta$ -Dicarbonsäure. Sd. 250,8° (cor.) (Soc. 53, 563; Ph. Ch. 1, 381). — I, 656.
- 41) Diisopropylester d. Aethan- $\alpha\beta$ -Dicarbonsäure. Sd. 247,1° (228°₁₄₁) (A. 154, 255; 253, 301). — I, 656.
- 42) Butylester d. 1- α -Acetoxylbuttersäure. Sd. 230° (Bl. [3] 15, 488).
- 43) Isobutylester d. d- α -Acetoxylbuttersäure. Sd. 202° (Bl. [3] 15, 487).
- 44) Aethylbutylester d. Aethan- $\alpha\beta$ -Dicarbonsäure. Sd. 247° (A. 253, 300). — I, 656.
- 45) Dibutylester d. Oxalsäure. Sd. 243,4° (A. 253, 296). — I, 648.
- 46) Diisobutylester d. Oxalsäure. Sd. 220°_{188,3} (224—226°) (Bl. 21, 358; Ph. Ch. 1, 381). — I, 648.
- 47) Diacetat d. $\beta\gamma$ -Dioxyhexan? Sd. 215—220° (A. ch. [4] 3, 180). — I, 414.
- 48) Diacetat d. $\beta\epsilon$ -Dioxyhexan. Sd. 225—230° (A. ch. [4] 3, 164). — I, 414.
- 49) Diacetat d. $\gamma\delta$ -Dioxy- β -Methylpentan. Sd. 220° (M. 11, 391). — I, 414.
- 50) Diacetat d. $\gamma\delta$ -Dioxy- $\beta\beta$ -Dimethylbutan. Sd. 217—218° (B. 26 [2] 15).
- 51) Diacetat d. $\beta\gamma$ -Dioxy- $\beta\gamma$ -Dimethylbutan. Sm. 65° (B. 26 [2] 14).
- 52) Dibutyrat d. $\alpha\alpha$ -Dioxyäthan. Sd. 215,5° (A. 225, 279). — I, 926.
- 53) Dibutyrat d. $\alpha\beta$ -Dioxyäthan. Sd. 240° (A. ch. [3] 55, 433). — I, 423.
- 54) Verbindung (aus Essigsäurealdehyd). Ca, Ba (B. 17, 660). — I, 916.
- 55) Verbindung (aus Isovaleriansäurealdehyd) = $(C_{10}H_{18}O_4)_x$. Sd. 250 bis 290° (Z. 1866, 465; A. 126, 242).

 $C_{10}H_{18}O_5$

- C 55,0 — H 8,3 — O 36,7 — M. G. 218.
- 1) Diäthyläther d. Glykosan. Fl. (A. ch. [3] 60, 103). — I, 1049.
 - 2) α -Oxysebacinsäure. Sm. 116° (B. 27, 1216).
 - 3) isom. Oxysebacinsäure. Fl. (B. 27, 1216).
 - 4) γ -Oxy- β -Methylheptan- γ -Dicarbonsäure. Sm. 136—137°. Ag₂ (B. 31, 2893).
 - 5) ζ -Oxy- β -Methylheptan- δ -Dicarbonsäure. Sm. 134° u. Zers. Ag₂ (Soc. 73, 56).
 - 6) δ -Oxy- β -Methylheptan- ϵ -Dicarbonsäure (α -Methylisobutylitamalsäure). Ca + 2H₂O, Ba + 2H₂O, Ag₂ (A. 255, 113). — I, 758.
 - 7) γ -Oxy- $\beta\epsilon$ -Dimethylhexan- $\alpha\beta$ -Dicarbonsäure (β -Methylisobutylitamalsäure). Ca + 2H₂O, Ba, Ag₂ (A. 255, 122). — I, 759.
 - 8) Oxykorkäthyläthersäure. Fl. Ba, Zn, Pb, Ag₂ (B. 18, 816). — I, 757.

- C₁₀H₁₈O₅** 9) Aethylester d. $\alpha\gamma$ -Dioxy- β -Ketopropandiäthyläther- α -Carbonsäure (Aethylester d. Oxyacetyl-Oxyessigdiäthyläthersäure). *Sd.* 245° (131 bis 132°₁₁) (*B.* 11, 59; *J.* 1867, 455; *A.* 269, 28). — I, 746.
- 10) Diäthylester d. Dilaktylsäure. *Sd.* 190° (i. V.) (*A.* 148, 224). — I, 557.
- 11) Diäthylester d. α -Oxyäthanäthyläther- $\alpha\alpha$ -Dicarbonsäure. *Sd.* 110°₁₆ (*B.* 31, 554).
- 12) Diäthylester d. i - α -Oxyäthanäthyläther- $\alpha\beta$ -Dicarbonsäure (D. d. i -Oxybernsteinäthyläthersäure). *Sd.* 195 — 200°₂₅₀ (*Soc.* 39, 348; *B.* 13, 1394). — I, 745.
- 13) Diäthylester d. d - α -Oxyäthanäthyläther- $\alpha\beta$ -Dicarbonsäure. *Sd.* 132 bis 134°₁₈ (*Soc.* 67, 972).
- 14) Diäthylester d. l -Oxyäthanäthyläther- $\alpha\beta$ -Dicarbonsäure. *Sd.* 124°₁₆ (*Soc.* 75, 157).
- 15) Dipropylester d. α -Oxyäthan- $\alpha\beta$ -Dicarbonsäure (D. d. Aepfelsäure). *Sd.* 151°₁₀ (*B.* 18, 1952; *Soc.* 69, 824). — I, 743.
- 16) Dipropionat d. $\alpha\alpha'$ -Dioxydiäthyläther. *Sd.* 210—215° (*A.* 226, 225). — I, 926.
- 17) Verbindung (aus d. Aethylester d. Oxyessigäthyläthersäure). *Sd.* 251° (*Z.* 1867, 708).
- C₁₀H₁₈O₄** C 51,3 — H 7,7 — O 41,0 — M. G. 234.
- 1) Dioxysebacinsäure. *Sm.* 130°. Na₂ (*B.* 20, 2888). — I, 806.
- 2) isom. $\alpha\alpha$ -Dioxysebacinsäure. *Sm.* 124° (*B.* 27, 1215).
- 3) $\delta\delta$ -Dioxybutandiäthyläther- $\beta\beta$ -Dicarbonsäure. *Fl.* Ag₂ (*Soc.* 75, 19).
- 4) Dipropylester d. d -Weinsäure. *Sd.* 303° (*B.* 13, 1177, 1538; *J.* 1882, 856). — I, 795.
- 5) Diisopropylester d. d -Weinsäure. *Sd.* 275° (*B.* 15, 2242; *J.* 1882, 856). — I, 795.
- 6) Diacetat d. Triäthylenglykol. *Sd.* 300° (*A. ch.* [3] 69, 336). — I, 413.
- 7) Monobutyrat d. Quercit (*A. ch.* [5] 15, 48). — I, 424.
- C₁₀H₁₈O₇** C 48,0 — H 7,2 — O 44,8 — M. G. 250.
- 1) Trimethylcarbinolglykuronsäure. K (*H.* 9, 514). — I, 834.
- C₁₀H₁₈O₈** C 45,1 — H 6,7 — O 48,1 — M. G. 266.
- 1) Diäthylester d. d -Zuckersäure. 2 + CaCl₂ (*J.* 1858, 252). — I, 852.
- 2) Diäthylester d. Norisozuckersäure. *Sm.* 73° (*B.* 17, 246; 19, 1263; 27, 127). — I, 853.
- 3) Diäthylester d. Schleimsäure. *Sm.* 172° (185° u. Zers.). 2 + CaCl₂ (*A. ch.* [2] 63, 86; *A.* 165, 254; *M.* 14, 472). — I, 856.
- 4) Diacetat d. Dulcit. *Sm.* 175° (*A. ch.* [4] 27, 147; *B.* 25, 2564). — I, 417.
- C₁₀H₁₈O₉** C 42,5 — H 6,4 — O 51,0 — M. G. 282.
- 1) Arabin (Arabinsäure). *Lit.* bedeutend. — I, 1100.
- 2) Arabinon. *Fl.* (*Soc.* 57, 59). — I, 1037.
- C₁₀H₁₈O₁₁** C 36,4 — H 5,4 — O 58,2 — M. G. 330.
- 1) Dimalonylmaleinsäure. *Sm.* 148° u. Zers. Na₂ + 10H₂O, Ag₂ (*M.* 9, 451).
- C₁₀H₁₈N₂** C 72,3 — H 10,8 — N 16,9 — M. G. 166.
- 1) 1-Methyl-2-Hexylimidazol. *Sd.* 261—263°₇₅₂. (2HCl, PtCl₄) (*M.* 8, 221). — IV, 531.
- 2) 2-Propyl-1-Butylimidazol. *Sd.* 242—245°₇₂₆. (2HCl, CdCl₂), (2HCl, PtCl₄) (*M.* 9, 608). — IV, 527.
- 3) 2-Propyl-1-Isobutylimidazol. *Sd.* 231—233°₇₃₀. (2HCl, PtCl₄) (*M.* 9, 607). — IV, 527.
- 4) 1-Propyl-2-Isobutylimidazol. *Sd.* 239—242°. (2HCl, PtCl₄) (*B.* 17, 1295). — IV, 529.
- 5) Dipiperidein. *Sm.* 60—61°; *Sd.* 221°₂₆. 2HCl + 2H₂O (*B.* 22, 1319, 1328; *Bl.* [3] 19, 616). — IV, 532.
- 6) Isodipiperidein. *Sd.* 281—288° (*A.* 260, 245). — IV, 533.
- 7) Campholenamidin. HCl, (2HCl, PtCl₄). — IV, 533.
- 8) Base (aus Nitrosopiperidin). *Sm.* 96—97° (*B.* 30, 534; 31, 2272). — IV, 533.
- 9) bim. Nitril d. Trimethylessigsäure. *Sd.* 159—160° (*B.* 24, 2161). — I, 1466.
- C₁₀H₁₈Cl₂** 1) Dichlor- α -Dekanaphten. *Sd.* 160—165° (*J. r.* 25, 383).
- 2) p -Dichlor-5-Aethyl-1,3-Dimethylhexahydrobenzol. *Sd.* 164—167°₆₀ (*C.* 1899 [1] 176).

- C₁₀H₁₈Cl₂**
- 3) Carvestrendihydrochlorid. Sm. 52,5° (B. 27, 3490).
 - 4) Divalerylendihydrochlorid. Sm. 25° (Bl. 33, 24). — III, 539.
 - 5) Dipentendihydrochlorid. Sm. 50°; Sd. 118–120°₁₀. Lit. bedeutend. — III, 527.
 - 6) Licarendihydrochlorid (B. 26 [2] 490).
 - 7) Pilocarpendihydrochlorid. Sm. 49,5° (Bl. 24, 498). — III, 548.
 - 8) Sylvestrendihydrochlorid. Sm. 72–73° (B. 10, 1206; 12, 1133; A. 230, 242; 239, 25; 252, 149). — III, 531.
 - 9) Isoterebentendihydrochlorid. d-Modif. fest; l-Modif. Sm. 49,5° (A. ch. [3] 39, 16; [5] 6, 228). — III, 533.
 - 10) d-Isoterpandihydrochlorid. Sm. 49,5° (B. 20, 1960). — III, 533.
 - 11) l-Isoterpandihydrochlorid (aus Terpentinöl). Sm. 48,5° (J. r. 21, 362). — III, 516.
 - 12) l-Isoterpandihydrochlorid (aus l-Terpenhydrat) (B. 12, 2358). — III, 533.
 - 13) Terpendihydrochlorid (aus Campheröl). Sm. 42° (A. 114, 196). — III, 542.
 - 14) Terpendihydrochlorid (aus Campheröl). Sm. 125° (A. 114, 195). — III, 542.
 - 15) Terpendihydrochlorid (aus Cardamomöl). Sm. 52° (A. 238, 102). — III, 546.
 - 16) Terpendihydrochlorid (aus Citronenöl) (J. 1857, 481; 1860, 479). — III, 542.
 - 17) Terpendihydrochlorid (aus Fichtentheer). Sm. 49,5° (Bl. [3] 11, 988).
 - 18) Terpendihydrochlorid (aus Gomartöl) (A. 71, 354, 355). — III, 542.
 - 19) Terpendihydrochlorid (aus Lawendöl) (A. 114, 198). — III, 547.
 - 20) Chlorid d. l-Linalol. Sd. 155–157°₃₀ (Bl. [3] 7, 396; [3] 9, 805). — III, 478.
 - 21) Chlorid d. α-Menthon. Sd. 150–155°₆₀ (B. 25, 694). — III, 478.
 - 22) Chlorid (aus Geraniol). Sd. 120–125°₁₀ (Bl. [3] 15, 364, 595). — III, 477.
- C₁₀H₁₈Cl₄**
C₁₀H₁₈Br₂
- 1) Tetrachlordekan (aus Diisomyl). Sd. über 270° (A. 96, 369). — I, 156.
 - 1) 5,6-Dibrom-3-Isopropyl-1-Methylhexahydrobenzol. Sd. 153–155°₁₀ (A. 297, 174).
 - 2) cis-1,4-Dibrom-4-Isopropyl-1-Methylhexahydrobenzol. Sm. 38–40° (B. 26, 2864). — III, 528.
 - 3) trans-1,4-Dibrom-4-Isopropyl-1-Methylhexahydrobenzol. Sm. 64° (Bl. [1862] 4, 86; A. 239, 13; B. 17, 2610; 26, 2864; 27, 444). — III, 528.
 - 4) p-Dibrom-5-Aethyl-1,3-Dimethylhexahydrobenzol. Sd. 135–145°₂₀ (C. 1899 [1] 176).
 - 5) Carvestrendihydrobromid. Sm. 48–50° (B. 27, 3490).
 - 6) Menthendibromid. Sd. 167–172°₅₀ (B. 25, 695). — II, 19.
 - 7) Sylvestrendihydrobromid. Sm. 72° (A. 239, 29; 252, 150). — III, 531.
 - 8) Dibrom-β-Dekanaphten (aus Naphta) (J. r. 25, 387).
 - 9) Dibromdeken. Fl. (A. 135, 345). — I, 136.
 - 10) Dibromdeken. Fl. (A. 144, 249). — I, 187.
- C₁₀H₁₈Br₄**
- 1) αβδε-Tetrabrom-δ-Propylheptan. Fl. (B. 16, 1224; J. pr. [2] 27, 394). — I, 136.
 - 2) Tetrabromdekan (aus Deken). Fl. (A. 144, 250). — I, 180.
 - 3) Menthentetrabromid. Fl. (Bl. 26, 86). — II, 19.
- C₁₀H₁₈J₂**
- 1) Dipentindihydrojodid. Sm. 77–79° (A. 225, 300; 230, 249, 265; 239, 14; B. 17, 2611; J. 1860, 480; Bl. [1862] 4, 86). — III, 528.
 - 2) Sylvestrendihydrojodid. Sm. 66–67° (A. 239, 29). — III, 531.
 - 3) Terpendihydrojodid (aus Cardamomöl). Sm. 76° (A. 238, 103). — III, 546.
- C₁₀H₁₈S₂**
C₁₀H₁₈N
- 1) Fusyldisulfid. Sd. 112° (A. 113, 287). — I, 118.
C 78,4 — H 12,4 — N 9,1 — M. G. 153.
 - 1) 1-Aethyl-2,3-Propylenhexahydropyridin. Sd. 196°₁₀₀. (HCl, 4 HgCl₂ + 3 H₂O), (2 HCl, PtCl₄ + H₂O), (HCl, AuCl₃) (A. 304, 69).
 - 2) 1,2,2,6,6-Pentamethyl-1,2,3,6-Tetrahydropyridin (Methyltriacetoin). Fl. (B. 17, 1791). — I, 984.
 - 3) 1-Methyldekahydrochinolin. Sd. 204,5–205,5°₂₁. (HCl, AuCl₃) (B. 27, 1468). — IV, 55.
 - 4) 2-β-Amidoäthyl-1,1,5-Trimethyl-2,3-Dihydro-R-Penten (α-Camphylamin). Sd. 194–196°. HCl, (HCl, HgCl₂), (2 HCl, PtCl₄), (HCl, AuCl₃), H₂Cr₂O₇, H₂SO₄ + H₂O, Dioxalat + 1½ H₂O (B. 18, 1634, 3294; 19, 709; 29, 3008). — I, 1147.

$C_{10}H_{19}N$

- 5) **3- $[\beta$ -Amidoäthyl]-1,2,2-Trimethyl-2,3-Dihydro-R-Penten** (β -Camphylamin). Sd. 196—198°. (2 HCl, PtCl₄) (B. 30, 245).
- 6) **Bornylamin**. Sm. 159—160°; Sd. 199—200°. HCl, (2 HCl, HgCl₂), (2 HCl, PtCl₄), HBr, H₂SO₄, Tartrat + H₂O, Pikrat (B. 20, 104; A. 289, 347). — IV, 56.
- 7) **d-Bornylamin**. Sm. 163°. HCl, (2 HCl, PtCl₄), Pikrat (Soc. 73, 391).
- 8) **Carvylamin** (B. 27, 3486). — IV, 57.
- 9) **Dihydrocarvylamin**. Sd. 218—220°. HCl (A. 275, 120). — IV, 57.
- 10) **Dihydroeucarvylamin**. Sd. 116—117°₄₀ (B. 27, 3487; A. 305, 239). — IV, 58.
- 11) **Fencholenamin**. Sd. 205°. 2 HCl, HNO₃, H₂SO₄ (A. 263, 138; 269, 369). — IV, 59.
- 12) **d-Fenchylamin**. Fl. HCl (A. 272, 105). — IV, 59.
- 13) **l-Fenchylamin**. Sd. 195°. HCl, (2 HCl, PtCl₄), HJ, HNO₃ (A. 263, 140; 269, 358; 276, 318). — IV, 58.
- 14) **Neobornylamin**. Sm. 180°. HCl, (2 HCl, PtCl₄), Pikrat (Soc. 73, 394).
- 15) **Pulegonamin**. Sm. 50°; Sd. 205—210°. HCl, Oxalat + H₂O (A. 289, 347). — IV, 57.
- 16) **Thujonamin** (Tanacetylamin; **6- α -Amidoäthyl-1,1-Dimethyl-1,2,4,5-Tetrahydrobenzol**). Sd. 198—199° (195°). HCl, (2 HCl, PtCl₄), HNO₃ (B. 25, 3345; A. 272, 109; 286, 96). — IV, 59.
- 17) **isom. Thujonamin**. Sd. 193°. HCl, HNO₃ (A. 286, 97). — IV, 59.
- 18) **isom. Thujonamin**. Sd. 200—201°. HCl, HNO₃ (A. 286, 97). — IV, 60.
- 19) **Valeridin** (J. r. 1871, 562; 1873, 343; B. 15, 248).
- 20) **Vestrylamin** (B. 27, 3486). — IV, 57.
- 21) **Base** (aus Aceton u. Ammoniumformiat). Sd. 195—200° (J. pr. [2] 41, 338). — IV, 60.
- 22) **Base** (aus Aceton u. Ammoniumformiat). Sd. 260—270° (J. pr. [2] 41, 339). — IV, 60.

 $C_{10}H_{19}Cl$

- 1) **5-Chlor-3-Isopropyl-1-Methylhexahydrobenzol**. Sd. 94—96°₁₂ (A. 289, 148; 297, 171).
- 2) **?-Chlor-5-Aethyl-1,3-Dimethylhexahydrobenzol**. Sd. 216—219°₇₆₀ (C. 1899 [1] 176).
- 3) **?-Chlor-5-Aethyl-1,3-Dimethylhexahydrobenzol**. Sd. 213—216°₇₆₀ (J. pr. [2] 48, 189; J. r. 25, 386; C. 1899 [1] 176).
- 4) **Menthylchlorid** (Menthenhydrochlorid). Sd. 209,5—210,5° (A. 32, 292; 120, 351; 130, 177; B. 25, 687, 689; 28, 1619; 29, 317; Soc. 41, 54; A. ch. [6] 7, 476; Bl. 51, 8). — II, 19; III, 466.
- 5) **Chlordekanaphten**. Sd. 205—206° (J. r. 15, 333; 25, 383). — I, 163.

 $C_{10}H_{19}Cl_2$

- 1) **Trichlordekan** (Chlordiamylenchlorid). Sd. 240—250° (Z. 1867, 393). — I, 157.

 $C_{10}H_{19}Br$

- 1) **5-Brom-3-Isopropyl-1-Methylhexahydrobenzol**. Sd. 104—106°₁₂ (A. 289, 149; 297, 171).
- 2) **Menthylbromid**. Sd. 128—130°₃₈ (100—103°₁₃) (J. pr. [2] 52, 426; B. 28, 1620; A. 130, 176). — II, 466.
- 3) **Bromdekan** (Bromdekylen). Sd. 215° (A. 144, 248). — I, 186.

 $C_{10}H_{19}Br_3$

- 1) **Tribromdekan** (aus Diamylen) (Z. 1868, 315). — I, 180.

 $C_{10}H_{19}J$

- 1) **5-Jod-3-Isopropyl-1-Methylhexahydrobenzol**. Sd. 133—134°₁₂ (A. 297, 171).
- 2) **Menthyljodid**. Sd. 138—142°₃₀ (A. 130, 176; J. 1881, 905; B. 25, 696). — III, 466.

 $C_{10}H_{20}O$

- C 76,9 — H 12,8 — O 10,3 — M. G. 156.
- 1) **Carvanol**. Sd. 109—110°₁₄ (Soc. 73, 857).
 - 2) **d-Citronellol**. Sd. 221,5°₇₅₅ (J. pr. [2] 48, 298, 302; [2] 50, 472; [2] 53, 238; Am. 11, 463; B. 29, 906; 30, 34; Bl. [3] 19, 83, 633; Ph. Ch. 27, 537). — III, 465.
 - 3) **l-Citronellol**. Sd. 113—114°₁₅ (B. 29, 923; 30, 35). — III, 465.
 - 4) **Dihydroisothujol** (Thujamenthol). Sd. 211—213° (A. 286, 104; B. 28, 1958). — III, 465.
 - 5) **Menthocitronellol** (A. 278, 316; 296, 130).
 - 6) **Menthol** (Pfefferminzcampher; Terpanol). Sm. 42°; Sd. 210°. Na. Lit. bedeutend. — III, 465.
 - 7) **tert. Menthol**. Sd. 102,5—105°₂₂ (Bl. [3] 15, 967; B. 26, 2270; 29, 1844). — III, 468.

$C_{10}H_{20}O$

- 8) Isomenthol. Sm. 78—81° (*J. pr.* [2] 55, 27).
- 9) Reuniol. Sd. 225,5—226° (*J. pr.* [2] 50, 472; [2] 53, 43, 230, 238; *B.* 30, 36).
- 10) Tetrahydrocarveol (2-Oxy-4-Isopropyl-1-Methylhexahydrobenzol). Sd. 220° (*B.* 28, 1959; *A.* 277, 130). — III, 468.
- 11) isom. Tetrahydrocarveol. Sm. 100—104°₁₈ (*A.* 287, 378). — III, 468.
- 12) Tetrahydrocarvotanacetone. Sd. 219—220° (*B.* 27, 897). — III, 468.
- 13) Tetrahydroisocampher. Fl. (*G.* 26 [2] 39). — III, 468.
- 14) cis-5-Oxy-3-Isopropyl-1-Methylhexahydrobenzol (cis- ϵ -Menthol). Sd. 224—225°₄₉ (*A.* 297, 169).
- 15) trans-5-Oxy-3-Isopropyl-1-Methylhexahydrobenzol. Sd. 224° (*A.* 289, 146; 297, 176).
- 16) 4-Oxy-4-Isopropyl-1-Methylhexahydrobenzol. Sd. 208—211° (*J. r.* 27, 477). — III, 468.
- 17) 2-Oxy-1,3-Diäthylhexahydrobenzol. Sm. 77—78° (*B.* 28, 1342).
- 18) isom. 2-Oxy-1,3-Diäthylhexahydrobenzol. Fl. (*B.* 28, 1342).
- 19) 4-Oxy-5-Aethyl-1,3-Dimethylhexahydrobenzol (β -Dekanaphtenalkohol). Sd. 223,5—225,5°₁₆₀ (*J. pr.* [2] 48, 190; *J. r.* 25, 387; *C.* 1899 [1] 176).
- 20) 5-Oxy-5-Aethyl-1,3-Dimethylhexahydrobenzol. Sd. 204—206°₄₉ (*C.* 1899 [1] 177).
- 21) α -Dekanaphtenalkohol (aus Naphta). Sd. 215° (*J. r.* 25, 384).
- 22) δ -Oxy- α -Deken (Allylhexylcarbinol). Sd. 211—212°₇₅₁ (*B.* 27, 2435; *Bl.* [3] 11, 361).
- 23) δ -Oxy- δ -Propyl- α -Hepten (Allyldipropylcarbinol). Sd. 192°₉₉ (*J. r.* 10, 339; *A.* 196, 109; *J. pr.* [2] 26, 110; [2] 46, 544; *B.* 16, 1223). — I, 255.
- 24) δ -Oxy- ϵ -Methyl- δ -Propyl- α -Hexen (Allyldiisopropylcarbinol). Sd. 169 bis 171° (*J. pr.* [2] 23, 22; *J. r.* 13, 37). — I, 255.
- 25) Oxydeken (Dekenylalkohol). Sd. 192—196° (*J. pr.* [2] 30, 216). — I, 255.
- 26) Dekenylalkohol (aus Terpinjodhydrat). Sd. 210—214° (*B.* 25, 698). — I, 255.
- 27) Alkohol (aus Citronellaöl). Sd. 222° (*Am.* 11, 467). — III, 546.
- 28) Methyläther d. β -Oxy- β -Methyl- δ -Okten? (Methyl-Dimethylisopropylallylcarbinoläther). Sd. 169—172° (*J. pr.* [2] 30, 400). — I, 303.
- 29) Dekanoxyd (Diamylenoxyd). Sd. 170—180° (*J.* 1862, 450). — I, 310.
- 30) Dekanoxyd (aus Amylen). Sd. 198—203° (*M.* 5, 563). — I, 310.
- 31) Dekanoxyd (aus Dekylenbromid). Sd. 85—86°₁₁ (*B.* 25, 481). — I, 310.
- 32) γ -Dimethyloktan- γ -Oxyd. Sd. 159—161° (*C.* 1899 [1] 775).
- 33) β -Ketodekan (Methyl-norm. Oktylketon). Sm. 3,5°; Sd. 211° (214—215°) + NaHSO₄ (*A.* 200, 106; *B.* 15, 1695). — I, 1003.
- 34) δ -Ketodekan (Propylhexylketon). Sm. —9°; Sd. 206—207° (*J. pr.* [2] 44, 271). — I, 1003.
- 35) γ -Keto- β -Methylnonan (Isopropylhexylketon). Sd. 200—210° (*J. r.* 7, 334). — I, 1003.
- 36) β -Keto- δ -Methylnonan (isom. Methyl-oktylketon). Sd. 196—198° (*B.* 13, 1651). — I, 1003.
- 37) δ -Keto- $\epsilon\epsilon$ -Dimethyloktan (Methylpropylpinakolin). Sd. 182—187° (*B.* 19, 1533). — I, 1003.
- 38) Aldehyd d. Nonan- α -Carbonsäure (A. d. Caprinsäure). Sd. 106°₁₈ (*B.* 16, 1717). — I, 956.
- 39) Aldehyd d. Isocaprinsäure. Sd. 169°_{747,5} (*J.* 1870, 680 Ann.; *B.* 5, 481). — I, 956.
- 40) Verbindung (aus Diisovaleryl). Sd. 220° (*B.* 12, 320).
- 41) Verbindung (aus Isobuttersäurealdehyd). Sd. 223°_{756,5} (*Bl.* 36, 210). — I, 949.

 $C_{10}H_{20}O_2$

C 69,8 — H 11,6 — O 18,6 — M. G. 172.

- 1) 3,4-Dioxy-1-Methyl-4-Isopropylhexahydrobenzol. α -Derivat Sm. 76,5—77°; β -Derivat Sd. 129,5—131,5°₁₈ (*B.* 27, 1640).
- 2) Menthoglykol. Sm. 81—81,5°; Sd. 144—145°₁₀ (*C.* 1897 [2] 305).
- 3) cis-Terpin + H₂O (Menthadiol). Sm. 105,5° (wasserfrei); Sd. 258°. Lit. bedeutend. — III, 519.
- 4) trans-Terpin. Sm. 156—158°; Sd. 263—265° (*B.* 26, 2866; *Ph. Ch.* 27, 543). — III, 520.
- 5) Glykol (aus Dihydrocarveolhydromid). Sm. 110,5—112° (*B.* 28, 1590).
- 6) Alkohol (aus Baldrianwurzelöl). Sm. 132° (*Bl.* [3] 13, 926).

$C_{10}H_{20}O_2$

- 7) $\alpha\gamma$ -Propylenäther d. $\alpha\alpha$ -Dioxyheptan (Oenanthylidentrimethylenäther).
Sd. 215—217°_{745A} (A. ch. [6] [18](#), [51](#)). — [I](#), [356](#).
- 8) ϵ -Oxy- δ -Keto- $\beta\eta$ -Dimethyloktan (Isovaleroïn). Sd. 85—90°₁₂ (B. [24](#),
1275; [31](#), [1222](#); G. [25](#) [2] [57](#), [129](#)). — [I](#), [271](#).
- 9) Nonan- α -Carbonsäure (Caprinsäure). Sm. 31,3—31,4° (30°); Sd. 268
bis 270°. Na, Ca, Mg, Ba, Cu, Ag (A. [49](#), [223](#); [55](#), [85](#); [57](#), [63](#); [59](#), [54](#);
[66](#), [295](#); [79](#), [236](#); [118](#), [312](#); [157](#), [264](#); [204](#), [5](#); B. [15](#), 1696, 1708; [29](#),
808; J. 1887, 1837; J. pr. [2] [32](#), [418](#)). — [I](#), [432](#).
- 10) $\beta\gamma$ -Dimethylheptan- δ -Carbonsäure (Diisobutylelessigsäure). Sd. 225 bis
230°₇₃₀ (Soc. [73](#), [62](#)).
- 11) Säure (aus l-Menthonoxim). Sd. 249—251°. Ag (A. [296](#), [126](#)).
- 12) Aldehyd d. δ -Oxy- $\beta\gamma$ -Dimethylheptan- γ -Carbonsäure (Valeraldol). Sd.
120°₁₂ (M. [18](#), [190](#); Bl. [3] [15](#), [971](#)).
- 13) Methylester d. Pelargonsäure. Sd. 213—214° (A. [164](#), [338](#); [233](#), [290](#)).
— [I](#), [438](#).
- 14) Aethylester d. norm. Caprylsäure. Sd. 205,8° (A. [152](#), [12](#); [171](#), [381](#);
[233](#), [286](#)). — [I](#), [437](#).
- 15) Aethylester d. Isooktylsäure. Sd. 175° (Soc. [35](#), [128](#)). — [I](#), [438](#).
- 16) Aethylester d. β -Hexylelessigsäure. Sd. 196° (B. [16](#), [789](#)).
- 17) Aethylester d. Dipropylessigsäure. Sd. 183° (Am. [3](#), [389](#); B. [29](#), 2000).
— [I](#), [438](#).
- 18) Propylester d. norm. Heptylsäure. Sd. 206,4° (A. [233](#), [283](#)). — [I](#), [435](#).
- 19) norm. Propylester d. norm. Methylbutylelessigsäure. Sd. 191—192°_{754,5}
(A. [209](#), [324](#)). — [I](#), [436](#).
- 20) Isopropylester d. norm. Methylbutylelessigsäure. Sd. 177° (A. [209](#),
[325](#)). — [I](#), [436](#).
- 21) norm. Butylester d. Capronsäure. Sd. 204,3° (A. [233](#), [280](#)). — [I](#), [432](#).
- 22) norm. Amylester d. norm. Valeriansäure. Sd. 203,7° (A. [233](#), [275](#)).
— [I](#), [426](#).
- 23) β -Methylbutylester d. norm. Valeriansäure. Sd. 195—197°₇₃₃ (Bl. [3]
[15](#), [281](#)).
- 24) Isoamylester d. Isovaleriansäure. Sd. 190,3° (J. 1876, [348](#); Z. 1870,
404; J. pr. [2] [24](#), [119](#); A. [163](#), [289](#); [234](#), [341](#)). — [I](#), [428](#).
- 25) Isoamylester d. isom. Isovaleriansäure. Sd. 182—184° (A. ch. [6] [1](#),
[253](#)). — [I](#), [429](#).
- 26) Dimethyläthylcarbinolester d. Isovaleriansäure. Sd. 173—174°_{732,3}
(J. pr. [2] [48](#), [483](#); J. r. [25](#), [450](#)).
- 27) $\beta\beta\beta$ -Trimethyläthylester d. Trimethylelessigsäure. Sd. 164—166° (B.
[24](#) [2] [558](#)). — [I](#), [431](#).
- 28) Hexylester d. norm. Buttersäure. Sd. 201—206° ([205°](#)) (A. [163](#), [198](#);
[233](#), [270](#)). — [I](#), [423](#).
- 29) norm. Heptylester d. Propionsäure. Sd. 208° (A. [233](#), [266](#)). —
[I](#), [420](#).
- 30) norm. Oktylester d. Essigsäure (Acetat d. α -Oxyoktan). Sd. 210° (A.
[152](#), [2](#); [233](#), [262](#)). — [I](#), [410](#).
- 31) Methylhexylcarbinolester d. Essigsäure (Acetat d. β -Oxyoktan). Sd.
193° (J. 1855, [526](#)). — [I](#), [410](#).
- 32) Methylpropylcarbinolester d. Essigsäure (Acetat d. δ -Oxy- δ -Methyl-
heptan). Sd. 174—176° (J. pr. [2] [33](#), [205](#)). — [I](#), [411](#).
- 33) Diäthylpropylcarbinolester d. Essigsäure (Acetat d. γ -Oxy- γ -Äthyl-
hexan). Sd. 176—178° (J. pr. [2] [39](#), [441](#)). — [I](#), [410](#).
- 34) sec. Oktylester d. Essigsäure (aus Caprylen). Sd. 189—190° (B. [25](#)
[2] [463](#)).
- 35) isom. Oktylester d. Essigsäure (aus Caprylenhydrat). Sd. 163—180°
(Z. 1868, [492](#)). — [I](#), [410](#).
- 36) isom. Oktylester d. Essigsäure (aus Petroleumoktan). Sd. 190—195°
(J. 1863, [529](#)). — [I](#), [410](#).
- 37) Verbindung (aus Fraxinusöl). Sd. 175° (M. [3](#), [760](#)). — III, [547](#).
- 38) Verbindung (aus Gummiguttharz). Sm. oberh. 270° (G. [26](#) [2] [251](#)). —
III, [558](#).
- 39) Verbindung (aus Isovaleraldehyd). Sd. 140—146°₁₈ (M. [17](#), [146](#); [18](#), [197](#)).
C [63,8](#) — H [10,6](#) — O [25,5](#) — M. G. [188](#).

 $C_{10}H_{20}O_3$

- 1) Trioxyhexahydrocymol. Sm. 121—122°; Sd. oberh. 300° (A. [275](#), [152](#);
[277](#), [110](#)).

- C₁₀H₂₀O₃**
- 2) 1,2,8-Trioxysterpan. Sm. 97—98° (B. 31, 3216).
 - 3) γ -Oxynonan- α -Carbonsäure. Ba + H₂O, Ag (A. 227, 89; B. 27, 3127). — I, 578.
 - 4) ϵ -Oxy- β -Dimethylheptan- α -Carbonsäure. Fl. Ag (B. 29, 29).
 - 5) δ -Oxy- β -Dimethylheptan- γ -Carbonsäure. Sm. 56° (M. 18, 195).
 - 6) isom. ρ - δ -Oxy- β -Dimethylheptan- γ -Carbonsäure. Sm. 120°. Ba, 3 Ag + AgOH (B. 20, 2337; A. 249, 65). — I, 578.
 - 7) δ -Oxy- β -Dimethylheptan- δ -Carbonsäure (α -Oxydiisobutylensäure). Sm. 123—124° (119,5—120°) (Soc. 73, 66; B. 31, 1224).
 - 8) Oxysäure (aus l-Menthonoxim). Ag (A. 296, 129).
 - 9) Aethylester d. α -Oxyheptan- α -Carbonsäure. Sd. 229—230°_{III} (A. 177, 105). — I, 575.
 - 10) Aethylester d. δ -Oxyheptan- δ -Carbonsäure. Sd. 208—210° (J. r. 13, 237). — I, 575.
 - 11) Aethylester d. γ -Oxy- β -Dimethylpentan- β -Carbonsäure. Sd. 221 bis 222°_{735,5} (B. 28, 2843).
- C₁₀H₂₀O₄**
- C 58,8 — H 9,8 — O 31,4 — M. G. 204.
- 1) α -Limonetrit (Alkohol). Sm. 191,5—192° (B. 23, 2315; 28, 2149; 29, 1200). — I, 282.
 - 2) β -Limonetrit. Sm. 120—121° (B. 27, 1649; 29, 1200).
 - 3) i-Limonetrit. Sm. 168,5—169,5° (B. 29, 1200).
 - 4) Sobreritrit + 2H₂O. Sm. 155,5—156° (wasserfrei) (B. 27, 1649; 29, 1195).
 - 5) Dioxycitronellalsäure. Fl. Ag (B. 26, 2256).
 - 6) γ δ -Dioxy- β -Dimethylheptan- γ -Carbonsäure. Sm. 154° (M. 17, 142).
 - 7) Dioxysigdiisobutyläthersäure. Ag (B. 11, 1480). — I, 631.
 - 8) Lecasterinsäure. Sm. 116°. Ba, Ag (B. 30, 364; J. pr. [2] 58, 495).
 - 9) Heptylester d. α β -Dioxypropionsäure. Sd. 173—175°₁₄ (Soc. 63, 1412).
- C 54,5 — H 9,1 — O 36,4 — M. G. 220.
- 1) Diäthyläther d. Mannitan (A. ch. [3] 47, 341). — I, 317.
 - 2) Aethylester d. Trioxysigtriäthyläthersäure. Sd. 98°₁₁ (A. 254, 32). — I, 737.
- C₁₀H₂₀O₅**
- C 42,2 — H 7,0 — O 50,7 — M. G. 284.
- 1) Matezit. Sm. 181° (Bl. 21, 220).
- C₁₀H₂₀N₂**
- C 71,4 — H 11,9 — N 16,7 — M. G. 168.
- 1) α β -Di[Isobutylidenamido]äthan. Sd. 87—89°₁₈. (2HCl, PtCl₄) (M. 19, 611).
 - 2) Diamidophellandren. Sd. 209—214° u. ger. Zers. (2HCl, PtCl₄) (G. 16, 229). — III, 530.
 - 3) Bismethylpropylazimethylen. Sd. 195—200° (J. pr. [2] 44, 165; B. 29, 612). — I, 1028.
 - 4) Bisdiäthylazimethylen. Sd. 190—195° (J. pr. [2] 44, 165). — I, 1028.
 - 5) 5-Methyl-3,5-Dipropyl-4,5-Dihydropyrazol. Sd. 113—115°₃₀ (J. pr. [2] 58, 322).
 - 6) 1,1'-Dipiperidyl. Sm. 96—97° (C. 1896 [1] 1126).
 - 7) 2,2'-Dipiperidyl. Sd. 259°. (2HCl, PtCl₄ + 2½ H₂O) (M. 10, 383). — IV, 492.
 - 8) 2,3'-Dipiperidyl. Sm. 68—69°; Sd. 267—268°. 2HCl, (2HCl, PtCl₄ + 2H₂O), (2HCl, 2AuCl₃), Pikrat (M. 13, 333). — IV, 492.
 - 9) 4,4'-Dipiperidyl. Sm. bei 160°. (2HCl, PtCl₄), (2HCl, 2AuCl₃) (B. 24, 1479; 31, 2279). — IV, 492.
 - 10) Dipiperidyl (aus Nikotin). Sd. 250—252°. (2HCl, 5HgCl₂), (2HCl, PtCl₄), (HCl, AuCl₃), (2HJ, 4J) (B. 19, 2590). — IV, 492.
 - 11) Hexahydronikotin. Sm. bei 36°; Sd. 244,5—245,5°. 2HCl, (2HCl, PtCl₄), (2HCl, 2AuCl₃), 2Pikrat (B. 26, 1031). — IV, 857.
- C 61,2 — H 10,2 — N 28,6 — M. G. 196.
- 1) Dipiperidyltetrazon. Sm. 45°. (2HCl, PtCl₄) (A. 221, 311). — IV, 481.
- C₁₀H₂₀Cl₂**
- 1) Dichlordekan (aus Diisoamyl). Sd. 215—220° (A. 96, 369). — I, 156.
 - 2) Dichlordekan (aus Petroleum). Sd. 235—240°₄₇ (Am. 19, 432, 453, 485).
 - 3) Dichlordekan (aus Petroleum). Fl. (Am. 19, 428, 448, 485).
- C₁₀H₂₀Br₂**
- 1) α β -Dibromdekan? Sd. 145°₁₅ (B. 25, 478). — I, 123.
 - 2) γ δ -Dibromdekan (Hexylbutylenbromid)? Fl. (A. 255, 136). — I, 123.
 - 3) Dibromdekan (aus Diamylen) (J. 1861, 661; A. 135, 344). — I, 180.
 - 4) Dibromdekan (aus Petroleum). Fl. (A. 144, 248). — I, 180.

$C_{10}H_{20}S_4$
 $C_{10}H_{21}N$

- 1) Dikohlentetramerkaptid. Sm. 54° (*J. pr.* [2] 15, 213). — I, 888.
C 77,4 — H 13,5 — N 9,0 — M. G. 155.
- 1) δ -Isoamylimido- β -Methylbutan (Isoamylisoamylidenamin). Sd. 180 bis 181° (*Bl.* [3] 7, 347). — I, 952.
- 2) 2-Amido-4-Isopropyl-1-Methylhexahydrobenzol. Sd. $211-212^\circ$. HCl, (2HCl, PtCl₄) (*A.* 277, 137). — IV, 43.
- 3) 4-Amido-5-Aethyl-1,3-Dimethylhexahydrobenzol. Sd. $202-204^\circ_{154}$ (*C.* 1899 [1] 177).
- 4) 5-Amido-5-Aethyl-1,3-Dimethylhexahydrobenzol. Sd. $199-201^\circ_{154}$. HCl, (2HCl, PtCl₄), Oxalat (*C.* 1899 [1] 177).
- 5) 1-Isoamylhexahydropyridin. Sd. 188° (186°). (2HCl, PtCl₄), HJ (*A. ch.* [3] 38, 99; *B.* 15, 421). — IV, 8.
- 6) 1-Aethyl-2-Isopropylhexahydropyridin. Sd. $187-192^\circ_{143}$. (HCl, 5HgCl₂), (HCl, AuCl₃), Pikrat (*A.* 304, 70).
- 7) 2,6-Dimethyl-4-Propylhexahydropyridin. Sd. $178-183^\circ_{118,4}$. (2HCl, PtCl₄) (*A.* 246, 46). — IV, 41.
- 8) 1,2,3-Trimethyl-5-Aethylhexahydropyridin. Sd. $171-173^\circ$. (2HCl, PtCl₄) (*A.* 247, 94). — IV, 39.
- 9) N-Aethylconiin. Sd. $185-193^\circ$. (2HCl, PtCl₄), (HCl, AuCl₃) (*A.* 89, 131; 304, 73). — IV, 33.
- 10) Dimethylconiin? Sd. 182° . HCl, (2HCl, PtCl₄), HJ (*B.* 14, 709; *A.* 279, 356; 298, 141). — IV, 32.
- 11) Campholamin. Sd. 210° . HCl, (2HCl, PtCl₄), HNO₃ (*G.* 22 [2] 109). — I, 1146.
- 12) Cincholin. Sd. $236-238^\circ$. Oxalat (*B.* 20, 2097; *A.* 271, 95). — IV, 41.
- 13) d-Menthylamin. Sd. 206° ($207-208^\circ$). HCl, HBr, HJ, HNO₃ (*A.* 276, 306, 324; 300, 282; *J. r.* 27, 482). — IV, 42.
- 14) l-Menthylamin. Sd. 206° . HCl, (2HCl, PtCl₄), HBr, HJ, HNO₃ (*Soc.* 39, 77; *A.* 276, 301, 323; 300, 279; *J. r.* 27, 472). — IV, 41.
- 15) isom. p-Menthylamin (aus Nitrosomenthen). Sd. 85°_{10} . HCl, HNO₃. — IV, 43.
- 16) Menthonylamin. Sd. $207-208^\circ$. HCl, (2HCl, PtCl₄ + H₂O), Dioxalat + $\frac{1}{2}$ H₂O (*A.* 278, 312; 296, 129). — IV, 60.
- 17) d-Tetrahydrocarvylamin. Sd. $210-212^\circ$. HCl (*A.* 287, 378). — IV, 41.
- 18) Dekamethylenimin. Sd. $104-105^\circ_{14,5}$. (2HCl, PtCl₄) (*B.* 25, 2254). — I, 1146.

$C_{10}H_{21}N_3$

- C 65,6 — H 11,5 — N 22,9 — M. G. 183.
- 1) Verbindung (Base aus Diäthylformamidin). HCl, (2HCl, PtCl₄) (*B.* 16, 1650; 17, 179). — I, 1164.

$C_{10}H_{21}Cl$

- 1) β -Chlor- $\beta\gamma\delta\delta$ -Tetramethylhexan. Fl. (*Bl.* [3] 7, 579).
- 2) Chlordekan (aus Diisoamyl). Sd. 200° (*A.* 129, 246). — I, 156.
- 3) Chlordekan (aus Diisoamylen). Sd. $87-89^\circ_{19}$ (*J. pr.* [2] 54, 458).
- 4) Chlordekan (aus Fuselöldekan). Sd. $190-200^\circ$ (*Bl.* [1863] 5, 315). — I, 156.
- 5) Chlordekan (aus Isocaprinalkohol). Sd. $175-185^\circ$ (*J.* 1864, 338). — I, 156.
- 6) Chlordekan (aus Petroleumdekan). Sm. $200-204^\circ$ (*J.* 1863, 529; *Bl.* 41, 165). — I, 156.
- 7) Chlordekan (aus Petroleum). Sd. $130-140^\circ_{80}$ (*Am.* 19, 432, 452, 485).
- 8) Chlordekan (aus Petroleum). Sd. $125-130^\circ_{80}$ (*Am.* 19, 428, 447, 485).

$C_{10}H_{21}Br$

$C_{10}H_{21}J$

- 1) Bromdekan (aus Diisoamylen). Sd. $99-100^\circ_{15}$ (*J. pr.* [2] 54, 459).
- 1) α -Joddekan. Sd. 132°_{15} (*B.* 19, 2219). — I, 196.
- 2) Joddekan (aus Diisoamylen). Sd. $114-116^\circ_{16}$ (*J. pr.* [2] 54, 459).

$C_{10}H_{23}O$

- C 76,0 — H 13,9 — O 10,1 — M. G. 158.
- 1) α -Oxydekan (norm. Dekylalkohol). Sm. 7° ; Sd. 231° (*B.* 16, 1717; 19, 2221). — I, 239.
 - 2) δ -Oxydekan (Propylhexylcarbinol). Sd. $210-211^\circ$ (*J. r.* 16, 329). — I, 239.
 - 3) β -Oxydekan (Diisoamylenhydrat). Sd. $191-192^\circ_{158}$ (*J. pr.* [2] 54, 460).
 - 4) β -Oxydekan (Diisoamylalkohol). 2 Isomere. Sd. $202-203^\circ$ u. Sd. 211 bis 213° (*B.* 10, 1602). — I, 239.
 - 5) β -Oxydekan (Isocaprinalkohol). Sd. $203,3^\circ$ (*J.* 1864, 338; *Z.* 1870, 415-416; *B.* 5, 481). — I, 239.

- $C_{10}H_{22}O$
- 6) β -Oxydekan (aus Isovaleriansäureisoamylester). Sd. 225—235° (Z. 1870, 404). — I, 232.
 - 7) β -Oxydekan (aus Petroleumdekan). Sd. 200° (Bl. 41, 166; J. 1863, 529). — I, 232.
 - 8) Aethyläther d. α -Oxyoktan (Aethyl-norm. Oktyläther). Sd. 189,2° (182—184°) (A. 185, 57; 243, 6). — I, 300.
 - 9) norm. Propyläther d. α -Oxyheptan (norm. Propyl-norm. Heptyläther). Sd. 187,6° (A. 243, 7). — I, 300.
 - 10) Isoamyläther d. δ -Oxy- β -Methylbutan (Isoamyläther). Sd. 172,5—173° (J. 1856, 564; J. pr. [2] 31, 513; Am. 6, 244; Soc. 63, 1135). — I, 299.
 - 11) Pentyläther (aus γ -Jod- β -Methylbutan). Sd. 163° (A. 129, 366). — I, 299.
 - 12) Basilicumcampher (Berz. J. 12, 237; A. 14, 75). — III, 545.
- $C_{10}H_{22}O_2$
- 1) $\beta\beta$ -Dioxy- $\beta\zeta$ -Dimethyloktan (Oxyhydrocitronellol). Sd. 153—156°₁₀ (A. 296, 130).
 - 2) $\delta\epsilon$ -Dioxy- $\delta\epsilon$ -Dimethyloktan (s-Dimethyldipropylglykol). Sd. 220—225° (J. 1869, 513). — I, 266.
 - 3) $\gamma\delta$ -Dioxy- $\gamma\delta$ -Diäthylhexan (s-Tetramethylpinakon). Sm. 27—28° (B. 16, 1584). — I, 266.
 - 4) isom. Dioxydekan (aus Dekylenbromid). Sd. 255° (B. 25, 479). — I, 266.
 - 5) Diäthyläther d. $\alpha\zeta$ -Dioxyhexan. Sd. 208°₇₀₀ (Am. 19, 771).
 - 6) Diisobutyläther d. $\alpha\alpha$ -Dioxyäthan. Sd. 168—170° (B. 19, 3006; J. 1880, 695). — I, 224.
 - 7) Diisobutyläther d. $\alpha\beta$ -Dioxyäthan. Sd. 181°₇₂₃ (A. 276, 174).
C 63,2 — H 11,6 — O 25,2 — M. G. 190.
 - 1) $\alpha\beta\delta$ -Trioxydekan. Sm. 78° (B. 27, 2436).
 - 2) $\alpha\beta\delta$ -Trioxy- δ -Propylheptan. Fl. (J. pr. [2] 57, 36).
 - 3) Trioxydekan (aus Roseol). Sd. 240°₁₀₀ (J. pr. [2] 48, 304).
 - 4) Diamylenglykol. Sd. über 200° (J. 1861, 662). — I, 264.
 - 5) Triäthyläther d. $\alpha\alpha\beta$ -Trioxybutan? Sd. 190° (Am. 12, 524; B. 31, 1015). — I, 263.
 - 6) Aethylisoamyläther d. $\alpha\beta\gamma$ -Trioxypropan. Sd. 238—240° (A. Spl. 1, 237). — I, 313.
 - 7) Tripropyläther d. Trioxymethan (Orthoameisensäuretripropyläther). Sd. 196—198° (B. 12, 117; A. 276, 179). — I, 312.
 - 8) Dipropyläther d. $\alpha\alpha'$ -Dioxydiäthyläther. Sd. 184° (A. 218, 29). — I, 223.
 - 9) Colophonin + H_2O . Sm. 106° (J. 1869, 786, 787; A. 210, 11). — III, 563.
- $C_{10}H_{22}O_4$
- 1) Tetraäthyläther d. $\alpha\alpha\beta\beta$ -Tetraoxyäthan (Glyoxalacetal). Sd. 180° (B. 5, 151). — I, 316.
- $C_{10}H_{22}O_6$
- 1) Pentaäthylenglykol. Sd. 281°₂₅ (A. ch. [3] 67, 280). — I, 261.
- $C_{10}H_{22}N_2$
- 1) 3,4-Diamido-4-Isopropyl-1-Methylhexahydrobenzol. Sd. 240—243° (B. 31, 1480).
 - 2) Oktohydronikotin. Sd. 259—260°. 2HCl (B. 26, 629). — IV, 486.
 - 3) Menthylhydrazin. Sd. 235—240°. HCl (J. pr. [2] 52, 425; J. r. 27, 547). — IV, 486.
- $C_{10}H_{22}N_4$
- 1) Sebacinamidin. 2HCl, (2HCl, PtCl₄) (B. 26, 2843).
- $C_{10}H_{22}S$
- 1) Diisoamylsulfid. Sd. 209—211° (216°). 2 + SnCl₄, 2 + SnBr₄ (A. 52, 312; B. 15, 2883; 27, 1239; Bl. 48, 626; J. pr. [2] 38, 523; C. 1898 [2] 282). — I, 362.
- $C_{10}H_{22}S_2$
- 1) Diisoamyldisulfid. Sd. 245—248° (J. 1847/48, 699; B. 15, 1940; 19, 3134). — I, 362.
- $C_{10}H_{22}Hg$
- 1) Quecksilberdiisoamyl. Sd. 172°₇₀ (A. 130, 111; B. 21, 2038). — I, 1526.
- $C_{10}H_{22}Sb$
- 1) Antimondiisoamyl (A. 97, 321).
- $C_{10}H_{22}Te$
- 1) Diisoamyltellurid. Sd. 198° (A. 97, 1). — I, 383.
- $C_{10}H_{22}Zn$
- 1) Zinkdiisoamyl. Sd. 210° (220°) (A. 85, 360; 130, 122; B. 21, 2038). — I, 1524.

- C₁₀H₂₃N** C 76,4 — H 14,6 — N 8,9 — M. G. 157.
 1) β -Amido- $\beta\eta$ -Dimethyloktan. Sd. 190⁰₇₈₈ (B. 28, 1856).
 2) γ [oder δ]-Amido- $\beta\eta$ -Dimethyloktan. Sd. 190—192° (B. 29, 2199).
 3) Dimethylcaprylamin (Bl. [3] 6, 815; B. 25 [2] 462).
 4) Diisoamylamin. Sd. 185—187°. HCl, (2HCl, PtCl₄), (HBr, Br), HJ (Z. 1867, 457; J. r. 1873, 343; A. 79, 21; B. 10, 1867 Anm.; 12, 1333; 15, 248; 27 [2] 579; G. 23 [1] 345; Am. 20, 62). — I, 1135.
 5) act. Diisoamylamin. Sd. 182—184°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (Soc. 39, 332). — I, 1135.
 6) inact. Diisoamylamin. Sd. 185—186°. HCl (Soc. 39, 332). — I, 1135.
 7) Dimethyldihydroconiin. Sd. 184—186° (A. 298, 144).
- C₁₀H₁₃P** 1) Diisoamylphosphin. Sd. 210—215°. HJ (B. 6, 298). — I, 1504.
- C₁₀H₂₄O₄** C 57,7 — H 11,5 — O 30,8 — M. G. 208.
 1) Viscin (J. 1860, 541). — III, 649.
- C₁₀H₁₄O₁₄** C 32,6 — H 6,5 — O 60,9 — M. G. 368.
 1) Pachymose (J. 1872, 789; B. 28, 776). — III, 639.
- C₁₀H₁₄N₂** C 69,8 — H 13,9 — N 16,3 — M. G. 172.
 1) $\alpha\alpha$ -Diamidodekan (Dekamethylendiamin). Sm. 61,5°; Sd. 140°₁₂ (2HCl, PtCl₄) (B. 25, 2253). — I, 1158.
 2) $\beta\eta$ -Diamido- $\beta\eta$ -Dimethyloktan. Sd. 223—225°₄₉ (B. 29, 2200).
 3) Aethylentetraäthylidiamin. 2(HCl, AuCl₃) (J. 1859, 386; 1861, 520; B. 15, 1149).
- C₁₀H₂₄N₄** C 60,0 — H 12,0 — N 28,0 — M. G. 200.
 1) $\alpha\beta$ -Dimethyl- $\alpha\beta$ -Dibutyltetrazon. Sd. 120—123°₁₀ (R. 14, 321).
- C₁₀H₁₅N₃** C 64,2 — H 13,4 — N 22,4 — M. G. 187.
 1) Diäthylentriäthyltriamin. (6HCl, 3PtCl₄) (J. 1861, 517). — I, 1161.
- C₁₀H₂₅Sb** 1) Antimonpentaäthyl. Sd. 96—100° (J. 1860, 374). — I, 1515.
- C₁₀H₂₆O₁₁** C 33,9 — H 7,4 — O 58,7 — M. G. 354.
 1) Oxycarboxylsäure (A. 124, 34).
- C₁₀H₁₆N₄** C 59,4 — H 12,9 — N 27,7 — M. G. 202.
 1) Spermin (siehe auch C₈H₈N₄). (4HCl, 2PtCl₄), (4HCl, 4AuCl₃) (A. 194, 68; B. 24, 359). — III, 934.
- C₁₀O₂Cl₆** 1) 2,3,5,6,7,8-Hexachlor-1,4-Naphtochinon (Gm. 7, 66). — III, 373.
- C₁₀O₄Cl₄** 1) 3,4,6,7-Tetrachlor-1,2,5,8-Tetraketo-1,2,5,8-Tetrahydronaphtalin. subl. (A. 286, 51). — III, 387.
- C₁₀O₄Cl₆** 1) 3,3,4,4,6,7-Hexachlor-1,2,5,8-Tetraketo-hexahydronaphtalin (A. 286, 43). — III, 386.
- C₁₀S₅Na₃** 1) Kohlenstoffsulfidnatrium (J. 1860, 398 Anm.). — I, 881.

C₁₀-Gruppe mit drei Elementen.

- C₁₀HO₂Cl₆** 1) 2,5,6,7,8-Pentachlor-1,4-Naphtochinon. Sm. 217° (B. 19, 1166). — III, 373.
- C₁₀HO₃Cl₅** 1) *p*-Pentachlor-*p*-Oxy-1,4-Naphtochinon (Gm. 7, 66). — III, 383.
- C₁₀H₂O₂Cl₄** 1) *p*-Tetrachlor-1,4-Naphtochinon. Sm. 160° (B. 16, 1018). — III, 373.
- C₁₀H₄O₂Cl₁₀** 1) 1,1,3,3,4,5,6,6,8,8-Dekachlor-2,7-Diketooktohydronaphtalin. Sm. bei 200° u. Zers. (B. 23, 527). — III, 267.
- C₁₀H₂O₂Br₄** 1) *p*-Tetrabrom-1,2-Naphtochinon. Sm. 164° (B. 17, 1481). — III, 391.
 2) 2,3,5,8-Tetrabrom-1,4-Naphtochinon. Sm. 221—225° (G. 16, 150). III, 374.
 3) *p*-Tetrabrom-1,4-Naphtochinon. Sm. 265° (B. 17, 2489). — III, 374.
- C₁₀H₂O₂Cl₄** 1) 5,6,7,8-Tetrachlor-2-Oxy-1,4-Naphtochinon. Sm. 265°. Ag (B. 19, 1168). — III, 383.
- C₁₀H₂O₂Cl₁₀** 1) Verbindung (aus 1,1,3,3,4,5-Hexachlor-2-Oxy-2,3-Dihydro-R-Penten-2-Carbonsäure) (B. 23, 826).
- C₁₀H₂O₄Cl₄** 1) 2,3,7,8-Tetrachlor-5,6-Dioxy-1,4-Diketo-1,4-Dihydronaphtalin (Tetrachlornaphtazarin). Sm. 244° (A. 286, 45). — III, 387.
 2) Tetrachlorid d. Benzol-1,2,4,5-Tetracarbonsäure (A. Spl. 7, 36). — II, 2073.
- C₁₀H₂N₆S₄** 1) 2,4,6-Trirhodanbenzoldiazoniumrhodanid. Zers. bei 79—80° (B. 31, 1265). — IV, 1528.

- $C_{10}H_5OBr_5$ 1) *p*-Pentabrom-1-Oxynaphtalin. Sm. 238—239°. Na, K (B. 17, 2486). — II, 860.
 2) 1,3,5,7,8-[oder 1,3,4,7,8]Pentabrom-2-Oxynaphtalin. Sm. 237°. Na (B. 17, 1480). — II, 880.
- $C_{10}H_3O_2Cl_3$ 1) *p*-Trichlor-1,4-Naphtochinon. Sm. 250°. Hydrat (Sm. 95°) (B. 15, 1404; 16, 1017). — III, 373.
- $C_{10}H_3O_2Cl_7$ 1) Methylester d. 3,4,5,6-Tetrachlor-1- $\alpha\beta\beta$ -Trichloräthenyl]benzol-2-Carbonsäure. Sm. 77—78° (A. 272, 269). — II, 1423.
- $C_{10}H_3O_2Cl_3$ 1) *p*-Trichlor-*p*-Oxy-1,4-Naphtochinon. Sm. 235° (B. 19, 1141). — III, 383.
- $C_{10}H_3O_2N_5$ C 37,4 — H 0,9 — O 39,9 — N 21,8 — M. G. 321.
 1) *p*-Trinitro-7-Oxyisonaphtoxdiazol (Trinitro- β -Naphtolfurazan) (B. 30, 1122).
- $C_{10}H_3O_2N_5$ C 35,6 — H 0,9 — O 42,7 — N 20,8 — M. G. 337.
 1) *p*-Trinitro-7,8-Dinitroso-2-Oxynaphtalin. Sm. 208°. K (B. 30, 1120).
- $C_{10}H_3Cl_3Br_2$ 1) Trichlordibromnaphtalin (Gmelin 7, 34). — II, 194.
 2) isom. Trichlordibromnaphtalin (Gmelin 7, 34). — II, 194.
- $C_{10}H_4OCl_4$ 1) 2,2,3,4[oder 2,3,4,4]-Tetrachlor-1-Keto-1,2[oder 1,4]-Dihydronaphtalin. (2 Modif.). α -Modif. Sm. 104—105° (B. 21, 1040). — III, 171.
 2) 1,1,3,4-Tetrachlor-2-Keto-1,2-Dihydronaphtalin. Sm. 96—97° (B. 21, 3548). — III, 172.
- $C_{10}H_4OCl_6$ 1) 2,2,3,3,4,4-Hexachlor-1-Keto-1,2,3,4-Tetrahydronaphtalin. Sm. 130° (B. 21, 1046). — III, 164.
 2) 1,1,3,3,4,4-Hexachlor-2-Keto-1,2,3,4-Tetrahydronaphtalin. Sm. 129° (B. 21, 3557; 22, 1034). — III, 165.
- $C_{10}H_4OBr_4$ 1) 1,3,4,6-Tetrabrom-2-Oxynaphtalin. Sm. 172° (Soc. 35, 789; B. 24, 720). — II, 880.
- $C_{10}H_4OBr_6$ 1) Tetrabrom-1-Oxynaphtalindibromid? Sm. 153° u. Zers. (B. 17, 2486). — II, 860.
- $C_{10}H_4O_2Cl_2$ 1) 3,4-Dichlor-1,2-Naphtochinon. Sm. 184° (B. 19, 2499; A. 257, 147; 283, 347). — III, 390.
 2) 2,3-Dichlor-1,4-Naphtochinon. Sm. 196° (189°) (A. 35, 299; 149, 3; 210, 177; 255, 371; B. 2, 114, 633; 15, 484; 16, 1017; 18, 2928; 19, 1184; 21, 1045; 27, 240, 2757; 28, 506). — III, 372.
 3) 5,8-Dichlor-1,4-Naphtochinon. Sm. 173—174° (B. 19, 1155). — III, 372.
 4) 7,8-Dichlor-1,4-Naphtochinon. Sm. 181° (B. 21, 3269). — III, 372.
 5) *p*-Dichlor-1,4-Naphtochinon. Sm. 148—149° (B. 18, 3073). — III, 372.
 6) *p*-Dichlor-1,4-Naphtochinon. Sm. 152—153° (B. 15, 485 Anm.). — III, 372.
 7) Dichlorcolophalumina (J. 1874, 922). — III, 562.
- $C_{10}H_4O_2Cl_4$ 1) 1,3,6,8-Tetrachlor-2,7-Dioxynaphtalin. Sm. 176° (B. 23, 526). — II, 985.
 2) 3,3,4,4-Tetrachlor-1,2-Diketo-1,2,3,4-Tetrahydronaphtalin. Sm. 90—91°. + H₂O (Sm. 86—87°); + 3 H₂O (Sm. 86°); + C₂H₆O (Sm. 103°) (B. 21, 495). — III, 276.
 3) 2,2,4,4-Tetrachlor-1,3-Diketo-1,2,3,4-Tetrahydronaphtalin. Sm. 92° (A. 300, 192).
 4) 2,2,3,3-Tetrachlor-1,4-Diketo-1,2,3,4-Tetrahydronaphtalin. Sm. 117°; + H₂O (Sm. 82—83°); + 2 H₂O (Sm. 90°); + 3 H₂O (Sm. 89°); + CH₄O + $\frac{1}{2}$ H₂O (Sm. 88—89°); + C₂H₆O + $\frac{1}{2}$ H₂O (Sm. 103—105°) (B. 19, 1142; A. 255, 370; 267, 328). — III, 277.
- $C_{10}H_4O_2Cl_6$ 1) Di[$\alpha\beta\beta$ -Trichlorvinyläther] d. 1,3-Dioxybenzol. Sm. 53—54° (Am. 9, 210). — II, 917.
- $C_{10}H_4O_2Br_2$ 1) 3,4-Dibrom-1,2-Naphtochinon. Sm. 172—174° (B. 19, 2496). — III, 391.
 2) 4,6-Dibrom-1,2-Naphtochinon. Sm. bei 200° u. Zers. (J. pr. [2] 57, 15).
 3) 2,3-Dibrom-1,4-Naphtochinon. Sm. 218° (216°) (J. r. 16, 419; Soc. 57, 809; 67, 909; B. 27, 2758). — III, 373.
 4) 5,8-Dibrom-1,4-Naphtochinon? Sm. 171—173° (A. 222, 280). — III, 373.
 5) *p*-Dibrom-1,4-Naphtochinon. Sm. 149,5° (151,5°) (B. 11, 1065). — III, 373.

- $C_{10}H_4O_3N_2$ C 60,0 — H 2,0 — O 24,0 — N 14,0 — M. G. 200.
1) Anhydrid d. 1,4-Benzdiazin-2,3-Dicarbonensäure. Sm. 251° u. Zers. (B. 28, 1656). — IV, 951.
- $C_{10}H_4O_3Cl_2$ 1) 4,4-Dichlor-1,2,3-Triketo-1,2,3,4-Tetrahydronaphtalin + 2H₂O. Sm. 99° u. Zers. (A. 295, 15).
2) 3,3-Dichlor-1,2,4-Triketo-1,2,3,4-Tetrahydronaphtalin + H₂O. Sm. 105° (B. 20, 3226). — III, 314.
- $C_{10}H_4O_3Br_2$ 1) 3,3-Dibrom-1,2,4-Triketo-1,2,3,4-Tetrahydronaphtalin + H₂O. Sm. 114—115° u. Zers. (B. 20, 3220). — III, 314.
- $C_{10}H_4O_3Br$ 1) α -Bromcarmin. Sm. 248—249° u. Zers. (B. 18, 3181; 26, 2661). — II, 2097.
- $C_{10}H_4O_4Cl_4$ 1) 2,4,6,7-Tetrachlor-1,3,5,8-Tetraoxynaphtalin (A. 286, 49).
- $C_{10}H_4O_4Br_2$ 1) $\alpha\beta$ -Diketo- $\alpha\beta$ -Di[β -Brom-2-Furanyl]äthan (Dibromfural). Sm. 183 bis 184° (A. 211, 225; B. 13, 1338). — III, 729.
- $C_{10}H_4O_6N_2$ C 48,4 — H 1,6 — O 38,7 — N 11,3 — M. G. 248.
1) Verbindung (aus Citrazinsäure) (Soc. 63, 1048).
- $C_{10}H_4O_6N_4$ C 43,5 — H 1,4 — O 34,8 — N 20,3 — M. G. 276.
1) Dinitropyrokoll (G. 12, 39). — IV, 82.
- $C_{10}H_4O_7N_4$ C 41,1 — H 1,4 — O 38,3 — N 19,2 — M. G. 292.
1) β -Dinitro-7,8-Dinitroso-2-Oxynaphtalin. Sm. 196°. K + H₂O (B. 30, 1122).
- $C_{10}H_4O_8N_4$ C 39,0 — H 1,3 — O 41,5 — N 18,2 — M. G. 308.
1) 1,2,5,8-Tetranitronaphtalin. Zers. bei 270° (B. 28, 369, 2234).
2) 1,3,5,8-Tetranitronaphtalin. Sm. 194—195° (B. 28, 368).
3) 1,3,6,8-Tetranitronaphtalin. Sm. 200° (Bl. 3, 261; A. 169, 100; B. 28, 370, 379). — II, 197.
4) 1,5,8,8-Tetranitronaphtalin. Sm. 259° (A. 169, 99; B. 5, 374). — II, 197.
- $C_{10}H_4O_9N_4$ C 37,0 — H 1,2 — O 44,4 — N 17,3 — M. G. 324.
1) 2,4,5,7-Tetranitro-1-Oxynaphtalin. Sm. 180°. Na + 2H₂O, K + 1½H₂O, Ca + 2H₂O, Ba + 3H₂O, Ag + 2H₂O (B. 15, 2714). — II, 864.
2) isom. β -Tetranitro-1-Oxynaphtalin. Sm. 215° (J. pr. [2] 44, 244). — II, 864.
- $C_{10}H_4O_{11}N_4$ C 32,3 — H 1,1 — O 51,6 — N 15,0 — M. G. 372.
1) 3,6-Dinitrobenzol-1,2,4,5-Tetracarbonensäure. Zers. bei 208—225°. Ca₃, Ag₄ (A. 237, 20). — II, 2074.
- $C_{10}H_4Cl_4Br_2$ 1) Dichlordibromnaphtalin (Gmelin 7, 34). — II, 193.
2) isom. Dichlordibromnaphtalin (Gmelin 7, 34). — II, 193.
- $C_{10}H_4Cl_3Br$ 1) Trichlorbromnaphtalin (Gmelin 7, 34). — II, 194.
2) isom. Trichlorbromnaphtalin (Gmelin 7, 34). — II, 194.
- $C_{10}H_4Br_4S$ 1) 3,4,5-Tribrom-2-[4-Bromphenyl]thiophen. Sm. 145—146° (B. 19, 3143). — III, 748.
- $C_{10}H_5OCl_3$ 1) 2,3,4-Trichlor-1-Oxynaphtalin. Sm. 159—160° (B. 21, 1036). — II, 860.
2) 1,3,4-Trichlor-2-Oxynaphtalin. Sm. 162° (B. 21, 3390). — II, 879.
3) 1,4,5-Trichlor-2-Oxynaphtalin. Sm. 157—158° (B. 24 [2] 718). — II, 879.
4) 2,2,4[oder 2,4,4]-Trichlor-1-Keto-1,2[oder 1,4]-Dihydronaphtalin. Sm. 120—121° (B. 21, 1037). — III, 170.
5) 1,1,3-Trichlor-2-Keto-1,2-Dihydronaphtalin. Sm. 95—96° (B. 21, 3543, 3551; 22, 1033). — III, 171.
6) 1,1,4-Trichlor-2-Keto-1,2-Dihydronaphtalin. Sm. 86—87° (B. 21, 3547). — III, 171.
7) 2,2,3,4,4-Pentachlor-1-Keto-1,2,3,4-Tetrahydronaphtalin. Sm. 156 bis 157° (B. 21, 1044). — III, 164.
8) 1,1,3,3,4-Pentachlor-2-Keto-1,2,3,4-Tetrahydronaphtalin. Sm. 116 bis 117° (B. 21, 3554; 22, 1034). — III, 165.
9) 1,1,3,4,4-Pentachlor-2-Keto-1,2,3,4-Tetrahydronaphtalin. Sm. 123° (B. 22, 1029). — III, 165.
- $C_{10}H_5OBr_3$ 1) 1,3,6[oder 1,3,4]-Tribrom-2-Oxynaphtalin. Sm. 155—156° (B. 24 [2] 720). — II, 880.
- $C_{10}H_5O_2N$ C 70,2 — H 2,9 — O 18,7 — N 8,2 — M. G. 171.
1) Nitril d. 1,2-Benzpyron-3-Carbonensäure (3-Cyancumarin). Sm. 182° (J. pr. [2] 50, 23). — II, 1633.

- $C_{10}H_5O_1N_1$ C 60,3 — H 2,5 — O 16,1 — N 21,1 — M. G. 199.
- 1) 4,5-Diketo-4,5-Dihydro- α -Naphtisotriazol (Azimido- β -Naphtochinon). Sm. noch nicht bei 220° (A. 295, 25). — IV, 1579.
 - 2) 3-Chlor-1,2-Naphtochinon. Sm. 172° (B. 19, 2497; 21, 3386, 3552; 27, 737). — III, 390.
 - 3) 2-Chlor-1,4-Naphtochinon. Sm. 117° (B. 15, 485; 21, 873, 1038; 23, 955; 27, 2757). — III, 371.
- $C_{10}H_5O_2Cl_1$ 1) 3,3,4-Trichlor-1,2-Diketo-1,2,3,4-Tetrahydronaphtalin + 2 H₂O. Sm. 112° (B. 20, 2892). — III, 276.
- $C_{10}H_5O_2Cl_2$ 1) 2-[$\alpha\beta\beta$ -Trichloräthenyl]phenyldichloressigsäure. Sm. 150° u. Zers. (B. 21, 3558). — II, 1430.
- $C_{10}H_5O_2Br$ 1) 3-Brom-1,2-Naphtochinon. Sm. 177–178° (B. 19, 2495; 21, 390; 27, 738). — III, 391.
- 2) 6-Brom-1,2-Naphtochinon. Sm. 150° u. Zers. (J. pr. [2] 43, 54). — III, 391.
- 3) 2-Brom-1,4-Naphtochinon. Sm. 130° (B. 27, 2758; 32, 549). — III, 373.

$C_{10}H_5O_2Br_2$ 1) α -Brom- β -[3,4-Dioxyphenyl]akryl-3,4-Dibrommethylenäthersäure. Sm. 210–211° (Soc. 59, 161). — II, 1777.
- 2) β -Brom- γ -[3,4-Dioxyphenyl]akryl-3,4-Dibrommethylenäthersäure. Sm. 188° (Soc. 59, 161). — II, 1777.

$C_{10}H_5O_2Br_3$ 1) Methylenäther d. 2,5,6-Tribrom-3,4-Dioxy-1-[$\beta\gamma$ -Dibrompropyl]-benzol (Pentabromsafrol). Sm. 169–170° (A. 152, 90; B. 17, 1940). — II, 974.

$C_{10}H_5O_3N_1$ C 55,8 — H 2,3 — O 22,3 — N 19,5 — M. G. 215.
- 1) 6-Nitro- α -Naphtoxdiazol (Nitronaphtalindiazooxyd). Zers. bei 145° (B. 27, 2213). — IV, 1541.
- 2) 8-Nitro- α -Naphtoxdiazol. Zers. bei 155–156° (B. 27, 2214). — IV, 1541.

$C_{10}H_5O_3Cl$ 1) 3-Chlor-2-Oxy-1,4-Naphtochinon. Sm. 215°. K, Ba + 2 H₂O, Anilinsalz (A. 35, 293; 75, 14; 149, 13; 257, 142; Z. 1865, 507; B. 20, 3222). — III, 382.
- 2) 6-Chlor-2-Oxy-1,4-Naphtochinon. Sm. 205°. Pb, Ag (B. 18, 3074). — III, 383.
- 3) 2-Chlor-1-Ketoinden-3-Carbonsäure. Sm. 224° (A. 283, 350, 351). — II, 1687.
- 4) Säure (aus 2,3-Dichlor-1-Oxyinden-1-Carbonsäure). *Sm. 209° (A. 283, 351 Anm.).

$C_{10}H_5O_3Cl_2$ 1) $\alpha\alpha\beta$ -Trichlor- γ -Keto- γ -Phenylpropen-2-Carbonsäure (Trichlorakrylbenzol-2-Carbonsäure). Sm. 126–127°. Ba + 4 H₂O (A. 255, 372; 267, 336). — II, 1678.
- 2) 1,3-Lakton d. 2,2,3-Trichlor-1,3-Dioxy-2,3-Dihydroinden-1-Carbonsäure. Sm. 87° (A. 283, 358). — II, 1783.

$C_{10}H_5O_3Cl_3$ 1) 3-Methyläther d. 2,4,5,6,7-Pentachlor-1,1,3-Trioxyinden (A. 272, 261). — III, 170.
- 2) 2-[Pentachlorpropionyl]benzol-1-Carbonsäure. Sm. 185–186° (A. 255, 376). — II, 1660.
- 3) 2-Trichloracetylphenyldichloressigsäure. Sm. 135°. Na (A. 300, 198).
- 4) Lakton d. 2-[$\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dioxyäthyl]phenyldichloressigsäure. Sm. 139° u. Zers. (A. 300, 201).

$C_{10}H_5O_3Br$ 1) 3-Brom-2-Oxy-1,4-Naphtochinon. Sm. 196,5°. K + 4 H₂O, Ba + 3 H₂O, Ag (B. 11, 1066; 14, 1901; 19, 2495; 20, 1515, 3220; 21, 389; 27, 2758; 32, 263; J. r. 16, 420). — III, 383.

$C_{10}H_5O_3J$ 1) 3-Jod-2-Oxy-1,4-Naphtochinon. Sm. oberh. 170° u. Zers. Na, Ag (B. 28, 346). — III, 384.

$C_{10}H_5O_4N$ C 59,1 — H 2,5 — O 31,5 — N 6,9 — M. G. 203.
- 1) 3-Nitro-1,2-Naphtochinon. Sm. 158° (A. 194, 203; 268, 275; B. 23, 175). — III, 391.
- 2) ?-Nitro-1,8-Naphtochinon. Sm. 208° (B. 21, 1460). — III, 397.

$C_{10}H_5O_4Cl$ 1) 2-Chlor-5,6-Dioxy-1,4-Diketo-1,4-Dihydronaphtalin (Chlornaphtazarin). Sm. 176° (A. 286, 42). — III, 386.
- 2) Phtalylchloressigsäure. Sm. 233–234° (A. 255, 378). — II, 1874.
- 3) isom. Phtalylchloressigsäure? Sm. 215–216° (A. 255, 378). — II, 1874.

$C_{10}H_5O_4Cl_2$ 1) 3,5,6-Trichlor-4-Oxy-1-Methylbenzofuran-2-Carbonsäure. Sm. 258° (J. pr. [2] 45, 67). — III, 731.

- $C_{10}H_5O_4Br$ 1) $\alpha\beta$ -Diketo- α -[2-Furanyl]- β -[2-Brom-2-Furanyl]äthan (Bromfural) (A. 211, 227). — III, 729.
- $C_{10}H_5O_3N$ 2) Phthalylbromessigsäure. Sm. 232—235° (B. 10, 2200). — II, 1874.
C 54,8 — H 2,3 — O 36,5 — N 6,4 — M. G. 219.
- 1) 3-Nitro-2-Oxy-1,4-Naphtochinon. Sm. 157° u. Zers. NH_4 , Na + H_2O , K + H_2O , Ba, Pb + $4\frac{1}{2}(1)H_2O$ (B. 11, 1317; 21, 1780; J. pr. [2] 40, 180). — III, 384.
C 45,6 — H 1,9 — O 36,5 — N 16,0 — M. G. 263.
- $C_{10}H_5O_6N_3$ 1) 1,2,5-Trinitronaphtalin. Sm. 112—113° (B. 28, 377).
2) 1,3,5-Trinitronaphtalin. Sm. 122° (B. 5, 372, 898; 28, 378). — II, 196.
3) 1,4,5-Trinitronaphtalin. Sm. 154° (147°) (A. 169, 97; B. 5, 903; 28, 377). — II, 197.
4) 1,8,2-Trinitronaphtalin. Sm. 218° (213°) (A. 41, 98; 169, 96; 217, 174; B. 5, 375, 905; 14, 901; J. pr. [2] 38, 273). — II, 197.
- $C_{10}H_5O_7N_3$ C 43,0 — H 1,8 — O 40,1 — N 15,0 — M. G. 279.
1) 2,4,5[oder 2,4,8]-Trinitro-1-Oxynaphtalin. Sm. 177° (190°). NH_4 , Na + H_2O , K + H_2O , Ca + $3\frac{1}{2}H_2O$, Ba + $2\frac{1}{2}H_2O$ (B. 11, 162, 1661; 12, 680; 31, 2421). — II, 864.
2) 2,4,6-Trinitro-1-Oxynaphtalin. Sm. 145° (B. 31, 2421).
3) 2-Trinitro-1-Oxynaphtalin. Zers. bei 196° (Soc. 65, 841). — II, 864.
- $C_{10}H_5O_8N_3$ C 40,7 — H 1,7 — O 43,4 — N 14,2 — M. G. 295.
1) Dinitrostrychocarbonsäure. Sm. bei 300°. K (A. 301, 336; B. 26, 334). — III, 944.
- $C_{10}H_5O_9N_5$ C 37,1 — H 1,5 — O 39,6 — N 21,7 — M. G. 323.
1) 2,4,5,7-Tetranitro-1-Amidonaphtalin. Sm. 194° (B. 15, 2718). — II, 597.
2) 2,4,5,8-Tetranitro-1-Amidonaphtalin. Sm. 202° (B. 15, 2720). — II, 597.
- $C_{10}H_5O_{10}N$ C 40,1 — H 1,7 — O 53,5 — N 4,7 — M. G. 299.
1) Pyridinpentacarbonsäure + $2(3)H_2O$. Zers. bei 220°. K_2 + $3\frac{1}{2}H_2O$, K_3 + $3\frac{1}{2}(4)H_2O$, K_4 + $2(3)H_2O$, K_5 , Mg_5 + $12H_2O$, Ca + $\frac{1}{2}H_2O$, Ca_5 + $12H_2O$, (NH_4 , Ca_5 + $5H_2O$), Ba₅ + $11H_2O$, Ag₄ + $2H_2O$ (A. 215, 62; 241, 15; Ph. Ch. 2, 903; 3, 393). — IV, 182.
- $C_{10}H_5NCl_4$ 1) 2,3,4,5-Tetrachlor-1-Phenylpyrrol. Sm. 93° (B. 28, 58; A. 295, 30). — IV, 67.
- $C_{10}H_5ClBr_2$ 1) 2-Chlor-1,6-Dibromnaphtalin. Sm. 104—105° (J. pr. [2] 43, 53). — II, 193.
- $C_{10}H_5Cl_4Br$ 1) Dichlorbromnaphtalin. Sm. 80° (Gmelin 7, 34). — II, 193.
- $C_{10}H_5Cl_5Br_2$ 1) Chlordibromnaphtalintetrachlorid. Sm. 150° (Gmelin 7, 34). — II, 194.
- $C_{10}H_5Br_8$ 1) Brom-1,4-Thionaphtalin (Soc. 67, 643).
- $C_{10}H_6ON_2$ C 70,6 — H 3,5 — O 9,4 — N 16,5 — M. G. 170.
1) α -Naphtoxdiazol. Sm. 76° (B. 27, 680, 2215). — IV, 1541.
2) β -Naphtoxdiazol. Sm. 95° (B. 27, 683).
3) Anhydro-1,2-Dioximidonaphtalin. Sm. 77° (B. 17, 216, 803, 2067; A. 255, 156). — III, 396.
4) 4,5-Anhydrid d. 5-Amidochinolin-4-Carbonsäure. Sm. 254—255° (B. 32, 719).
5) Nitril d. 2-Keto-1,2-Dihydrochinolin-3-Carbonsäure. Sm. 329 bis 331° u. Zers. Ag. — IV, 360.
- $C_{10}H_5OCl_2$ 1) 2,3-Dichlor-1-Oxynaphtalin. Sm. 101° (B. 18, 2926). — II, 859.
2) 2,4-Dichlor-1-Oxynaphtalin. Sm. 107—108° (106°) (B. 21, 891, 1035; 28, 507, 3053). — II, 859.
3) 5,7-Dichlor-1-Oxynaphtalin. Sm. 132° (A. 275, 284). — II, 859.
4) 5,8-Dichlor-1-Oxynaphtalin. Sm. 114—115° (A. 275, 285). — II, 859.
5) 6,7-Dichlor-1-Oxynaphtalin. Sm. 149—150° (A. 275, 286; C. 1895 [2] 120). — II, 859.
6) 7,8-Dichlor-1-Oxynaphtalin. Sm. 83—84° (A. 275, 286; C. 1895 [2] 120). — II, 859.
7) 1,3-Dichlor-2-Oxynaphtalin. Sm. 80—81° (B. 21, 3385). — II, 879.
8) 1,4-Dichlor-2-Oxynaphtalin. Sm. 123—124° (B. 21, 3387). — II, 879.
9) 6,8-Dichlor-2-Oxynaphtalin. Sm. 125° (B. 19, 3174). — II, 879.
10) 1,1-Dichlor-2-Keto-1,2-Dihydronaphtalin. Fl. (B. 21, 3384, 3540). — III, 171.

- $C_{10}H_6OCl_4$ 1) 1,1,3,4-Tetrachlor-2-Keto-1,2,3,4-Tetrahydronaphtalin + H_2O . Sm. 90—91° (101—103° wasserfrei) (B. 21, 3551). — III, 165.
- $C_{10}H_6OBr_2$ 1) 2,4-Dibrom-1-Oxynaphtalin. Sm. 105,5° (111°). + Anilin (A. 227, 244; Soc. 45, 161; 57, 395; B. 6, 1119; 28, 3054). — II, 860.
2) 1,6-Dibrom-2-Oxynaphtalin. Sm. 106° (B. 24 [2] 705; 28, 3056). — II, 880.
- $C_{10}H_6O_2N_2$ C 64,5 — H 3,2 — O 17,2 — N 15,1 — M. G. 186.
1) 1,4-Dinitrosonaphtalin. Zers. bei 140° (B. 21, 434). — II, 195.
2) 2-Dinitrosonaphtalin. Sm. 126—127° (B. 19, 182, 349). — II, 195.
3) 7-Oxyisonaphtoxdiazol (β -Naphtolfurazan). Sm. 213—214° (B. 30, 1120).
4) Pyrokoll. Sm. 268—269° (M. 1, 281; B. 17, 105). — IV, 80.
- $C_{10}H_6O_2N_4$ C 56,1 — H 2,8 — O 14,9 — N 26,2 — M. G. 214.
1) 3,6-Difuranyl-1,2,4,5-Tetrazin. Sm. 195° (B. 28, 471; A. 298, 32). — III, 700.
2) Alloxazin. Zers. oberh. 300° (B. 24, 2364). — IV, 944.
- $C_{10}H_6O_2Cl_2$ 1) 2-Dichlor-1,2-Dioxynaphtalin. Sm. 125° (B. 19, 2500). — II, 981.
2) 2,4-Dichlor-1,3-Dioxynaphtalin. Sm. 138—139°; subl. bei 110° (A. 300, 193).
3) 2-Dichlor-1,4-Dioxynaphtalin. Sm. 135—140° u. Zers. (A. 149, 6; B. 19, 1144). — II, 982.
4) 1,8-Dichlor-2,7-Dioxynaphtalin. Sm. 192° (B. 23, 525). — II, 985.
5) 3,4-Dichlor-1,2-Diketo-1,2,3,4-Tetrahydronaphtalin + $2H_2O$. Sm. 86° u. Zers. (B. 27, 2759). — III, 390.
6) 2,3-Dichlor-1,4-Diketo-1,2,3,4-Tetrahydronaphtalin. Sm. 176° u. Zers. (B. 27, 2756). — III, 370.
- $C_{10}H_6O_2Cl_4$ 1) 2-[$\alpha\beta$ -Dichloräthenyl]phenyldichloressigsäure. Sm. 130—131° u. Zers. (B. 21, 3555). — II, 1429.
- $C_{10}H_6O_2Br_2$ 1) 4,6-Dibrom-1,2-Dioxynaphtalin (J. pr. [2] 57, 17).
2) 2,3-Dibrom-1,4-Dioxynaphtalin. Sm. oberh. 255° (Soc. 57, 810).
3) 3,4-Dibrom-1,2-Diketo-1,2,3,4-Tetrahydronaphtalin. Sm. 65° u. Zers. (B. 27, 2761). — III, 390.
4) 2,3-Dibrom-1,4-Diketo-1,2,3,4-Tetrahydronaphtalin. Sm. 92° u. Zers. (B. 27, 2757). — III, 371.
5) Lakton d. 2-Dibrom- α -[2-Oxyphenyl]propen- β -Carbonsäure (Dibrompropioncumarin) (J. 1875, 591). — II, 1654.
- $C_{10}H_6O_2Br_4$ 1) 2-Tetrabrom-2,3-Dihydroinden-2-Carbonsäure. Sm. 248—250° (Soc. 65, 237). — II, 1430.
- $C_{10}H_6O_2N_2$ C 59,4 — H 3,0 — O 23,8 — N 13,8 — M. G. 202.
1) Aldehyd d. 8-Nitrochinolin-4-Carbonsäure. Sm. 175° (B. 31, 2369).
- $C_{10}H_6O_2Cl_2$ 1) 1-[$\alpha\beta$ -Dichloräthenyl]benzol-2-Ketocarbonsäure. Sm. 106—107° (B. 21, 3557). — II, 1678.
2) 2,3-Dichlor-1-Oxyinden-1-Carbonsäure + H_2O . Sm. 99—100° (B. 19, 2500; 20, 2059; 21, 3549; A. 283, 347; 295, 3). — II, 1679.
- $C_{10}H_6O_2Cl_4$ 1) 2-Dichloracetylphenyldichloressigsäure. Sm. 106—107° (A. 300, 196).
2) Verbindung (aus 2,3-Dichlor-1-Oxy-2,3-Dihydroinden-1-Carbonsäure). Sm. 167° (A. 283, 358 Anm.).
- $C_{10}H_6O_2Br_2$ 1) Methyläther d. 2-Brom-3-Brom-7-Oxy-1,2-Benzpyron. Sm. 249 bis 251° (B. 19, 1785). — II, 1775.
2) Bromid d. Phenoxylmucobromsäure. Sm. 95—96° (Am. 16, 292). — II, 667.
- $C_{10}H_6O_3S$ 1) Inneres Anhydrid d. 1-Oxynaphtalin-8-Sulfonsäure. Sm. 154°; Sd. oberh. 360° (B. 20, 3162; A. 247, 344). — II, 872.
- $C_{10}H_6O_4N_2$ C 55,0 — H 2,8 — O 29,3 — N 12,8 — M. G. 218.
1) 1,3-Dinitronaphtalin. Sm. 144° (A. 183, 274). — II, 196.
2) 1,5-Dinitronaphtalin. Sm. 216° (211°) (Z. 1865, 556; A. 169, 86; 202, 219; B. 5, 372; 9, 1188; 29, 1243, 1521; Bl. [3] 15, 1177). — II, 196.
3) 1,6 [oder 1,7]-Dinitronaphtalin. Sm. 161,5° (B. 17, 1172). — II, 196.
4) 1,8-Dinitronaphtalin. Sm. 170° (A. 152, 301; 169, 86; 202, 224; B. 3, 29; 5, 372; 9, 1188, 1732; 29, 1243, 1521; J. pr. [2] 38, 162; Bl. [3] 15, 1177). — II, 196.
5) 2,4-Dioximido-1,3-Diketo-1,2,3,4-Tetrahydronaphtalin + H_2O . Zers. bei 165° (B. 22, 1346). — III, 381.
6) α -Cyan- β -[2-Nitrophenyl]akrylsäure. Sm. 226° (223°) (A. ch. [6] 29, 490; J. pr. [2] 54, 542). — II, 1417.

- $C_{10}H_8O_4N_2$ 7) α -Cyan- β -[3-Nitrophenyl]akrylsäure. Sm. 214—216° (*A. ch.* [6] 29, 491; *J. pr.* [2] 54, 545). — II, 1417.
 8) α -Cyan- β -[4-Nitrophenyl]akrylsäure. Sm. 208° (*A. ch.* [6] 29, 489). — II, 1417.
 9) *p*-Nitrochinolin-2-Carbonsäure. Sm. 219—220°. Ag (*B.* 15, 3076). — IV, 345.
 10) 5-Nitrochinolin-4-Carbonsäure. Sm. 275—278° u. Zers. Ag (*B.* 32, 717).
 11) 6-Nitrochinolin-4-Carbonsäure Sm. oberh. 280° u. Zers. (*M.* 10, 645). — IV, 347.
 12) *p*-Nitro-8-Oxychinolin-*p*-Carbonsäure. Zers. bei 200° (*B.* 20, 2693). — IV, 364.
 13) 1,4-Benzdiazin-2,3-Dicarbonsäure + 2H₂O (Chinoxalindicarbonsäure). Sm. 190° (wasserfrei) (*B.* 27, 2186). — IV, 950.
- $C_{10}H_6O_4Cl_2$ 1) 2,3-Dichlor-5,6-Dioxy-1,4-Diketo-1,2,3,4-Tetrahydronaphtalin (Naphtazarindichlorid). Zers. bei 220° (*A.* 286, 41). — III, 386.
 2) 2,2-Dichlor-1-Keto-3-Oxy-2,3-Dihydroinden-3-Carbonsäure + H₂O. Sm. 130° u. Zers. (127—128°) (*A.* 267, 334; 283, 354, 359; 300, 197; *B.* 21, 497, 2383). — II, 1865.
 3) 2, α -Lakton d. $\beta\beta$ -Dichlor- α -Oxy- α -Phenyläthan-2, β -Dicarbonsäure + H₂O. Sm. 157° (wasserfrei). Na (*B.* 27, 738, 2759). — II, 1952.
 4) Chlorid d. *p*-Dioxynaphtalinsäure. Fl. (*A.* 151, 76). — II, 2013.
- $C_{10}H_6O_4Cl_4$ 1) Diacetat d. 3,4,5,6-Tetrachlor-1,2-Dioxybenzol. Sm. 190° (*B.* 21, 2729). — II, 910.
 2) Diacetat d. 2,4,5,6-Tetrachlor-1,3-Dioxybenzol. Sm. 145° (*B.* 25, 2690). — II, 920.
 3) Diacetat d. 2,3,5,6-Tetrachlor-1,4-Dioxybenzol. Sm. 245° (*A.* 146, 20). — II, 943.
 4) Methylester d. 2,4,5,6-Tetrachlor-3-Acetoxybenzol-1-Carbonsäure. Sm. 68—69° (*A.* 261, 245). — II, 1519.
 5) Dimethylester d. 3,4,5,6-Tetrachlorbenzol-1,2-Dicarbonsäure. Sm. 92° (*A.* 238, 328). — II, 1819.
 6) Monäthylester d. 3,4,5,6-Tetrachlorbenzol-1,2-Dicarbonsäure. Sm. 94—95° (*A.* 238, 327). — II, 1819.
- $C_{10}H_6O_4Br_2$ 1) 2,2-Dibrom-3-Oxy-1-Keto-2,3-Dihydroinden-3-Carbonsäure + H₂O. Sm. 126—127° (170° wasserfrei) (*B.* 21, 2386). — II, 1866.
 2) Anhydrid d. 4,6-Dibrom-5-Oxy-1-Methylbenzolmethyläther-2,3-Dicarbonsäure. Sm. 144° (*B.* 18, 3191). — II, 1948.
- $C_{10}H_6O_4Br_4$ 1) $\alpha\beta$ -Dibrom- β -[3,4-Dioxyphenyl]-3,4-Dibrommethylenäthersäure? (Tetrabrompiperopropionsäure). Sm. bei 188° u. Zers. (*Soc.* 59, 160). — II, 1763.
 2) Diacetat d. 2,4,5,6-Tetrabrom-1,3-Dioxybenzol. Sm. 169° (*B.* 11, 1441). — II, 921.
- $C_{10}H_6O_4Br_6$ 1) $\alpha\beta$ -Diketo- $\alpha\beta$ -Di[2,3,4,5-Tetrabromtetrahydro-2-Furanyl]äthan (Furiloktobromid). Sm. 185° u. Zers. (*A.* 211, 224; *B.* 13, 1338). — III, 729.
- $C_{10}H_6O_4J_4$ 1) Dimethylester d. 2,3,5,6-Tetrajodbenzol-1,4-Dicarbonsäure. Sm. 310—312° (*B.* 29, 2837).
- $C_{10}H_6O_5N_2$ C 51,3 — H 2,6 — O 34,2 — N 11,9 — M. G. 234.
 1) 2,4-Dinitro-1-Oxynaphtalin. Sm. 138°. NH₄ + H₂O, Na + H₂O, Li, Mg, Ca + 6H₂O, Sr + 3H₂O, Ba + 3H₂O, Zn, Cu, Ag, Trimethylaminsalz, Anilinsalz, *o*-Toluidinsalz, Dimethylanilinsalz (*Z.* 1868, 80; 1870, 51; *A.* 152, 299; 183, 249; 208, 332; *B.* 8, 629; *C.* 1898 [1] 389, 390; *G.* 28 [1] 309). — II, 863.
 2) 1,6-Dinitro-2-Oxynaphtalin. Sm. 195° u. Zers. K + 2H₂O, Ba + H₂O, Ag (*B.* 3, 846; 15, 202; 17, 1171; 31, 2418). — II, 883.
 3) 1,8-Dinitro-2-Oxynaphtalin. Sm. 198° u. Zers. Ba + H₂O, Ag (*J. pr.* [2] 43, 33). — II, 883.
 4) *p*-Nitro-1-Acetyl-2,3-Diketo-2,3-Dihydroindol (Acetylpsendonitroisatin). Sm. 193—194° (*B.* 28, 546). — II, 1607.
- $C_{10}H_6O_5Cl_2$ 1) 1,2-Anhydrid d. 3,4-Di[Chlormethoxyl]benzol-1,2-Dicarbonsäure. Sm. 156° u. (166° aus Benzol) (*B.* 27, 334). — II, 1997.
- $C_{10}H_6O_5Br_2$ 1) α -Oxybromearmin + H₂O. Sm. 207—208° u. Zers. (*B.* 18, 3183). — II, 2098.
 2) Dibromfurilsäure. Ba (*A.* 211, 226). — III, 719.
- $C_{10}H_6O_5Br_6$ 1) Hexabrombrasilein (Tribrombrasileintribromid) (*B.* 22, 1554). — III, 655.

- $C_{10}H_6O_5S$ 1) 1,2-Naphtochinon-4-Sulfonsäure. Na, K (B. 24, 3162; 27, 24). — III, 397.
2) 1,2-Naphtochinon-9-Sulfonsäure. NH_4 (B. 24, 3154). — III, 397.
3) 1,4-Naphtochinon-2-Sulfonsäure. NH_4 , K + H_2O (B. 25, 425; A. 273, 115). — III, 388.
- $C_{10}H_6O_5S_2$ 1) Anhydrid d. 1,2-Naphtalindisulfonsäure (B. 27 [2] 81).
2) Anhydrid d. 1,8-Naphtalindisulfonsäure. Sm. 227° (B. 27 [2] 81).
 $C_{10}H_6O_5N_4$ C 43,2 — H 2,2 — O 34,5 — N 20,1 — M. G. 278.
- 1) 2-Trinitro-1-Amidonaphtalin. Zers. bei 240° (264°) (B. 14, 901; A. 217, 173). — II, 597.
2) 2-Trinitro-1-Amidonaphtalin. Zers. bei 260—280° (Soc. 65, 841).
3) 2-Trinitro-2-Amidonaphtalin. Zers. bei 240—266° (B. 14, 901; A. 217, 174). — II, 597.
4) 1-[4-Nitrophenyl]-1,2,3-Triazol-4,5-Dicarbonsäure. Sm. 162—163° u. Zers. (Am. 20, 387). — IV, 1116.
- $C_{10}H_6O_5Cl_2$ 1) Diacetat d. 3,6-Dichlor-2,5-Dioxy-1,4-Benzochinon. Sm. 182,5° (J. pr. [2] 42, 170). — III, 352.
- $C_{10}H_6O_5Br_2$ 1) Dibromoxymethylbenzoyldicarbonsäure + H_2O . Sm. 230° (wasserfrei) (B. 18, 3189). — II, 2012.
- $C_{10}H_6O_5S$ 1) 7-Oxy-1,2-Naphtochinon-4-Sulfonsäure (B. 27, 3051).
2) 2-Oxy-1,4-Naphtochinon-3-Sulfonsäure. Na, Na_2 (C. 1899 [1] 464).
3) 2-Oxy-1,4-Naphtochinon-7-Sulfonsäure. Na + 3 H_2O , Ba + 2 H_2O , BaH + 3 $\frac{1}{2}$ H_2O (B. 32, 235, 237).
4) 2-Oxy-1,4-Naphtochinon-9-Sulfonsäure. K_2 (A. 149, 12).
- $C_{10}H_6O_5S_2$ 1) Inneres Anhydrid d. 1-Oxynaphtalin-3,8-Disulfonsäure. Sm. 241°. Na + 3 H_2O (B. 22, 3331). — II, 873.
2) Inneres Anhydrid d. 1-Oxynaphtalin-4,8-Disulfonsäure. Na + 3 H_2O (B. 23, 3090). — II, 873.
 $C_{10}H_6O_7N_2$ C 45,1 — H 2,3 — O 42,1 — N 10,5 — M. G. 266.
- 1) 2-Dinitro-7-Oxy-4-Methyl-1,2-Benzpyron. Sm. 220° (B. 17, 2137). — II, 1780.
2) Methyläther d. 5,8-Dinitro-6-Oxy-1,2-Benzpyron. Sm. 149—150° (G. 27 [2] 349).
- $C_{10}H_6O_5S_2$ 1) 1,2-Naphtochinon-4,6-Disulfonsäure. K_2 (B. 27, 3052). — III, 397.
2) 1,2-Naphtochinon-4,7-Disulfonsäure. K_2 (B. 27, 3053). — III, 397.
- $C_{10}H_6O_5S_3$ 1) 8-Oxy-1,2-Naphtochinon-3,6-Disulfonsäure. Na_2 (B. 31, 2158).
- $C_{10}H_6NCl_3$ 1) 1,3,4-Trichlor-2-Amidonaphtalin. Sm. 175° (J. pr. [2] 57, 12).
2) 2-Trichlor-2-Methylchinolin. Sm. 102° (B. 21, 1983). — IV, 310.
3) 2,3,4-Trichlor-6-Methylchinolin. Sm. 134° (B. 17, 740; 18, 2979). — IV, 319.
4) 2,3,4-Trichlor-8-Methylchinolin. Sm. 111—112,5° (B. 18, 2985). — IV, 322.
- $C_{10}H_6NBr_3$ 1) 1,4,6-Tribrom-2-Amidonaphtalin. Sm. 143° (J. pr. [2] 43, 56; [2] 57, 13). — II, 595.
- $C_{10}H_6N_2Cl_3$ 1) 1,2-Di[Chlorimido]-1,2-Dihydronaphtalin (1,2-Naphtochinondichlorimid). Sm. 105° (B. 27, 243). — III, 390.
2) 2,3-Dichlor-1,4-Diimido-1,4-Dihydronaphtalin. Sm. 136—137° (B. 22, 591). — III, 372.
3) 2,6-Dichlor-4-Phenyl-1,3-Diazin. Sm. 86,5° (J. pr. [2] 47, 205). — IV, 954.
- $C_{10}H_6N_2Cl_4$ 1) 2,3-Di[Dichlormethyl]-1,4-Benzdiazin. Sm. 177° (A. 254, 90). — IV, 934.
- $C_{10}H_6N_2Br_2$ 1) Dibrom-4,4'-Bipyridyl (A. 153, 280). — IV, 954.
- $C_{10}H_6N_2Br_4$ 1) 2-Brom-2-Diazonaphtalintribromid (B. 26, 2195). — IV, 1540.
- $C_{10}H_6N_2S$ 1) 1,2,3-Naphtthiodiazol. Sm. 89° (A. 277, 260). — IV, 1551.
2) 2,1,3-Naphtthiodiazol (Naphtopiazthiol). Sm. 81° (B. 23, 1393; 28, 2204).
- $C_{10}H_6N_2Se$ 1) Naphtisoselendiazol (Naphtopiaselenol). Sm. 128—129° (B. 22, 866). — IV, 921.
- $C_{10}H_6N_3Br$ 1) 2-Brom-2-Triazonaphtalin. Sm. 111° (B. 26, 2195). — IV, 1171.
- $C_{10}H_6N_3Br_3$ 1) Verbindung (aus d. Nitril d. Tribromessigsäure u. Phenylhydrazin). Sm. 210° (J. pr. [2] 50, 112). — IV, 666.
- $C_{10}H_6ClBr$ 1) 4-Chlor-1-Bromnaphtalin. Sm. 65—66° (J. 1886, 1580). — II, 193.
2) 5-Chlor-1-Bromnaphtalin. Sm. 115° (Bl. 26, 540). — II, 193.

- C₁₀H₆ClBr** 3) 6 [oder 7]-Chlor-1-Bromnaphtalin. Sm. 68—69°; Sd. 275—280°₁₄ (J. 1888, 921). — II, 193.
4) 8-Chlor-1-Bromnaphtalin? Sm. 119—119,5° (G. 16, 152). — II, 193.
5) 5-Chlor-2-Bromnaphtalin. Sm. 60° (B. 24 [2] 720). — II, 193.
- C₁₀H₆ClBr₃** 1) Chlorbromnaphtalintetrabromid. Sm. 110° (Gmelin 7, 34). — II, 194.
- C₁₀H₆ClF** 1) 4-Chlor-1-Fluornaphtalin. Sm. 85°. — II, 190.
2) 5-Chlor-1-Fluornaphtalin. Sm. 32°. — II, 190.
- C₁₀H₆Cl₂Br** 1) Dichlornaphtalintetrabromid (Gmelin 7, 34). — II, 194.
- C₁₀H₆Cl₂S₂** 1) ββ-Dichlor-αα-Dithiēnyläthen. Fl. (B. 17, 1343). — III, 752.
- C₁₀H₆Cl₄Br** 1) Dibromnaphtalintetrachlorid. Sm. 155° (Gmelin 7, 34). — II, 194.
- C₁₀H₆BrJ** 1) 4-Brom-1-Jodnaphtalin. Sm. 83,5° (85,5°) (Soc. 47, 523; B. 29, 1408). — II, 194.
2) 1-Brom-2-Jodnaphtalin. Sm. 94° (Soc. 47, 523; B. 29, 1409). — II, 194.
3) 4-Brom-2-Jodnaphtalin. Sm. 68° (Soc. 47, 523). — II, 194.
4) 2-Brom-2-Jodnaphtalin. Sm. 55° (B. 29, 1409).
- C₁₀H₆Br₂S** 1) 2-Dibrom-2-Phenylthiophen. Sm. 55—56° (B. 19, 3144). — III, 748.
2) 2-Dibrom-2-Phenylthiophen. Sm. 195° (Bl. [3] 3, 958). — III, 748.
- C₁₀H₆Br₂S₂** 1) ββ-Dibrom-αα-Dithiēnyläthen. Fl. (B. 17, 1344). — III, 752.
- C₁₀H₇ON** C 76,4 — H 4,5 — O 10,2 — N 8,9 — M. G. 157.
1) Nitrosonaphtalin. Sm. 89°; Zers. bei 134° (B. 7, 1639; 8, 615). — II, 194.
2) 2-Imido-1-Keto-1,2-Dihydronaphtalin (B. 14, 1312; A. 211, 55). — II, 865.
3) Aldehyd d. Chinolin-2-Carbonsäure. Sm. 70—71° (B. 18, 3404; 19, 132). — IV, 371.
4) Cyanid d. β-Phenylakrylsäure. Sm. 114—115° (B. 13, 2124). — II, 1407.
5) Verbindung (aus β-Benzoylpropionsäureäthylester) (A. 299, 64).
C 64,8 — H 3,8 — O 8,6 — N 22,7 — M. G. 185.
- C₁₀H₇ON₃** 1) 3,4-Anhydrid d. 3-Diazo-4-Oxy-2-Methylchinolin. Sm. 129—131° u. Zers. HCl (B. 21, 1978). — IV, 931.
2) Oxykomazin. Sm. bei 360°. Ag, 2HCl, (2HCl, PtCl₄), H₂SO₄ + 3H₂O (J. pr. [2] 32, 153). — IV, 159.
3) Verbindung (aus 2-Nitroso-1-Amidonaphtalin). Sm. 212—215°. + AgNO₃ (A. 255, 159). — II, 595.
- C₁₀H₇OCl** 1) 2[?]-Chlor-1-Oxynaphtalin. Sm. 57° (B. 15, 314; 28, 3053). — II, 859.
2) 4-Chlor-1-Oxynaphtalin. subl. bei 100°; Sm. 116°. Pikrat (Sm. 171°) (B. 28, 3052).
3) 5-Chlor-1-Oxynaphtalin. Sm. 131,5°. Pikrat (A. 247, 372). — II, 859.
4) 6-Chlor-1-Oxynaphtalin. Sm. 94° (A. 247, 376). — II, 859.
5) 7-Chlor-1-Oxynaphtalin. Sm. 123° (A. 247, 374). — II, 859.
6) 2-Chlor-1-Oxynaphtalin. Sm. 109° (Bl. 18, 208). — II, 859.
7) 1-Chlor-2-Oxynaphtalin. Sm. 70° (B. 16, 1901; 21, 895, 3834; C. 1895 [1] 834). — II, 878.
8) 5-Chlor-2-Oxynaphtalin. Sm. 128° (J. pr. [2] 39, 317). — II, 879.
9) 6-Chlor-2-Oxynaphtalin. Sm. 115° (B. 14, 1484). — II, 879.
10) 8-Chlor-2-Oxynaphtalin. Sm. 101°; Sd. 307—308° (B. 18, 3157). — II, 879.
- C₁₀H₇OCl₃** 1) δδδ-Trichlor-α-Keto-α-Phenyl-β-Buten. Sm. 100° (B. 25, 797; 26, 911). — III, 163.
- C₁₀H₇OBr** 1) 4-Brom-1-Oxynaphtalin. Sm. 127—128°. Pikrat (Sm. 167°) (B. 28, 3054).
2) 8-Brom-1-Oxynaphtalin. Sm. 60—61° (Soc. 63, 1058). — II, 860.
3) 1-Brom-2-Oxynaphtalin. Sm. 84° (B. 15, 202; 28, 3056; Soc. 35, 789). — II, 879.
4) 6-Brom-2-Oxynaphtalin. Sm. 127° (C. 1897 [1] 238).
- C₁₀H₇OJ** 1) 1-Jod-2-Oxynaphtalin. Sm. 94,5° (Soc. 47, 525; G. 20, 107). — II, 880.
2) 1-Jodosonaphtalin (B. 27, 592).
3) 2-Jodosonaphtalin. Zers. bei 127—128° (B. 27, 593).
- C₁₀H₇OAs** 1) 1-Naphtylarsinoxyd. Sm. 245° (B. 14, 913; 15, 1954). — IV, 1694.
- C₁₀H₇OB** 1) 1-Naphtylboroxyd (B. 27, 250). — IV, 1701.
2) 2-Naphtylboroxyd. Sm. 266° (B. 27, 254). — IV, 1701.

$C_{10}H_7O_2N$ C 69.4 — H 4.0 — O 18.5 — N 8.1 — M. G. 173.

- 1) 1-Nitronaphtalin. Sm. 61° (58,5°); Sd. 304°. 2 + Al_2Cl_6 . Lit. bedeutend. — II, 195.
- 2) 2-Nitronaphtalin. Sm. 79° (B. 19, 237; 20, 1497). — II, 195.
- 3) 2-Nitroso-1-Oxynaphtalin (β -Naphtochinonoxim). Sm. 152° (147—148°). NH_4 , Na, K, Ba + $2H_2O$, Pb, Ag (B. 8, 626; 15, 1816 Anm.; 17, 215; 26, 1280; Bl. [3] 19, 516). — II, 861.
- 4) 4-Nitroso-1-Oxynaphtalin (α -Naphtochinonoxim). Sm. 193—194° u. Zers. (B. 8, 627; 17, 2064, 2590; 18, 706; 27, 240; A. 243, 312; 286, 183; Bl. [3] 19, 516). — II, 860.
- 5) 1-Nitroso-2-Oxynaphtalin. Sm. 109,5°. Salze meist bekannt. Lit. bedeutend. — II, 880.
- 6) 2-Amido-1,4-Naphtochinon. Sm. 202—203°. H_2SO_4 (B. 21, 1195, 2516; 27, 3388; 28, 348). — III, 374.
- 7) 4-Imido-2-Oxy-1-Keto-1,4-Dihydronaphtalin (2-Oxynaphtochinonimid). Na, Ag (A. 134, 377; 154, 318; 286, 84; B. 17, 714). — III, 382.
- 8) 6,7-Methylenäther d. 6,7-Dioxyisochinolin. Sm. 124°; Sd. 214—216° u. ger. Zers. HCl, (2HCl, $PtCl_4$), Pikrat (A. 286, 15). — IV, 304.
- 9) α -Cyan- β -Phenylakrylsäure. Sm. 180°. (NH_4H), NH_4 , Na, KH, K, Ba + H_2O , Pb + $4H_2O$, Cu, Ag, K + Ag, Anilinsalz (J. pr. [2] 45, 501; Bl. [3] 7, 11; A. ch. [6] 29, 442). — II, 1416; III, 11.
- 10) β -(2-Cyanphenyl)akrylsäure. Sm. 252° (225°) (B. 24, 2574; 27 [2] 262). — II, 1417.
- 11) Chinolin-2-Carbonsäure + $2H_2O$ (Chinaldinsäure). Sm. 156° (wasserfrei). Ca, Cu + $2H_2O$, (Ag + $C_{10}H_7O_2N$ + HNO_3 + H_2O), (2HCl, $PtCl_4$ + $2H_2O$), $H_2Cr_2O_7$ (B. 16, 2472; 24, 1915; M. 7, 299; 8, 133; Ph. Ch. 3, 395). — IV, 344.
- 12) Chinolin-3-Carbonsäure. Sm. 275°. Cu, Ag, (2HCl, $PtCl_4$), Pikrat (B. 13, 101; 16, 1613; 18, 1644). — IV, 345.
- 13) Chinolin-4-Carbonsäure + $1(2)H_2O$ (Cinchoninsäure). Sm. 253—254° (wasserfrei). K + $\frac{1}{2}H_2O$, Ca + $1\frac{1}{2}H_2O$, Cu, Ag, HCl, (HCl, ClJ + $2H_2O$), (2HCl, $PtCl_4$), HBr, HNO_3 , H_2SO_4 , $H_2Cr_2O_7$ (A. 173, 84; 201, 301; 270, 358; B. 12, 98; 14, 436, 1922; 18, 362, 1618; 20, 1606; M. 2, 601; 3, 79, 770; 10, 55; R. 2, 10; 8, 217; Ph. Ch. 3, 395; J. pr. [2] 56, 312). — IV, 345.
- 14) Chinolin-5-Carbonsäure. Sm. noch nicht bei 320°. Ca + $6H_2O$, CuOH + $2H_2O$, Ag + $2H_2O$, HCl + $1\frac{1}{2}H_2O$, (2HCl, $PtCl_4$) (M. 2, 519; B. 14, 2574; 15, 683, 1980; 17, 765; G. 16, 370; M. 7, 153). — IV, 348.
- 15) isom. Chinolin-5-Carbonsäure? Sm. 338°. HCl + H_2O , (2HCl, $PtCl_4$), Zn, Ag (A. 237, 318; B. 20, 1449). — IV, 349.
- 16) Chinolin-6-Carbonsäure. Sm. 291—292°. Ca + $2H_2O$, Cu + $2H_2O$, Ag, HCl, (2HCl, $PtCl_4$) (M. 2, 526; B. 17, 440). — IV, 349.
- 17) Chinolin-7-Carbonsäure. Sm. 247° (248—249°). Ca, CuOH + H_2O , Ag, HCl, (2HCl, $PtCl_4$) (B. 17, 1901; 19, 2473; M. 7, 142, 519; 12, 312; G. 16, 367). — IV, 350.
- 18) Chinolin-8-Carbonsäure. Sm. 186—187,5°. Ca, Cu + $3\frac{1}{2}H_2O$, Ag, HCl, (2HCl, $PtCl_4$) (B. 15, 196, 684; 22, 1391; 27, 826; M. 2, 530; 7, 153; 12, 306). — IV, 350.
- 19) Isochinolin-5 [oder 8]-Carbonsäure. Sm. 272° u. Zers. HCl + $2H_2O$, (2HCl, $PtCl_4$), HNO_3 + H_2O , Pikrat, Cu (M. 15, 810). — IV, 351.
- 20) Acetylimid d. Benzol-1,2-Dicarbonsäure. Sm. 132—135° (B. 19, 1400). — II, 1807.
- 21) Phenylimid d. Maleinsäure. Sm. 90—91°; Sd. 162,1—162,3° (A. 239, 141; Am. 7, 280; B. 14, 2547). — II, 416.
- 22) Verbindung (Nitrosonaphtol?). Sm. 180° u. Zers. (B. 28, 2080). — IV, 1454.

 $C_{10}H_7O_2N_3$ C 59.7 — H 3.5 — O 15.9 — N 20.9 — M. G. 201.

- 1) 1-Nitroso-2-Nitrosamidonaphtalin. K, Ag (B. 19, 346). — II, 596.
- 2) 2,5-Difuranyl-1,3,4-Triazol. Sm. 185° (B. 28, 469; A. 298, 30). — III, 699.

- 3) 2-Nitro-3-Phenyl-1,2-Diazin. Sm. 151° (B. 32, 403).

 $C_{10}H_7O_2Cl$

- 1) 2-Chlor-1,2-Dioxynaphtalin. Sm. 116—117° (B. 19, 2498; 27, 2760). — II, 981.

- $C_{10}H_7O_2Cl_3$ 1) Methylester d. 1-[$\alpha\beta\beta$ -Trichloräthenyl]benzol-2-Carbonsäure. Sm. 68° (B. 20, 2056). — II, 1423.
- $C_{10}H_7O_2Cl_5$ 1) Pentachlorphenylester d. Buttersäure. Sm. 59—62,5° (Bl. [3] 13, 342).
- $C_{10}H_7O_2Br$ 1) 3[P]-Brom-1,2-Dioxynaphtalin. Sm. 193° (B. 21, 389). — II, 981.
2) 6-Brom-1,2-Dioxynaphtalin. Zers. bei 250° (J. pr. [2] 43, 55). — II, 962.
3) 2-Brom-1,3-Diketo-2-Methyl-2,3-Dihydroinden. Sm. 90—91° (A. 252, 85). — III, 278.
4) Lakton d. ?-Brom- α -[2-Oxyphenyl]propen- β -Carbonsäure (Brompropioncumarin). Sm. 146° (J. 1875, 591). — II, 1654.
- $C_{10}H_7O_2Br_2$ 1) Verbindung (aus Cubebin) (J. 1877, 932). — II, 1114.
- $C_{10}H_7O_2J$ 1) 2-Jodonaphtalin. Zers. bei 200° (B. 29, 1573).
 $C_{10}H_7O_2N$ C 63,5 — H 3,7 — O 25,4 — N 7,4 — M. G. 189.
1) 2-Nitro-1-Oxynaphtalin. Sm. 128°. K + H₂O, Ba + 3H₂O, Ag (A. 183, 246; B. 8, 630; 15, 1815; 19, 802; 25, 973). — II, 862.
2) 4-Nitro-1-Oxynaphtalin. Sm. 164°. Na + 2H₂O, K, Ca + 2H₂O, Ba + 2(3)H₂O, Pb, Ag (J. 1861, 644; A. 183, 246; 208, 325; B. 3, 943; 6, 342, 1118; 15, 1814; 28, 3055). — II, 863.
3) 1-Nitro-2-Oxynaphtalin. Sm. 103° (96°). Na (A. 189, 152; 211, 46; B. 14, 806, 1792). — II, 882.
4) 5-Nitro-2-Oxynaphtalin. Sm. 147° (B. 25, 2079). — II, 883.
5) 8-Nitro-2-Oxynaphtalin. Sm. 144—145° (J. pr. [2] 44, 614; B. 25, 2082). — II, 883.
6) 1-Nitroso-2,7-Dioxynaphtalin (Oxynaphtochinonoxim). Sm. 235° (B. 23, 521). — II, 985.
7) 3-Amido-2-Oxy-1,4-Naphtochinon. Zers. bei 100°. Ba, Ag (B. 11, 1319). — III, 384.
8) 8-Amido-2-Oxy-1,4-Naphtochinon. Sm. 221° (B. 31, 2422).
9) 2-Oximido-3-Oxy-1-Keto-1,2-Dihydronaphtalin. Sm. 152—155° u. Zers. (B. 25, 1179). — III, 276.
10) 1-Oximido-2-Oxy-4-Keto-1,4-Dihydronaphtalin. Sm. 180° u. Zers. (B. 22, 1343). — III, 381.
11) 4[oder 1]-Oximido-5-Oxy-1[oder 4]-Keto-1,4-Dihydronaphtalin. Sm. 187—187,5° (B. 18, 208; 20, 940). — III, 380.
12) 1-Acetyl-2,3-Diketo-2,3-Dihydroindol (Acetylpseudoisatin). Sm. 141° (B. 11, 585). — II, 1604.
13) 2,3,4-Triketo-1-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 120—122° (B. 20, 2015). — IV, 289.
14) Tarkonsäure. HCl (A. 212, 184). — III, 920.
15) 2-[Cyanacetyl]benzol-1-Carbonsäure. Sm. 136—138° (A. ch. [7] 1, 498). — II, 1649.
16) β -Cyan- β -Phenyl- α -Ketoäthan- α -Carbonsäure (Phenylcyanbrenztraubensäure). Sm. 213° (A. 271, 175). — II, 1642.
17) 5-Phenylisoxazol-3-Carbonsäure. Sm. 162° (B. 22 [2] 23). — II, 1862.
18) 3-Keto-1,3-Dihydroisindol-1-Methenylcarbonsäure (Phtalimidyl-essigsäure). Sm. bei 200° u. Zers. Ca + H₂O, Ba + 4H₂O, Ag (B. 10, 1556; 17, 2623). — II, 1872.
19) 2-Oxychinolin-3-Carbonsäure? Sm. oberh. 320°. Ba, Ag, Ag₂ (Soc. 53, 143; B. 17, 459). — IV, 360.
20) 2-Oxychinolin-4-Carbonsäure. Sm. oberh. 310°. Ag (B. 12, 99; 16, 2152). — IV, 360.
21) 6-Oxychinolin-4-Carbonsäure + H₂O. Sm. 320°. HCl + H₂O, (2HCl, PtCl₄ + 2H₂O) (M. 2, 571). — IV, 360.
22) isom.[?] 6-Oxychinolin-4-Carbonsäure (Xanthochinsäure). Sm. oberh. 300°. Ca + 10H₂O, Ba + 6H₂O, Cu + H₂O, Ag + 2H₂O, HCl + 2H₂O, (2HCl, PtCl₄ + 6H₂O), H₂SO₄ + 3H₂O (M. 2, 602; A. 282, 106). — IV, 361.
23) 8-Oxychinolin-4-Carbonsäure. Sm. 254—256°. Ba, BaH + H₂O, Ag, AgH + H₂O, HCl + H₂O, (2HCl, PtCl₄ + 2H₂O) (M. 1, 857). — IV, 363.
24) 6-Oxychinolin-?Carbonsäure. Sm. 200°. NH₄ + $\frac{1}{2}$ H₂O, Cu + 6H₂O, Ba + 2H₂O, Pb + H₂O, Ag, HCl, (2HCl, PtCl₄ + 2H₂O) (M. 8, 322; B. 20, 2695). — IV, 363.
25) 8-Oxychinolin-?Carbonsäure + H₂O. Sm. 256°. K, Ba, Hg, Ag, HCl + 2 $\frac{1}{2}$ H₂O, (2HCl, PtCl₄ + 4H₂O) (M. 9, 300). — IV, 364.

- C₁₀H₇O₃N** 26) 8-Oxychinolin-2-Carbonsäure + H₂O. Sm. 273° u. Zers. NH₄ + H₂O. Ba + 2H₂O. HCl (B. 20, 1217, 2690). — IV, 363.
 27) 8-Oxychinolin-2-Carbonsäure. Sm. 280°. Ba, Ag (B. 19, 2468; M. 8, 311). — IV, 363.
 28) 1-Keto-1,2-Dihydroisochinolin-3-Carbonsäure. Sm. 320°. Ba, Pb, Cu, Ag (B. 25, 1143, 1496). — IV, 365.
 29) α-Kynurensäure + H₂O (Oxychinolincarbonsäure). Sm. 257—258° u. Zers. NH₄, K + 2H₂O, Ca + 2H₂O, Ba + 4H₂O, Cu + 2H₂O, Ag + H₂O, HCl (A. 86, 125; 108, 354; 164, 155; H. 4, 92; 5, 70; 7, 399; 23, 87, 92, 497; M. 2, 58; 5, 16). — IV, 364.
 30) Amid d. 1,2-Benzpyron-3-Carbonsäure (Amid d. Cumarin-3-Carbonsäure). Sm. 236° (J. pr. [2] 50, 271). — II, 1962.
 31) Imid d. Phenylloxymaleinsäure. Sm. 216—218°. Na + 3H₂O, K, Ca + 6H₂O, Ba + H₂O, Pb + H₂O, Ag (A. 282, 72). — II, 1642.
 32) Phenylimid d. Oxalessigsäure? Nur Na bekannt (B. 24, 1250). — II, 420.
- C₁₀H₇O₃N₂** C 55.3 — H 3.2 — O 22.1 — N 19.3 — M. G. 217.
 1) 2-Nitro-1-Diazonaphtalin. Sulfat (Am. 14, 48). — IV, 1541.
 2) 4-Nitro-1-Diazonaphtalin. Nitrat (Am. 14, 531). — IV, 1541.
 3) 1-Nitro-2-Diazonaphtalin. Nitrat, Sulfat (Am. 14, 51). — IV, 1541.
 4) Monamid d. 1,4-Benzdiazin-2,3-Dicarbonsäure. Sm. 183° u. Zers. NH₄ (B. 28, 1656). — IV, 951.
- C₁₀H₇O₃Cl** 1) 1-[β-Chlorätheryl]benzol-2-Ketocarbonsäure. Sm. 102—103° (B. 27, 2760). — II, 1678.
 2) αγ-Lakton d. β-Chlor-αγ-Dioxyeroton-α-Phenyläthersäure. Sm. 67 bis 68° (Am. 18, 295). — II, 666.
- C₁₀H₇O₃Cl₃** 1) 2,2,3-Trichlor-1-Oxy-2,3-Dihydroinden-1-Carbonsäure. Fl. (B. 20, 2894). — II, 1661.
 2) α,2-Lakton d. 4-Methoxyl-1-[βββ-Trichlor-α-Oxyäthyl]benzol-2-Carbonsäure (5-Methoxytrichlormethylphthalid). Sm. 135° (A. 296, 352).
 3) Methylester d. 2-[Trichloracetyl]benzol-1-Carbonsäure. Sm. 127 bis 128° (A. 255, 391). — II, 1649.
 4) Trichloräthylidenester d. α-Oxyphenylelessigsäure (Mandelsäurechloralid). Sm. 82—83°; Sd. 305—310° u. ger. Zers. (A. 193, 40). — II, 1554.
- C₁₀H₇O₃Br** 1) Methyläther d. 3-Brom-7-Oxy-1,2-Benzpyron. Sm. 154—154,5° (B. 19, 1782). — II, 1775.
 2) α-[β-Brom-2-Methoxyphenyl]äthin-β-Carbonsäure (Bromcumarilmethyläthersäure). Sm. 168° u. Zers. (Soc. 39, 419). — II, 1675.
 3) αγ-Lakton d. β-Brom-αγ-Dioxyeroton-α-Phenyläthersäure (Am. 18, 293). — II, 667.
- C₁₀H₇O₃Br₃** 1) Lakton d. αβ[β]-Tribrom-β-[2,4-Dioxyphenyl]buttersäure. Sm. 240° (J. pr. [2] 24, 125; Am. 5, 434; B. 17, 2134). — II, 1767.
- C₁₀H₇O₄N** C 58.5 — H 3.4 — O 31.2 — N 6.8 — M. G. 205.
 1) 3-Nitro-1,2-Dioxynaphtalin. Sm. 159,5° (152—153°) (Soc. 45, 299; B. 23, 178; A. 295, 121). — II, 981.
 2) β-Oximido-α-Keto-αβ-Di[2-Furanyl]äthan (Furiloxim). α-Modif. Sm. 106°; β-Modif. Sm. 97—98° (A. 258, 226, 227). — III, 729.
 3) 1,2-Phtalylamidoessigsäure. Sm. 191—192°. NH₄, Na + H₂O, Ca + 2H₂O, Cu + 3H₂O, Ag, Pt(NH₃)₂ (J. pr. [2] 27, 418; A. 242, 1; Ph. Ch. 3, 190). — II, 1810.
 4) Indol-2,2-Dicarbonsäure. Sm. oberh. 250° u. Zers. (A. 236, 168). — IV, 241.
 5) 2-Dioxyisochinolin-2-Carbonsäure (Dioxycinchoninsäure). Sm. 221° u. Zers. (M. 8, 522). — IV, 368.
 6) 1-Keto-2,3-Benzoxazin-4-Methylcarbonsäure (β-Isouitrosopropion-o-Benzoesäureanhydrid). Ag (B. 16, 1993). — II, 1961.
 7) 4,5-Lakton d. 4,6,7-Trioxy-3,4-Dihydrochinolin-5-Carbonsäure. Sm. 220° u. Zers. (B. 19, 2298). — II, 2045.
 8) Acetat d. 1,2-Phtalylhydroxylamin. Sm. 181° (G. 25 [2] 23).
 9) Methylimid d. 4,5-Dioxybenzolmethylenäther-1,2-Dicarbonsäure (M. d. Hydrastsäure). Sm. 227—228° (A. 271, 373). — II, 2000.
 10) Verbindung (aus α-Cyan-β-[2-Furanyl]akrylsäure). Sm. 87° (B. 27, 2626; 28, 2254 Anm.). — III, 711.

- $C_{10}H_7O_4N$** C 51,5 — H 3,0 — O 27,5 — N 18,0 — M. G. 233.
 1) 2,4-Dinitro-1-Amidonaphtalin. Sm. 237° (A. 183, 274; 208, 330; B. 8, 564; 19, 2033, 2683; 27 [2] 592). — II, 597.
 2) 1,6[oder 1,7]-Dinitro-2-Amidonaphtalin. Sm. 238° (B. 17, 1172). — II, 597.
 3) 1,8-Dinitro-2-Amidonaphtalin. Sm. 223° (J. pr. [2] 43, 33). — II, 597.
 4) 5,8-Dinitro-2-Amidonaphtalin. Zers. bei 235° (B. 23, 3362). — II, 597.
 5) 2-Imido-3-Oxy-5-Keto-4-[p-Nitrophenyl]-2,5-Dihydropyrrol. Sm. 246° u. Zers. (A. 282, 71). — II, 1642.
 6) 1-Phenyl-1,2,3-Triazol-4,5-Dicarbonsäure. Sm. 149—150° u. Zers. (147,5—148°). Ca + 5H₂O, Ag₂ + H₂O (Am. 20, 382; J. pr. [2] 48, 94; [2] 58, 239). — IV, 1116.
 7) 1-Phenyl-1,2,4-Triazol-3,5-Dicarbonsäure. K, Cu + 4H₂O, Ag₂ + 1/2 H₂O (B. 23, 1811, 3785). — IV, 1117.
 8) 1-Phenyl-1,2,5-Triazol-3,4-Dicarbonsäure. Sm. 255—256° Ag₂ (A. 262, 308). — IV, 1116.
- $C_{10}H_7O_4Cl$** 1) α -[2-Chlorphenyl]äthen- $\beta\beta$ -Dicarbonsäure (o-Chlorbenzalmalonsäure). Sm. 192° u. Zers. (Soc. 53, 141). — II, 1863.
- $C_{10}H_7O_4Cl_3$** 1) Diacetat d. p-Trichlor-1,3-Dioxybenzol. Sm. 116° (B. 23, 3777). — II, 920.
 2) Diacetat d. 2,3,5-Trichlor-1,4-Dioxybenzol. Sm. 153° (A. 146, 28). — II, 942.
 3) Methylester d. 2,4,6-Trichlor-3-Acetoxybenzol-1-Carbonsäure. Sm. 65° (A. 261, 241). — II, 1519.
- $C_{10}H_7O_4Br$** 1) Phenoxylnucobromsäure. Sm. 104—105°. K, Ba + 3H₂O (Am. 6, 188). — II, 666.
 2) α -[2-Bromphenyl]äthen- $\beta\beta$ -Dicarbonsäure (o-Brombenzalmalonsäure). Sm. 198° u. Zers. (Soc. 53, 141). — II, 1864.
 3) p-Brom-5-Oxy-2-Methylbenzfuran-1-Carbonsäure (Bromoxy- β -Methylcumarilsäure). Sm. 221° u. Zers. (B. 17, 2134). — II, 1953.
 4) 1,2-Lakton d. 3,4-Dioxy-1-[β -Oxyäthyl]benzol-3,4-Brommethylenäther-2-Carbonsäure. Sm. 146—147° (Soc. 57, 1026). — II, 1930.
- $C_{10}H_7O_4Br_3$** 1) Diacetat d. p-Tribrom-1,3-Dioxybenzol. Sm. 108° (B. 11, 1439; Am. 18, 131). — II, 921.
- $C_{10}H_7O_4J$** 1) α -[2-Jodphenyl]äthen- $\beta\beta$ -Dicarbonsäure (o-Jodbenzalmalonsäure). Sm. 204° (Soc. 53, 142). — II, 1864.
- $C_{10}H_7O_4J_3$** 1) Diacetat d. p-Trijod-1,3-Dioxybenzol. Sm. 170° (B. 11, 1443). — II, 922.
- $C_{10}H_7O_5N$** C 54,3 — H 3,2 — O 36,2 — N 6,3 — M. G. 221.
 1) p-Nitro-7-Oxy-4-Methyl-1,2-Benzpyron (Nitro- β -Methylumbelliferon) (B. 17, 2136). — II, 1780.
 2) Methyläther d. 7-Nitro-6-Oxy-1,2-Benzpyron. Sm. 155—156° (G. 27 [2] 352).
 3) 4-Nitro-2-Methylbenzfuran-1-Carbonsäure (4-Nitromethylcumarilsäure). Sm. 178°. Ag + 1 1/2 H₂O (B. 20, 1333). — II, 1676.
 4) γ -Keto- α -[2-Nitrophenyl]propen- γ -Carbonsäure (o-Nitrocinnamylameisensäure). Sm. 135—136° (B. 15, 2649, 2862). — II, 1677.
 5) α -[3-Nitro-4-Methoxyphenyl]äthin- β -Carbonsäure. Sm. 135° (A. 243, 378). — II, 1676.
 6) 4-Aldehyd d. β -[2-Nitrophenyl]akrylsäure-4-Carbonsäure. Sm. 194°. Ag + H₂O (A. 231, 376). — II, 1677.
 7) α ,2-Lakton d. α -Oxy- β -Oximido- α -Phenyläthan- β ,2-Dicarbonsäure. Sm. 167—168° (B. 27, 742). — II, 2012.
- $C_{10}H_7O_5N_3$** C 48,2 — H 2,8 — O 32,1 — N 16,9 — M. G. 249.
 1) Methylenäther d. 3-[p-Nitro-3,4-Dioxyphenyl]-4-Methyl-1,2,5-Oxiazol. Sm. 101—102° (G. 23 [2] 41). — II, 979.
- $C_{10}H_7O_5N_5$** C 43,3 — H 2,5 — O 28,9 — N 25,3 — M. G. 277.
 1) 5-[2-Nitrophenyl]hydrazon-2,4,6-Triketohexahydro-1,3-Diazin. Sm. oberh. 310° (B. 31, 1974).
 2) 5-[4-Nitrophenyl]hydrazon-2,4,6-Triketohexahydro-1,3-Diazin. Sm. oberh. 300° (B. 31, 1976).
- $C_{10}H_7O_5Cl$** 1) Chloroxynaphtalinsäure? Fl. (A. 151, 67). — II, 1963.

- C₁₀H₇O₆Br** 1) 5-Brom-4-Acetylbenzol-1,3-Dicarbonsäure. Sm. 224—225° (A. 293, 172).
2) Bromoxymaleinphenyläthersäure. Sm. 103—104°. Ag₂ (Am. 6, 193). — II, 667.
- C₁₀H₇O₆N** C 50,6 — H 2,9 — O 40,5 — N 5,9 — M. G. 237.
1) β-[6-Nitro-3,4-Dioxyphenyl]akryl-3,4-Methylenäthersäure. Zers. bei 240°. Na, Ag (Soc. 59, 153). — II, 1777.
2) α-[2-Nitrophenyl]äthen-ββ-Dicarbonsäure (o-Nitrobenzalmalonsäure). Sm. 161°. Ba + 2½ H₂O, Ag₂ (Soc. 47, 155; 49, 358). — II, 1864.
3) α-[3-Nitrophenyl]äthen-ββ-Dicarbonsäure. Sm. 205° (Soc. 47, 157; 49, 358; B. 31, 2611). — II, 1864.
4) α-[4-Nitrophenyl]äthen-ββ-Dicarbonsäure. Sm. 227° (Soc. 47, 158; 49, 358; B. 31, 2613). — II, 1864.
5) 3-Nitrobenzol-1-Carbonsäure-4-[Aethenyl-β-Carbonsäure] (m-Nitro-p-Zimmtcarbonsäure). Sm. 287° u. Zers. (A. 231, 371). — II, 1865.
6) 1,2-Lakton d. ?-Nitro-3,4-Dioxy-1-[β-Oxyäthyl]benzol-3,4-Methylenäther-2-Carbonsäure. Sm. 197° (Soc. 57, 1027). — II, 1930.
- C₁₀H₇O₆N₂** C 45,3 — H 2,6 — O 36,2 — N 15,9 — M. G. 265.
1) Methyläther d. Dinitrostrychol. Sm. 196° (A. 301, 345).
2) Oximanhydrid d. Methylenäther d. ?-Nitro-3,4-Dioxy-1-[αβ-Dioximidopropyl]benzol. Sm. 144° (G. 22 [2] 471). — II, 978.
- C₁₀H₇O₇N** C 47,4 — H 2,8 — O 44,3 — N 5,5 — M. G. 253.
1) Nitrosodipyromekonsäure + 2H₂O. 2 isom. Formen (J. pr. [2] 19, 195; [2] 23, 197; [2] 27, 272 Anm.). — I, 626.
2) Anhydrid d. 6-Nitro-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure (A. d. Nitroheampiusäure). Sm. 145° (B. 19, 2304). — II, 1997.
- C₁₀H₇O₇N₂** C 42,7 — H 2,5 — O 39,8 — N 14,9 — M. G. 281.
1) β-[3-Nitrophenylhydrazon]α-Ketoäthan-αβ-Dicarbonsäure. Sm. 175° u. Zers. (B. 22, 2814; A. 299, 126). — IV, 728.
- C₁₀H₇O₈N** C 44,6 — H 2,6 — O 47,6 — N 5,2 — M. G. 269.
1) 4-Methylpyridin-2,3,5,6-Tetracarbonsäure + 2H₂O. Sm. 199° u. Zers. K + 2H₂O, K₂ + 4H₂O, Mg₂ + 6H₂O, Ca₂ + 4H₂O (A. 215, 57). — IV, 182.
- C₁₀H₇NCl₂** 1) 2,4-Dichlor-1-Amidonaphtalin. Sm. 82°. HCl (A. 275, 260; B. 20, 448). — II, 594.
2) 4,7-Dichlor-1-Amidonaphtalin. Sm. 94°. HCl (Bl. 29, 500). — II, 593.
3) 5,7-Dichlor-1-Amidonaphtalin. Sm. 116—117°. HCl (A. 275, 288). — II, 594.
4) 5,8-Dichlor-1-Amidonaphtalin. Sm. 104°. HCl, (HCl, SnCl₄), (2HCl, PtCl₄ + 2H₂O), H₂SO₄ (Bl. 28, 510). — II, 593.
5) 5,8-β-Dichlor-1-Amidonaphtalin. Sm. 68—69°. HCl (A. 275, 291). — II, 593.
6) 5,8-Dichlor-2-Amidonaphtalin. Sm. 96° (J. pr. [2] 43, 59; [2] 57, 1). — II, 594.
7) ?-Dichlor-2-Methylechinolin. Sm. 46°; Sd. 300° (B. 17, 755). — IV, 310.
8) 1,3-Dichlor-4-Methylisochinolin. Sm. 101—102° (B. 20, 2504). — IV, 324.
- C₁₀H₇NBr₂** 1) 2,4-Dibrom-1-Amidonaphtalin. Sm. 118—119° (B. 12, 1961). — II, 594.
2) 3,5[oder 3,8]-Dibrom-1-Amidonaphtalin. Sm. 101—102° (Soc. 47, 514). — II, 594.
3) 1,4-Dibrom-2-Amidonaphtalin. Sm. 106° (B. 25 [2] 750; Soc. 67, 907). — II, 595.
4) 1,6-Dibrom-2-Amidonaphtalin. Sm. 121°. HCl (B. 18, 2424; 26, 2196; J. pr. [2] 43, 48; [2] 57, 2). — II, 595.
5) 4,6[oder 4,7]-Dibrom-2-Amidonaphtalin. Sm. 105° (Soc. 47, 511). — II, 594.
6) ?-Brom-8-Brommethylechinolin. Sm. 110° (C. 1898 [2] 744).
- C₁₀H₇N₂Cl** 1) 1-Diazonaphtalinchlorid. Sm. 96° u. Zers. (B. 28, 2057; G. 25 [1] 337). — IV, 1540.
2) 2-Diazonaphtalinchlorid. 4 + Cu₂Cl₂ (B. 21, 1097; 28, 2057). — IV, 1540.
3) 6-Chlor-3-Phenyl-1,2-Diazin. Sm. 160° (B. 32, 400).
4) 4-Chlor-2-Phenyl-1,3-Diazin. Sm. 74°. (2HCl, PtCl₄) (B. 30, 2029). — IV, 954.

- $C_{10}H_7N_2Br$ 1) 2-Diazonaphtalinbromid. + Cu_2Br_2 (B. 19, 810). — IV, 1540.
 $C_{10}H_7N_2J$ 1) 6-Jod-3-Phenyl-1,2-Diazin. Sm. 169—170° (B. 32, 401).
 $C_{10}H_7ClS_2$ 1) β -Chlor- $\alpha\alpha$ -Dithiänyläthen? Sd. 170—180°₂₃ (B. 30, 2042).
 $C_{10}H_7ClHg$ 1) 1-Naphtylquecksilberchlorid. Sm. 187° (B. 27, 250; J. pr. [2] 1, 185). — IV, 1712.
 2) 2-Naphtylquecksilberchlorid. Sm. 271° (B. 27, 251). — IV, 1713.
 $C_{10}H_7Cl_2Br$ 1) Bromnaphtalindichlorid. Sm. 165°. — II, 194.
 $C_{10}H_7Cl_2J$ 1) 1-Naphtyljodidechlorid (B. 27, 592).
 2) 2-Naphtyljodidechlorid (B. 27, 592).
 $C_{10}H_7Cl_2P$ 1) 1-Naphtyldichlorphosphin. Sd. oberh. 360° u. Zers. (B. 9, 1051; II, 1500). — IV, 1680.
 $C_{10}H_7Cl_2As$ 1) 1-Naphtyldichlorarsin. Sm. 63° (B. 11, 1503; 15, 1954). — IV, 1694.
 $C_{10}H_7Cl_2B$ 1) 1-Naphtylborchlorid. Sd. 164°₂₆ u. Zers. (B. 27, 249). — IV, 1700.
 2) 2-Naphtylborchlorid. Sm. 116° (B. 27, 252).
 $C_{10}H_7Cl_2S_2$ 1) $\beta\beta\beta$ -Trichlor- $\alpha\alpha$ -Dithiänyläthan. Sm. 76° (B. 17, 1341). — III, 752.
 $C_{10}H_7BrHg$ 1) 1-Naphtylquecksilberbromid. Sm. 195—196° (A. 154, 190). — IV, 1712.
 2) 2-Naphtylquecksilberbromid. Sm. 266° (B. 27, 251). — IV, 1713.
 $C_{10}H_7Br_2S_2$ 1) $\beta\beta\beta$ -Tribrom- $\alpha\alpha$ -Dithiänyläthan. Sm. 101—102° (B. 17, 1344). — III, 752.
 $C_{10}H_7JHg$ 1) 1-Naphtylquecksilberjodid. Sm. 185° (A. 154, 189). — IV, 1712.
 2) 2-Naphtylquecksilberjodid. Sm. 251° (B. 27, 252). — IV, 1713.
 $C_{10}H_8ON$ 1) Verbindung (aus 1-Diazonaphtalinchlorid) = $(C_{10}H_8ON)_x$ (Soc. 37, 747). — IV, 1540.
 2) Verbindung (aus 4-Amidophenylauramin) = $(C_{10}H_8ON)_x$. Sm. 326—327° (J. pr. [2] 50, 418). — IV, 1174.
 $C_{10}H_8ON_2$ C 69,8 — H 4,6 — O 9,3 — N 16,3 — M. G. 172.
 1) 2-Nitrosamidonaphtalin (2-Naphtylnitrosamin) (B. 27, 680).
 2) 2-Nitroso-1-Amidonaphtalin. NaOH, HCl, (2HCl, PtCl₄), H₂SO₄ + H₂O (A. 255, 151). — II, 595.
 3) 1-Nitroso-2-Amidonaphtalin (Naphtalin- α -Oxim- β -Imid). Sm. 150 bis 152°. K, HCl, (2HCl, PtCl₄ + 2H₂O), HNO₃ (B. 17, 391; 19, 343). — II, 596.
 4) β -Nitroso- β -Amidonaphtalin (Ninaphtylamin). Zers. bei 100°. HCl, (2HCl, PtCl₄), H₂SO₄ (A. 113, 98). — II, 595.
 5) β -Nitroso- β -Amidonaphtalin (J. 1856, 608).
 6) 1,4-Diimido-2-Oxy-1,4-Dihydronaphtalin (B. 29, 1417). — III, 382.
 7) 2-Amido-4-Imido-1-Keto-1,4-Dihydronaphtalin. HCl, (2HCl, PtCl₄), H₂SO₄, H₂CrO₄ (A. 134, 377; 154, 312; B. 11, 1316; 27, 3346). — III, 379.
 8) 1-Diazonaphtalin. Salze siehe (Soc. 37, 747; B. 28, 2052, 2057; 30, 2545; G. 25 [1] 337; Am. 13, 155). — IV, 1540.
 9) 2-Diazonaphtalin. Salze siehe (Am. 13, 161; B. 19, 810; 21, 1097; 28, 2052, 2057; 30, 2546). — IV, 1540.
 10) 5-Keto-4-Benzyliden-4,5-Dihydropyrazol. Sm. bei 200° (J. pr. [2] 51, 46; B. 29, 256). — IV, 955.
 11) 1-Benzoylpyrazol. Sd. 281°₄₇ (B. 28, 716). — IV, 498.
 12) 3-[4-Oxyphenyl]-1,2-Diazin (B. 32, 407).
 13) β -Oxy-3-Phenyl-1,2-Diazin. Sm. 177—180° (B. 32, 404).
 14) 3-Keto-6-Phenyl-2,3-Dihydro-1,2-Diazin. Sm. 201—202° (B. 32, 406).
 15) 4-Oxy-2-Phenyl-1,3-Diazin (Phenylpyrimidon). Sm. 207—208°; Sd. 260—263°₃₀. Ag. (2HCl, PtCl₄) (B. 22, 2617; 30, 1491). — IV, 955.
 16) 1-Phenylpyrazol-1'-Carbonsäure. Sm. 138,5—139°. Ba (G. 19, 123). — IV, 498.
 17) 1-Phenylpyrazol-1'-Carbonsäure. Sm. 264—265°. Na, Ba (G. 19, 120). — IV, 498.
 18) Amid d. α -Cyan- β -Phenylakrylsäure. Sm. 123° (B. 28, 2252).
 19) Amid d. Chinolin-4-Carbonsäure. Sm. 181°. (2HCl, PtCl₄) (M. 15, 456; R. 8, 220). — IV, 346.
 $C_{10}H_8ON_6$ C 52,6 — H 3,5 — O 7,0 — N 36,8 — M. G. 228.
 1) Acetylphenylosotriazolazimid. Zers. bei 160° (A. 295, 154). — IV, 1315.
 $C_{10}H_8OS$ 1) 3-Methyl-1,2-Benzthiopyron (Thio- α -Methylcumarin). Sm. 122° (B. 24, 3460). — II, 1656.
 $C_{10}H_8OHg$ 1) Quecksilber-1-Naphtyloxydhydrat. Salze, siehe diese (A. 147, 175; 154, 189; J. pr. [2] 1, 185). — IV, 1712.

- $C_{10}H_7OHg$ 2) Quecksilber-2-Naphtyloxydhydrat. Salze siehe (B. 27, 251). — IV, 1713.
- $C_{10}H_7O_2N_2$ C 63,8 — H 4,3 — O 17,0 — N 14,9 — M. G. 188.
- 1) 1-Nitramidonaphtalin (1-Naphtylnitroamin). Sm. 118° (B. 27, 683).
 - 2) 2-Nitramidonaphtalin (2-Naphtylnitroamin). Sm. 131,5° (136°). Na, Ag (B. 27, 680; 30, 1262). — IV, 1543.
 - 3) 2-Nitro-1-Amidonaphtalin. Sm. 144° (B. 11, 112; 19, 802; 20, 893; J. 1886, 869). — II, 596.
 - 4) 4-Nitro-1-Amidonaphtalin. Sm. 191° (A. 183, 233). — II, 596.
 - 5) 5-Nitro-1-Amidonaphtalin. Sm. 118—119°. $H_2SO_4 + 2H_2O$ (A. 169, 87). — II, 596.
 - 6) 8-Nitro-1-Amidonaphtalin. Sm. 96—97° (See. 63, 1055). — II, 596.
 - 7) 1-Nitro-2-Amidonaphtalin. Sm. 123—124° (126—127°) (B. 14, 1792; 17, 395; 30, 1263; A. 211, 64; See. 47, 520; C. 1899 [1] 288). — II, 596.
 - 8) 5-Nitro-2-Amidonaphtalin. Sm. 143,5° (B. 25, 2078). — II, 597.
 - 9) 8-Nitro-2-Amidonaphtalin. Sm. 103,5° (B. 25, 2081). — II, 597.
 - 10) 2,8-Diimido-1,4-Naphtochinon. Sm. oberh. 200° (B. 31, 2423).
 - 11) 1-Oximido-4-Amido-2-Keto-1,2-Dihydronaphtalin. Sm. bei 200° u. Zers. (B. 29, 1416). — III, 382.
 - 12) Monooxim d. 6-Amido-1,2-Naphtochinon. Zers. bei 190° (B. 31, 2417).
 - 13) 1-Oximido-4-Imido-2-Oxy-1,4-Dihydronaphtalin (B. 29, 1416). — III, 382.
 - 14) 4-Oximido-3-Amido-1-Keto-1,4-Dihydronaphtalin. Zers. bei 220 bis 230° (B. 29, 1419). — III, 374.
 - 15) 1,2-Dioximido-1,2-Dihydronaphtalin. Sm. 180—181°. K, Ag (B. 17, 2066; 19, 176, 342; 21, 392; 23, 2816; A. 255, 154). — III, 396.
 - 16) 1,4-Dioximido-1,4-Dihydronaphtalin. Sm. 207° u. Zers. (B. 21, 433). — III, 371.
 - 17) Acetat d. syn-4-Cyanbenzaldoxim. Sm. 122—124° (Ph. Ch. 13, 522). — III, 51.
 - 18) 2-Imido-3-Oxy-5-Keto-4-Phenyl-2,5-Dihydropyrrol. Ba + H_2O (A. 282, 68). — II, 1642.
 - 19) 1-Phenylamido-2,5-Diketo-2,5-Dihydropyrrol (Maleinphenylhydrazid). Sm. 258—259° (260—261°) (J. pr. [2] 35, 295; B. 26, 121). — IV, 707.
 - 20) 2,5-Diketo-4-Benzylidentetrahydropyrazol (J. pr. [2] 51, 76).
 - 21) 5-Keto-3-[β -Phenyläthenyl]-4,5-Dihydro-1,2,4-Oxdiazol. Sm. 199 bis 200° (B. 22, 2400). — II, 1409.
 - 22) 2,6-Dioxy-4-Phenyl-1,3-Diazin (Phenyluracil). Sm. 262,5°. Ag, (J. pr. [2] 47, 203). — IV, 954.
 - 23) 5-Nitro-2-Methylchinolin. Sm. 82°. HCl, (2HCl, $PtCl_4$) (B. 17, 1702; J. pr. [2] 56, 385). — IV, 310.
 - 24) 8-Nitro-2-Methylchinolin. Sm. 137°. HCl, (2HCl, $PtCl_4$) (B. 17, 1700; 22, 245; J. pr. [2] 56, 378). — IV, 310.
 - 25) 8-Nitro-4-Methylchinolin. Sm. 126—127° (B. 23, 2687). — IV, 316.
 - 26) 5-Nitro-6-Methylchinolin. Sm. 116—117° (B. 23, 3655). — IV, 319.
 - 27) 8-Nitro-6-Methylchinolin. Sm. 122° (B. 23, 3669). — IV, 319.
 - 28) 5-Nitro-8-Methylchinolin. Sm. 93° (B. 23, 3673). — IV, 322.
 - 29) 6-Nitro-8-Methylchinolin. Sm. 129°. HCl + H_2O , (2HCl, $PtCl_4$) (B. 24, 2116). — IV, 322.
 - 30) 7-Nitroso-8-Oxy-5-Methylchinolin (7,8-Oximido-5-Methylchinolin) (B. 23, 3667). — IV, 318.
 - 31) 8-Nitroso-5-Oxy-6-Methylchinolin. Zers. bei 200° (B. 23, 3659). — IV, 319.
 - 32) 5-Nitroso-8-Oxy-6-Methylchinolin. Zers. bei 200° (B. 23, 3674). — IV, 319.
 - 33) 5-Nitroso-8-Oxy-7-Methylchinolin. Zers. bei 200° (B. 23, 3665). — IV, 321.
 - 34) 6-Nitroso-5-Oxy-8-Methylchinolin. Zers. oberh. 200° (B. 23, 3676). — IV, 323.
 - 35) 1-Keto-2-Acetyl-1,2-Dihydro-2,3-Benzdiazin (Acetylphthalazon). Sm. 132—133° (135°) (B. 26, 535; J. pr. [2] 51, 150). — II, 1626.
 - 36) 1-Phenylpyrazol-3-Carbonsäure. Sm. 146°. Ag (A. 278, 277, 294). — IV, 534.

- C₁₀H₈O₂N₂** 37) 1-Phenylpyrazol-4-Carbonsäure. Sm. 221—222° (A. 295, 319; B. 22, 180; G. 23 [1] 490). — IV, 534.
 38) 1-Phenylpyrazol-5-Carbonsäure. Sm. 183°. Ag (A. 278, 292). — IV, 534.
 39) 4-Phenylpyrazol-3-Carbonsäure. Sm. 253—254° (B. 28, 700). — IV, 945.
 40) 4-Methyl-1,2-Benzdiazin-7-Carbonsäure (Methyleinnolincarbonsäure). Sm. 230° u. Zers. (B. 17, 724). — II, 1429.
 41) Imid d. α -Amido- β -Phenylmaleinsäure. Sm. 248—249° (A. 282, 80). — II, 1642.
 42) Imid d. Phenylamidomaleinsäure. Sm. 202° (B. 21, 2178). — II, 440.
 43) Nitril d. α -Acetoxylimido- α -Phenylessigsäure. Sm. 68° (B. 24, 3506). — II, 1599.
 44) Phenylhydrazon d. Maleinsäure. Sm. 260—261° (B. 26, 121).
 45) Verbindung (aus Pulvinsäuredimethylester). Sm. 247,5° (A. 282, 43).
C₁₀H₈O₂N₄ C 55,5 — H 3,7 — O 14,8 — N 25,9 — M. G. 216.
 1) 3,6-Difuranyl-1,2-Dihydro-1,2,4,5-Tetrazin. Sm. 208° u. Zers. (B. 28, 470; A. 298, 31). — III, 699.
 2) 3,6-Difuranyl-1,4-Dihydro-1,2,4,5-Tetrazin. Sm. 245° (B. 28, 472; A. 298, 32). — III, 700.
C₁₀H₈O₂Cl₂ 1) α -[2,4-Dichlorphenyl]propen- γ -Carbonsäure. Sm. 120—121° (A. 260, 77). — II, 1424.
 2) α -[2,5-Dichlorphenyl]propen- γ -Carbonsäure. Sm. 148—149° (A. 260, 77). — II, 1424.
 3) α -[3,4-Dichlorphenyl]propen- γ -Carbonsäure. Sm. 63—64° (A. 260, 78). — II, 1424.
 4) Methylester d. $\alpha\beta$ -Dichlor- β -Phenylakrylsäure. Fl. (B. 25, 2666). — II, 1410.
 5) Methylester d. 1-[$\alpha\beta$ -Dichloräthenyl]benzol-2-Carbonsäure. Sm. 47° (B. 20, 2895). — II, 1423.
 6) Chlorid d. Benzol-1,4-Di[Methylcarbonsäure]. Fl. (B. 9, 1768). — II, 1852.
 7) Verbindung (aus Naphtalintetrachlorid). Sm. 195—196° (J. 1872, 424). — II, 185.
C₁₀H₈O₂Br₂ 1) β -[2,5-Dibromphenyl]propen-4-Carbonsäure. Sm. 149°. Ca + 3 H₂O, Ba + 2½ H₂O (G. 21 [2] 396). — II, 1428.
 2) Verbindung (aus Cubebin). Sm. 229° u. Zers. (G. 24 [2] 130). — II, 1114.
C₁₀H₈O₂Br₄ 1) Acetat d. 3,4,6-Tribrom-5-Oxy-2-Brommethyl-1-Methylbenzol. Sm. 138—140° (A. 302, 105).
 2) Verbindung (aus Apiolaldehyd). Sm. 159° (B. 21, 2516). — III, 109.
C₁₀H₈O₂J₂ 1) γ -Keto- α -[3,5-Dijod-4-Oxyphenyl]- α -Buten. Sm. 168° (B. 29, 2306).
 2) Methylester d. $\alpha\beta$ -Dijod- β -Phenylakrylsäure. Sm. 77° (B. 24, 2589). — II, 1413.
C₁₀H₈O₂S 1) Methyläther d. 7-Oxy-1,2-Benzthiopyron (M. d. Thioumbelliferon). Sm. 114° (B. 24, 3465). — II, 1775.
 2) Naphtalin-1-Sulbinsäure. Sm. 84—85°. K + ½ H₂O, Ba + 1½ H₂O, Pb + H₂O, Ag (B. 9, 1500; 27, 2132; J. pr. [2] 47, 95). — II, 200.
 3) Naphtalin-2-Sulbinsäure. Sm. 105°. K + ½ H₂O, Mg + 6 H₂O, Ca + 3 H₂O, Ba (B. 9, 1502; 27, 2131; J. pr. [2] 47, 95; [2] 49, 386; [2] 58, 180). — II, 200.
C₁₀H₈O₂S₂ 1) Polythiofurfurol. Sm. 90—91° (A. 69, 86; 134, 61; B. 24, 3594). — III, 725.
 2) Naphtalin-1-Thiolsulfonsäure. K (J. pr. [2] 56, 471).
 3) Naphtalin-2-Thiolsulfonsäure. K (J. pr. [2] 56, 472).
C₁₀H₈O₂N₂ C 58,8 — H 3,9 — O 23,5 — N 13,7 — M. G. 204.
 1) 2-Nitro-4-Amido-1-Oxynaphtalin. Sm. 130° (B. 8, 564). — II, 866.
 2) 1,2-Dioximido-7-Oxy-1,2-Dihydronaphtalin. Sm. 195° (B. 30, 1119).
 3) 1,4-Dioximido-5-Oxy-1,4-Dihydronaphtalin. Zers. bei 225° (B. 19, 168). — III, 381.
 4) 4-Oximido-2-Amido-3-Oxy-1-Keto-1,4-Dihydronaphtalin? (J. pr. [2] 40, 185). — III, 385.
 5) 3,4-Methylenäther d. γ -Diazo- β -Keto- α -[3,4-Dioxyphenyl]propan (Diazopiperylaceton) (G. 25 [2] 213).

- $C_{10}H_5O_3N_2$
- 6) 2-Methyl-4-[4-Nitrophenyl]oxazol. Sm. 156—157° (B. 21, 925). — IV, 325.
 - 7) 3,4-Methylenäther d. 5-Methyl-3-[3,4-Dioxyphenyl]-1,2,4-Oxdiazol. Sm. 110° (116—117°) (B. 24, 3657; G. 24 [2] 137). — II, 979, 1743.
 - 8) 3,4-Methylenäther d. 3-[3,4-Dioxyphenyl]-4-Methyl-1,2,5-Oxdiazol. Sm. 86° (G. 22 [2] 484). — II, 979.
 - 9) 2,4,5-Triketo-1-Methyl-3-Phenyltetrahydroimidazol (Methylphenylparabansäure). Sm. 148° (B. 31, 138).
 - 10) 3-Nitro-4-Oxy-2-Methylchinolin. Sm. noch nicht bei 270° (B. 20, 950). — IV, 311.
 - 11) 7-Nitro-8-Oxy-5-Methylchinolin. Sm. 205—206° (B. 23, 3667). — IV, 318.
 - 12) 8-Nitro-5-Oxy-6-Methylchinolin (B. 23, 3662). — IV, 320.
 - 13) 5-Nitro-8-Oxy-7-Methylchinolin. Sm. 192—193° (B. 23, 3665). — IV, 321.
 - 14) 6-Nitro-5-Oxy-8-Methylchinolin. Sm. 181—182° (B. 23, 3677). — IV, 323.
 - 15) Methyläther d. 2-Nitro-2-Oxychinolin (v. Sm. 280°). Sm. 181° (B. 18, 2396). — IV, 283.
 - 16) Methyläther d. 5-Nitro-8-Oxychinolin. Sm. 151,5° (J. pr. [2] 48, 26). — IV, 283.
 - 17) 5-Nitro-2-Keto-1-Methyl-1,2-Dihydrochinolin. Sm. 165° (J. pr. [2] 45, 174; [2] 53, 397). — IV, 285.
 - 18) 5 [oder 8]-Nitro-1-Keto-2-Methyl-1,2-Dihydroisochinolin. Sm. bei 120° (J. pr. [2] 47, 41). — IV, 303.
 - 19) 2-Nitroso-4-Oxy-2-Keto-1-Methyl-1,2-Dihydrochinolin. Zers. bei 188° (B. 20, 2015). — IV, 286.
 - 20) 5-Oxy-1-Phenylpyrazol-3-Carbonsäure. Sm. 252—253°. Ag₂ (Am. 14, 583). — IV, 536.
 - 21) 3-Keto-2-Phenyl-2,3-Dihydropyrazol-4-Carbonsäure. Sm. 92—93° u. Zers. (B. 28, 37; Soc. 61, 793; 63, 878). — IV, 536.
 - 22) 5-Keto-1-Phenyl-4,5-Dihydropyrazol-3-Carbonsäure. Sm. 263° u. Zers. Ag₂ (A. 246, 321; 276, 231; 277, 382; B. 22, 2931; 26, 120; 27, 580, 3453; Am. 20, 679). — IV, 535.
 - 23) 5-Methyl-3-Phenyl-1,2,4-Oxdiazol-3-Carbonsäure. Sm. 217° (B. 19, 1496). — II, 1229.
 - 24) 5-Methyl-3-Phenyl-1,2,4-Oxdiazol-3-Carbonsäure. Sm. 218° (B. 19, 1492). — II, 1229.
 - 25) 2-Oxy-3-Methyl-1,4-Benzdiazin-6-Carbonsäure. Zers. bei 330°. Ba + 3H₂O (B. 23, 3629). — II, 1275.
 - 26) 3-Oxy-6 oder 7-Methyl-1,4-Benzdiazin-2-Carbonsäure. Zers. bei 214° (A. 237, 356; B. 24, 2369). — IV, 246.
 - 27) Methylester d. 3-Phenyl-1,2,4-Oxdiazol-5-Carbonsäure. Sm. 38°; Sd. 216° (B. 22, 3135). — II, 1203.
 - 28) Methylester d. 3-Phenyl-1,2,5-Oxdiazol-4-Carbonsäure. Sm. 35° (B. 25, 2164). — IV, 306.
 - 29) Methylester d. 1-Keto-1,2-Dihydro-2,3-Benzdiazin-4-Carbonsäure (J. pr. [2] 51, 151). — IV, 245.
 - 30) Nitril d. 6-Acetylamido-3,4-Dioxybenzol-3,4-Methylenäther-1-Carbonsäure. Sm. 216° (B. 24, 626). — II, 1746.
C 51,7 — H 3,4 — O 20,7 — N 24,1 — M. G. 232.
- $C_{10}H_5O_3N_4$
- 1) 5-Phenylhydrazon-2,4,6-Triketohexahydro-1,3-Triazin (Phenylhydrazonalloxan). Sm. 298—300° u. Zers. (284°) (B. 24, 4142; 31, 1973). — IV, 721.
 - 2) 4-Phenylhydrazon-5-Keto-4,5-Dihydropyrazol-3-Carbonsäure. Sm. oberh. 250° u. Zers. (J. pr. [2] 51, 50). — IV, 1489.
 - 3) Ureid d. 3-Oxy-1,4-Benzdiazin-2-Carbonsäure. Sm. 250° u. Zers. (A. 292, 247). — IV, 245.
- $C_{10}H_5O_3Cl_2$
- 1) Chloracetat d. Chlormethyl-4-Oxyphenylketon. Sm. 104° (B. 30, 1715).
 - 2) 2,3-Dichlor-1-Oxy-2,3-Dihydroinden-1-Carbonsäure (B. 21, 1042). — II, 1661.
 - 3) Methylester d. 2-[Dichloracetyl]benzol-1-Carbonsäure (B. 21, 2399). — II, 1648.

- $C_{10}H_8O_3Br_2$ 1) $\alpha\beta$ -Dibrom- β -Benzoylpropionsäure. Sm. 135° (B. 15, 888). — II, 1678.
 2) 1-Aldehyd d. Benzol-1-Carbonsäure-4-[$\alpha\beta$ -Dibromäthyl- β -Carbon-säure] (Dibromaldehydhydrozimmtsäure). Sm. 176° u. Zers. (A. 231, 376). — II, 1657.
- $C_{10}H_8O_3Br_4$ 1) $\alpha\beta$ -Dibrom- β -[β -Dibrom-2-Oxyphenylmethyläther]propionsäure. Sm. 200–202° (Soc. 39, 417). — II, 1564.
- $C_{10}H_8O_3J_2$ 1) Methylester d. β -[3,5-Dijod-4-Oxyphenyl]akrylsäure. Sm. 107° (B. 29, 2307).
- $C_{10}H_8O_3S$ 1) Naphtalin-1-Sulfonsäure. Sm. 85–90°. Salze meist bekannt (Z. 1868, 394; J. pr. [1] 12, 99; P. 7, 104; A. 28, 9; B. 3, 195, 710; 26, 3030). — II, 201.
 2) Naphtalin-2-Sulfonsäure + H_2O . Sm. 124–125° (100–102° wasserfrei). K + $\frac{1}{2}H_2O$, Ca, Ba + H_2O , Pb + $1\frac{1}{2}H_2O$ (Z. 1868, 396; B. 3, 195, 710 Anm.; 26, 2823, 3031). — II, 202.
 3) Sulfonsäure-1-Naphtylester. Na (J. pr. [2] 48, 252).
 4) Sulfonsäure-2-Naphtylester. Na (J. pr. [2] 48, 252).
- $C_{10}H_8O_3S_2$ 1) 2-Merkaptonaphtalin-2-Sulfonsäure. Zn (J. pr. [2] 41, 223). — II, 892.
- $C_{10}H_8O_4N_2$ C 54,5 — H 3,6 — O 29,1 — N 12,7 — M. G. 220.
 1) β -Nitrosamido-7-Oxy-4-Methyl-1,2-Benzpyron. Zers. bei 140° (B. 17, 2138). — II, 1781.
 2) 1,4-Dioximido-5,6-Dioxy-1,4-Dihydronaphtalin (Dioxim d. Naphtazarin) (B. 27, 3464). — III, 386.
 3) Methylenäther d. 2-Nitroso-7,8-Dioxy-1-Keto-1,2,3,4-Tetrahydroisochinolin. Sm. 194–195° u. Zers. (Soc. 57, 1018). — IV, 1765.
 4) $\alpha\beta$ -Dioximido- $\alpha\beta$ -Di[2-Furanyl]äthan (Furildioxim). α -Modif. + H_2O Sm. 90–100° (166–168° wasserfrei); β -Modif. Sm. 188–190° u. Zers. (A. 258, 229, 230). — III, 722.
 5) 1,4-Diketo-1,2,3,4-Tetrahydro-2,3-Benzdiazin-2-Methylcarbon-säure (Phtalylhydrazidessigsäure). Sm. noch nicht bei 300°. NH_4 (J. pr. [2] 51, 383; [2] 54, 73). — II, 1814.
 6) Harminsäure. Sm. 345° (B. 18, 403; 22, 639; 30, 2485). — III, 886.
 7) Nitril d. 2-Nitro-1-Acetoxylmethylbenzol-4-Carbonsäure. Sm. 133° (B. 27, 2167). — II, 1561.
 8) 2-Nitrophenylimid d. Bernsteinsäure. Sm. 156° (137°) (B. 8, 1225; A. 209, 374; 292, 191). — II, 413.
 9) 4-Nitrophenylimid d. Bernsteinsäure. Sm. 208° (175°; 203–204°) (B. 8, 1225; 29, 2679; A. 209, 375; 292, 191). — II, 413.
 10) Oximanhydrid d. Methylenäther d. 3,4-Dioxy-1-[$\alpha\beta$ -Dioximido-propyl]benzol. Sm. 124° (G. 22 [2] 468; 24 [2] 336). — II, 978.
 11) Verbindung (aus Isosafroldioximsuperoxyd). Sm. 185° u. Zers. (G. 22 [2] 487). — II, 978.
- $C_{10}H_8O_4N_4$ C 48,4 — H 3,2 — O 25,8 — N 22,6 — M. G. 248.
 1) 5-Methyl-1-[2-Nitrophenyl]-1,2,4-Triazol-3-Carbonsäure + H_2O . Sm. 184,5° u. Zers. (B. 25, 743). — IV, 1115.
 2) 1-[4-Amidophenyl]-1,2,3-Triazol-4,5-Dicarbonsäure. Sm. 218–219° (Am. 20, 388). — IV, 1116.
 3) Verbindung (aus 2-Nitroso-1-Amidonaphtalin). K + $1\frac{1}{4}H_2O$ (A. 255, 156). — II, 595.
- $C_{10}H_8O_4Cl_2$ 1) Diacetat d. 2,5-Dichlor-1,4-Dioxybenzol. Sm. 141° (B. 15, 653; A. 210, 148). — II, 942.
 2) Diacetat d. 2,6-Dichlor-1,4-Dioxybenzol. Sm. 66,5° (85–86°; 111 bis 113° u. 98°) (B. 16, 1445; Soc. 61, 560; J. pr. [2] 40, 481). — II, 942.
 3) Di[Chloracetat] d. 1,4-Dioxybenzol. Sm. 123° (J. r. 25, 162). — II, 944.
 4) Methylester d. 3,5-Dichlor-2-Acetoxybenzol-1-Carbonsäure. Sm. 57° (A. 261, 253). — II, 1504.
 5) Methylester d. 3,5-Dichlor-4-Acetoxybenzol-1-Carbonsäure. Sm. 68–69° (A. 261, 251). — II, 1536.
 6) Dimethylester d. 2,5-Dichlorbenzol-1,4-Dicarbonsäure. Sm. 136° (B. 21, 1960, 2111). — II, 1837.
 7) Monäthylester d. isom. 2-Dichlorbenzol-1,2-Dicarbonsäure. Sm. 75 bis 85°. NH_4 (A. 238, 353). — II, 1818.
- $C_{10}H_8O_4Cl_4$ 1) 2,2,4,4-Tetrachlor-1,1,3,3-Tetraoxy-1,2,3,4-Tetrahydronaphtalin + H_2O . Sm. bei 80° (A. 300, 191).

- C₁₀H₈O₄Br₂** 1) Diacetat d. 3,5-Dibrom-1,2-Dioxybenzol + H₂O. Sm. 109–110° (95 bis 96°) (C. 1898 [1] 616, 1024).
 2) Diacetat d. p-Dibrom-1,2-Dioxybenzol. Sm. 109–110° (C. 1898 [1] 616, 1023).
 3) Diacetat d. 2,5-Dibrom-1,4-Dioxybenzol. Sm. 159,5–161° (B. 15, 654). — II, 944.
 4) αβ-Dibrom-α-Phenyläthan-ββ-Dicarbonsäure (Phenyldibromisobersteinsäure). Sm. 96° u. Zers. (Soc. 49, 360). — II, 1849.
 5) Benzol-1-Carbonsäure-2-[αβ-Dibromäthyl-β-Carbonsäure]. Sm. 212 bis 213° u. Zers. (B. 10, 2204). — II, 1851.
 6) Benzol-1-Carbonsäure-4-[αβ-Dibromäthyl-β-Carbonsäure] (A. 231, 371). — II, 1851.
 7) Säure (aus d. Methyläther d. p-Dibrom-4-Oxy-1-[αβ-Dibrompropyl]benzol). Sm. 85° (J. pr. [2] 52, 206, 210).
 8) Methylester d. Säure C₁₀H₈O₄Br₂. Sm. 201° (B. 18, 3186). — II, 1779.
 9) Dimethylester d. 2,5-Dibrombenzol-1,4-Dicarbonsäure. Sm. 123 bis 125° (G. 18, 519). — II, 1837.
- C₁₀H₈O₄J₂** 1) Diacetat d. 2,6-Dijod-1,4-Dioxybenzol. Sm. 148° (B. 21, 2556). — II, 945.
- C₁₀H₈O₄S** 1) 1-Oxynaphtalin-2-Sulfonsäure. K + 1/2 H₂O, Ca + H₂O, Ba + 1 1/2 H₂O, Pb + H₂O (A. 152, 293; 273, 108; B. 15, 312; 24, 3476; 26, 3031; 30, 1457). — II, 871.
 2) 1-Oxynaphtalin-3-Sulfonsäure. Zn + 8 1/2 H₂O (B. 26, 3031; 29, 2269; 30, 1458; D.R.P. 64 979).
 3) 1-Oxynaphtalin-4-Sulfonsäure. Sm. 170° u. Zers. Na, Zn + 8 H₂O (A. 247, 341; 273, 107; B. 26, 3031, 3458; 30, 1458; Bl. [3] 13, 214). — II, 872.
 4) 1-Oxynaphtalin-5-Sulfonsäure. Sm. 110–120°. Zn + 8 1/2 H₂O (A. 247, 343; B. 26, 3031; 30, 1459). — II, 872.
 5) 1-Oxynaphtalin-7-Sulfonsäure. Zn + 8 H₂O (B. 30, 1460).
 6) 1-Oxynaphtalin-8-Sulfonsäure + H₂O. Sm. 106–107°. NH₄, Na, + 1 1/2 H₂O, K, Pb + 3 H₂O (A. 247, 344; B. 20, 3162; 26, 3031). — II, 872.
 7) 2-Oxynaphtalin-5-Sulfonsäure. Ba (J. pr. [2] 39, 315). — II, 889.
 8) 2-Oxynaphtalin-6-Sulfonsäure. Sm. 122° u. Zers. NH₄, K + x H₂O, Ca + 5 H₂O, Ba + 6 H₂O, Pb + 6 H₂O. Lit. bedeutend. — II, 889.
 9) 2-Oxynaphtalin-7-Sulfonsäure. Sm. 89°. Na + 2 1/2 H₂O, K + H₂O, Mg + 5 1/2 H₂O, Ba (B. 20, 1431, 2907; 26, 3031). — II, 889.
 10) 2-Oxynaphtalin-8-Sulfonsäure. Na, Na₂, Zn + 2 H₂O, Pb + 2 1/2 H₂O, Pb + PbO, Pb(OH)₂ (B. 15, 202, 322; 18, 3155; 21, 3489; 22, 396, 454; 26, 3031). — II, 890.
 11) 1-Naphtylschwefelsäure? Sm. 90°. Na, Ba + H₂O, Pb + H₂O (B. 18, 2925). — II, 872.
 12) 2-Naphtylschwefelsäure. Na, K (B. 15, 202, 204, 305). — II, 890.
- C₁₀H₈O₃N₂** C 50,8 — H 3,4 — O 33,9 — N 11,9 — M. G. 236.
 1) Anhydro-2,4,6-Trioxypyridin. Ba, Ba + 4 H₂O (B. 19, 2706). — IV, 121.
 2) β-Phenylhydrazon-α-Ketoäthan-αβ-Dicarbonsäure (Phenylizindioxyweinsäure). Sm. 173–174° u. Zers. Ba + 4 H₂O, Ag₂. — IV, 727.
 3) p-Dinitroso-1,3-Dimethylbenzol-4-Ketocarbonsäure. Sm. 177°. K + 1 1/2 H₂O, Ba + 1/2 H₂O (J. pr. [2] 41, 489). — II, 1661.
 4) Aethylester d. α-Cyan-β-[p-Nitro-2-Furanyl]akrylsäure. Sm. 153° u. Zers. (B. 28, 2256). — III, 712.
- C₁₀H₈O₅N₄** C 45,4 — H 3,0 — O 30,3 — N 21,2 — M. G. 264.
 1) 4-Nitro-5-Oxy-3-Methyl-1-[4-Nitrophenyl]pyrazol. Aethanolaminsalz (B. 30, 914).
- C₁₀H₈O₅Br₂** 1) 4,6-Dibrom-5-Oxy-1-Methylbenzoldimethyläther-2,3-Dicarbonsäure + H₂O. Sm. 100° (144° wasserfrei) (B. 18, 3190). — II, 1947.
- C₁₀H₈O₆S** 1) 1,2-Dioxynaphtalin-4-Sulfonsäure. K (B. 27, 29).
 2) 1,3-Dioxynaphtalin-6-Sulfonsäure. Ba (B. 29, 1612).
 3) 1,8-Dioxynaphtalin-p-Sulfonsäure (C. 1898 [2] 1058).
 4) 2,3-Dioxynaphtalin-6-Sulfonsäure. Ba (B. 27, 762). — II, 984.
 5) Lakton d. α-[2-Oxyphenylsulfonsäure]propen-β-Carbonsäure (Propioncumarinsulfonsäure). Ba + x H₂O (J. 1875, 591). — II, 1654.

- $C_{10}H_8O_6N_2$ C 47,6 — H 3,2 — O 38,1 — N 11,1 — M. G. 252.
 1) p-Nitro-2-Acetylamidobenzol-1-Ketocarbonsäure (Acetylnitroisatin-säure) (B. 28, 547). — II, 1607.
 2) 1,3-Phenylendioxaminsäure. Sm. 225—230° u. Zers. (240°) (B. 29, 2642; A. 293, 387). — IV, 577.
 3) 1,4-Phenylendioxaminsäure. Na_2 (B. 29, 2643). — IV, 593.
 4) Phenylazomethan- $\alpha,\alpha,3$ -Tricarbonsäure (B. 18, 962). — IV, 1473.
 5) Lakton d. 1- $\alpha\beta$ -Dinitro- α -Oxypropyl]benzol-2-Carbonsäure. Sm. 90° (B. 19, 839). — II, 1659.
 6) Methylester d. α -Nitro- β -[4-Nitrophenyl]akrylsäure. Sm. 127°. Ba (B. 14, 2577; 16, 850). — II, 1415.
 7) Verbindung (aus 6-Oxy-2,3-Diketo-2,3-Dihydropyridin) + H_2O . 2HJ (Soc. 65, 830).
- $C_{10}H_8O_6N_4$ C 42,8 — H 2,9 — O 34,3 — N 20,0 — M. G. 280.
 1) Pyrrol + 1,3,5-Trinitrobenzol. Sm. 95° (B. 14, 68). — IV, 64.
- $C_{10}H_8O_6Br_2$ 1) Oxyessig-[p-Dibrom-1,3-Phylen]äthersäure. Sm. 249—250° u. Zers. (B. 12, 1640). — II, 921.
- $C_{10}H_8O_6S_2$ 1) 1,2-Naphtalindisulfonsäure. $K_2 + \frac{1}{2}H_2O$ (B. 27 [2] 81). — II, 203.
 2) 1,3-Naphtalindisulfonsäure. $K_2 + 2H_2O$, Ba + $4H_2O$ (B. 24 [2] 707; 27, 1197). — II, 203.
 3) 1,4-Naphtalindisulfonsäure. $K_2 + 1\frac{1}{2}H_2O$ (B. 27 [2] 81). — II, 203.
 4) 1,5-Naphtalindisulfonsäure (B. 15, 205). — II, 203.
 5) 1,6-Naphtalindisulfonsäure. $Na_2 + 7H_2O$, Ba + $4H_2O$ (B. 15, 204; 27, 1197; J. 1886, 1577). — II, 203.
 6) 1,7-Naphtalindisulfonsäure. Na_2 (B. 24 [2] 715; 27, 1195; C. 1896 [1] 651). — II, 203.
 7) 1,8-Naphtalindisulfonsäure. $K_2 + H_2O$ (B. 27 [2] 81). — II, 203.
 8) 2,6-Naphtalindisulfonsäure. $Na_2 + H_2O$, K_2 , Ca, Ba + H_2O , Pb + H_2O (B. 9, 592). — II, 203.
 9) 2,7-Naphtalindisulfonsäure. $Na_2 + 6H_2O$, $K_2 + 2H_2O$, Ca + $6H_2O$, Ba + $2H_2O$, Pb + $2H_2O$ (B. 9, 592; 14, 2206; 22, 398). — II, 203.
- $C_{10}H_8O_6S_3$ 1) p-Phenylthiophen-p-Disulfonsäure. Ba (Bl. [3] 3, 958). — III, 748.
 $C_{10}H_8O_7N_2$ C 44,8 — H 3,0 — O 41,8 — N 10,4 — M. G. 268.
 1) 3,4-Methylenäther d. γ -Nitro- β -Keto- α -[p-Nitro-3,4-Dioxyphenyl]-propan. Sm. 170° (G. 25 [2] 208). — III, 144.
 2) 2,6-Dinitro-1,3-Dimethylbenzol-4-Ketocarbonsäure. Sm. 198°. Ba + $2H_2O$ (J. pr. [2] 41, 491). — II, 1661.
 3) β -[p-Dinitro-2-Methoxyphenyl]akrylsäure. Sm. 192—193° (Soc. 39, 416). — II, 1632.
 4) β -[p-Dinitro-3-Methoxyphenyl]akrylsäure. Zers. bei 215° (B. 22, 2358). — II, 1635.
- $C_{10}H_8O_7S_2$ 1) 1-Oxynaphtalin-2,4-Disulfonsäure (B. 19, 1182; 26, 3031). — II, 872.
 2) 1-Oxynaphtalin-2,7-Disulfonsäure. Zn (B. 26, 3031; 30, 1463). — II, 873.
 3) 1-Oxynaphtalin-3,6-Disulfonsäure (B. 30, 1462).
 4) 1-Oxynaphtalin-3,8-Disulfonsäure. $Na_2 + 6H_2O$ (B. 22, 3330). — II, 873.
 5) 2-Oxynaphtalin-1,7-Disulfonsäure. $K_2 + 1\frac{1}{2}H_2O$ (B. 27, 1206). — II, 893.
 6) 2-Oxynaphtalin-3,6-Disulfonsäure. Ba + $6H_2O$ (B. 13, 1957; 17, 461). — II, 892.
 7) 2-Oxynaphtalin-3,7-Disulfonsäure. Na_2 , Ba + $2\frac{1}{2}H_2O$ (B. 20, 2911). — II, 893.
 8) 2-Oxynaphtalin-6,8-Disulfonsäure. Ba + $8H_2O$ (B. 13, 1958; 19, 3173; 26, 3032). — II, 893.
 9) 2-Oxynaphtalin-p-Disulfonsäure. Ba (B. 15, 204). — II, 893.
- $C_{10}H_8O_8N_2$ C 42,2 — H 2,8 — O 45,1 — N 9,9 — M. G. 284.
 1) Diacetat d. 3,5-Dinitro-1,2-Dioxybenzol. Sm. 124° (B. 26, 2183). — II, 912.
 2) Diacetat d. 2,5-Dinitro-1,4-Dioxybenzol. Sm. 96° (A. 200, 246; 215, 143; B. 11, 470). — II, 946.
 3) Monäthylester d. 3,5-Dinitrobenzol-1,2-Dicarbonsäure. Sm. 196° (186—187°) (A. 202, 227; 239, 77). — II, 1822.
 4) Monäthylester d. 3,5-Dinitrobenzol-1,4-Dicarbonsäure. Sm. 197° (B. 26, 2983; 28, 81). — II, 1839.

- $C_{10}H_6O_8S_2$ 1) 1,2-Dioxynaphtalin-*p*-Disulfonsäure + $3H_2O$ (B. 14, 2042; 21, 3480). — II, 982.
 2) 1,3-Dioxynaphtalin-5,7-Disulfonsäure. Ba (B. 29, 1613).
 3) 1,8-Dioxynaphtalin-2,4-Disulfonsäure. $Na_2 + 4H_2O$ (B. 27, 2142). — II, 983.
 4) 2,6-Dioxynaphtalin-*p*-Disulfonsäure. Ba + $2H_2O$ (B. 13, 1959). — II, 984.
- $C_{10}H_6O_9S_2$ 1) 1,3,6-Naphtalintrisulfonsäure (B. 24 [2] 715). — II, 204.
 2) 1,3,7-Naphtalintrisulfonsäure (B. 27, 1203; D.R.P. 70 296).
 3) 2,3,6-Naphtalintrisulfonsäure. $K_2 + 3H_2O$ (B. 27, 1202; 27 [2] 81; D.R.P. 70 296). — II, 204.
- $C_{10}H_6O_{10}S_3$ 1) 1-Oxynaphtalin-2,4,7-Trisulfonsäure. $K_2, Ba_2 + 3H_2O$ (B. 14, 2028; 26, 3031; 30, 1463). — II, 873.
 2) 1-Oxynaphtalin-2,4,8-Trisulfonsäure. $Na_2 + 1\frac{1}{2}H_2O$ (B. 27, 2143). — II, 873.
 3) 2-Oxynaphtalin-1,3,7-Trisulfonsäure. Na_2 (B. 27, 1207). — II, 893.
 4) 2-Oxynaphtalin-3,6,7-Trisulfonsäure. Na_2 (B. 27, 1209). — II, 893.
 5) 2-Oxynaphtalin-3,6,8-Trisulfonsäure (B. 18, 462). — II, 893.
- $C_{10}H_6O_{11}S_3$ 1) *p*-Dioxynaphtalin-*p*-Disulfonsäureschwefelsäure. $Na_2 + 3H_2O, K_2 + 2H_2O$ (A. 149, 10). — III, 388.
- $C_{10}H_6O_{12}S_4$ 1) Naphtalintetrasulfonsäure + $4H_2O$. Salze meist bekannt (B. 8, 1486; M. 3, 111). — II, 204.
- $C_{10}H_6O_{12}S_5$ 1) *p*-Phenylthiophen-*p*-Tetrasulfonsäure. Ba (Bl. [3] 3, 958). — III, 748.
- $C_{10}H_6O_{13}S_4$ 1) 2-Oxynaphtalin-1,3,6,7-Tetrasulfonsäure. Na_4 (B. 27, 1208). — II, 893.
- $C_{10}H_5NCl$ 1) 2-Chlor-1-Amidonaphtalin. Sm. 56° . $HCl + H_2O$, ($2HCl, SnCl_2, H_2SO_4 + H_2O$) (B. 20, 450). — II, 593.
 2) 4-Chlor-1-Amidonaphtalin. Sm. $85-86^\circ$. HCl (B. 10, 548). — II, 593.
 3) 8-Chlor-1-Amidonaphtalin. Sm. $93-94^\circ$. $HCl + H_2O$, ($HCl, SnCl_2, H_2SO_4$) (B. 9, 1731; 10, 548). — II, 593.
 4) *p*-Chlor-1-Amidonaphtalin. Sm. 98° (B. 11, 1201). — II, 593.
 5) 1-Chlor-2-Amidonaphtalin. Sm. 59° . $HCl + H_2O$ (B. 20, 1990). — II, 593.
 6) 3-Chlor-2-Methylechinolin. Sm. $71-72^\circ$. Pikrat (B. 20, 2609; 24, 3963). — IV, 309.
 7) 4-Chlor-2-Methylechinolin. Sm. $42-43^\circ$; Sd. 270° . ($2HCl, PtCl_4$), HBr , Pikrat (B. 20, 952). — IV, 309.
 8) 2-Chlor-4-Methylechinolin. Sm. 59° ; Sd. 296° . ($2HCl, PtCl_4 + 2H_2O$) (A. 236, 98; B. 31, 799). — IV, 315.
 9) 3[*p*]-Chlor-4-Methylechinolin. Sm. $54-55,2^\circ$. Pikrat (B. 20, 2612). — IV, 316.
 10) *p*-Chlor-7-Methylechinolin. Sm. 49° . ($HCl, HgCl_2$), ($2HCl, PtCl_4$), Pikrat (B. 18, 2603). — IV, 321.
 11) 1-Chlor-3-Methylisochinolin. Sm. $35-36^\circ$; Sd. $280-281^\circ$ (B. 25, 3569). — IV, 324.
- $C_{10}H_5NCl_2$ 1) Chlormethylat d. 5,7-Dichlorchinolin. 2 + $PtCl_4$ (J. pr. [2] 51, 417). — IV, 255.
- $C_{10}H_5NBr$ 1) 4-Brom-1-Amidonaphtalin. Sm. 102° (B. 4, 850; M. 9, 293). — II, 594.
 2) 4[*p*]-Brom-1-Amidonaphtalin. Fl. (A. 222, 299). — II, 594.
 3) 8-Brom-1-Amidonaphtalin. Sm. $89-90^\circ$ (Soc. 63, 1057). — II, 594.
 4) *p*-Brom-1-Amidonaphtalin. Sm. $63-64^\circ$. HCl (A. 222, 297). — II, 594.
 5) *p*-Brom-1-Amidonaphtalin. Sm. $118,5^\circ$. HCl (B. 26, 2196). — II, 594.
 6) 1-Brom-2-Amidonaphtalin. Sm. $75-79^\circ$ (63°). HCl , ($2HCl, PtCl_4$) (B. 14, 59; Soc. 43, 7; M. 9, 294; J. pr. [2] 43, 47). — II, 594.
 7) 4-Brom-2-Amidonaphtalin. Sm. $71,5^\circ$ (B. 25 [2] 750; Soc. 47, 509). — II, 594.
 8) 3-Brom-2-Methylechinolin. Sm. 78° . Pikrat (B. 20, 2610; 21, 1940). — IV, 310.
 9) 3[*p*]-Brom-4-Methylechinolin. Sm. $58,5-59,5^\circ$. Pikrat (B. 20, 2613). — IV, 316.
 10) 6-Brom-8-Methylechinolin. Sm. 59° ; Sd. $289-290^\circ$. $HCl + H_2O$. ($2HCl, PtCl_4$) (A. 252, 322). — IV, 322.
 11) 8-Brommethylechinolin. Sm. 53° (C. 1898 [2] 744).

- $C_{10}H_8NJ$ 1) 2-Jod-2-Methylchinolin. Sm. 73—74°. (2HCl, PtCl₄) (B. 18, 785). — IV, 310.
 2) 2-Jod-4-Methylchinolin. Sm. 90° (B. 31, 2152).
- $C_{10}H_8N_2Cl_2$ 1) 2-Dichlor-2-Diamidonaphtalin. Sm. 204—205° (B. 30, 435). — IV, 925.
 2) 3,5-Dichlor-4-Methyl-1-Phenylpyrazol. Sd. 155°₁₈ (B. 31, 3014).
- $C_{10}H_8N_2Br_2$ 1) 2-Dibrom-1,5-Diamidonaphtalin (Z. 1865, 557). — IV, 923.
- $C_{10}H_8N_2S$ 1) 2-Merkaptoindenimidazol (o-Benzilenimidazolymerkaptan). Zers. bei 280° (B. 29, 2607). — IV, 955.
- $C_{10}H_8N_2S_2$ 1) $\alpha\beta$ -Dirhodanäthylbenzol. Sm. 101—102° (+ C₆H₆ Sm. 62°) (A. 210, 324; J. 1880, 404). — II, 109S.
- $C_{10}H_8N_3Cl_3$ 1) 2-Trichlor-4-Methylamido-2-Methyl-1,3-Benzdiazin + H₂O. Sm. 155° (wasserfrei) (J. pr. [2] 42, 356). — IV, 1161.
- $C_{10}H_8Cl_2S_2$ 1) $\beta\beta$ -Dichlor- $\alpha\alpha$ -Dithiänyläthan. Sm. 32°; Sd. 190—195°₁₈ (B. 30, 2042).
- $C_{10}H_8Cl_3Br$ 1) Naphtalintrichloridbromid (J. 1850, 498). — II, 194.
- $C_{10}H_8Br_7S_2$ 1) $\alpha\beta$ -Dibrom- $\alpha\beta$ -Dithiänyläthan. Zers. bei 128° (B. 30, 2042).
- $C_{10}H_8ON$ C 75,5 — H 5,7 — O 10,0 — N 8,8 — M. G. 159.
 1) 2-Amido-1-Oxynaphtalin. HCl (A. 183, 247; B. 14, 1796; G. 25 [2] 393). — II, 865.
 2) 3-Amido-1-Oxynaphtalin. Zers. bei 185° (B. 28, 1952).
 3) 4-Amido-1-Oxynaphtalin. HCl, Pikrat (A. 183, 248; 211, 61; B. 25, 423; 28, 1536; G. 25 [2] 393). — II, 865.
 4) 7-Amido-1-Oxynaphtalin (B. 29, 40).
 5) 1-Amido-2-Oxynaphtalin. HCl, Pikrat (A. 189, 153; 211, 51; 278, 188; B. 14, 1311; 16, 2862; 18, 572; 25, 981; 30, 52; G. 25 [2] 392). — II, 884.
 6) 3-Amido-2-Oxynaphtalin. Sm. 234° (B. 27, 763). — II, 885.
 7) 5-Amido-2-Oxynaphtalin (B. 29, 1979).
 8) 8-Amido-2-Oxynaphtalin. Zers. bei 212—218° (B. 25, 2082; 29, 41). — II, 886.
 9) 4-Methyl-2-Phenyloxazol. Sd. 238—241°. (2HCl, PtCl₄ + 2H₂O) (B. 21, 2193). — IV, 325.
 10) 2-Methyl-4-Phenyloxazol. Sm. 45°; Sd. 241—242°. HCl, (2HCl, PtCl₄ + 2H₂O), H₂SO₄, Pikrat (B. 17, 2579; 20, 2576; 21, 924). — IV, 325.
 11) 5-Methyl-3-Phenylisoxazol? (Oximidobenzoylacetone). Sm. 67—68° (B. 17, 812; 21, 1150). — III, 270.
 12) 3-Methyl-5-Phenylisoxazol. Sm. 65° (B. 28, 1532). — IV, 325.
 13) 1-Acetylindol. Sd. 152—153°₁₄ (B. 23, 1359). — IV, 219.
 14) 3-Acetylindol. Sm. 188—189°. Pikrat (B. 22, 662, 1978). — IV, 242.
 15) 3-Keto-2-Methyl-1-Methylen-1,3-Dihydroisoindol (Methylenphtal-methimidin). Sm. 52—55° (B. 18, 2454; 29, 2520). — II, 1873.
 16) Anhydro-8-Oxychinolinmethyloxydhydrat (J. pr. [2] 54, 13). — IV, 273.
 17) 3-Oxy-2-Methylchinolin. Sm. 203—205°. (2HCl, PtCl₄), H₂SO₄ + 2H₂O, Pikrat (M. 16, 355). — IV, 310.
 18) 4-Oxy-2-Methylchinolin. Sm. 231°. HCl, (2HCl, PtCl₄), Chromat, Pikrat (B. 20, 947, 948, 1398; 27, 1400). — IV, 310.
 19) 6-Oxy-2-Methylchinolin. Sm. 213°. (2HCl, PtCl₄ + 2H₂O) (B. 17, 1708). — IV, 311.
 20) 7-Oxy-2-Methylchinolin. Sm. 232—234°. HCl + H₂O, (2HCl, PtCl₄ + 2H₂O) (B. 17, 1709). — IV, 312.
 21) 8-Oxy-2-Methylchinolin. Sm. 74°; Sd. 266—267° (B. 16, 2010; 17, 1706; J. 1884, 790). — IV, 312.
 22) 2-Oxy-4-Methylchinolin. Sm. 223,7°; Sd. 270°₁₇ (A. 236, 83; B. 24, 855; 25, 772; 26, 1398). — IV, 316.
 23) 6-Oxy-4-Methylchinolin. Sm. 216—218° (B. 23, 2677, 2684). — IV, 317.
 24) 8-Oxy-4-Methylchinolin. Sm. 141°. (2HCl, PtCl₄ + H₂O) (B. 23, 2686). — IV, 317.
 25) 8-Oxy-5-Methylchinolin. Sm. 122—124° (B. 23, 3666). — IV, 318.
 26) 5-Oxy-6-Methylchinolin. Sm. 230°. subl. (B. 23, 3658). — IV, 319.
 27) 8-Oxy-6-Methylchinolin. Sm. 95—96°. (2HCl, PtCl₄ + 2H₂O) (B. 17, 441, 1552; 23, 3671). — IV, 319.
 28) 8-Oxy-7-Methylchinolin. Sm. 72—74° (B. 23, 3663). — IV, 321.

- C₁₀H₉ON** 29) **5-Oxy-8-Methylechinolin**. Sm. 262—263° (*B.* 17, 905, 1551; 23, 3675). — IV, 322.
- 30) **6-Oxy-8-Methylechinolin**. Sm. 200° (*B.* 17, 903). — IV, 322.
- 31) **Methyläther d. 7-Oxychinolin**. Sd. 275°₇₃₀ (2HCl, PtCl₄), Pikrat (*B.* 15, 1979). — IV, 272.
- 32) **Methyläther d. 8-Oxychinolin**. Sd. 265—268°. HCl, (2HCl, PtCl₄ + 2H₂O), Pikrat (*B.* 14, 2570; *M.* 3, 544). — IV, 273.
- 33) **Methyläther d. 2-Oxychinolin**. Sd. 246—247° (*B.* 15, 336). — IV, 268.
- 34) **Methyläther d. 6-Oxychinolin (p-Chinanisol)**. Sd. 304—305°₇₄₀. HCl + 2H₂O, (2HCl, PtCl₄ + 4H₂O), H₂SO₄, H₂Cr₂O₇ (*M.* 3, 544; 6, 762). — IV, 271.
- 35) **Methyläther d. 1-Oxyisochinolin**. Sd. 240°. + HgCl₂ (*M.* 14, 64). — IV, 302.
- 36) **Methyläther d. 7-Oxyisochinolin**. Sm. 49°; Sd. 194—195°₅₀. HCl, (2HCl, PtCl₄), Pikrat (*A.* 286, 13). — IV, 303.
- 37) **2-Keto-1-Methyl-1,2-Dihydrochinolin**. Sm. 74°; Sd. 324°₇₃₅. HCl, (2HCl, PtCl₄), + J₂, + HgCl₂ (*B.* 18, 594; 20, 2009; 30, 92°; *A.* 282, 377; *J. pr.* [2] 47, 31). — IV, 284.
- 38) **2-Keto-6-Methyl-1,2-Dihydrochinolin**. Sm. 228° (*A.* 243, 359). — IV, 320.
- 39) **1-Keto-2-Methyl-1,2-Dihydroisochinolin**. Sm. 40°; Sd. 314—315°₇₃₅. (2HCl, PtCl₄ + 2H₂O) (*B.* 27, 205; *J. pr.* [2] 47, 37; *M.* 14, 64). — IV, 302.
- 40) **1-Keto-3-Methyl-1,2-Dihydroisochinolin (Methylisocarbostyrol)**. Sm. 211° (*B.* 25, 3569). — II, 1427.
- 41) **Anhydro-6-Oxychinolinmethyloxydhydrat** (*J. pr.* [2] 43, 524). — IV, 271.
- 42) **2-Acetylamidophenyläthin (Acetyl-2-Amidophenylacetylen)**. Sm. 75° (*B.* 15, 60). — II, 591.
- 43) **Nitril d. γ-Oxy-α-Phenylpropen-γ-Carbonsäure**. Sm. 80—81° (75°) (*B.* 17, 2010, 2113; 22, 686; 25, 2555; *A.* 299, 12). — II, 1654.
- 44) **Nitril d. β-Keto-α-Phenylpropan-α-Carbonsäure**. Sm. 90° (*B.* 31, 3160; *J. pr.* [2] 55, 343).
- 45) **Nitril d. α-Benzoylpropionsäure**. Fl. (*J. pr.* [2] 39, 190; [2] 55, 306). — II, 1658.
- 46) **Nitril d. 2-Methylbenzoylessigsäure**. Sm. 70,4° (*B.* 22 [2] 439). — III, 145.
- 47) **Nitril d. 4-Methylbenzoylessigsäure (Cyanmethyl-4-Tolylketon)**. Sm. 104—105° (*J. pr.* [2] 52, 110).
- 48) **Nitril d. 1,3-Dimethylbenzol-4-Ketocarbonsäure**. Sm. 47° (*B.* 25, 3464). — II, 1661.
- 49) **Base (aus Chinin)**. Sd. 280° u. ger. Zers. (2HCl, PtCl₄), Dioxalat, Pikrat (*J. r.* 11, 322). — III, 820.
- C₁₀H₉ON₃** 50) **Verbindung (aus β-Benzoylpropionsäureäthylester)**. Sm. 233° (*A.* 299, 63). C 64,2 — H 4,8 — O 8,6 — N 22,4 — M. G. 187.
- 1) **2,6-Diamido-4-Imido-1-Keto-1,4-Dihydronaphtalin**. (2HCl, PtCl₄) (*B.* 31, 2424).
- 2) **2,8-Diamido-4-Imido-1-Keto-1,4-Dihydronaphtalin**. HCl, (2HCl, PtCl₄), H₂CrO₄ (*B.* 11, 1664; 31, 2422). — II, 866.
- 3) **1-Amidoformyl-5-Phenylpyrazol (Phenylpyrazolharnstoff)**. Sm. 137 bis 139° (*B.* 28, 698). — IV, 907.
- 4) **2-Amido-4-Oxy-6-Phenyl-1,3-Diazin?** (Imidophenyluracil). Sm. 294 bis 295°. HCl, Pikrat (*J. pr.* [2] 47, 214; *A.* 262, 372). — II, 1644.
- 5) **2-Imido-6-Oxy-4-Phenyl-1,2-Dihydro-1,3-Diazin?** (β-Imidophenyluracil). Sm. 272—274°. HCl, Pikrat (*J. pr.* [2] 47, 220). — II, 1645.
- 6) **6-Amidooximidomethylechinolin (Chinolin-6-Methenylamidoxim)**. Sm. 105°. HCl, (2HCl, PtCl₄) (*B.* 22, 2762). — IV, 349.
- 7) **Aldehyd d. Methylphenylhydrazoncyanessigsäure**. Sm. 113,5° (*B.* 21, 3003). — IV, 756.
- 8) **Nitril d. α-Phenylhydrazon-β-Ketopropan-α-Carbonsäure**. Sm. 166 bis 167° (*J. pr.* [2] 52, 94). — IV, 1477.
- 9) **Benzylidenhydrazid d. Cyanessigsäure**. Sm. 174,5° (*B.* 27, 687). — III, 39.

- C₁₀H₉OCl** 1) γ -Keto- α -[2-Chlorphenyl]- α -Buten (2-Chlorbenzylidenacetone). Sd. 189°₃₀ (A. 294, 291).
 2) 5-Chlor-1-Keto-2-Methyl-2,3-Dihydroinden. Sd. 265—268° (B. 23, 1896). — III, 164.
 3) Chlorid d. 2,3-Dihydroinden-2-Carbonsäure. Sm. 35—38°; Sd. 180°₁₀₀ (Soc. 65, 235). — II, 1430.
- C₁₀H₉OCl₂** 1) Trichloranethol. Fl. (A. 41, 62). — II, 852.
 2) Verbindung (aus Trichlorakrylbenzol-2-Carbonsäure). Sm. 104—105° (A. 255, 389). — II, 1678.
 3) Verbindung (aus Dichlornaphtyldrenglykol) (J. 1872, 424). — II, 184.
- C₁₀H₉OCl₃** 1) 2-Pentachlor-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 98° (A. ch. [3] 49, 158). — II, 772.
- C₁₀H₉OBr₂** 1) Tribromanethol (A. 41, 60; J. pr. [2] 51, 424). — II, 852.
 2) Acetat d. 2-Brom-4-Oxy-1-[$\alpha\beta$ -Dibromäthyl]benzol. Sm. 94° (B. 20, 2535). — II, 757.
- C₁₀H₉OBr₃** 1) Pentabromthymol? (A. ch. [3] 49, 159). — II, 772.
- C₁₀H₉O₂N** C 68,6 — H 5,1 — O 18,3 — N 8,0 — M. G. 175.
 1) δ -Oximido- γ -Keto- α -Phenyl- α -Buten. Sm. 143—144° (B. 22, 529). — III, 160.
 2) 3-Amido-1,2-Dioxynaphtalin. Sm. 164° u. Zers. HCl (Soc. 45, 300; B. 17, 907; A. 295, 13). — II, 982.
 3) 4-Amido-1,2-Dioxynaphtalin. HCl (A. 154, 320; B. 27, 3340). — II, 982.
 4) 4-Amido-1,3-Dioxynaphtalin. Sm. 162°. HCl (A. 286, 89; B. 28, 351; 29, 1419).
 5) 2-Amido-1,4-Dioxynaphtalin. HCl (B. 27, 3343).
 6) 1-Amido-2,7-Dioxynaphtalin. HCl (B. 23, 521; 30, 1123). — II, 985.
 7) 5-Keto-3-Phenyl-2-Methyl-2,5-Dihydroisoxazol. Sm. 78° (A. 296, 45). — IV, 306.
 8) 5-Keto-3-[4-Methylphenyl]-4,5-Dihydroisoxazol. Sm. 134—135° u. Zers. (J. pr. [2] 58, 147).
 9) 2,3-Diketo-1-Aethyl-2,3-Dihydroindol (Aethylpseudoisatin). Sm. 95° (B. 16, 2193; 17, 566; 30, 2813). — II, 1603.
 10) 2,3-Diketo-5-Aethyl-2,3-Dihydroindol (p-Aethylisatin). Sm. 137° (B. 17, 2806). — II, 1660.
 11) 2,3-Diketo-1,5-Dimethyl-2,3-Dihydroindol (Methyl-p-Pseudotolisatin). Sm. 148° (A. 232, 217). — II, 1651.
 12) 2,3-Diketo-1,7-Dimethyl-2,3-Dihydroindol (Methyl-o-Pseudotolisatin). Sm. 157° (A. 232, 221). — II, 1651.
 13) 1-Acetyl-2-Keto-2,3-Dihydroindol. Sm. 126° (B. 12, 1327). — II, 1320.
 14) 2-Acetyl-1-Keto-1,3-Dihydroisindol (Acetylphthalimidin). Sm. 151° (A. 247, 297). — II, 1558.
 15) 3-Methyl-1,2-Benzpyron-2-Oxim (α -Methylcumaroxim). Sm. 166° (B. 24, 3460). — II, 1656.
 16) 2,7-Dioxy-4-Methylchinolin. Zers. oberh. 270° (B. 31, 802).
 17) 6-Methyläther d. 2,6-Dioxychinolin. Sm. 218—219° (A. 262, 179). — IV, 287.
 18) Monomethyläther d. 2-Dioxychinolin. Fl. HCl + H₂O, (2HCl, PtCl₄ + 2H₂O), Pikrat (B. 20, 1823). — IV, 288.
 19) 4-Oxy-2-Keto-1-Methyl-1,2-Dihydrochinolin. Sm. 259—260° (B. 20, 2014). — IV, 286.
 20) 1,3-Diketo-4-Methyl-1,2,3,4-Tetrahydroisochinolin (Methylhomophthalimid). Sm. 145° (B. 20, 2503). — II, 1852.
 21) β -Cyan- β -Phenylpropionsäure. Sm. 150°. Ca + 3H₂O, Ba + 3H₂O, Ag (A. 293, 345).
 22) 1-Methylindol-2-Carbonsäure. Sm. 212° (B. 17, 561). — IV, 235.
 23) 2-Methylindol-3-Carbonsäure. Zers. bei 170—172°. Ag (B. 21, 1926; G. 22 [2] 19; A. 266, 73; Ann. 14, 578; 16, 435). — IV, 238.
 24) 3-Methylindol-2-Carbonsäure (β -Skatolcarbonsäure). Sm. 164—165° u. Zers. Ag (B. 21, 1927; A. 246, 334; G. 22 [2] 19). — IV, 239.
 25) 5-Methylindol-2-Carbonsäure. Sm. 227—228° u. Zers. (A. 239, 225). — IV, 239.
 26) 6-Methylindol-2-Carbonsäure. Sm. 217° (B. 30, 1051). — IV, 240.

- $C_{10}H_9O_2N$ 27) 7-Methylindol-2-Carbonsäure. Sm. 170—171° u. Zers. (A. [239](#), [228](#)) — IV, [240](#).
- 28) α -Skatolcarbonsäure. Sm. 164°. Ag (B. [13](#), [193](#), 2217; H. [9](#), [9](#)). — IV, [239](#).
- 29) $\alpha\gamma$ -Lakton d. α -Phenylamido- γ -Oxypropen- α -Carbonsäure. Sm. 217 bis 218° (Am. [16](#), [282](#)).
- 30) Methylester d. Indol-2-Carbonsäure. Sm. 151—152° (B. [21](#), 1931). — IV, [235](#).
- 31) Methylester d. Indol-3-Carbonsäure. Sm. 147—148° (B. [23](#), 2297). — IV, [236](#).
- 32) Aethylester d. 2-Cyanbenzol-1-Carbonsäure. Sm. 65—66° (70°) (R. [11](#), [91](#); B. [19](#), 1498). — II, [1228](#).
- 33) Aethylester d. 3-Cyanbenzol-1-Carbonsäure. Sm. 56° (48°) (B. [19](#), 1494; [20](#), [526](#)). — II, [1228](#).
- 34) Aethylester d. 4-Cyanbenzol-1-Carbonsäure. Sm. 54° (B. [18](#), 2485). — II, [1229](#).
- 35) Methylimid d. Benzol-1-Carbonsäure-2-Methylcarbonsäure. Sm. 123°; Sd. 314—318° (B. [19](#), 2365). — II, [1843](#).
- 36) Aethylimid d. Benzol-1,2-Dicarbonsäure. Sm. 78—79°; Sd. 282,5°₁₂₆ (285°₁₃₈) (B. [10](#), 1644; [14](#), [171](#); [28](#), 2358; [31](#), [1228](#); A. [215](#), [194](#); [247](#), [302](#)). — II, [1799](#).
- 37) Phenylimid d. Bernsteinsäure. Sm. 150° (156°); Sd. bei 400° (A. [68](#), [27](#); [162](#), [166](#); [209](#), [373](#); [263](#), [162](#); B. [28](#), [59](#); [31](#), [337](#); Am. [18](#), [340](#)). — II, [413](#).
- 38) Amid d. 2-Methylbenzofuran-1-Carbonsäure. Sm. 145° (B. [19](#), 2402). — II, [1676](#).
- 39) Amid d. γ -Keto- α -Phenylpropen- γ -Carbonsäure (A. d. Cinnamylameisensäure). Sm. 129—130° (B. [13](#), 2124). — II, [1677](#).
- 40) Nitril d. α -Acetoxylphenylessigsäure. Sd. 152°₂₅ (B. [25](#), 1681). — II, [1552](#).
- 41) Nitril d. 1-Acetoxylnmethylbenzol-4-Carbonsäure. Sm. 71—72° (B. [27](#), 2171). — II, [1561](#).
- 42) Nitril d. 4-Acetoxy-1-Methylbenzol-3-Carbonsäure. Sm. 56—57° (B. [24](#), 3659). — II, [1547](#).
- 43) Nitril d. 6-Acetoxy-1-Methylbenzol-3-Carbonsäure. Sm. 75—76° (B. [24](#), 3673). — II, [1549](#).
- $C_{10}H_9O_2N_2$ C [59,1](#) — H [4,4](#) — O [15,8](#) — N [20,7](#) — M. G. [203](#).
- 1) 3-Methyl-1-[4(?) Nitrophenyl]pyrazol. Sm. 166° (A. [279](#), [221](#)). — IV, [506](#).
- 2) 5-Methyl-1-[4-Nitrophenyl]pyrazol. Sm. 161° (A. [279](#), [224](#)). — IV, [516](#).
- 3) 4-Oximido-5-Keto-3-Methyl-1-Phenyl-4,5-Dihydropyrazol. Sm. 157° (151—152°) (B. [25](#), [765](#); [27](#), [1175](#); [28](#), 2685; [30](#), 2397; J. pr. [\[2\]](#) [55](#), [141](#); A. [238](#), [185](#)). — IV, [509](#).
- 4) 1-Benzylidenamido-2,4-Diketotetrahydroimidazol (Benzylidenamidohydantoïn) (B. [31](#), 168).
- 5) 4-Acetyl-5-Keto-1-Phenyl-4,5-Dihydro-1,2,4-Triazol? Sm. 115°. — IV, [1101](#).
- 6) 2,5-Difuranyl-2,3-Dihydro-1,3,4-Triazol (Difurylimidin). Sm. 200°. (2HCl, PtCl₄) (B. [28](#), 472; A. [298](#), [33](#)). — III, [700](#).
- 7) 4-Phenylhydrazon-5-Keto-3-Methyl-4,5-Dihydroisoxazol. Sm. 192° u. Zers. (B. [27](#), [1174](#); [28](#), 2732; [30](#), [1162](#), 1342; J. pr. [\[2\]](#) [52](#), [96](#)). — IV, [706](#).
- 8) 6-[4-Methylbenzoyl]-1,2,3,5-Oxtriazin. Sm. 165° (R. [16](#), [341](#)). — IV, [1119](#).
- 9) 3-Nitro-4-Amido-2-Methylchinolin. Sm. 201° (B. [21](#), 1982). — IV, [931](#).
- 10) 2-Methylphenylhydrazoncyanessigsäure. Sm. 173°. K, Ag (J. pr. [\[2\]](#) [49](#), [345](#)). — IV, [1156](#).
- 11) 5-Methyl-1-Phenyl-1,2,4-Triazol-3-Carbonsäure. Sm. 177°. Pb + 2 1/2 H₂O, Cu + 1 1/2 H₂O, Ag + 1 1/2 H₂O, HCl (B. [18](#), 1547; [19](#), 2600; [26](#), 2393). — IV, [1114](#).
- 12) 3-Methyl-1-Phenyl-1,2,5-Triazol-4-Carbonsäure. Sm. 202° (189°; 198°) (A. [262](#), [309](#); B. [27](#), [1177](#); [28](#), 1287). — IV, [1114](#).

- C₁₀H₆O₂N₂** 13) 5,6-Anhydro-6-Amido-2-Methylbenzimidazol-5-Oxyessigsäure. Sm. 243° (B. 30, 2105).
 14) Methylester d. Phenylhydrazoncyanessigsäure. Sm. 86,5° (B. 21 [2] 354). — IV, 1454.
 15) Methylester d. 1-Phenyl-1,2,4-Triazol-3-Carbonsäure. Sm. 116,5 bis 117° (B. 23, 1814). — IV, 1113.
 16) Methylester d. 1-Phenyl-1,2,5-Triazol-3-Carbonsäure. Sm. 89—90°; Sd. 285—286° (A. 262, 286). — IV, 1112.
 17) Nitril d. β-Benzoximido-β-Amidopropionsäure (Cyanäthenylbenzoyl-amidoxim). Sm. 184—192° u. Zers. (B. 29, 1169).
 18) 2-Oxybenzylidenhydrazid d. Cyanessigsäure. Sm. 169° (B. 27, 688). — III, 76.
- C₁₀H₆O₂N₅** C 51,9 — H 3,9 — O 13,8 — N 30,3 — M. G. 231.
 1) p-Nitrodiäthenyl-1,2,3,5-Tetraamidobenzol + 1/2 H₂O. Sm. 276° (2HCl, PtCl₄ + 1/2 H₂O) (B. 20, 331). — IV, 1274.
 2) Benzoylammelin (J. pr. [2] 13, 277). — II, 1174.
- C₁₀H₆O₂Cl** 1) α-Chlor-α-Phenylpropen-β-Carbonsäure. Sm. 116°. Ag (Soc. 49, 157). — II, 1426.
 2) α-[3-Chlorphenyl]propen-β-Carbonsäure. Sm. 106°. Ba (B. 23, 1895). — II, 1426.
 3) α-[4-Chlorphenyl]propen-γ-Carbonsäure. Sm. 108—109°. Na + 2H₂O (A. 260, 65). — II, 1424.
 4) Chlorid d. β-[4-Methoxyphenyl]akrylsäure. Sm. 50° (J. 1877, 792). — II, 1636.
- C₁₀H₆O₂Cl₃** 1) γγγ-Trichlor-β-Oxypropylphenylketon (Chloralacetophenon). Sm. 76 bis 77° (B. 25, 795; 26, 555, 910). — III, 148.
 2) 2,4,6-Trichlorphenylester d. norm. Buttersäure. Sd. 272 — 275° (B. 18, 1163). — II, 671.
 3) Acetat d. βββ-Trichlor-α-Oxy-α-Phenyläthan. Sm. 86—88°; Sd. 280 bis 282°₇₆₅ (C. 1897 [1] 1014).
- C₁₀H₆O₂Br** 1) γ-Keto-α-[5-Brom-2-Oxyphenyl]-α-Buten. Sm. 154—155° (B. 29, 1892).
 2) α-Brom-α-Phenylpropen-β-Carbonsäure. Sm. 124° (B. 21, 276). — II, 1426.
 3) Lakton d. β-Brom-γ-Oxy-γ-Phenylbuttersäure. Sm. 70° (A. 268, 71). — II, 1583.
 4) Lakton d. p-Bromoxy-γ-Phenylbuttersäure? Sm. 76° (A. 268, 78). — II, 1584.
 5) Methylester d. α-Brom-β-Phenylakrylsäure. Sd. 158,5 — 159,5°₁₄ (B. 20, 1383). — II, 1411.
 6) Methylester d. Allo-α-Brom-β-Phenylakrylsäure. Sd. 145—147°₁₁ (B. 20, 1383). — II, 1412.
 7) Methylester d. Allo-β-Brom-β-Phenylakrylsäure. Sm. 58° (Soc. 73, 87).
- C₁₀H₆O₂Br₃** 1) Methylenäther d. p-Brom-3,4-Dioxy-1-[αβ-Dibrompropyl]benzol. Sm. 109—110° (B. 23, 1163). — II, 978.
 2) Methyläther d. αα-Dibromäthyl-3-Brom-4-Oxyphenylketon. Sm. 103,5° (B. 29, 687). — III, 142.
 3) Methyläther d. αβ-Dibromäthyl-3-Brom-4-Oxyphenylketon. Sm. 103,5° (B. 29, 687). — III, 142.
 4) Methyläther d. α-Bromäthyl-3,5-Dibrom-4-Oxyphenylketon? Sm. 135° (J. pr. [2] 52, 205). — III, 142.
 5) Acetat d. βββ-Tribrom-α-Oxy-α-Phenyläthan. Sm. 140° (C. 1899 [1] 606).
 6) Acetat d. 3,5,6-Tribrom-2-Oxy-1,4-Dimethylbenzol. Sm. 125—126° (A. 301, 282; B. 32, 20).
- C₁₀H₆O₂P** 1) 1-Naphtylphosphinigesäure. Sm. 125 — 126° (B. 11, 1500; 12, 564). — IV, 1681.
- C₁₀H₆O₂B** 1) 1-Naphtylborsäure. Sm. 259°. Ba, Ag₂ (B. 27, 249). — IV, 1700.
 2) 2-Naphtylborsäure. 2 Modifik. Sm. 248° (u. 266°). BaH, Ag₂ (B. 27, 253). — IV, 1701.
- C₁₀H₆O₂N** C 62,8 — H 4,7 — O 25,1 — N 7,3 — M. G. 191.
 1) γ-Keto-α-[2-Nitrophenyl]-α-Buten. Sm. 60° (B. 15, 2858; 16, 36, 1954). — III, 161.
 2) γ-Keto-α-[3-Nitrophenyl]-α-Buten. Sm. 94—95° (A. 294, 293).

- $C_{10}H_9O_3N$
- 3) γ -Keto- α -[4-Nitrophenyl]- α -Buten. Sm. 110° (B. 16, 1969; A. 294, 292). — III, 161.
 - 4) polym. γ -Keto- α -[4-Nitrophenyl]- α -Buten = $(C_{10}H_9O_3N)_x$. Sm. 254° (B. 16, 1970). — III, 161.
 - 5) β -Oximido- α - γ -Diketo- α -Phenylbutan (Oximidobenzoylaceton). Sm. 123,5 bis 124° (B. 17, 815). — III, 270.
 - 6) α -Oximido- α - β -Di-2-Furanyl]äthan (Desoxyfuroinoxim). Sm. 94—96° (A. 258, 225). — III, 728.
 - 7) 3-Amido-1,2,4-Trioxynaphtalin. HCl (B. 21, 1780; J. pr. [2] 40, 181). — III, 1027.
 - 8) Äthyläther d. Phtalhydroxylamin. Sm. 103—104°; Sd. 270° (A. 205, 300; J. 1882, 545). — II, 1815.
 - 9) Indihumin (J. 1858, 469). — III, 596.
 - 10) p -Amido-7-Oxy-4-Methyl-1,2-Benzpyron. Sm. 247°. $H_2SO_4 + 2H_2O$ (B. 17, 2137). — II, 1781.
 - 11) Methyläther d. 7-Amido-6-Oxy-1,2-Benzpyron. Sm. 222—223° (G. 27 [2] 352).
 - 12) 7-Methyläther d. Oximido-1,2-Benzpyron. Sm. 138° (B. 24, 3465). — II, 1774.
 - 13) 2,4-Diketo-5-Methyl-3-Phenyltetrahydrooxazol. Sm. 141° (Bl. [3] 19, 780).
 - 14) 4,5,7-Trioxo-2-Methylchinolin. Sm. noch nicht bei 300° (B. 31, 775).
 - 15) 3,4-Dioxy-2-Keto-1-Methyl-1,2-Dihydrochinolin. Zers. bei 200° (B. 20, 2015). — IV, 289.
 - 16) 7,8-Methylenäther d. 7,8-Dioxy-2-Keto-1,2,3,4-Tetrahydrochinolin. Sm. 235° (Soc. 59, 158). — II, 1763.
 - 17) Methylenäther d. 7,8-Dioxy-1-Keto-1,2,3,4-Tetrahydroisochinolin. Sm. 181—182° (Soc. 57, 1013). — II, 1761.
 - 18) 4-Acetyl-3-Keto-3,4-Dihydro-1,4-Benzoxazin. Sm. 77° (Am. 20, 565).
 - 19) Acetat d. 2-Oxy-1,3-Benzoxazin. Sm. 203° (B. 31, 1602).
 - 20) Acetat d. Benzoylformoxim. Sm. 131°. HCl (B. 24, 1383). — III, 122.
 - 21) Fumarphenylaminsäure. Sm. 230—231° (A. 259, 141; B. 24, 2003). — II, 416.
 - 22) Maleinphenylaminsäure. Sm. 187—187,5° (A. 239, 144; B. 20, 3215). — II, 416.
 - 23) 1-Oxy-6-Methylindol-2-Carbonsäure. Sm. 165° (B. 30, 1052). — IV, 240.
 - 24) 1-Oxyindolmethyläther-2-Carbonsäure. Sm. 185° u. Zers. (B. 29, 651). — IV, 237.
 - 25) 2-Keto-1,2,3,4-Tetrahydrochinolin-3-Carbonsäure. Sm. 146° u. Zers. (B. 29, 666). — IV, 240.
 - 26) 2-Keto-1,2,3,4-Tetrahydrochinolin-7-Carbonsäure. Sm. oberh. 280° (B. 22, 2273). — II, 1851.
 - 27) Inneres Anhydrid d. Phenylloxyacetamidoessigsäure. Sm. 169° (J. pr. [2] 40, 500). — II, 430.
 - 28) Anhydrid d. Phenylimidodiessigsäure. Sm. 148° (B. 25, 2272). — II, 431.
 - 29) Aldehyd d. α -[3-Nitrophenyl]propen- β -Carbonsäure. Sm. 83° (B. 19, 530). — III, 63.
 - 30) Aldehyd d. α -[4-Nitrophenyl]propen- β -Carbonsäure. Sm. 114°. — III, 63.
 - 31) Methylester d. 1-Oxyindol-2-Carbonsäure. Sm. 100—101° (B. 29, 648). — IV, 237.
 - 32) Methylester d. 3-Oxyindol-2-Carbonsäure. Sm. 155—157° (A. 301, 351).
 - 33) Äthylester d. α -Cyan- β -[2-Furanyl]akrylsäure. Sm. 94°; Sd. 295 bis 300° u. Zers. (J. pr. [2] 50, 16; B. 27, 2625). — III, 711.
 - 34) Acetat d. 3-Oxy-2-Keto-2,3-Dihydroindol (Acetyldioxindol). Sm. 127° (B. 12, 1326). — II, 1612.
 - 35) Nitril d. 3-Oxy-4-Acetoxybenzol-3-Methyläther-1-Carbonsäure. Sm. 110° (B. 24, 3654). — II, 1741.
 - 36) Methoxylmethylimid d. Benzol-1,2-Dicarbonsäure. Sm. 121° (B. 31, 1230).
 - 37) β -Oxyäthylimid d. Benzol-1,2-Dicarbonsäure. Sm. 126—127° (B. 21, 571; 29, 2528). — II, 1800.

- C₁₀H₉O₃N** 38) Phenylimid d. Aepfelsäure. Sm. 170° (A. 96, 109; G. 23 [1] 179). — II, 419.
 39) Phenylimid d. Diglykolsäure. Sm. 111° (A. 273, 66). — II, 403.
 40) 4-Oxyphenylimid d. Bernsteinsäure. Sm. 275—276° (270°) (B. 29, 84; C. 1897 [1] 48).
 41) Verbindung (aus 1-Oxyindol-2-Carbonsäuremethylester). Sm. noch nicht bei 285° (B. 29, 664). — IV, 238.
- C₁₀H₉O₃N₂** C 54,8 — H 4,1 — O 21,9 — N 19,2 — M. G. 219.
 1) 4-[4-Oxyphenyl]hydrazon-5-Keto-3-Methyl-4,5-Dihydroisoxazol. Sm. 219—220° (B. 30, 1166).
 2) 4-Oximido-3,5-Diketo-1-[4-Methylphenyl]tetrahydropyrazol. Sm. 182° (B. 30, 1021). — IV, 808.
 3) 4-Nitro-5-Keto-3-Methyl-1-Phenyl-4,5-Dihydropyrazol. Sm. 127 bis 130° (A. 238, 187; B. 25, 765). — IV, 509.
 4) 2 [oder 4] -Acetyl-3,5-Diketo-1-Phenyltetrahydro-1,2,4-Triazol (Acetylphenylurazol). Sm. 170° (175°) (A. 295, 172; C. 1898 [1] 39). — IV, 677.
 5) Methyläther d. 6-[4-Oxybenzoyl]-1,2,3,5-Oxtriazin. Sm. 144° (R. 16, 341). — IV, 1120.
 6) 2,3-Dioximido-1-Acetyl-2,3-Dihydroindol (Acetylisatindioxim). Sm. 240° (B. 29, 203).
 7) 6-Nitro-4-Keto-2,3-Dimethyl-3,4-Dihydro-1,3-Benzdiazin. Sm. 165° (J. pr. [2] 42, 350; [2] 43, 477). — II, 1283; IV, 901.
 8) 8-Nitro-4-Keto-2,3-Dimethyl-3,4-Dihydro-1,3-Benzdiazin. Sm. 175° (J. pr. [2] 43, 442). — II, 1282.
 9) 6-Nitro-2-Keto-1,3-Dimethyl-1,2-Dihydro-1,4-Benzdiazin (J. pr. [2] 46, 573). — IV, 555.
 10) Furoylfurylhydrazidin. Zers. bei 120° (B. 28, 469; A. 298, 30). — III, 699; IV, 1167.
 11) 3-[3-Pyridyl]-1,2,4-Oxdiazol-5-Aethyl-β-Carbonsäure (Nikotenzylazoximpropenyl-ω-Carbonsäure). Sm. 178° (B. 24, 3443). — IV, 145.
 12) 3 oder 4-Methyl-1-Phenyl-2,3-Dihydro-1,2,5-Triazol-2,3-Oxyd-4 oder 3-Carbonsäure. Sm. 93° (J. pr. [2] 57, 168). — IV, 1115.
 13) Anhydrid d. α-Amido-β-Phenylhydrazon-αβ-Dicarbonsäure (B. 20, 246). — IV, 713.
 14) Nitril d. 3-Nitro-4-Acetylamidophenylessigsäure. Sm. 112—113° (B. 15, 836). — II, 1327.
 15) Imid d. Phenylnitrosamidobernsteinsäure. Sm. 187° u. Zers. (A. 252, 163). — II, 437.
 16) Phenylnitrosohydrazid d. Bernsteinsäure. Sm. 83—84° (J. pr. [2] 35, 294). — IV, 703.
 17) 4-Asid d. Benzol-1,4-Dicarbonsäure-1-Aethylester (J. pr. [2] 54, 81).
 18) Verbindung (aus Diacetonitril). Sm. 84° (J. pr. [2] 52, 86).
- C₁₀H₉O₃N₅** C 48,6 — H 3,6 — O 19,4 — N 28,3 — M. G. 247.
 1) Ureid d. 6-[oder 7]-Amido-3-Oxy-1,4-Benzdiazin-2-Carbonsäure. Sm. noch nicht bei 300° (A. 292, 256). — IV, 1164.
- C₁₀H₉O₃Cl** 1) Methylester d. 2-[Chloracetyl]benzol-1-Carbonsäure. Sm. 78—79° (A. 255, 390). — II, 1648.
- C₁₀H₉O₃Br** 1) ?-Brom-γ-Oxy-α-Phenylpropen-γ-Carbonsäure (γ-Phenyl-?-Brom-α-Oxycrotonsäure). Sm. 95—100° (B. 25, 2561). — II, 1656.
 2) α-[oder β]-Brom-β-[2-Methoxyphenyl]akrylsäure (Brom-2-Cumar-methyläthersäure). Sm. 169,5—171° (Soc. 39, 422). — II, 1631.
 3) ?-Brom-β-Benzoylpropionsäure (A. 299, 19).
 4) γ-Lakton d. β-Brom-αγ-Dioxy-γ-Phenylbuttersäure. Sm. 137° (137,5 bis 138°) (B. 25, 2556; A. 299, 26). — II, 1766.
 5) Acetat d. Brommethyl-2-Oxyphenylketon. Sm. 67° (B. 30, 1080).
- C₁₀H₉O₃Br₂** 1) αβ-Dibrom-β-[?Brom-2-Oxyphenylmethyläther]propionsäure. Sm. 185—188° u. Zers. (Soc. 39, 417). — II, 1564.
 2) αβ-Dibrom-β-[?Brom-4-Oxyphenylmethyläther]propionsäure. Sm. 162° (B. 20, 2538). — II, 1565.
 3) 1-Acetat d. 3,5,6-Tribrom-1,4-Dioxy-2-Methyl-1-Oxymethyl-1,4-Dihydrobenzol-1,4-Anhydrid. Sm. 142—143° (A. 302, 104).
 4) 1-Acetat d. 2,5,6-Tribrom-1,4-Dioxy-3-Methyl-1-Oxymethyl-1,4-Dihydrobenzol-1,4-Anhydrid. Sm. 153—154° (B. 29, 2351).

- $C_{10}H_9O_3J$ 1) 5-Jod-1,3-Dimethylbenzol-4-Ketocarbonsäure. Ba + $2\frac{1}{2}H_2O$ (Am. 20, 803).
- $C_{10}H_9O_3P$ 1) 1-Naphtylphosphinsäure. Sm. 190°. Ag₂ (B. 9, 1052). — IV, 1681.
2) 1-Naphtylester d. Phosphorigensäure. Sm. 82° (B. 27, 2561). — II, 858.
3) 2-Naphtylester d. Phosphorigensäure. Sm. 111° (B. 27, 2563). — II, 877.
- $C_{10}H_9O_3As$ 1) 1-Naphtylarsinsäure. Sm. 197° (B. 11, 1503). — IV, 1694.
- $C_{10}H_9O_4N$ C 58,0 — H 4,3 — O 30,9 — N 6,8 — M. G. 207.
1) 5,6,7-Trioxo-1-Keto-4-Methyl-1,2-Dihydroisochinolin (B. 26, 420). — II, 2007.
2) Methylenäther d. β -Nitro- α -[3,4-Dioxyphenyl]propen (Nitroisosafrol). Sm. 98° (G. 26 [1] 9).
3) Methylenäther d. α -Oximido- β -Keto- α -[3,4-Dioxyphenyl]propan. Sm. 98° (G. 22 [2] 464). — II, 978.
4) $\alpha\gamma$ -Diketo- α -[2-Nitrophenyl]butan. Sm. 55° (A. 221, 332). — III, 271.
5) β -Oximido- α -Oxy- $\alpha\beta$ -Di[2-Furanyl]äthan (Furoinoxim). Sm. 160—161° (A. 258, 223). — III, 728.
6) 1-Acetat-3,4-Methylenäther d. syn-3,4-Dioxybenzaldoxim. Sm. 99° (Ph. Ch. 13, 526). — III, 104.
7) Benzoylamidobrenztraubensäure. Zers. bei 195° (B. 24, 1262). — II, 1192.
8) β -[6-Amido-3,4-Dioxyphenyl]akryl-3,4-Methylenäthersäure. Sm. 205—207° u. Zers. (Soc. 59, 158). — II, 1777.
9) anti- α -Acetoxyimido- α -Phenylelessigsäure. Sm. 118—119° u. Zers. (B. 24, 43). — II, 1598.
10) syn- α -Acetoxyimido- α -Phenylelessigsäure. Sm. 124—125° u. Zers. (B. 24, 45). — II, 1599.
11) γ -Oximido- α -Keto- α -Phenylpropan- γ -Carbonsäure + H_2O . Sm. 98 bis 100° (G. 21 [2] 286). — II, 1862.
12) 2,3-Dioxy-6-Cyanbenzoldimethyläther-1-Carbonsäure + 2 H_2O . Sm. 81—82° (wasserfrei) (R. 14, 274).
13) 3,4-Dioxy-2-Cyanbenzoldimethyläther-1-Carbonsäure. Sm. 207 bis 208° (R. 14, 272).
14) α -[2-Nitrophenyl]propen- β -Carbonsäure. Sm. 164—165° (B. 20, 620). — II, 1426.
15) α -[3-Nitrophenyl]propen- β -Carbonsäure. Sm. 197,5° (B. 23, 1900). — II, 1426.
16) α -[4-Nitrophenyl]propen- β -Carbonsäure. Sm. 208°. Ag (B. 20, 620). — II, 1426.
17) β -[3-Nitrophenyl]propen-4-Carbonsäure. Sm. 154—155°. NH_4 , Ca + 2 H_2O , Ba + $3\frac{1}{2}H_2O$, Cu + H_2O , Ag (B. 15, 2551; 16, 2569). — II, 1428.
18) 2-Acetylamidobenzol-1-Ketocarbonsäure (Acetylisatinsäure). Sm. 160°. Pb, Ag (B. 11, 586). — II, 1601.
19) 1,2-Lakton d. 3,4-Dioxy-1-Oximidomethylbenzol-3,4-Dimethyläther-2-Carbonsäure (Anhydrid d. Opiansäureoxim). Sm. 114—115° (106,5—107,5°) (B. 19, 2923; Soc. 57, 1072; Ph. Ch. 10, 419; M. 17, 118). — II, 1942.
20) Aldehyd d. β -[3-Nitro-2-Methoxyphenyl]akrylsäure. Sm. 115° (B. 22, 1716). — III, 24.
21) Methylester d. β -[2-Nitrophenyl]akrylsäure. Sm. 72—73° (A. 163, 131; Soc. 73, 85). — II, 1414.
22) Methylester d. β -[3-Nitrophenyl]akrylsäure. Sm. 123—124° (Soc. 73, 85).
23) Methylester d. β -[4-Nitrophenyl]akrylsäure. Sm. 161°; Sd. 281 bis 286° (J. 1861, 410; Soc. 73, 85). — II, 1414.
24) Imid d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure (I. d. Hemipinsäure). Sm. 228—230°. Ag (B. 19, 2278, 2024; 23, 2902; Soc. 57, 1070). — II, 1996.
25) Isoidimid d. Hemipinsäure. Sm. oberh. 320° (M. 8, 512). — II, 1996.
26) Phenylimid d. Weinsäure. Sm. 230° u. Zers. (A. 93, 354). — II, 422.
27) Phenylimid d. Traubensäure. Sm. 235—236° (B. 29, 2720).

- C₁₀H₉O₄N** 28) Nitril d. 2,3,4,5-Tetraoxybenzol-2,5-Dimethyläther-3,4-Methylenäther-1-Carbonsäure. Sm. 135,5° (G. 20, 701). — II, 1991.
 29) Verbindung (Base aus Harn) (B. 28 [2] 565).
 30) Verbindung (Säure aus 2-Amidobenzol-1-Carbonsäure u. Brenztraubensäure). Ba (A. 188, 340). — II, 1252.
 31) α-Verbindung (aus Hydrastininsäure). Sm. 211—212° (A. 271, 372). — II, 2046.
 32) β-Verbindung (aus Hydrastininsäure). Sm. 280° (A. 271, 372). — II, 2046.
- C₁₀H₉O₄N₃** C 51,1 — H 3,8 — O 27,2 — N 17,9 — M. G. 235.
 1) Anhydrid d. Diisonitrosnitroanethol. Sm. 98—99° (G. 23 [2] 187). — II, 853.
 2) Anilinalloxan. Sm. 248° u. Zers. Ag, HCl (G. 17, 412). — II, 421.
 3) γ-Nitro-α-Phenylazopropen-α³-Carbonsäure. Zers. bei 145—150° (B. 25, 1705). — IV, 1460.
 4) Diamidostrycholcarbonsäure (A. 301, 341; B. 26, 334). — III, 944.
 5) Nitril d. 2,4-Dinitro-1,3,5-Trimethylbenzol-6-Carbonsäure. Sm. 178° (A. 278, 220). — II, 1391.
- C₁₀H₉O₄N₅** C 45,6 — H 3,4 — O 24,3 — N 26,6 — M. G. 263.
 1) 3,4-Dimethyl-1-[2-Dinitrophenyl]-1,2,5-Triazol. Sm. 139° (A. 262, 307). — IV, 1107.
- C₁₀H₉O₄Cl** 1) β-Chlor-αγ-Dioxyeron-α-Phenyläthersäure. Sm. bei 76°. Ba + 3H₂O (Am. 16, 296). — II, 666.
 2) 3,4-Dioxy-1-[β-Chloräthyl]benzolmethylenäther-2-Carbonsäure (β-Chloräthylpiperonylcarbonsäure). Sm. 158—159° u. Zers. (Soc. 57, 1029). — II, 1764.
 3) 1,2-Lakton d. 2-Chlor-3,4-Dioxy-1-Oxymethylbenzol-3,4-Dimethyläther-2-Carbonsäure (Chlormekonin). Sm. 175° (A. 98, 48). — II, 1928.
 4) Dimethylester d. 4-Chlorbenzol-1,2-Dicarbonsäure. Sm. 37° (A. 233, 238). — II, 1817.
 5) Dimethylester d. 2-Chlorbenzol-1,4-Dicarbonsäure. Sm. 60° (B. 19, 1638). — II, 1836.
 6) Monäthylester d. Benzol-1,2-Dicarbonsäuremonochlorid. Fl. (B. 20, 1011). — II, 1794.
 7) Diacetat d. 2-Chlor-1,4-Dioxybenzol. Sm. 99° (72°) (B. 13, 1428; A. 210, 140; 218, 216). — II, 942.
- C₁₀H₉O₄Cl₃** 1) 1-Acetat-2,4-Dimethyläther d. 3,5,6-Trichlor-1,2,4-Trioxybenzol. Sm. 65° (B. 27, 553). — II, 1017.
- C₁₀H₉O₄Br** 1) β-Brom-αγ-Dioxyeron-α-Phenyläthersäure. Sm. 98°. Ba + 3H₂O (Am. 16, 293). — II, 667.
 2) β-[2-Brom-3,4-Dioxyphenyl]propionmethylenäthersäure (Brompiperopropionsäure). Sm. 136°. Ca (A. 227, 43). — II, 1763.
 3) β-Keto-α-[2-Brom-4-Methoxylphenyl]äthan-β-Carbonsäure + H₂O? Sm. 78°. Ba + 3H₂O (J. pr. [2] 51, 433). — II, 1778.
 4) α-Brom-α-Phenyläthan-ββ-Dicarbonsäure (Phenylbromisobernsteinsäure) (Soc. 49, 359). — II, 1849.
 5) 1,2-Lakton d. 2-Brom-3,4-Dioxy-1-Oxymethylbenzol-3,4-Dimethyläther-2-Carbonsäure (Brommekonin). Sm. 176° (167°) (A. 98, 48; B. 20, 888). — II, 1928.
 6) 1,2-Lakton d. 2-Brom-5,6-Dioxy-1-Oxymethylbenzol-5,6-Dimethyläther-2-Carbonsäure (Brompseudomekonin). Sm. 141—142° (B. 20, 887). — II, 1929.
 7) Dimethylester d. 2-Brombenzol-1,4-Dicarbonsäure. Sm. 49°; Sd. oberh. 300° (B. 12, 620; A. 258, 14). — II, 1837.
 8) Diacetat d. 2-Brom-1,4-Dioxybenzol. Sm. 71—73° (B. 15, 655). — II, 943.
- C₁₀H₉O₄J** 1) 1,2-Lakton d. 2-Jod-3,4-Dioxy-1-Oxymethylbenzol-3,4-Dimethyläther-2-Carbonsäure (Jodmekonin). Sm. 112° (A. 98, 49). — II, 1928.
 2) Dimethylester d. 2-Jodbenzol-1,4-Dicarbonsäure. Sm. 77—78° (B. 26, 2952). — II, 1838.
- C₁₀H₉O₄P** 1) 1-Mononaphtylester d. Phosphorsäure. Sm. 142° (B. 27, 2562). — II, 858.
 2) 2-Mononaphtylester d. Phosphorsäure. Sm. 167° (B. 27, 2564). — II, 877.

$C_{10}H_9O_5N$

C 53,8 — H 4,0 — O 35,9 — N 6,3 — M. G. 223.

- 1) Nitrocubebin (*J.* 1877, 932). — II, 1114.
- 2) 3,4-Methylenäther d. γ -Nitro- β -Keto- α -[3,4-Dioxyphenyl]propan (Nitropiperylaceton). Sm. 86° (*G.* 25 [2] 201). — III, 144.
- 3) 6-Nitro-1,3-Dimethylbenzol-4-Ketocarbonsäure. Fl. Ca + 4 $\frac{1}{2}$ H₂O, Ba + 6 H₂O, Ag (*J. pr.* [2] 41, 497). — II, 1661.
- 4) α -Keto- β -[6-Nitro-3-Methylphenyl]äthan- α -Carbonsäure. Sm. 193°. + C₂H₄O₂ (*B.* 31, 388).
- 5) α -Keto- β -[2-Nitro-4-Methylphenyl]äthan- α -Carbonsäure. Sm. 145° (*B.* 30, 1050).
- 6) β -[3-Nitro-2-Methoxyphenyl]akrylsäure. Sm. 193° (*B.* 22, 1709, 1716). — II, 1632.
- 7) β -[5-Nitro-2-Methoxyphenyl]akrylsäure. Sm. 238°. Ca, Ba, Ag (*B.* 17, 1383). — II, 1632.
- 8) β -[4-Nitro-3-Methoxyphenyl]akrylsäure. Sm. 218° u. Zers. (*J.* 1885, 2092). — II, 1634.
- 9) β -[6-Nitro-3-Methoxyphenyl]akrylsäure. Sm. 224,5—225,5°. Ca + 2 H₂O, Cu + 2 H₂O, Ag + 1 $\frac{1}{2}$ H₂O (*A.* 262, 171). — II, 1635.
- 10) β -[3-Nitro-4-Methoxyphenyl]akrylsäure. Sm. 140° (*A.* 243, 367). — II, 1636.
- 11) 2-Carboxylbenzoylamidoessigsäure (Glycinphthaloylsäure). Sm. 105 bis 106°. Na₂, Ag₂ (*B.* 22, 427; *A.* 242, 6). — II, 1810.
- 12) 3,4-Dioxybenzoylamidoessig-3,4-Methylenäthersäure? Sm. 178°. Ca + 4 H₂O (*C.* 1896 [1] 121).
- 13) β -Nitroso- α -Phenyläthan- $\beta\beta$ -Dicarbonsäure (Benzylnitrosomalonsäure). Sm. 120° u. Zers. K₂ + H₂O (*A.* 209, 217; *B.* 15, 3074; 16, 609). — II, 1849.
- 14) 4-Acetylamidobenzol-1,3-Dicarbonsäure. Sm. 270° u. Zers. (*B.* 9, 1300; 25, 2795). — II, 1830.
- 15) 1,6-Anhydro-6-Amido-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure (Azoopiansäure). Sm. 200° u. Zers. K, Ba + 6 H₂O, Ag (*J. pr.* [2] 24, 362; [2] 55, 171; *B.* 19, 352, 2275, 2300). — II, 1998.
- 16) Lakton d. β -Oxy- β -[2-Nitro-5-Methoxyphenyl]propionsäure. Sm. 124—125° (*A.* 262, 175). — II, 1763.
- 17) Lakton d. $\alpha\beta$ -Dioxy- β -[2-Pyridyl]propionsäuremethylester-3-Carbonsäure. Sm. 152° (*B.* 26, 1509). — IV, 175.
- 18) 3,4-Methylenäther d. β -[3,4-Dioxyphenyl]- α -Nitropropionsäurealdehyd. Sm. 86° (*G.* 23 [2] 130). — II, 980.
- 19) Methylester d. β -[3-Nitro-2-Oxyphenyl]akrylsäure. Sm. 135—136° (*B.* 22, 1708). — II, 1631.
- 20) Methylester d. α -[2-Nitrophenyl]äthanoxyd- β -Carbonsäure. Sm. 65° (*A.* 284, 136). — II, 1639.
- 21) Methylester d. 4-Nitrobenzoylessigsäure. Sm. 106—107°. Na (*Soc.* 49, 445). — II, 1646.
- 22) Methylester d. α -Oximido- α -[3,4-Dioxyphenylmethylenäther]essigsäure. Sm. 102° (*G.* 21 [2] 177). — II, 1946.
- 23) Aethylester d. 3-Nitrobenzol-1-Ketocarbonsäure. Fl. (*B.* 12, 1946). — II, 1600.
- 24) Verbindung (aus Azoopiansäure). Sm. noch nicht bei 300° (*J. pr.* [2] 55, 185).

 $C_{10}H_9O_5N_3$

C 47,8 — H 3,6 — O 31,9 — N 16,7 — M. G. 251.

- 1) Diisonitrosnitroanetholperoxyd. Sm. 88—89° (*G.* 23 [2] 175). — II, 853.
- 2) *p*-Dinitro-2-Keto-3-Aethyl-2,3-Dihydroindol. Sm. 176° (*M.* 18, 544).
- 3) 5-Methyläther d. 8-Nitro-5,6-Dioxy-4-Keto-3-Methyl-3,4-Dihydro-2,3-Benzdiazin. Sm. 186° (*B.* 27, 1425). — II, 1944.
- 4) 6-Methyläther d. 8-Nitro-5,6-Dioxy-4-Keto-3-Methyl-3,4-Dihydro-2,3-Benzdiazin. Zers. bei 286°. K (*B.* 27, 1424). — II, 1944.
- 5) Dimethyläther d. 8-Nitro-5,6-Dioxy-4-Keto-3,4-Dihydro-2,3-Benzdiazin (Nitroopiazon). Sm. 248° u. Zers. K (*B.* 27, 1423). — II, 1944.
- 6) 2-Nitrophenylazoacetessigsäure. Sm. 185° u. Zers. Ag (*B.* 17, 2416). — IV, 706.
- 7) 4-Nitrophenylazoacetessigsäure. Sm. 217° u. Zers. Na₂ (*B.* 31, 3126). — IV, 1467.

- $C_{10}H_9O_5N_3$ 8) 1-Aethenyl-*p*-Dinitro-4-Phenylamid d. Essigsäure. Sm. 211–212° (B. 16, 2041). — II, 585.
- $C_{10}H_9O_5Cl$ 1) 1-Aldehyd d. *p*-Chlor-3,4-Dioxybenzoldimethyläther-1,2-Dicarbon-
säure (Chloropiansäure). Sm. 210–211° (J. pr. [2] 24, 367). — II, 1943.
- $C_{10}H_9O_5Cl_3$ 1) 4-Acetat-2,2-Dimethyläther d. 3,5,6-Trichlor-2,2,4-Trioxyl-1-Keto-
1,2-Dihydrobenzol. Sm. 91° (B. 27, 559). — III, 112.
- $C_{10}H_9O_5Br$ 1) *p*-Brom-3-Oxy-4-Acetoxybenzol-3-Methyläther-1-Carbonsäure. Sm.
165–167° (B. 11, 138). — II, 1744.
2) 3,4-Dioxy-1- $[\beta$ -Oxyäthyl]benzol-3,4-Brommethylenäther-2-Carbon-
säure. Sm. 146–147° (Soc. 57, 1026). — II, 1930.
3) 1-Aldehyd d. 6-Brom-3,4-Dioxybenzoldimethyläther-1,2-Dicarbon-
säure (Bromopiansäure). Sm. 204°. Ca, Ba + H₂O (J. pr. [2] 24, 367;
M. 4, 268; B. 25, 1996; 31, 936). — II, 1943.
- $C_{10}H_9O_6N$ C 50,2 — H 3,8 — O 40,2 — N 5,8 — M. G. 239.
1) α -Keto- β -[6-Nitro-3-Methoxyphenyl]äthan- α -Carbonsäure. Sm. 128°
(B. 31, 394).
2) α -Keto- β -[4-Nitro-3-Methoxyphenyl]äthan- α -Carbonsäure. Sm. 161°.
+ C₆H₄O₂ (B. 31, 398).
3) 3-Nitrobenzol-1-Carbonsäure-4-Aethylcarbonsäure. Sm. 191–192°
(B. 22, 2273). — II, 1851.
4) α -[2-Nitrophenyl]äthan- $\beta\beta$ -Dicarbonsäure (o-Nitrobenzylmalonsäure).
Sm. 161°. NH₄, (NH₄)₂ (B. 20, 644).
5) α -[4-Nitrophenyl]äthan- $\beta\beta$ -Dicarbonsäure. Zers. bei 240°. Ca, Ba
(B. 20, 434). — II, 1849.
6) 2,6-Diacetoxypyridin-4-Carbonsäure (Diacetylcitrazinsäure) (B. 17,
2691). — I, 1406.
7) 2,4-Dimethylpyridin-3,5,6-Tricarbonsäure + 2H₂O. Sm. 212° u.
Zers. K + 2H₂O, Mg₃ + 10H₂O, Ca₃ + 8H₂O, Ba₃ + 8H₂O, Ag₃ (A.
215, 52; 241, 20). — IV, 181.
8) 2,6-Dimethylpyridin-3,4,5-Tricarbonsäure + H₂O. Zers. oberh. 220°.
Pb₃ + 6H₂O, (Cu, NH₄ + 4H₂O), Ag₃ + 3H₂O, HCl (A. 231, 11). —
IV, 181.
9) γ -Lakton d. $\alpha\beta\gamma$ -Trioxyl- γ -[*p*-Nitrophenyl]buttersäure. Sm. 185° u.
Zers. (B. 27, 3110). — II, 1930.
10) 1,2-Lakton d. *p*-Nitro-3,4-Dioxy-1-Oxymethylbenzol-3,4-Dimethyl-
äther-2-Carbonsäure (Nitromekonin). Sm. 160° (A. 98, 47; J. pr. [2]
24, 373). — II, 1928.
11) 1,2-Lakton d. *p*-Nitro-5,6-Dioxy-1-Oxymethylbenzol-5,6-Dimethyl-
äther-2-Carbonsäure (Nitropsendomekonin). Sm. 166° (B. 20, 886). —
II, 1929.
12) 1-Aldehyd d. *p*-Nitroso-3,4-Dioxybenzoldimethyläther-1,2-Dicar-
bonsäure (Nitrosoopiansäure). Sm. 175–176°. Ag (B. 20, 875). —
II, 1943.
13) Dimethylester d. 5-Nitrobenzol-1,3-Dicarbonsäure. Sm. 121,5°
(J. pr. [2] 25, 490). — II, 1829.
14) Dimethylester d. 2-Nitrobenzol-1,4-Dicarbonsäure. Sm. 70° (B. 19,
1636). — II, 1838.
15) Dimethylester d. Pyridin-2,3,4-Tricarbonsäure. Sm. 165–166°.
HCl (M. 18, 225; Soc. 35, 189; A. 234, 125). — IV, 178.
16) Monäthylester d. 3-Nitrobenzol-1,2-Dicarbonsäure + 2 $\frac{1}{2}$ H₂O. Sm.
50° (110,5° wasserfrei). Ba, Ag (A. 160, 60; 208, 244; J. pr. [2] 53,
382). — II, 1821.
17) Monäthylester d. 4-Nitrobenzol-1,2-Dicarbonsäure. Sm. 127–128°.
Ag (A. 208, 234). — II, 1822.
18) isom. *p*-Monäthylester d. 4-Nitrobenzol-1,2-Dicarbonsäure (A. 208,
234). — II, 1822.
19) Diacetat d. 4-Nitro-1,3-Dioxybenzol. Sm. 90–91° (G. 15, 273). —
II, 924.
20) Diacetat d. 2-Nitro-1,4-Dioxybenzol. Sm. 86° (J. pr. [2] 48, 181).
— II, 946.
- $C_{10}H_9O_6N_3$ C 44,9 — H 3,4 — O 35,9 — N 15,7 — M. G. 267.
1) Oximidomethyl-3,5-Dinitro-2,4-Dimethylphenylketon. Sm. 209°
(J. pr. [2] 41, 501). — III, 152.

- $C_{10}H_9O_6N_3$ 2) Diacetat d. Trioximidoketotetrahydrobenzol (D. d. Dichinoyltrioxim). Sm. 142° (B. 30, 182).
- $C_{10}H_9O_6Cl_3$ 3) 2,4-Dinitrophenylimid d. Essigsäure. Sm. 112—113° (B. 27, 101).
- $C_{10}H_9O_6Cl_3$ 1) 3,3,5-Trichlor-2,4-Diacetoxyl-2,3-Dihydro-R-Penten-2-Carbonsäure. Sm. 188—192° u. Zers. (B. 20, 2784). — I, 693.
- $C_{10}H_9O_6N$ C 47,1 — H 3,5 — O 43,9 — N 5,5 — M. G. 255.
- 1) 5-Nitro-3,4-Dioxybenzol-3-Methyläther-1-Carbonsäure. Sm. 202° (M. 3, 392). — II, 1745.
- 2) 2-Nitro-3-Oxy-4-Acetoxybenzol-3-Methyläther-1-Carbonsäure. Sm. 181—182° u. Zers. (B. 9, 943; 11, 132). — II, 1745.
- 3) 6-Nitro-4-Oxy-3-Acetoxybenzol-4-Methyläther-1-Carbonsäure. Sm. 168—169° (B. 11, 133). — II, 1745.
- 4) 1-Aldehyd d. 8-Nitro-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure (Nitroopiansäure). Sm. 166°. K + 3H₂O, Ba + 3H₂O (J. pr. 2 24, 357; 2 55, 173 Anm.). — II, 1944.
- 5) Verbindung (aus Pyromekonsäure u. Oxypyromekazonsäure) (J. pr. 2 19, 199). — IV, 122.
- $C_{10}H_9O_6N$ C 44,3 — H 3,3 — O 47,2 — N 5,2 — M. G. 271.
- 1) 6-Nitro-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure + H₂O (Nitrobemipinsäure). Sm. 166° (wasserfrei) u. Zers. K₂, Ba + 2H₂O, Ag₂ (J. pr. 2 24, 359; B. 19, 2285, 2304; 20, 888). — II, 1997.
- $C_{10}H_9O_6N_3$ C 40,1 — H 3,0 — O 42,8 — N 14,0 — M. G. 299.
- 1) 2,5-Dinitro-4-Acetylamidophenoxylessigsäure. Sm. 205° (B. 30, 2105).
- $C_{10}H_9O_6N_3$ C 38,1 — H 2,8 — O 45,7 — N 13,3 — M. G. 315.
- 1) Aethylester d. Oxyessig-2,4,6-Trinitrophenyläthersäure. Sm. 102° (B. 27, 3250).
- $C_{10}H_9NCl_2$ 1) Chlormethylat d. 5-Chlorchinolin. Sm. 213° u. Zers. 2 + PtCl₄ (J. pr. 2 48, 256). — IV, 254.
- 2) Chlormethylat d. 6-Chlorchinolin. Sm. 264°. 2 + PtCl₄ (B. 15, 560; J. pr. 2 49, 356). — IV, 255.
- 3) Chlormethylat d. 7-Chlorchinolin. Sm. 122°. 2 + PtCl₄ (J. pr. 2 48, 274). — IV, 255.
- 4) Chlormethylat d. 8-Chlorchinolin. 2 + PtCl₄ (J. pr. 2 48, 144). — IV, 255.
- $C_{10}H_9NJ_2$ 1) Jodmethylat d. 2-Jodchinolin. Sm. 211—212° (A. 282, 376). — IV, 262.
- 2) Jodmethylat d. 3-Jodchinolin (B. 18, 783). — IV, 262.
- 3) Jodmethylat d. 4-Jodchinolin. Sm. 251° u. Zers. (J. pr. 2 56, 196).
- 4) Jodmethylat d. 5-Jodchinolin. Sm. 245° u. Zers. (J. pr. 2 48, 168). — IV, 262.
- 5) Jodmethylat d. 6-Jodchinolin (J. pr. 2 48, 166). — IV, 262.
- 6) Jodmethylat d. 5[oder 8]-Jodisochinolin. Sm. 306° (J. pr. 2 53, 380). — IV, 301.
- 7) Jodmethylat d. 2-Jodisochinolin. Sm. 258—259° (J. pr. 2 51, 208). — IV, 301.
- $C_{10}H_9NS$ 1) 1-Amido-2-Merkaptonaphtalin (B. 20, 1899). — II, 888.
- 2) 8-Amido-2-Merkaptonaphtalin. + ½ C₂H₆O (Sm. 127°) (B. 21, 3267). — II, 888.
- 3) 4-Methyl-2-Phenylthiazol. Sd. 278,8—279,3°₁₁ (A. 259, 236). — IV, 325.
- 4) 2-Methyl-4-Phenylthiazol. Sm. 58,5°; Sd. 284° (A. 250, 269). — IV, 325.
- 5) 4-Merkapto-2-Methylchinolin + H₂O. Sm. 187° (wasserfrei). HCl (B. 21, 629, 1972). — IV, 312.
- 6) 2-Merkapto-4-Methylchinolin. Sm. 253° (B. 21, 625). — IV, 318.
- $C_{10}H_9NSe$ 1) 4-Methyl-2-Phenylselenazol. Sd. 282—283°₁₇. (2HCl, PtCl₄) (A. 250, 316). — IV, 325.
- $C_{10}H_9N_2Cl$ 1) 5-Chlor-3-Methyl-1-Phenylpyrazol. Sd. 142° (B. 31, 2908).
- 2) 2-Chlor-7-Amido-4-Methylchinolin. Sm. 142—143° (B. 31, 799). — IV, 322.
- 3) 5-Chlor-8-Amido-6-Methylchinolin. Sm. 129—130° (B. 23, 3672). — IV, 322.
- 4) Nitril d. β-Chlorimido-β-[4-Methylphenyl]propionsäure. Sm. 149° (J. pr. 2 52, 112).

- $C_{10}H_9N_2Cl$ 5) Verbindung (aus d. *s*-Äthylphenylamid d. Oxalsäure). (2HCl, PtCl₄) (A. 214, 259; B. 14, 740). — II, 409.
- $C_{10}H_9N_2Br$ 1) 4-Brom-3-Methyl-5-Phenylpyrazol. Sm. 93° (A. 279, 250). — IV, 935.
2) Nitril d. β -Bromimido- β -[4-Methylphenyl]propionsäure? Sm. 164° (J. pr. [2] 52, 111).
- $C_{10}H_9N_2J$ 1) Jodnikotyrin. Sm. 110°. Pikrat (B. 31, 2019).
- $C_{10}H_9N_2S$ 1) Verbindung (aus 3-Amido-5,7-Dimethylindazol). Sm. 208—209° (A. 305, 325).
- $C_{10}H_9N_2Cl_2$ 1) 2,4-Diamido-1-Methylbenzolecyanurchlorid (B. 19, 2058). — IV, 606.
- $C_{10}H_9ClS_2$ 1) β -Chlor- $\alpha\alpha$ -Dithienyläthan. Sd. 200—205°₂₅ (B. 30, 2041).
- $C_{10}H_9BrS_2$ 1) β -Brom- $\alpha\alpha$ -Dithienyläthan. Sd. 200—210°₃₀ (B. 30, 2042).
- $C_{10}H_{10}ON$ 1) Verbindung (aus 2-Keto-1-Methyl-1,2-Dihydrochinolin) = (C₁₀H₁₀ON)_x. Sm. 275—276° (B. 20, 2012). — IV, 284.
C 68,9 — H 5,7 — O 9,2 — N 16,1 — M. G. 174.
- $C_{10}H_{10}ON_2$ 1) 2,4-Diamido-1-Oxynaphtalin. 2HCl, (2HCl, SnCl₂ + 2H₂O), H₂SO₄ + 2H₂O (A. 134, 377; 154, 307; B. 21, 1195). — II, 865.
2) 2,6-Diamido-1-Oxynaphtalin (B. 27, 2213).
3) 1,4-Diamido-2-Oxynaphtalin. 2HCl (B. 29, 1417).
4) 7,8-Diamido-2-Oxynaphtalin. 2HCl (B. 30, 1124).
5) β -Diamido-2-Oxynaphtalin. HCl (B. 23, 2543). — II, 886.
6) *s*-Propargylphenylharnstoff. Sm. 133° (B. 24, 3042). — II, 378.
7) 5-Oxy-3-Methyl-1-Phenylpyrazol. Sm. 196—198° u. Zers. (Am. 16, 438).
8) 3-Keto-1-Methyl-2-Phenyl-2,3-Dihydropyrazol. Sm. 117° (B. 28, 631). — IV, 499.
9) 3-Keto-5-Methyl-1-Phenyl-2,3-Dihydropyrazol. Sm. 167° (u. 157° labil. Form) (J. pr. [2] 45, 90; [2] 55, 164). — IV, 516.
10) 5-Keto-3-Methyl-1-Phenyl-4,5-Dihydropyrazol. Sm. 127°; Sd. 287°₃₀₅. Co, Ag, HCl + H₂O, (2HCl, PtCl₄ + 4H₂O). Äthylendiaminsalz (B. 18, 2597; 20, 2749; 25, 766; 27, 1175; 28, 632, 712; 29, 1658; A. 238, 147; 261, 172; Am. 14, 517). — IV, 507.
11) 5-Keto-1-Methyl-3-Phenyl-4,5-Dihydropyrazol. Sm. 207° (J. pr. [2] 52, 34). — IV, 905.
12) 5-Keto-4-Methyl-3-Phenyl-4,5-Dihydropyrazol. Sm. 138° (J. pr. [2] 52, 35). — IV, 938.
13) 2-Keto-4-Methyl-5-Phenyl-2,3-Dihydroimidazol. Sm. 285—286° (B. 30, 1523). — IV, 937.
14) 2-Methyl-4-[4-Amidophenyl]oxazol. Sm. 114—115° (B. 21, 926). — IV, 325.
15) 5-Imido-4-Methyl-3-Phenyl-4,5-Dihydroisoxazol. Sm. 92°. HCl (J. pr. [2] 52, 109).
16) 5-Imido-3-Methyl-4-Phenyl-4,5-Dihydroisoxazol. Sm. 112—113° (J. pr. [2] 55, 344).
17) 5-Imido-3-[4-Methylphenyl]-4,5-Dihydroisoxazol. Sm. 150—151° (J. pr. [2] 52, 110; [2] 58, 146).
18) 5-Äthyl-3-Phenyl-1,2,4-Oxdiazol. Sd. 255° (B. 18, 1085). — II, 1201.
19) isom. β -5-Äthyl-3-Phenyl-1,2,4-Oxdiazol. Sd. 230—235° (B. 22, 3143). — II, 1201.
20) 5-Methyl-2-Benzyl-1,2,4-Oxdiazol. Sd. 262° (B. 18, 1071). — II, 1315.
21) 5-Methyl-3-[4-Methylphenyl]-1,2,4-Oxdiazol. Sm. 80° (B. 22, 2433). — II, 1343.
22) 3-Keto-6-Phenyl-2,3,4,5-Tetrahydro-1,2-Diazin. Sm. 149—150° (145°) (J. pr. [2] 50, 529; [2] 51, 146; B. 32, 399). — IV, 938.
23) Benzenyldiamidoacetone (2-Phenyl-5-Keto-1,4,5,6-Tetrahydro-1,3-Diazin). Sm. 190—191° (B. 25, 1565). — II, 1194.
24) 2-Furanyl-4,6-Dimethyl-1,3-Diazin. Sm. 54°; Sd. 263° (B. 26, 2125). — IV, 938.
25) 3-[α -Oximidoäthyl]indol. Sm. 144—147° (B. 22, 663). — IV, 242.
26) 1-Nitroso-2,3-Dimethylindol. Sm. 61—62° (A. 236, 131). — IV, 224.
27) 2-Acetyl-3-Methylindazol. Sm. 72° (B. 24, 2380). — IV, 869.
28) 1-Acetyl-3-Methylisindazol + 3H₂O. Sm. 62° (103° wasserfrei) (B. 24, 2375; 26, 1902). — IV, 870.
29) 3-Amido-4-Oxy-2-Methylchinolin. Zers. bei 225°. HCl + H₂O (B. 20, 950; 21, 1970). — IV, 931.
30) 7-Amido-2-Oxy-4-Methylchinolin. Sm. 270° (B. 31, 798). — IV, 932.

- $C_{10}H_{10}ON_2$ 31) **7-Amido-8-Oxy-5-Methylchinolin.** Sm. 139°. HCl (B. 24, 3979). — IV, 932.
- 32) **5-Amido-8-Oxy-6-Methylchinolin.** Sm. 123° (B. 27, 1941). — IV, 933.
- 33) **Methyläther d. 6-Amido-2-Oxychinolin.** Sm. 103° (B. 18, 2397). — IV, 911.
- 34) **Methyläther d. 4-Amido-6-Oxychinolin.** Sm. 120°. HCl, (2HCl, PtCl₄) (M. 17, 333). — IV, 910.
- 35) **Methyläther d. 5-Amido-8-Oxychinolin + H₂O.** Sm. 76° (155—156° wasserfrei) (J. pr. [2] 48, 26). — IV, 912.
- 36) **4-Oxy-2,6-Dimethyl-1,3-Benzdiazin.** Sm. 255° (B. 28, 730). — IV, 934.
- 37) **4-Oxy-2,7-Dimethyl-1,3-Benzdiazin.** Sm. 255° (J. pr. [2] 40, 13; [2] 51, 567; B. 27 [2] 516). — II, 1352; IV, 934.
- 38) **3-Oxy-2,6-Dimethyl-1,4-Benzdiazin.** Sm. bei 220° (A. 237, 351). — IV, 935.
- 39) **isom. 3-Oxy-2,6-Dimethyl-1,4-Benzdiazin.** Sm. 238° (A. 248, 78). — IV, 935.
- 40) **Methyläther d. 3-Oxy-6-Methyl-1,4-Benzdiazin.** Sm. 71° (B. 20, 30). — IV, 902.
- 41) **Aethyläther d. 4-Oxy-1,2-Benzdiazin.** Sm. 106° (B. 25, 2853). — IV, 895.
- 42) **Aethyläther d. 6-Oxy-1,4-Benzdiazin.** Sm. 81° (B. 25, 492). — IV, 899.
- 43) **Aethyläther d. 1-Oxy-2,3-Benzdiazin.** Sm. 29—31° (J. pr. [2] 51, 149). — IV, 900.
- 44) **4-Oxy-2-Aethyl-1,3-Benzdiazin.** Sm. 225° (227—228°) (B. 27 [2] 516; 28, 284, 443; J. pr. [2] 51, 568). — IV, 933.
- 45) **4-Keto-1,2-Dimethyl-1,4-Dihydro-1,3-Benzdiazin.** Sm. 199° (J. pr. [2] 36, 154). — IV, 901.
- 46) **4-Keto-2,3-Dimethyl-3,4-Dihydro-1,3-Benzdiazin.** Sm. 70° (108 bis 109° wasserfrei) (J. pr. [2] 36, 147). — IV, 901.
- 47) **2-Keto-1,3-Dimethyl-1,2-Dihydro-1,4-Benzdiazin + xH₂O.** Sm. 63 bis 64° (87° wasserfrei); Sd. 308° (B. 25, 1629). — IV, 903.
- 48) **1-Keto-2-Aethyl-1,2-Dihydro-2,3-Benzdiazin.** Sm. 67—68° (J. pr. [2] 51, 149).
- 49) **1-Keto-2,4-Dimethyl-1,2-Dihydro-2,3-Benzdiazin.** Sm. 109—110° (B. 30, 3032). — IV, 904.
- 50) **Methylphenylamid d. Cyanessigsäure.** Sm. 86—87,5°. — II, 366.
- 51) **Benzylamid d. Cyanessigsäure.** Sm. 123—124,5°; Sd. 339—340° u. Zers. — II, 524.
- 52) **Nitril d. 4-Acetylamidophenyllessigsäure.** Sm. 97° (B. 15, 835; A. 229, 231). — II, 1322.
- 53) **Nitril d. 3-Acetylamido-1-Methylbenzol-4-Carbonsäure.** Sm. 133° (J. pr. [2] 40, 8). — II, 1352.
- 54) **Verbindung (aus Acetessigsäureäthylester u. Phenylhydrazin).** Fl. HCl (J. pr. [2] 45, 415). — IV, 508.
- 55) **Verbindung (aus Succinimidäthyläther).** Sm. 216° (Am. 13, 525). — II, 414.
- 56) **Verbindung (aus d. Verb. C₉H₉ON₂).** Sm. 216° (B. 26, 427). — II, 377.
- $C_{10}H_{10}ON_4$ C 59,4 — H 4,9 — O 7,9 — N 27,7 — M. G. 202.
- 1) **5-Imido-4-Phenylhydrazon-3-Methylisoxazol.** Sm. 119° (J. pr. [2] 52, 96).
- 2) **4-Phenylhydrazon-5-Keto-3-Methyl-4,5-Dihydropyrazol.** Sm. 197° (B. 27, 790; J. pr. [2] 52, 38). — IV, 1485.
- 3) **5-Keto-4-[4-Methylphenylhydrazon-4,5-Dihydropyrazol.** Sm. 223° (219°) u. Zers. (B. 27, 792; 29, 258; J. pr. [2] 51, 47, 74). — IV, 1488.
- 4) **2-Acetyl-3-Imido-1-Phenyl-2,3-Dihydro-1,2,4-Triazol.** Sm. 168° (G. 29 [1] 24).
- 5) **5-Benzoylamido-3-Methyl-1,2,4-Triazol.** Sm. 285—290° u. Zers. (A. 303, 39).
- 6) **3-Acetylamido-1-Phenyl-1,2,5-Triazol.** Sm. 166° (A. 295, 156). — IV, 1234.
- 7) **5-Chinolylamidoharnstoff + H₂O** (Soc. 61, 787). — IV, 1160.
- 8) **8-Chinolylamidoharnstoff.** Sm. 235° u. Zers. (Soc. 59, 758). — IV, 1161.

- $C_{10}H_{10}ON_4$ 9) 2-[Methylamidoimido]methyl-4-Keto-1,4-Dihydro-1,3-Benzdiazin. HCl (B. 18, 2420). — II, 1255.
- 10) Nitril d. β -Phenylnitrosohydrazonbuttersäure. Sm. 195—196° (J. pr. [2] 55, 140). — IV, 767.
- 11) Nitril d. β -Oximido- α -Methylphenylhydrazonpropionsäure. Sm. 178° (B. 21, 3004). — IV, 757.
- 12) Amid d. 5-Methyl-1-Phenyl-1,2,4-Triazol-3-Carbonsäure. Sm. 170° (B. 19, 2601). — IV, 1114.
- $C_{10}H_{10}OCl_2$ 1) $\alpha\beta$ -Dichlor- γ -Keto- α -Phenylbutan. Sm. 93° (B. 28, 1532). — III, 148.
- $C_{10}H_{10}OCl_1$ 1) Verbindung (aus Isovaleraldehyd). Sd. 208—210° (B. 4, 401). — I, 953.
- $C_{10}H_{10}OBr_2$ 1) $\alpha\beta$ -Dibrom- γ -Keto- α -Phenylbutan. Sm. 124—125° (B. 14, 2462). — III, 160.
- 2) Methyläther d. α -[β -Dibrom-4-Oxyphenyl]propen (Dibromanethol). Sm. 76° (J. pr. [2] 52, 204).
- 3) Verbindung (aus d. Methyläther d. 3-Brom-4-Oxy-1-[$\alpha\beta$ -Dibrompropyl]benzol). Sm. 62° (J. pr. [2] 52, 195).
- $C_{10}H_{10}OBr_1$ 1) Methyläther d. β -Dibrom-4-Oxy-1-[$\alpha\beta$ -Dibrompropyl]benzol. Sm. 89° (J. pr. [2] 52, 203).
- 2) Methyläther d. β -Dibrom-4-Oxy-1-[$\alpha\beta$ -Dibrompropyl]benzol. Sm. 113 bis 114° (J. pr. [2] 52, 203).
- $C_{10}H_{10}O_2N_2$ C 63,2 — H 5,2 — O 16,8 — N 14,7 — M. G. 190.
- 1) 3,4-Diamido-1,2-Dioxynaphtalin. 2HCl + 2H₂O (A. 295, 23).
- 2) 2,4-Diamido-1,3-Dioxynaphtalin. 2HCl (J. pr. [2] 40, 186). — II, 982.
- 3) 1,3-Dioximido-2-Methyl-2,3-Dihydroinden. Sm. 116—117° (A. 252, 85). — III, 278.
- 4) 5-Keto-1-[4-Oxyphenyl]-3-Methyl-4,5-Dihdropyrazol. Sm. 230° (B. 28, 638). — IV, 514.
- 5) 3,5-Diketo-1-[4-Methylphenyl]tetrahydropyrazol. Sm. 204° (Pb, OH) (B. 30, 1019). — IV, 808.
- 6) 2,4-Diketo-1-[2-Methylphenyl]tetrahydroimidazol. Sm. 176° (B. 16, 743). — II, 469.
- 7) 2,4-Diketo-3-[2-Methylphenyl]tetrahydroimidazol. Sm. 150°. — II, 463.
- 8) 2,4-Diketo-1-[4-Methylphenyl]tetrahydroimidazol? Sm. 210° (B. 11, 1130). — II, 506.
- 9) 2,4-Diketo-3-[4-Methylphenyl]tetrahydroimidazol (Tolylhydantoïn). Sm. 205°. — II, 494.
- 10) 2,4-Diketo-3-Phenyl-1-Methyltetrahydroimidazol. Sm. 110°. — II, 333.
- 11) 2,4-Diketo-5-Phenyl-3-Methyltetrahydroimidazol. Sm. 161—162° (B. 21, 2325). — II, 1325.
- 12) 5-Keto-4-Aethyl-3-Phenyl-4,5-Dihydro-1,2,4-Oxdiazol. Sm. 35 bis 36° (B. 19, 1484). — II, 1202.
- 13) 5-Keto-2-Aethyl-4-Phenyl-4,5-Dihydro-1,3,4-Oxdiazol (Propionylphenylcarbizin). Sm. 62—63° (B. 21, 2461). — IV, 672.
- 14) 5-Methyl-3-[4-Oxy-3-Methylphenyl]-1,2,4-Oxdiazol. Sm. 89° (B. 24, 3675). — II, 1549.
- 15) 5-Methyl-3-[6-Oxy-3-Methylphenyl]-1,2,4-Oxdiazol. Sm. 45° (B. 24, 3665). — II, 1547.
- 16) 5-Methyl-3-[Phenyloxymethyl]-1,2,4-Oxdiazol. Sm. 65° (B. 18, 1076). — II, 1553.
- 17) 5-Keto-3-[2,4-Dimethylphenyl]-4,5-Dihydro-1,2,4-Oxdiazol. Sm. 182° (B. 22, 2447). — II, 1377.
- 18) 4'-Methyläther d. 5-Methyl-3-[4-Oxyphenyl]-1,2,4-Oxdiazol. Sm. 68° (B. 22, 2793). — II, 1531.
- 19) 3,6-Diketo-1-Phenylhexahydro-1,2-Diazin. Sm. 199°; Sd. 240°₁₀. Cu, Ag (B. 25, 2751; 26, 675). — IV, 703.
- 20) 2,6-Diketo-1-Phenylhexahydro-1,3-Diazin. Sm. 231—234° (R. 9, 57). — II, 433.
- 21) 6-Oxy-2-Furanyl-4,5-Dimethyl-1,3-Diazin. Sm. 231° (PINNER, Imidoäther 236). — IV, 938.
- 22) 2,6-Diketo-4-Phenylhexahydro-1,4-Diazin (Imid d. Phenylimidodiessigsäure). Sm. 159° (B. 22, 1809; 30, 2312). — II, 431.

- $C_{10}H_{10}O_2N_2$ 23) 3-Oximido-2-Keto-1-Aethyl-2,3-Dihydroindol (Aethylpseudoisatin- β -Oxim). Sm. 160—162° (B. 16, 2196). — II, 1604.
- 24) Aethyläther d. 2-Oximido-3-Keto-2,3-Dihydroindol (Ae. d. Pseudoisatinoxim). Sm. 135° (B. 15, 784; 16, 2192). — II, 1614.
- 25) Aethyläther d. 1-Nitroso-2-Oxyindol (Nitrosoindoxyläthyläther). Sm. 84 bis 85° (B. 14, 1745; 15, 781). — II, 1614.
- 26) 3-Aethyläther d. 3-Oximido-2-Oxypseudoindol (Isatoäthylloxim). Sm. 138° (B. 16, 1707). — II, 1611.
- 27) 2,4-Diketo-3-Aethyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 188° (195°) (J. pr. [2] 51, 136; B. 23, 2186). — IV, 897.
- 28) 2,4-Diketo-1,3-Dimethyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 151° (J. pr. [2] 39, 146). — IV, 897.
- 29) 6 [oder 7]-Methyläther d. 3,6 [oder 3,7]-Dioxy-2-Methyl-1,4-Benzdiazin. Sm. 197° (A. 292, 249). — IV, 903.
- 30) Dimethyläther d. 2,4-Dioxy-1,3-Benzdiazin. Sm. 66° (J. pr. [2] 39, 152). — IV, 897.
- 31) Aethyläther d. 2-Oxy-4-Keto-1,4-Dihydro-1,3-Benzdiazin. Sm. 173° (B. 2, 415). — II, 1255.
- 32) Anhydrid d. Diisonitrosoanethol. Sm. 63° (G. 23 [2] 186). — II, 853.
- 33) γ -Hydrazon- γ -Phenylpropen- α -Carbonsäure. Sm. 185—186° (B. 32, 398).
- 34) β -Phenylazocrotonsäure. K (B. 20, 2747; A. 266, 74). — IV, 691.
- 35) Phenylhydrazontetronsäure. Sm. 128° (A. 291, 236). — IV, 704.
- 36) Anhydrid d. α -Benzenylamidoximpropionsäure. Sm. 129° (B. 27, 3353). — II, 1201.
- 37) Lakton d. γ -Phenylhydrazon- γ -Oxybuttersäure. Sm. 216° (A. ch. [6] 22, 338). — IV, 703.
- 38) Aldehyd d. α -Phenylhydrazon- β -Ketopropan- α -Carbonsäure. Sm. 118° (B. 21, 1699). — IV, 763.
- 39) Methylester d. 1-Amidoindol-2-Carbonsäure? Sm. 136° (B. 29, 663).
- 40) Imid d. Phenylamidobernsteinsäure. Sm. 158°. HCl + H₂O, Hg (A. 252, 161). — II, 436.
- 41) Amid d. 1-Oxyindolmethyläther-2-Carbonsäure. Sm. 108° (B. 29, 654). — IV, 237.
- 42) Amid d. 1-Keto-2,3-Dihydroinden-2-Amidoameisensäure. Sm. 210 bis 211° u. Zers. (B. 29, 2608).
- 43) Amid d. α -Phenyläthen- $\beta\beta$ -Dicarbonsäure (A. d. Benzalmalonsäure). Sm. 189—190° (B. 28, 2256). — II, 1863.
- 44) 1,2-Aethylenamid d. Benzol-1,2-Dicarbonsäure. Sm. 125° u. Zers. (G. 24 [1] 405; B. 27 [2] 403). — II, 1808.
- 45) 1,4-Phenylenamid d. Bernsteinsäure. Sm. 237° u. Zers. (G. 24 [1] 143). — IV, 593.
- 46) Phenylhydrazid d. Bernsteinsäure. Sm. 158° (J. pr. [2] 35, 293; B. 25, 2751). — IV, 703.
- 47) Nitril d. 6-Oxy-2-Keto-4-Methyl-1-Allyl-1,2-Dihydropyridin-3-Carbonsäure. Sm. 222° (C. 1896 [1] 603).
- 48) Nitril d. 2-Nitro-1-Isopropylbenzol-4-Carbonsäure. Sm. 71° (B. 2, 183). — II, 1387.
- 49) Nitril d. 2-Nitro-1,3,5-Trimethylbenzol-6-Carbonsäure. Sm. 90°; Sd. 277,5°₇₃₀ (A. 278, 213; B. 28, 3211). — II, 1391.
- $C_{10}H_{10}O_2N_4$ C 55,0 — H 4,6 — O 14,7 — N 25,7 — M. G. 218.
- 1) Difurylhydrazidin. Sm. 185°. (2HCl, PtCl₄) (B. 28, 468; A. 298, 29). — III, 692.
- 2) 4-[4-Methylphenyl]hydrazon-3,5-Diketotetrahydropyrazol. Sm. oberh. 250° (J. pr. [2] 51, 77). — IV, 1488.
- 3) 3,4-Dimethyl-1-[β -Nitrophenyl]-1,2,5-Triazol. Sm. 227° (J. pr. [2] 57, 166). — IV, 1107.
- 4) 5-Acetylamido-1-Acetyl-1,2,3-Benztriazol. Sm. 165° (B. 30, 986). — IV, 1258.
- 5) 5-Methyl-1-[β -Amidophenyl]-1,2,4-Triazol-3-Carbonsäure + H₂O. Sm. 196—196,5° (B. 25, 743). — IV, 1115.
- 6) Aethylester d. 1-Phenyl-1,2,3,5-Tetrazol-4-Carbonsäure. Sm. 73,5 bis 74° (B. 18, 2909). — IV, 1239.

- $C_{10}H_{10}O_2N_4$ 7) Di[Methylenhydrazid] d. Benzol-1,4-Dicarbonsäure. Sm. noch nicht bei 300° (*J. pr.* [2] 54, 84).
- $C_{10}H_{10}O_2N_6$ C 48,8 — H 4,1 — O 13,0 — N 34,1 — M. G. 246.
1) Acetat d. 4-Oximidoamidomethyl-1-Phenyl-1,2,3,5-Tetrazol. Sm. 202—203° u. Zers. (*B.* 22, 1756). — IV, 1239.
- $C_{10}H_{10}O_2Cl_2$ 1) Dichlornaphtyldrenglykol. Sm. 155—156° (*Bl.* 18, 207; 19, 396; *J.* 1872, 423). — II, 184.
2) Naphtendichlorhydrin (*A.* 136, 342). — II, 185.
3) 3,6-Dichlor-5-Isopropyl-2-Methyl-1,4-Benzochinon. Sm. 105° (*J. pr.* [2] 23, 176; *B.* 19, 2315). — III, 366.
4) Aethyläther d. Dichlormethyl-4-Oxyphenylketon. Sm. 73° (*B.* 31, 172).
5) Methylester d. $\alpha\beta$ -Dichlor- β -Phenylpropionsäure (*B.* 27, 890). — II, 1358.
6) Methylester d. $i\alpha\beta$ -Dichlor- β -Phenylpropionsäure. Sm. 100—101° (*B.* 27, 890; 28, 2242, 2246). — II, 1358.
7) Methylester d. isom. $\alpha\beta$ -Dichlor- β -Phenylpropionsäure (M. d. Alldichlorphenylpropionsäure). Fl. (*B.* 28, 2242).
8) Methylester d. isom. $\alpha\beta$ -Dichlor- β -Phenylpropionsäure. Fl. (*B.* 28, 2239).
9) Aethylester d. Phenyldichloressigsäure. Sd. 263—266° (*B.* 12, 630). — II, 1316.
10) $\beta\beta'$ -Dichlorisopropylester d. Benzolcarbonsäure. Sd. 230—235°₁₅₀ (*B.* 24, 777). — II, 1140.
- $C_{10}H_{10}O_2Cl_4$ 1) Diäthyläther d. 2,3,5,6-Tetrachlor-1,4-Dioxybenzol. Sm. 112° (*A.* 146, 19). — II, 943.
- $C_{10}H_{10}O_2Br_2$ 1) 3-Methyläther d. p -Dibrom-3,4-Dioxy-1-Allylbenzol. Sm. 59°. NH_4 , Na, K, (Pb, PbOH) (*B.* 18, 824). — II, 975.
2) Methylenäther d. 3,4-Dioxy-1- $\alpha\beta$ -Dibrompropyl]benzol (Isosafrol-dibromid). Fl. (*B.* 28, 2719).
3) Methyläther d. α -Bromäthyl-3-Brom-4-Oxyphenylketon. Sm. 99° (*J. pr.* [2] 51, 426; [2] 52, 197; *B.* 29, 687). — III, 142.
4) 3,6-Dibrom-5-Propyl-2-Methyl-1,4-Benzochinon. Sm. 30° (*J. pr.* [2] 43, 579). — III, 364.
5) 5,6-Dibrom-3-Isopropyl-2-Methyl-1,4-Benzochinon. Sm. 40° (*J. pr.* [2] 43, 576). — III, 364.
6) 3,6-Dibrom-5-Isopropyl-2-Methyl-1,4-Benzochinon. Sm. 73,5° (*J. pr.* [2] 3, 55; [2] 23, 184). — III, 367.
7) 3,5-Dibrom-6-Isopropyl-2-Methyl-1,4-Benzochinon. Sm. 32° (*J. pr.* [2] 43, 571). — III, 364.
8) $i\beta\gamma$ -Dibrom- γ -Phenylbuttersäure. Sm. 138° (*A.* 216, 107; 299, 28). — II, 1381.
9) $d\beta\gamma$ -Dibrom- γ -Phenylbuttersäure. Brucinsalz (*B.* 27, 891). — II, 1381.
10) $i\beta\gamma$ -Dibrom- γ -Phenylbuttersäure (*B.* 27, 892). — II, 1381.
11) $\alpha\beta'$ -Dibrom- β' -Phenylisobuttersäure. Sm. 135° (*A.* 193, 316). — II, 1382.
12) $\alpha\beta$ -Dibrom- β -[3-Methylphenyl]propionsäure. Sm. 167° (*B.* 20, 1215). — II, 1384.
13) $\alpha\beta$ -Dibrom- β -[4-Methylphenyl]propionsäure. Sm. 183° (*B.* 23, 1034). — II, 1384.
14) 2,3-Dibrom-1-Isopropylbenzol-4-Carbonsäure. Sm. 128 — 129° (*G.* 21, 39). — II, 1386.
15) 2,5-Dibrom-1-Isopropylbenzol-4-Carbonsäure. Sm. 149°. Ba + H_2O (*G.* 21 [1] 34, 59; 21 [2] 394). — II, 1386.
16) isom. Säure (aus ?-Dibrom-4-Isopropyl-1-Methylbenzol). Sm. 152—153°. NH_4 , Ca + 4 H_2O , Ba + 3 H_2O , Ag + 3 H_2O (*B.* 13, 903; *J. pr.* [2] 37, 24). — II, 1392.
17) Methylester d. $\alpha\beta$ -Dibrom- β -Phenylpropionsäure. Sm. 117° (*B.* 11, 1220; 12, 538; 28, 2242, 2243). — II, 1359.
18) Methylester d. isom. $\alpha\beta$ -Dibrom- β -Phenylpropionsäure. Sm. 52 bis 53° (*B.* 24, 1107; 27, 2038; 28, 2242). — II, 1359.
19) Aethylester d. 2,4-Dibrom-1-Methylbenzol-4-Carbonsäure. Sm. 79 bis 80° (*A.* 265, 380). — II, 1346.
20) Aethylester d. 2,5-Dibrom-1-Methylbenzol-4-Carbonsäure. Sm. 49°; Sd. 310° (*B.* 18, 1762). — II, 1347.

- $C_{10}H_{10}O_2Br_4$ 1) 3-Methyläther d. β -Dibrom-3,4-Dioxy-1- $[\beta\gamma$ -Dibrompropyl]benzol. Sm. 118—119° (B. 18, 824). — II, 975.
- $C_{10}H_{10}O_2S$ 1) α -Merkaptocrotonphenyläthersäure. Sm. 86°. K (A. 254, 246). — II, 787.
- 2) β -Merkaptocrotonphenyläthersäure. Sm. 157—158°. Ba + H₂O (A. 254, 230). — II, 787.
- 3) α -Merkaptoisocrotonphenyläthersäure. Sm. 80°. K (A. 254, 248). — II, 787.
- 4) β -Merkaptoisocrotonphenyläthersäure? Sm. 176—177° u. Zers. Ba + 2H₂O, Ag (A. 254, 228; B. 19, 1791). — II, 787.
- $C_{10}H_{10}O_3N_2$ C 58,2 — H 4,8 — O 23,3 — N 13,6 — M. G. 206.
- 1) Diisonitrosoanetholperoxyd. Sm. 97° (B. 13, 1845; G. 23 [2] 173). — II, 853.
- 2) 2-[3-Nitrophenyl]-5-Methyl-4,5-Dihydrooxazol. Sm. 85—86°. (2HCl, PtCl₄), Pikrat (B. 24, 3220). — II, 1233.
- 3) 2,4-Diketo-5-[4-Oxyphenyl]tetrahydroimidazol (Tyrosinhydantoin). Sm. 275—280° u. Zers. (H. 6, 253). — II, 1569.
- 4) 2-[3-Nitrophenyl]-5,6-Dihydro-1,3-Oxazin. Sm. 93—94°. (2HCl, PtCl₄), Pikrat (B. 24, 3221). — II, 1233.
- 5) β -Nitro-2-Keto-3,3-Dimethyl-2,3-Dihydroindol. Sm. 258° (M. 18, 112). — IV, 225.
- 6) Methyläther d. 5,8-Diamido-6-Oxy-1,2-Benzpyron. Sm. 227—228° (G. 27 [2] 350).
- 7) 6-Methyläther d. 5,6-Dioxy-4-Keto-3-Methyl-3,4-Dihydro-2,3-Benzdiazin (n-Methylnormethylopiazon). Sm. 144° (B. 27, 1418). — II, 1939.
- 8) Dimethyläther d. 5,6-Dioxy-4-Keto-3,4-Dihydro-2,3-Benzdiazin + H₂O (Opiazon; Dimethoxylphtalazon). Sm. 166° wasserfrei (B. 26, 532; 29, 178). — II, 1942.
- 9) 6-Aethyläther d. 2,3,6-Trioxo-1,4-Benzdiazin. Sm. oberh. 280°. — IV, 899.
- 10) $\beta\gamma$ -Dioximido- α -Keto- α -Phenylbutan. Sm. 178°; Zers. bei 179° (B. 17, 815). — III, 270.
- 11) α -Benzoylhydrazonpropionsäure + H₂O. Sm. 112° (155° wasserfrei) (B. 29, 2168).
- 12) β -2-Harnstoffphenyl]akrylsäure (B. 23, 3341). — II, 1418.
- 13) β -[α -Phenylcarbamido]akrylsäure + H₂O (β -Phenyluramidoakrylsäure). Sm. 272° u. Zers. (J. pr. [2] 56, 497).
- 14) α -Phenylhydrazon- β -Ketopropan- α -Carbonsäure (α -Phenylhydrazonacetessigsäure). Sm. 156°. Na + 2H₂O, K, Ag (B. 10, 2076; 11, 1417; 21, 2122; 26, 1886; 32, 200). — IV, 705.
- 15) 5-Keto-1-Phenyltetrahydropyrazol-3-Carbonsäure. Sm. 201—202° (B. 26, 119, 121). — IV, 493.
- 16) 1-Nitroso-1,2,3,4-Tetrahydrochinolin-4-Carbonsäure. Sm. 137° (M. 3, 73). — IV, 213.
- 17) 1-Nitroso-1,2,3,4-Tetrahydrochinolin-7-Carbonsäure. Sm. 186° u. Zers. (A. 237, 316). — IV, 213.
- 18) 2-Keto-1,2,3,4-Tetrahydro-1,4-Benzdiazin-1-Methylcarbonsäure? Sm. bei 212° (A. 292, 252). — IV, 559.
- 19) Säure (aus d. Aethylester d. 2-Keto-1,2,3,4-Tetrahydro-1,4-Benzdiazin-1-Methylcarbonsäure). Sm. 155° (A. 292, 253). — IV, 559.
- 20) Aethylester d. 3-[2-Pyrryl]isoxazol-5-Carbonsäure. Sm. 123—124° (B. 23, 1796). — IV, 89.
- 21) Phenylamid d. Acetisonitrosoessigsäure. Sm. 99—100° (A. 236, 80). — II, 406.
- 22) Verbindung (aus Maleinsäureanhydrid u. 1,2-Diamidobenzol). Sm. 124 bis 125° u. Zers. (G. 24 [1] 143). — IV, 561.
- $C_{10}H_{10}O_3N_4$ C 51,3 — H 4,3 — O 20,5 — N 23,9 — M. G. 234.
- 1) 2-Keto-5-Methyl-3-[4-Ureidophenyl]-2,3-Dihydro-1,3,4-Oxdiazol. Sm. 193° (B. 26, 1320). — IV, 1127.
- 2) 3,4-Dimethyl-1-[β -Nitrophenyl]-2,3-Dihydro-1,2,5-Triazol-2,3-Oxyd. Sm. 232—233° (J. pr. [2] 57, 167). — IV, 1108.
- $C_{10}H_{10}O_3Cl_2$ 1) $\beta\gamma$ -[β]-Dichlorpropylester d. 2-Oxybenzol-1-Carbonsäure. Sm. 45° (B. 24, 508, 776). — II, 1492.

- $C_{10}H_{10}O_3Cl_2$ 2) $\beta\beta'$ -Dichlorisopropylester d. 3-Oxybenzoläthyläther-1-Carbonsäure. Sm. 90° (B. 24, 2742). — II, 1517.
- 3) $\beta\gamma$ -Dichlorpropylester d. 3-Oxybenzoläthyläther-1-Carbonsäure. Sm. 76–79° (B. 24, 3846). — II, 1517.
- 4) $\beta\gamma$ -Dichlorpropylester d. 4-Oxybenzol-1-Carbonsäure. Sm. 74–76° (B. 25, 811). — II, 1525.
- $C_{10}H_{10}O_3Br_2$ 1) $\beta\gamma$ -Dibrom- α -Oxy- γ -Phenylbuttersäure. Sm. 155° u. Zers. (A. 299, 26).
- 2) α -Oxy- α -Dibrommethyl- β -Phenylpropionsäure? (Dibrommethylatrolaktinsäure). Sm. 163° (B. 14, 1597). — II, 1584.
- 3) $\alpha\beta$ -Dibrom- β -[2-Oxyphenylmethyläther]propionsäure (2 isom. Form.?). Sm. 156° (162°) u. Zers. (Soc. 39, 420; A. 216, 160). — II, 1563.
- 4) $\alpha\beta$ -Dibrom- β -[4-Oxyphenylmethyläther]propionsäure. Sm. 149° (u. 168°) u. Zers. (B. 20, 2536). — II, 1565.
- 5) 2,5-Dibrom-1-[α -Oxyisopropyl]benzol-4-Carbonsäure. Sm. 214–215°. $Mg + 5H_2O$, $Ca + 3H_2O$, $Ba + 2H_2O$ (G. 21 [1] 59; 21 [2] 390). — II, 1586.
- 6) β -Dibrom-2-Oxy-1-Isopropylbenzol-4-Carbonsäure (B. 11, 1575). — II, 1582.
- 7) Methylester d. 3,5-Dibrom-2-Oxybenzoläthyläther-1-Carbonsäure. Sm. 43–44° (G. 16, 419). — II, 1506.
- 8) Aethylester d. 3,5-Dibrom-4-Oxybenzolmethyläther-1-Carbonsäure. Sm. 88° (G. 11, 429). — II, 1537.
- $C_{10}H_{10}O_3S$ 1) Diacetat d. 4-Merkapto-1-Oxybenzol. Sm. 65,5–66° (J. pr. [2] 41, 196). — II, 950.
- $C_{10}H_{10}O_4N$ 1) Oxyannabin (oder $C_{20}H_{20}O_7N_2$). Sm. 182° (C. 1898 [1] 849).
- $C_{10}H_{10}O_4N_2$ C 54,0 — H 4,5 — O 28,8 — N 12,6 — M. G. 222.
- 1) β -Isonitramido- $\alpha\gamma$ -Diketo- α -Phenylbutan. $Na_2 + H_2O$ (A. 300, 126).
- 2) Methylenäther d. α -3,4-Dioxyphenyl-Acetylharnstoff. Sm. 216° (G. 24 [2] 140). — II, 980.
- 3) Methylenäther d. 3,4-Dioxy-1-[$\alpha\beta$ -Dioximidopropyl]benzol. Sm. 159° (G. 22 [2] 475; 24 [2] 137). — II, 979.
- 4) Methylenäther d. isom. 3,4-Dioxy-1-[$\alpha\beta$ -Dioximidopropyl]benzol. Sm. 209° u. Zers. (G. 22 [2] 480; 24 [2] 141). — II, 979.
- 5) 2,5-Di[Acetylamido]-1,4-Benzochinon. subl. bei 300° (B. 30, 2099).
- 6) 2,6-Di[Acetylamido]-1,4-Benzochinon. Sm. 265–270° u. Zers. (B. 16, 2402; 19, 2247; 29, 797). — III, 340.
- 7) 1-Acetat-3,4-Methylenäther d. 3,4-Dioxybenzenyl-1-Amidoxim. Sm. 128° (G. 24 [2] 138). — II, 1743.
- 8) Diacetat d. anti-1,4-Dioximidobenzol. Sm. 190° u. Zers. (B. 28, 341). — III, 331.
- 9) Diacetat d. syn-1,4-Dioximidobenzol. Sm. 147° (B. 21, 430; 28, 341). — III, 331.
- 10) Benzoylmethenylamidoximessigsäure. Sm. 135° (B. 27 [2] 261). — II, 1209.
- 11) α -[3-Carboxylphenyl]hydrazonpropionsäure + H_2O . Sm. 206–208° (wasserfrei) u. Zers. (A. 236, 167). — II, 1288.
- 12) 3-Acetylamidophenyloxaminsäure. Sm. 125° (A. 293, 386). — IV, 577.
- 13) 5-Diazomethyläthercumarinsäure. Chlorid, Nitrat (B. 17, 1385). — IV, 1557.
- 14) 1-Nitroso-8-Oxy-1,2,3,4-Tetrahydrochinolin-2-Carbonsäure. Sm. 195° u. Zers. (M. 8, 320). — IV, 214.
- 15) Monomethylester d. Phenylhydrazonmethan- $\alpha\alpha$ -Dicarbonsäure. Sm. 125° (B. 28, 858). — IV, 720.
- 16) Acetoxylamid d. Phenyloxaminsäure. Sm. 182–183° (A. 288, 318).
- 17) 3-Nitrophenylimid d. Essigsäure. Sm. 76–77° (G. 24 [1] 446).
- 18) 4-Nitrophenylimid d. Essigsäure. Sm. 128,5–129° (B. 27, 101).
- 19) Nitrosohemipinimidin. Sm. 156° u. Zers. (B. 20, 884). — II, 1996.
- 20) Verbindung (aus 3-Methyl-5-Keto 4,5-Dihydroisoxazol. Sm. 135–136° (B. 24, 499). — I, 495.
- $C_{10}H_{10}O_4N_4$ C 48,0 — H 4,0 — O 25,6 — N 22,4 — M. G. 250.
- 1) 3-[2,4-Dinitrophenyl]amido-1-Amidobenzol. Sm. 172° (B. 28, 512).
- 2) Alloxanphenylhydrazin (Soc. 53, 557; G. 17, 254). — IV, 701.
- 3) Base (aus d. Verb. $C_{20}H_{14}O_6N_8$). Sm. 164–165° (B. 31, 1398).
- 4) Amid d. 1,3-Phenylendioxaminsäure. Sm. 290° (B. 29, 2642). — IV, 577.

- $C_{10}H_{10}O_4N_4$ 5) Amid d. 1,4-Phenylendioxaminsäure. Sm. noch nicht bei 310° (B. 29, 2643). — IV, 593.
- 6) Amid d. 4-Nitrophenylazoacetessigsäure. Sm. $225-226^\circ$ (B. 31, 3127). — IV, 1467.
- $C_{10}H_{10}O_4Cl_2$ 1) Diäthyläther d. 3,6-Dichlor-2,5-Dioxy-1,4-Benzochinon. α -Modif. Sm. $104-105^\circ$; β -Modif. Sm. $97-98^\circ$ (J. pr. [2] 39, 318; [2] 40, 367). — III, 351.
- 2) Dimethylester d. 3,6-Dichlor-1,4-Dihydrobenzol-2,5-Dicarbon-säure. Sm. $109-110^\circ$ (B. 21, 1467, 1964). — II, 1760.
- 3) Aethylester d. 2,6-Dichlor-3,5-Dioxy-1-Methylbenzol-4-Carbon-säure. Sm. 162° (A. 117, 315). — II, 1753.
- $C_{10}H_{10}O_4Br_2$ 1) Diäthyläther d. 3,6-Dibrom-2,5-Dioxy-1,4-Benzochinon. Sm. 139° (Am. 20, 479).
- 2) Aethylester d. 2,6-Dibrom-3,5-Dioxy-1-Methylbenzol-4-Carbon-säure. Sm. 144° (A. 117, 315). — II, 1753.
- $C_{10}H_{10}O_4J_2$ 1) Diacetat d. 4-Jod-1-Jodobenzol (p-Jodphenyljodacetat). Sm. 215° (B. 27, 1792).
- 2) Aethylester d. 2,6-Dijod-3,5-Dioxy-1-Methylbenzol-4-Carbonsäure (A. 149, 294). — II, 1754.
- $C_{10}H_{10}O_4S$ 1) β -Phenylsulfoncrotonsäure. Sm. 158° . K + $1\frac{1}{2}H_2O$, Mg + $7H_2O$, Ba + H_2O , Zn + $6H_2O$, Cu + H_2O , Ag (A. 259, 343). — II, 787.
- 2) β -Phenylsulfonisocrotonsäure. Sm. $126-127^\circ$. K + $3H_2O$, Mg + $6H_2O$, Ba + $2\frac{1}{2}H_2O$, Zn + $6H_2O$, Ag (A. 259, 336). — II, 788.
- 3) 1-Aldehyd d. 3,4-Dioxybenzoldimethyläther-1-Thiocarbonsäure-2-Carbonsäure (Thioopiansäure). Ag (A. 50, 12). — II, 1942.
- 4) Aethylester d. $\alpha\gamma$ -Diketo- α -[2-Thiänyl]propan- γ -Carbonsäure. Sm. 42° . Cu (G. 21 [1] 444; 21 [2] 270). — III, 760.
- $C_{10}H_{10}O_4S_2$ 1) Merkaptoessig-1,3-Phenylenäthersäure. Sm. 127° (B. 12, 1639). — II, 935.
- $C_{10}H_{10}O_4Hg_2$ 1) Diacetat d. 1,4-Phenylendiquecksilberoxydhydrat. Sm. 230° (B. 32, 760; C. 1899 [1] 734). — IV, 1707.
- $C_{10}H_{10}O_5N_2$ C 50,4 — H 4,2 — O 33,6 — N 11,8 — M. G. 238.
- 1) polym. Dinitroanethol (Dinitroanisoïn) (Gmelin 7, 207; A. 41, 73). — II, 851.
- 2) Methyl-3,5-Dinitro-2,4-Dimethylphenylketon. Sm. 96° (J. pr. [2] 41, 500). — III, 152.
- 3) 4-Nitrophenylacetylamidoessigsäure. Sm. 173° . Zn + $2\frac{1}{2}H_2O$, Ag (J. pr. [2] 38, 110). — II, 1313.
- 4) 6-Nitro-2-Acetylamido-1-Methylbenzol-4-Carbonsäure. Sm. 210° (J. pr. [2] 40, 26). — II, 1353.
- 5) Aethylester d. 2-Nitrophenylnitrosoessigsäure. Sm. 163° . Ag (B. 14, 826; 16, 519). — II, 1319.
- 6) Aethylester d. 3-Nitrophenyloxaminsäure. Sm. 150° . — II, 408.
- 7) Acetat d. 5-Nitro-2-Acetylamido-1-Oxybenzol. Sm. 187° (Soc. 69, 1325).
- 8) Acetat d. 3-Nitro-4-Acetylamido-1-Oxybenzol. Sm. $146-147^\circ$ (J. pr. [2] 43, 63). — II, 732.
- 9) Amid d. 2,6-Diacetoxypyridin-4-Carbonsäure. Sm. $183-185^\circ$ u. Zers. (Soc. 63, 1038).
- 10) 2-Nitrophenylmonamid d. Bernsteinsäure. Sm. $132-132,5^\circ$ (A. 292, 190).
- 11) 4-Nitrophenylmonamid d. Bernsteinsäure (A. 292, 191).
- 12) α -Safrolnitrosit. Sm. 130° u. Zers. (G. 23 [2] 127; 25 [2] 200). — II, 980.
- 13) β -Safrolnitrosit. Sm. 92° (G. 23 [2] 127; 25 [2] 201). — II, 980.
- 14) Isosafrolnitrosit. Sm. 132° (G. 22 [2] 336, 464; 26 [1] 7). — II, 978.
- $C_{10}H_{10}O_5N_4$ C 45,1 — H 3,8 — O 30,1 — N 21,0 — M. G. 266.
- 1) Anhydrid d. 1,2,5-Oxdiazol-3-Aethyl- β -Carbonsäure. Sm. 67° (A. 260, 105). — I, 496.
- 2) Amid d. p-Dinitro-1,2,3,4-Tetrahydrochinolin-1-Carbonsäure. Sm. 191° u. Zers. (R. 10, 149). — IV, 192.
- $C_{10}H_{10}O_5Br_2$ 1) 2,6-Dibrom-3,4,5-Trioxybenzoltrimethyläther-1-Carbonsäure. Sm. 143° (B. 26, 2023). — II, 1923.
- 2) Lakton d. Dibrom- β -Diacetylbernsteinsäuremonäthylester. Sm. 122° (B. 27, 1162). — III, 717.

- $C_{10}H_{10}O_5Br_4$ 1) Anhydrid d. $\alpha\gamma$ -Dibrom- β -Ketobutan- δ -Carbonsäure. Sm. 138° (A. 294, 201).
- $C_{10}H_{10}O_5Hg_2$ 1) Diacetat d. Oxyphenyldi[Quecksilberoxydhydrat]. Sm. 216—217° (B. 31, 2134). — IV, 1710.
- $C_{10}H_{10}O_6N_2$ C 47,2 — H 3,9 — O 37,8 — N 11,0 — M. G. 254.
- 1) 3,6-Di[Acetylamido]-2,5-Dioxy-1,4-Benzochinon (B. 21, 1852). — II, 1033.
- 2) α -[2,4-Dinitrobenzyl]propionsäure. Sm. 89° (Soc. 53, 559). — II, 1382.
- 3) α -[p-Dinitro-4-Methylphenyl]propionsäure. Sm. 122—123°. Ba + 4H₂O (G. 21 [2] 468). — II, 1389.
- 4) 2,6-Dinitro-1-Isopropylbenzol-1-Carbonsäure. Sm. 220°. Ca, Ag + H₂O (A. 69, 244; B. 12, 78; J. 1858, 270). — II, 1387.
- 5) 3,6-Dinitro-1,2,4-Trimethylbenzol-5-Carbonsäure. Sm. 205°. Ca + 3H₂O, Ba + 3H₂O (A. 216, 207; 237, 8). — II, 1390.
- 6) 2,4-Dinitro-1,3,5-Trimethylbenzol-6-Carbonsäure. Sm. 228°. Ag (A. 278, 221). — II, 1391.
- 7) 1-Aldehyd d. 6-Nitro-3,4-Dioxybenzoldimethyläther-1,2-Dicarbon-säure-2-Amid. Sm. 203° u. Zers. (B. 31, 924).
- 8) Methylester d. p-Dinitro-3-Methylphenylessigsäure. Sm. 41° (M. 9, 856). — II, 1374.
- 9) Aethylester d. 2,4-Dinitrophenylessigsäure. Sm. 35° (B. 14, 824). — II, 1319.
- $C_{10}H_{10}O_6N_4$ C 42,5 — H 3,5 — O 34,0 — N 19,9 — M. G. 282.
- 1) 3,5-Dinitro-1,2-Di[Acetylamido]benzol. Sm. 245—246° (B. 11, 328; 30, 543). — IV, 558.
- 2) 4,6-Dinitro-1,3-Di[Acetylamido]benzol. Sm. 228° (B. 20, 334, 2114). — IV, 575.
- 3) p-Dinitro-1,4-Di[Acetylamido]benzol. Sm. 258° (B. 7, 1532; 20, 328). — IV, 589.
- 4) 3,3'-Bi[1,2,4-Oxiazol-5-Aethyl- β -Carbonsäure] (Oxalendiazoximdi-propenyldicarbon-säure). Sm. 200° (B. 22, 2951). — I, 1485.
- $C_{10}H_{10}O_6Cl_4$ 1) Diäthylester d. $\alpha\alpha\delta\delta$ -Tetrachlor- $\beta\gamma$ -Diketobutan- $\alpha\delta$ -Dicarbon-säure (D. d. Tetrachlorkepitinsäure). Sm. 93° (B. 19, 2934; 20, 1309; A. 249, 198). — I, 816.
- $C_{10}H_{10}O_6Cl_2$ 1) Dichloralglykose. Sm. 225° (Bl. [3] 15, 632).
- $C_{10}H_{10}O_6Br_4$ 1) Diäthylester d. $\alpha\alpha\delta\delta$ -Tetrabrom- $\beta\gamma$ -Diketobutan- $\alpha\delta$ -Dicarbon-säure (D. d. Tetrabromketipinsäure). Sm. 119° (A. 249, 195). — I, 816.
- $C_{10}H_{10}O_6S$ 1) Trimethylester d. Thiophen-2,3,5-Tricarbon-säure. Sm. 118° (B. 18, 2303). — III, 761.
- $C_{10}H_{10}O_7N_2$ C 44,4 — H 3,7 — O 41,5 — N 10,4 — M. G. 270.
- 1) β -[3,5-Dinitro-4-Oxyphenylmethyläther]propionsäure. Sm. 124° (A. 225, 82). — II, 1566.
- 2) Methylester d. β -[3,5-Dinitro-4-Oxyphenyl]propionsäure. Sm. 87°. Ag (A. 225, 75). — II, 1566.
- 3) Methylester d. 3,5-Dinitro-2-Oxybenzoläthyläther-1-Carbonsäure. Sm. 80° (A. 173, 43). — II, 1511.
- 4) Aethylester d. Oxyessig-2,4-Dinitrophenyläthersäure. Sm. 77—78° (G. 22 [1] 213). — II, 685.
- 5) Aethylester d. 3,5-Dinitro-2-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 47° (A. 173, 50). — II, 1511.
- 6) Aethylester d. 3,5-Dinitro-4-Oxybenzoldimethyläther-1-Carbonsäure. Sm. 79° (A. 163, 59). — II, 1539.
- $C_{10}H_{10}O_8N_4$ C 38,2 — H 3,2 — O 40,8 — N 17,8 — M. G. 314.
- 1) s-Dimethylalloxantin + 4H₂O (M. 3, 109). — I, 1402.
- 2) uns-Dimethylalloxantin + H₂O (M. 3, 428). — I, 1402.
- $C_{10}H_{10}O_8Cl_4$ 1) Dimethylester d. Di[Dichloracetyl]weinsäure. Sm. 64—65°; Sd. 220°, (Soc. 73, 189).
- $C_{10}H_{10}NCl$ 1) Chlormethylat d. Chinolin + H₂O. Sm. 126°. + Br₂ + ClJ, 2 + PtCl₄, + AuCl₃ (B. 15, 195; 18, 593; C. 1899 [1] 623). — IV, 250.
- 2) Chlormethylat d. Isochinolin. 2 + PtCl₄ (J. pr. [2] 38, 493). — IV, 300.
- $C_{10}H_{10}NBr$ 1) Brommethylat d. Chinolin. Sm. 70°. + Br₂, + JBr (B. 18, 594; C. 1899 [1] 623).
- $C_{10}H_{10}NBr_2$ 1) Bromid d. Chinolinbrommethylat. Sm. 123° (B. 18, 594). — IV, 250.

- $C_{10}H_{11}NJ$ 1) Jodmethylat d. Chinolin. Sm. 72°. + J_2 (J. 1856, 534; B. 15, 192; C. 1899 [1] 623). — IV, 259.
2) Jodmethylat d. Isochinolin + H_2O . Sm. 159° (R. 5, 307; J. pr. [2] 38, 492). — IV, 300.
- $C_{10}H_{10}N_2Cl_2$ 1) 5,8-Dichlorimido-1,2,3,4,5,8-Hexahydronaphtalin. Sm. 68° (A. 257, 8). — IV, 861.
2) Verbindung (aus Pyridin). Sd. 218° u. Zers. (Am. 8, 312). — IV, 105.
- $C_{10}H_{10}N_2Br_2$ 1) Dibromid d. 3-Methyl-5-Phenylpyrazol. Sm. 205° (A. 279, 250). — IV, 935.
- $C_{10}H_{10}N_2S$ 1) 2-Phenylamido-4-Methylthiazol. Sm. 115° (117°) (A. 249, 47; B. 20, 3130). — IV, 520, 916.
2) 2-Methylamido-4-Phenylthiazol. Sm. 138° (A. 249, 46). — IV, 916.
3) 2-Imido-3-Methyl-4-Phenyl-2,3-Dihydrothiazol. Fl. (A. 249, 46). — IV, 916.
4) 2-Merkapto-4-Methyl-5-Phenylimidazol. Sm. bei 300° (B. 30, 1522). — IV, 937.
5) 2-Merkapto-1-[4-Methylphenyl]imidazol. Sm. 205° u. Zers. 2 + $PtCl_4$ (B. 25, 2363). — IV, 503.
6) Methyläther d. 2-Merkapto-1-Phenylimidazol. Sm. 54°. HJ , HNO_3 , Pikrat (B. 22, 574). — IV, 503.
- $C_{10}H_{10}N_2S_2$ 1) Aethyläther d. 5-Merkapto-2-Phenyl-1,2,4-Thiodiazol. Sm. 49° (B. 24, 389). — IV, 846.
- $C_{10}H_{10}N_3Br$ 1) 3,4-Dimethyl-1-[2-Bromphenyl]-1,2,5-Triazol. Sm. 152—153° (J. pr. [2] 57, 166). — IV, 1107.
- $C_{10}H_{10}N_4S$ 1) Amid d. 5-Methyl-1-Phenyl-1,2,4-Triazol-3-Thiocarbonsäure. Sm. 182° (B. 25, 178). — IV, 1114.
- $C_{10}H_{10}Cl_3Br$ 1) 2-Trichlor-2-Brom-3-Isopropyl-1-Methylbenzol. Sm. 65° (B. 16, 619).
- $C_{10}H_{11}ON$ C 74,5 — H 6,8 — O 9,9 — N 8,7 — M. G. 161.
1) γ -Keto- α -[3-Amidophenyl]- α -Buten (B. 23, 1885). — III, 161.
2) γ -Imido- α -Keto- α -Phenylbutan. Sm. 143° (B. 18, 2134; 20, 2180). — III, 269.
3) γ -Oximido- α -Phenyl- α -Buten. Sm. 115—116°; Sd. 220°₁₀₀ (B. 19, 1518; 20, 923). — III, 160.
4) Oxim d. Benzoyl-R-Trimethylen. Sm. 90—92° (Soc. 47, 844; 59, 889). — III, 163.
5) Allyläther d. anti-Benzaldoxim. Fl. (B. 16, 828). — III, 42.
6) 1-Oximido-1,2,3,4-Tetrahydronaphtalin. Sm. 102,5—103,5° (Soc. 75, 151).
7) 2-Oximido-1,2,3,4-Tetrahydronaphtalin. Sm. 87,5—88° (B. 27, 1548; A. 288, 115). — III, 165.
8) 2-Keto-1-Phenyltetrahydropyrrol (γ -Anilidobutyrolaktam). Sm. 68 bis 69° (B. 28, 58; 32, 74; A. 295, 39).
9) 2-Benzyl-4,5-Dihydrooxazol. Fl. Pikrat (B. 24, 3222). — II, 1311.
10) 2-[2-Methylphenyl]-4,5-Dihydrooxazol. Sd. 254—255°. (2HCl, $PtCl_4$), Pikrat (B. 26, 1322). — II, 1329.
11) 2-[4-Methylphenyl]-4,5-Dihydrooxazol. Sm. 66°; Sd. 264—265°. (2HCl, $PtCl_4$), Pikrat (B. 26, 1325). — II, 1341.
12) 5-Methyl-2-Phenyl-4,5-Dihydrooxazol. Sd. 243—244°₁₅₀. (2HCl, $PtCl_4$), $H_2Cr_2O_7$, Pikrat (B. 23, 2499; 26, 2849). — II, 1161.
13) 2-Phenyl-5,6-Dihydro-1,3-Oxazin (2-Phenyl-5,6-Dihdropentoxazol). Fl. Pikrat (B. 24, 3214). — II, 1161.
14) 2-Oxy-4-Methyl-2-Dihydrolepidin. Sm. 101° (B. 19, 3301). — IV, 317.
15) Aethyläther d. 2-Oxyindol. Fl. (B. 16, 1705). — II, 1320.
16) Aethyläther d. 3-Oxyindol. Fl. Pikrat (B. 14, 1745). — II, 1614.
17) 2-Keto-1-Aethyl-2,3-Dihydroindol. Sm. 97—98° (B. 30, 2814).
18) 2-Keto-3-Aethyl-2,3-Dihydroindol. Sm. 102,5°; Sd. 320—323°₁₄₂ (M. 18, 539).
19) 2-Keto-1,3-Dimethyl-2,3-Dihydroindol. Sm. 22,5—23°; Sd. 273 bis 277°₁₄₂. (2 + HCl, $AuCl_3$), + $HgCl_2$ (M. 17, 485). — IV, 223.
20) 2-Keto-3,3-Dimethyl-2,3-Dihydroindol. Sm. 151°; Sd. 302,5°. Ag (M. 18, 97, 539). — IV, 225.
21) 1-Keto-2-Aethyl-1,3-Dihydroisoindol (Aethylphtalimidin). Sm. 45° (2HCl, $AuCl_3$) (A. 247, 305). — II, 1558.

- C₁₀H₁₁ON** 22) **3-Keto-1,2-Dimethyl-1,3-Dihydroisoindol** (Dimethylphtalimidin). Fl. HCl, (HCl, AuCl₃) (B. 29, 2523).
- 23) **Methoxyhydrat d. Chinolin**. Salze siehe (J. 1856, 534; B. 15, 194; 18, 593). — IV, 250.
- 24) **Methoxyhydrat d. Isochinolin**. Chlorid, Jodid, Bichromat (R. 5, 307; J. pr. [2] 38, 492). — IV, 300.
- 25) **3-Aethyl-2,4-Benzoxazin** (Aethylphenpentoxazol). Fl. Pikrat (B. 27, 3523). — IV, 227.
- 26) **Inn. Anhydrid d. 2-Amido-3,5-Dimethylphenylessigsäure** (Carbomesyl). Sm. 231—232° (B. 16, 1580). — II, 1390.
- 27) **Aldehyd d. α-[4-Amidophenyl]propen-β-Carbonsäure**. Sm. 60° (B. 19, 1248). — III, 63.
- 28) **Amid d. α-Phenyl-α-Propen-β-Carbonsäure**. Sm. 128° (B. 20, 619). — II, 1426.
- 29) **Amid d. 2,3-Dihydroinden-2-Carbonsäure**. Sm. 178° (Soc. 65, 236). — II, 1430.
- 30) **Allylamid d. Benzolcarbonsäure**. Sd. 173—174°₁₄ (B. 26, 2848). — II, 1162.
- 31) **Phenylamid d. Methakrylsäure**. Sm. 120° (B. 24, 1042). — II, 371.
- 32) **β-Phenyläthenylamid d. Essigsäure**. Sm. 142° (B. 26 [2] 677). — II, 584.
- 33) **2-Aethenylphenylamid d. Essigsäure**. Sm. 129° (B. 26 [2] 677). — II, 584.
- 34) **3-Aethenylphenylamid d. Essigsäure**. Sm. 74—75° (B. 26 [2] 677). — II, 584.
- 35) **Methylphenylamid d. Akrylsäure**. Sm. 76—77,5° (Bl. [3] 9, 423). — II, 370.
- 36) **2-Methylphenylamid d. Akrylsäure**. Sm. 109—110° (Bl. [3] 9, 423). — II, 463.
- 37) **4-Methylphenylamid d. Akrylsäure**. Sm. 141° (Bl. [3] 9, 422). — II, 494.
- 38) **Nitril d. α-Oxybutterphenyläthersäure**. Sd. 228—230°₇₄₈ (B. 29, 1423).
- 39) **Nitril d. γ-Oxybutterphenyläthersäure**. Sm. 45—46°; Sd. 287—289° (B. 24, 2640, 3231). — II, 665.
- 40) **Nitril d. 1-[α-Oxyisopropyl]benzol-4-Carbonsäure**. Sm. 51—52° (G. 21 [2] 399). — II, 1586.
- 41) **Nitril d. 1-Oxymethylbenzoläthyläther-2-Carbonsäure**. Sd. 242° (B. 25, 3020). — II, 1559.
- 42) **2,4,5-Trimethylphenylisocyanat**. Sd. 225°. — II, 552.
- 43) **2,4,6-Trimethylphenylisocyanat**. Sd. 218—220° (B. 15, 1016). — II, 554.
- 44) **Methylamid d. β-Phenylakrylsäure**. Sm. 110—111° (C. 1899 [1] 730).
- 45) **Verbindung** (aus d. Methyläther d. α-Bromäthyl-4-Oxyphenylketon). Sm. 176° (J. pr. [2] 52, 201). — III, 141.
- C₁₀H₁₁ON₂** C 63,5 — H 5,8 — O 8,5 — N 22,2 — M. G. 189.
- 1) **2,4,6-Triamido-1-Oxynaphtalin**. 3HCl + H₂O (B. 31, 2423).
- 2) **2-Triamido-1-Oxynaphtalin**. (3HCl, SnCl₂ + H₂O), H₂SO₄ + H₂O (B. 11, 164, 1665). — II, 866.
- 3) **1-Semicarbazon-2,3-Dihydroinden + 7H₂O**. Sm. 239° u. Zers. (wasserfrei) (Soc. 71, 241).
- 4) **3-Keto-5-Methyl-2-[4-Amidophenyl]-2,3-Dihdropyrazol**. Sm. 161° (C. 1898 [2] 238).
- 5) **4-Amido-5-Keto-3-Methyl-1-Phenyl-4,5-Dihdropyrazol**. HCl (A. 238, 189). — IV, 1108.
- 6) **3-Oxy-5-Aethyl-1-Phenyl-1,2,4-Triazol**. Sm. 191—192° u. Zers. (B. 29, 1948). — IV, 1108.
- 7) **Aethyläther d. 3-Oxy-1-Phenyl-1,2,4-Triazol**. Sm. 60° (Soc. 71, 313). — IV, 1100.
- 8) **3-Keto-1-Aethyl-2-Phenyl-2,3-Dihydro-1,2,4-Triazol**. Sm. 95°. — IV, 1101.
- 9) **3-Keto-1,5-Dimethyl-2-Phenyl-2,3-Dihydro-1,2,4-Triazol**. Sm. 83°. (2HCl, PtCl₄ + 2H₂O). — IV, 1105.
- 10) **5-Keto-4-Aethyl-1-Phenyl-4,5-Dihydro-1,2,4-Triazol**. Sm. 95°. — IV, 1101.

- C₁₀H₁₁ON₃** 11) **5-Keto-3,4-Dimethyl-1-Phenyl-4,5-Dihydro-1,2,4-Triazol.** Fl. — IV, 1105.
 12) **3,4-Dimethyl-1-Phenyl-2,3-Dihydro-1,2,5-Triazol-2,3-Oxyd.** Sm. 92—93°. HCl (*J. pr.* [2] 57, 163). — IV, 1108.
 13) **5-Keto-1-Phenyl-4-Methyl-1,4,5,6-Tetrahydro-1,2,4-Triazin.** Sm. 179—180° (*B.* 28, 1229). — IV, 1106.
 14) **4 oder 7-Acetylamido-2-Methylbenzimidazol + 2H₂O** (*B.* 10, 1693). — IV, 1149.
 15) **5-Acetylamido-2-Methylbenzimidazol?** Sm. 324° (*B.* 30, 1912).
 16) **Acetylderivat d. Base C₈H₉N₃ (aus Diacetonitril).** Sm. 250° (*J. pr.* [2] 52, 87). — IV, 1150.
- C₁₀H₁₁ON₅** C 55,3 — H 5,1 — O 7,4 — N 32,2 — M. G. 217.
 1) **3-Oximidoamidomethyl-5-Methyl-1-Phenyl-1,2,4-Triazol.** Sm. 208 bis 210° u. Zers. HCl, (2HCl, PtCl₄) (*B.* 19, 2602; 22, 1749). — IV, 1115.
 2) **3-Acetylamido-4-Amido-1-Phenyl-1,2,5-Triazol.** Sm. 186° (*A.* 295, 147). — IV, 1314.
 3) **2-Methylphenylammelin.** Sm. 225° (*B.* 20, 2240). — II, 738.
- C₁₀H₁₁OCl** 1) **Chloranethol.** Sd. 258° (228—230°) (*A. Spl.* 8, 91; *B.* 9, 251; 13, 148; *C.* 1897 [1] 805). — II, 852.
 2) **Methyl-*p*-Chlor-4-Aethylphenylketon.** Sd. 265—270°. — III, 150.
 3) **Chlormethyl-1,2-Dimethylphenylketon.** Sm. 73—74° (*B.* 30, 1713).
 4) **Chlormethyl-2,4-Dimethylphenylketon.** Sm. 62—63° (*B.* 30, 579).
 5) **Chlormethyl-2,5-Dimethylphenylketon.** Sm. 32° (*B.* 30, 579; *Bl.* [3] 17, 509).
 6) **Methyl-6-Chlor-3,4-Dimethylphenylketon.** Sd. 275—276° (*J. pr.* [2] 46, 31). — III, 151.
 7) **3-Chlor-2-Oxy-1,2,3,4-Tetrahydronaphtalin.** Sm. 117,5° (*B.* 26, 1835; *A.* 288, 80). — II, 855.
 8) **Chlorid d. γ -Phenylbuttersäure.** Fl. (*Soc.* 75, 147).
 9) **Chlorid d. 1-Isopropylbenzol-4-Carbonsäure.** Sd. 256—258° (*A.* 70, 45). — II, 1385.
- C₁₀H₁₁OCl₃** 1) **2,5,6-Trichlor-3-Oxy-4-Isopropyl-1-Methylbenzol.** Sm. 45; Sd. 250° (isom. Modifik. Sm. 61°) (*A. ch.* [3] 49, 157). — II, 771.
 2) **Methyläther d. 4-Oxy-1-[$\alpha\beta\gamma$ -Trichlorpropyl]benzol.** Sm. 35° (*C.* 1897 [1] 805).
- C₁₀H₁₁OBr** 1) **3-Brom-2-Oxy-1,2,3,4-Tetrahydronaphtalin.** Sm. 106—106,5° (*A.* 288, 94).
 2) **Aethyläther d. 2-Oxy-1-[β -Bromäthenyl]benzol.** Sd. 144—147° (*A.* 269, 3). — II, 849.
 3) **α -Brompropylphenylketon.** Sd. 154—158°₂₀ (*Bl.* [3] 15, 1100).
 4) **γ -Brompropylphenylketon.** Sm. 37—39° (*Soc.* 47, 842). — III, 147.
 5) **α -Bromisopropylphenylketon.** Sd. 146—148°₃₀ (*Bl.* [3] 17, 78).
 6) **α -Bromäthyl-4-Methylphenylketon.** Sm. 76—77°; Sd. 160—162°₃₀ (*C.* 1897 [2] 576).
 7) **Methyl-3-Brom-2,4-Dimethylphenylketon?** Sm. 33°; Sd. 275—278° (*Am.* 20, 799).
 8) **Methyl-6-Brom-2,4-Dimethylphenylketon.** Sd. 272—276° (*Am.* 20, 801).
 9) **Methyl-*p*-Brom-2,5-Dimethylphenylketon.** Sm. 39°; Sd. 270—275° (*B.* 24, 3770). — III, 152.
 10) **Methyl- γ -Brom-3,4-Dimethylphenylketon.** Sm. 63—64° (*Soc.* 63, 86). — III, 151.
- C₁₀H₁₁OBr₃** 1) **2,4,5-Tribrom-6-Oxy-3-Isopropyl-1-Methylbenzol.** Sm. 221—222° u. Zers. (*B.* 19, 1415). — II, 766.
 2) **Methyläther d. 3-Brom-4-Oxy-1-[$\alpha\beta$ -Dibrompropyl]benzol?** Sm. 107—108° (*J. pr.* [2] 51, 425; [2] 52, 194).
 3) **Methyläther d. 3-Brom-4-Oxy-1-[$\beta\gamma$ -Dibrompropyl]benzol.** Sm. 62,4° (*B.* 29, 345).
 4) **Aethyläther d. 2-Oxy-1-[$\alpha\beta\gamma$ -Tribromäthyl]benzol.** Sm. 51° (*A.* 269, 5). — II, 757.
- C₁₀H₁₁OJ** 1) **Methyl-6-Jod-2,4-Dimethylphenylketon.** Sd. 295—298°₁₀₀ (*Am.* 20, 803).

$C_{10}H_{11}O_2N$

C 67,8 — H 6,2 — O 18,1 — N 7,9 — M. G. 177.

- 1) β -Oximido- γ -Keto- α -Phenylbutan (Isonitrosobenzylacetone). Sm. 80—81°. Ag (B. 15, 1876, 3071; 16, 836). — III, 149.
- 2) γ -Oximido- α -[2-Oxyphenyl]- α -Buten. Sm. 84—85° (B. 24, 3182). — III, 161.
- 3) Oximidomethyl-2,4-Dimethylphenylketon. Sm. 94—95° (B. 25, 3463). — III, 151.
- 4) Oximidomethyl-2,5-Dimethylphenylketon (1,4,2-Xyloylformoxim). Sm. 63° (B. 27, 661). — III, 152.
- 5) Oximidomethyl-3,4-Dimethylphenylketon (1,2,4-Xyloylformoxim). Sm. 121° (B. 27, 658). — III, 151.
- 6) Benzyläther d. Oximidodimethylketon. Sm. 45—46°; Sd. 244° (B. 15, 3071; 16, 835 Anm.). — II, 1048.
- 7) Methyläther d. Acetylimidooxymethylbenzol. Sd. 139°₁₅ (Am. 19, 137).
- 8) α -[4-Methylphenyl]imido- α -Oxy- β -Ketopropan. Sm. 106° (Am. 16, 384).
- 9) polym. α -[4-Methylphenyl]imido- α -Oxy- β -Ketopropan. Sm. 193 bis 194° (Am. 16, 385).
- 10) Methyl-2-Acetylamidophenylketon. Sm. 76—77° (B. 15, 2086, 2154). — III, 124.
- 11) Methyl-4-Acetylamidophenylketon. Sm. 166—167° (B. 18, 2691). — III, 125.
- 12) ϵ -Oximido- α -Furanyl- $\alpha\gamma$ -Hexadien. Sm. 122—123° (B. 31, 283).
- 13) Acetat d. 2-Methylbenzaldoxim. Sm. 55—56° (B. 25, 1922). — III, 53.
- 14) Acetat d. syn-4-Methylbenzaldoxim. Sm. 85° (Ph. Ch. 13, 523). — III, 53.
- 15) Acetat d. α -Oximido- α -Phenyläthan. Sm. 53° (B. 20, 506, 2584). — III, 131.
- 16) O-Benzooat d. β -Oximidopropan (Benzoylacetoxim). Sm. 41—42° (43—44°) (B. 16, 171; 31, 3228). — II, 1209.
- 17) N-Benzoyl- β -Oximidopropan (N-Benzoylacetoxim). Fl. (B. 31, 3228).
- 18) 4-Methyläther d. 2-[4-Oxyphenyl]-4,5-Dihydrooxazol. Sm. 63°. (HCl, AuCl₃), Pikrat (B. 27, 2156). — II, 1529.
- 19) 3-Oxy-2-Keto-1-Aethyl-2,3-Dihydroindol. Sm. 154—155° (B. 30, 2814).
- 20) Methyloxydhydrat d. 5-Oxychinolin + H₂O (J. pr. [2] 47, 433). — IV, 270.
- 21) Methyloxydhydrat d. 6-Oxychinolin + H₂O. Zers. bei 200°. Chlorid + H₂O, Jodid + H₂O, Sulfat + 5H₂O (J. pr. [2] 43, 521). — IV, 270.
- 22) Methyloxydhydrat d. 8-Oxychinolin + 2H₂O. Sm. 115° u. Zers. Chlorid, 2Chlorid + PtCl₄ + 2H₂O, Jodid + H₂O, H₂SO₄ + 3H₂O, H₂Cr₂O₇ + 2H₂O, Oxalat + H₂O (M. 10, 665; J. pr. [2] 42, 226; [2] 45, 257; [2] 54, 2, 12). — IV, 273.
- 23) Methyloxydhydrat d. 8-Oxyisochinolin + H₂O. Zers. bei 130°. Salze, siehe diese u. HNO₃, H₂Cr₂O₇ (J. pr. [2] 52, 12). — IV, 303.
- 24) 3-Keto-4-Aethyl-3,4-Dihydro-1,4-Benzoxazin. Sd. 157—159°₁₅ (Am. 20, 562).
- 25) Aethyläther d. 2-Oxy-1,3-Benzoxazin. Zers. bei 210° (B. 31, 1602).
- 26) Aethyläther d. 3-Oxy-1,4-Benzoxazin. Sd. 135—136°₁₆ (Am. 20, 564).
- 27) γ -Amido- α -Phenylpropen- γ -Carbonsäure. Sm. 240—250° u. Zers. (B. 22, 689). — II, 1424.
- 28) α -[3-Amidophenyl]propen- β -Carbonsäure. Sm. 137° (B. 23, 1900). — II, 1427.
- 29) β -[2-Amidophenyl]propen-4-Carbonsäure. Sm. 93—94°. HCl, Acetat (B. 19, 2573). — II, 1429.
- 30) β -[3-Amidophenyl]propen-4-Carbonsäure. Sm. 165° (B. 19, 272). — II, 1429.
- 31) 2-Propylidenamidobenzol-1-Carbonsäure. Sm. 115° (B. 28, 2813).
- 32) β -[5-Aethyl-2-Pyridyl]akrylsäure. Sm. 137°. HCl + H₂O, (HCl, AuCl₃) (B. 27, 90). — IV, 213.
- 33) 1,2,3,4-Tetrahydrochinolin-4-Carbonsäure (Tetrahydrocinchonsäure). HCl + 1½H₂O, (2HCl, PtCl₄) (M. 2, 29; 3, 61). — IV, 213.
- 34) 1,2,3,4-Tetrahydrochinolin-7-Carbonsäure. Sm. 146—147°. HCl + H₂O (A. 237, 315). — IV, 213.

- C₁₀H₁₁O₂N** 35) 1,2,3,4-Tetrahydrochinolin-8-Carbonsäure. Sm. 163° (B. 27, 825). — IV, 213.
- 36) Phenylimid d. Essigsäure (Diacetanilid). Sm. 37—37,5° (38°); Sd. 145 bis 146°₁₃ (B. 26, 2851, 2853; 27, 91; 28, 2356; G. 24 [1] 62, 444; C. 1897 [2] 548; Am. 18, 697). — II, 368.
- 37) Amid d. γ -Oxy- α -Phenylpropen- γ -Carbonsäure. Sm. 141,5° (A. 299, 23).
- 38) Amid d. β -[2-Methoxyphenyl]akrylsäure (β -Modif.). Sm. 191—192° (J. 1877, 793). — II, 1628.
- 39) Amid d. β -[4-Methoxyphenyl]akrylsäure. Sm. 186° (J. 1877, 792). — II, 1636.
- 40) Amid d. γ -Keto- α -Phenylpropan- γ -Carbonsäure. Sm. 179—180° (A. 299, 34).
- 41) Amid d. 2-Propionylbenzol-1-Carbonsäure. Sm. 159° (B. 19, 840). — II, 1659.
- 42) Amid d. β -Benzoylpropionsäure (oder A. d. α -Oxy- γ -Phenylcrotonsäure). Sm. 125° (B. 24, 4080). — II, 1658.
- 43) Phenylamid d. Acetessigsäure. Sm. 85°. Cu (A. 236, 75; B. 21, 624; 25, 778; 27, 1169). — II, 405.
- 44) 2-Methylphenylamid d. Brenztraubensäure = (C₁₀H₁₁O₂N)₂. Sm. 177° (A. 270, 317). — II, 466.
- 45) 2-Methylphenylamid d. Acetylameisensäure. Sm. 70—71° (A. 279, 83).
- 46) 4-Methylphenylamid d. Acetylameisensäure. Sm. 109° (A. 279, 89).
- 47) Benzylidenamid d. α -Oxypropionsäure. Sm. 130—131° (B. 29, 213). — III, 32.
- 48) Acetylamid d. Phenylessigsäure. Sm. 129° (B. 17, 1423, 1425). — II, 1312.
- 49) Acetylamid d. 1-Methylbenzol-4-Carbonsäure. Sm. 147° (B. 21, 2652). — II, 1342.
- 50) Propionylamid d. Benzolcarbonsäure. Sm. 98° (Am. 20, 72).
- 51) Phenylformylamid d. Propionsäure. Fl. (Am. 18, 698).
- 52) Nitril d. 2,6-Dioxybenzolphäthyläther-1-Carbonsäure. Sm. 66°; Sd. 220—225°₉₀ (R. 2, 224; 3, 384). — II, 1739.
- 53) Verbindung (aus Cantharidinimid). Sm. 137° (G. 23 [1] 126). — III, 622.
- C₁₀H₁₁O₂N₂** C 58,5 — H 5,3 — O 15,6 — N 20,5 — M. G. 205.
- 1) γ -Nitro- γ -[4-Methylphenyl]hydrazonpropen. Sm. 95° (B. 25, 1705). — IV, 1382.
- 2) γ -Nitro- γ -[2-Methylphenyl]hydrazonpropen. Sm. 85,5° (B. 25, 1705). — IV, 1382.
- 3) γ -Phenylallenyluramidoxim. Sm. 158—159°. (2HCl, PtCl₄) (B. 22, 2399). — II, 1409.
- 4) 2-Nitroso-5-Keto-3-Methyl-1-Phenyltetrahydropyrazol. Sm. 54—55° (B. 26, 105). — IV, 489.
- 5) 3,5-Diketo-2,4-Dimethyl-1-Phenyltetrahydro-1,2,4-Triazol. Sm. 90° (B. 21, 1223). — IV, 677.
- 6) 4,6-Diketo-5-Methyl-2-Phenylhexahydro-1,3,5-Triazin (Methylbenzylidenbiuret). Sm. 238° (A. 291, 369).
- 7) 1 oder 4-Nitroso-3-Keto-2,7-Dimethyl-1,2,3,4-Tetrahydro-1,4-Benz-diazin. Zers. bei 200° (B. 25, 2419). — IV, 887.
- 8) Nitril d. 6-Nitro-1,3,5-Trimethylbenzol-2,4-Dicarbonsäure. Sm. 118° (A. 278, 220).
- 9) Nitril d. 2-Nitro-4-Amido-1,3,5-Trimethylbenzol-6-Carbonsäure. Sm. 230° (A. 278, 222). — II, 1392.
- 10) Nitril d. 6-Oxy-2-Keto-4-Methyl-4-Aethyl-2,3,4,5-Tetrahydropyridin-3,5-Dicarbonsäure. Sm. 193° (C. 1898 [2] 544).
- 11) Amid d. α -Phenylhydrazon- β -Ketopropan- α -Carbonsäure. Sm. 144,5° (B. 22, 1406; 32, 205). — IV, 705.
- 12) α -Phenyläthylhydrazid d. Oxaminsäure. Sm. 214° (B. 30, 592).
- C₁₀H₁₁O₂Cl** 1) 3-Chlor-5-Isopropyl-2-Methyl-1,4-Benzochinon. Fl. (J. pr. [2] 23, 178; B. 20, 1317). — III, 366.
- 2) 6-Chlor-5-Isopropyl-2-Methyl-1,4-Benzochinon. Fl. (B. 20, 1319; J. pr. [2] 23, 178). — III, 366.
- 3) γ -Chlor- γ -Phenylbuttersäure. Sm. 70° (A. 256, 158). — II, 1381.

- $C_{10}H_{11}O_2Cl$ 4) α -[3-Chlorbenzyl]propionsäure. *Sd.* 292—296° (*B.* 23, 1896). — II, 1382.
 5) 2-Chlor-1-Isopropylbenzol-4-Carbonsäure. *Sm.* 122—123°. *Ba* + $3H_2O$ (*B.* 11, 365; *G.* 16, 288). — II, 1386.
 6) Aethylester d. d-Phenylchloroessigsäure. *Sd.* 162°₁₅ (*B.* 28, 1295; 31, 1420).
 7) Aethylester d. 5-Chlor-1-Methylbenzol-2-Carbonsäure. *Sd.* 258° (*A.* 274, 291). — II, 1331.
 8) Aethylester d. 6-Chlor-1-Methylbenzol-3-Carbonsäure. *Sd.* 260 bis 265° (*A.* 144, 267). — II, 1336.
 9) Aethylester d. 2-Chlor-1-Methylbenzol-4-Carbonsäure. *Sd.* 149 bis 150° (*J. pr.* [2] 39, 498). — II, 1345.
 10) β -Chlorisopropylester d. Benzolcarbonsäure. *Fl.* (*B.* 17, 3015). — II, 1140.
 11) Chlorid d. α -Oxybutterphenyläthersäure (*B.* 29, 1422).
- $C_{10}H_{11}O_2Cl_3$ 1) Diäthyläther d. 2,3,5-Trichlor-1,4-Dioxybenzol. *Sm.* 68,5° (*A.* 146, 28). — II, 942.
- $C_{10}H_{11}O_2Br$ 1) 1-Brom-2,3-Dioxy-1,2,3,4-Tetrahydronaphtalin. *Sm.* 158,5° (*B.* 26, 1841; *A.* 288, 103). — II, 981.
 2) Methyläther d. α -Bromäthyl-4-Oxyphenylketon. *Sm.* 68,5° (*J. pr.* [2] 52, 200; *B.* 29, 688). — III, 141.
 3) Methyläther d. Aethyl-3-Brom-4-Oxyphenylketon. *Sm.* 100,5° (*J. pr.* [2] 51, 428; *B.* 29, 686). — III, 142.
 4) Aethyläther d. Brommethyl-4-Oxyphenylketon. *Sm.* 59—60° (*B.* 31, 173).
 5) 3-Brom-5-Isopropyl-2-Methyl-1,4-Benzochinon. *Sm.* 48° (*J. pr.* [2] 3, 57; *B.* 20, 1318; 22, 3264; *G.* 16, 197). — III, 367.
 6) 6-Brom-5-Isopropyl-2-Methyl-1,4-Benzochinon. *Sm.* 54—55° (*B.* 22, 3268). — III, 367.
 7) isom. 2-Brom-5-Isopropyl-2-Methyl-1,4-Benzochinon. *Fl.* (*J. pr.* [2] 23, 184). — III, 367.
 8) β -Brom- γ -Phenylbuttersäure. *Sm.* 54° (*A.* 283, 303).
 9) γ -Brom- γ -Phenylbuttersäure. *Sm.* 69° (*A.* 216, 102; *B.* 17, 202). — II, 1381.
 10) 2-Brom-1-norm. Propylbenzol-4-Carbonsäure. *Sm.* 108—109° (*G.* 21 [1] 10). — II, 1383.
 11) 3-Brom-1-norm. Propylbenzol-4-Carbonsäure. *Sm.* 130—130,5° (*G.* 21 [1] 10). — II, 1383.
 12) 2-Brom-1-Isopropylbenzol-4-Carbonsäure. *Sm.* 151—152°. *Mg* + $8H_2O$, *Ba*, *Ag* (*Z.* 1866, 333; *B.* 11, 1719; *G.* 16, 296). — II, 1386.
 13) 3[2]-Brom-1-Isopropylbenzol-4-Carbonsäure (*B.* 3, 478). — II, 1386.
 14) Aethylester d. Phenylbromessigsäure. *Sd.* 150—151°_{10—15} (175°₂₅) (*A.* 258, 70; *B.* 24, 1877; 28, 2447). — II, 1317.
 15) Aethylester d. d-Phenylbromessigsäure. *Sd.* 164°₂₀ (*B.* 28, 1296).
 16) Aethylester d. 6-Brom-1-Methylbenzol-3-Carbonsäure. *Sd.* 270—275° (*A.* 147, 34). — II, 1337.
- $C_{10}H_{11}O_2Br_3$ 1) 3-Methyläther d. 2-Brom-3,4-Dioxy-1-[$\alpha\beta$ -Dibrompropyl]benzol. *Sm.* 138—139° (*B.* 28, 2089).
 2) Aethyläther d. 2,4,5-Tribrom-6-Oxy-3-Oxymethyl-1-Methylbenzol. *Sm.* 110—112° (*B.* 29, 1131).
 3) Diäthyläther d. 2,4,6-Tribrom-1,3-Dioxybenzol. *Sm.* 68—69° (*Am.* 18, 121).
 4) Diäthyläther d. 2-Tribrom-1,3-Dioxybenzol. *Sm.* 89—91° (*M.* 17, 322 Anm.).
- $C_{10}H_{11}O_2J$ 1) 3-Jod-5-Isopropyl-2-Methyl-1,4-Benzochinon. *Sm.* 61° (*J. pr.* [2] 39, 394). — III, 367.
 2) 6-Jod-5-Isopropyl-2-Methyl-1,4-Benzochinon. *Sm.* 65—66° (*J. pr.* [2] 40, 188). — III, 368.
 3) γ -Jod- γ -Phenylbuttersäure. *Sm.* 77° u. Zers. (*A.* 256, 158). — II, 1381.
C 62,2 — *H* 5,7 — *O* 24,8 — *N* 7,2 — *M. G.* 193.
- $C_{10}H_{11}O_3N$ 1) Aethyl-2-Nitro-4-Methylphenylketon. *Sm.* 50—51° (*G.* 21 [1] 97). — III, 150.
 2) Methyl-3-Nitro-2,4-Dimethylphenylketon. *Sm.* 72° (*J. pr.* [2] 41, 493). — III, 152.

- $C_{10}H_{11}O_3N$ 3) Methyl-5-Nitro-2,4-Dimethylphenylketon. Sm. 67° (*J. pr.* [2] 41, 493). — III, 152.
- 4) 3,4-Methylenäther d. γ -Amido- β -Keto- α -[3,4-Dioxyphenyl]propan. HCl, Pikrat (*G.* 25 [2] 210). — III, 144.
- 5) 3,4-Methylenäther d. α -Oximido- α -[3,4-Dioxyphenyl]propan. Sm. 104° (*B.* 28, 2719). — III, 143.
- 6) 4-Aethyläther d. Oximidomethyl-4-Oxyphenylketon. Sm. 120° . — III, 134.
- 7) Acetat d. 2-Methoxylbenzaldoxim. Sm. 40° (*B.* 25, 1924). — III, 77.
- 8) Acetat d. anti-4-Methoxylbenzaldoxim. Sm. 48° (*B.* 24, 41). — III, 87.
- 9) Acetat d. syn-4-Methoxylbenzaldoxim. Sm. 64° (*B.* 24, 38). — III, 87.
- 10) 6-Methyläther d. 2,4,6-Trioxy-3,4-Dihydrochinolin. Sm. 177° (*A.* 262, 177). — IV, 223.
- 11) α -Phenylformylamidopropionsäure. Ba + H_2O (*B.* 23, 2597). — II, 432.
- 12) α -Benzoylamidopropionsäure. Sm. 165 — 166° . Ag (*H.* 9, 467; 18, 579; *J. pr.* [2] 53, 352). — II, 1191.
- 13) Methylbenzoylamidoessigsäure. Fl. Cu, Ag (*C.* 1895 [1] 327; *J. pr.* [2] 53, 353).
- 14) 2-Methylbenzoylamidoessigsäure (o-Tolursäure). Sm. $162,5^\circ$ (*A.* 250, 378; *J. pr.* [2] 53, 348). — II, 1335.
- 15) 3-Methylbenzoylamidoessigsäure (m-Tolursäure). Sm. 139° . Ca + $5H_2O$, Ba, Zn + $4H_2O$, Cu + $6H_2O$ (*Z.* 1868, 29; *A.* 250, 378; *J. pr.* [2] 53, 350). — II, 1339.
- 16) 4-Methylbenzoylamidoessigsäure (p-Tolursäure). Sm. 161 — $161,5^\circ$. Ca + $3H_2O$, Ba + $5H_2O$ (*A.* 98, 360; 250, 378; *J. pr.* [2] 53, 351). — II, 1342.
- 17) Acetylphenylamidoessigsäure. Sm. 194 — 195° (190 — 191°). Na, Ba + $3H_2O$, Cu (*G.* 17, 231; *B.* 22, 1797; 23, 2594; 25, 2271). — II, 429.
- 18) Phenylacetylamidoessigsäure (Phenylacetursäure). Sm. 143° . Ca + $2H_2O$, Zn, Pb + H_2O , Cu (*B.* 12, 654; 17, 3010; *H.* 7, 162; *J. pr.* [2] 38, 98, 102; [2] 53, 354). — II, 1312.
- 19) 2-Acetylamidophenylessigsäure. Sm. 142° u. Zers. (*B.* 12, 1328). — II, 1321.
- 20) 4-Acetylamidophenylessigsäure. Sm. 168 — 170° (*B.* 15, 841). — II, 1322.
- 21) 2-Propionylamidobenzol-1-Carbonsäure. Ag (*B.* 20, 3421; 24, 1910). — II, 1250.
- 22) 2-Acetylmethylamidobenzol-1-Carbonsäure. Sm. 186° (*J. pr.* [2] 55, 128).
- 23) 2-Acetylamido-1-Methylbenzol-3-Carbonsäure. Sm. 193 — 194° (*B.* 24, 1909). — II, 1338.
- 24) 4-Acetylamido-1-Methylbenzol-3-Carbonsäure. Sm. 193 — 194° (*B.* 24, 1910). — II, 1338.
- 25) 3-Acetylamido-1-Methylbenzol-4-Carbonsäure. Sm. 183° (*J. pr.* [2] 40, 19). — II, 1351.
- 26) Phenylsuccinaminsäure. Sm. $148,5^\circ$. Ca + $4H_2O$, Ba + $3H_2O$, Pb, Ag (*A.* 68, 28; 162, 176; *Ph. Ch.* 3, 373). — II, 413.
- 27) 2-Methylphenylmalonaminsäure. Sm. 138 — 143° u. Zers. Ca + $3H_2O$, Ba + H_2O , Cu + $2H_2O$ (*B.* 18, 2973). — II, 467.
- 28) 3-Methylphenylmalonaminsäure. Sm. 99 — 101° (*B.* 18, 2975). — II, 472.
- 29) 4-Methylphenylmalonaminsäure. Sm. 156° u. Zers. Ca + $4\frac{1}{2}H_2O$, Ba + $5H_2O$, Cu + $2H_2O$ (*B.* 17, 740; 18, 2971). — II, 502.
- 30) Aethylphenyloxaminsäure + H_2O . Sm. 60 — $60,5^\circ$ (94 — 95° wasserfrei). — II, 408.
- 31) 1,3-Dimethyl-4-Phenyloxaminsäure + H_2O . Sm. 128 — 129° u. Zers.; subl. bei 85° . Ca, Ag (*M.* 9, 744). — II, 544.
- 32) 4-Dimethylamidobenzol-1-Ketocarbonsäure. Sm. 187° . Na, Ba (*B.* 10, 2081). — II, 1625.
- 33) 2-Aethylamidobenzol-1-Ketocarbonsäure. Na, Ba (*B.* 16, 2194; 30, 2813). — II, 1603.
- 34) β -[5-Amido-2-Methoxyphenyl]akrylsäure. Sm. 189° (*B.* 17, 1384). — III, 1633.

- $C_{10}H_{11}O_3N$ 35) β -[4-Amido-3-Methoxyphenyl]akrylsäure. Sm. 158° (J. 1885, 2093). — II, 1635.
- 36) γ -Oximido- γ -Phenylbuttersäure (stabile Form). Sm. 129° (B. 25, 1932; Ph. Ch. 10, 24). — II, 1658.
- 37) isom. γ -Oximido- γ -Phenylbuttersäure (labile Form). Sm. 95–96° (B. 25, 1933; Ph. Ch. 10, 24). — II, 1658.
- 38) α -Oximido- β -[3-Methylphenyl]propionsäure. Sm. 139°. Ag (B. 31, 2130).
- 39) 8-Oxy-1,2,3,4-Tetrahydrochinolin-2-Carbonsäure. Sm. 265° u. Zers. $HCl + H_2O$, $H_2SO_4 + 3H_2O$, Acetat (M. 8, 316). — IV, 214.
- 40) isom. 8-Oxy-1,2,3,4-Tetrahydrochinolin-2-Carbonsäure. HCl (B. 20, 1219). — IV, 214.
- 41) isom. 8-Oxy-1,2,3,4-Tetrahydrochinolin-2-Carbonsäure. Sm. 222° u. Zers. HCl (M. 9, 304). — IV, 214.
- 42) γ -Lakton d. β -Amido- $\alpha\gamma$ -Dioxy- γ -Phenylbuttersäure. Sm. 215° u. Zers. (B. 27, 3110). — II, 1767.
- 43) Aldehyd d. 4-Methoxybenzoylamidoessigsäure. HCl (B. 27, 3099). — II, 1529.
- 44) Aldehyd d. 2-Nitro-1-Isopropylbenzol-4-Carbonsäure. Sm. 54° (B. 12, 76; 15, 167). — III, 55.
- 45) Aldehyd d. 3-Nitro-1-Isopropylbenzol-4-Carbonsäure (B. 17, 2019). — III, 55.
- 46) Methylester d. Benzoylamidoessigsäure. Sm. 80,5° (J. 1857, 368; J. pr. [2] 15, 247). — II, 1184.
- 47) Methylester d. α -Phenylimido- α -Oxyessigmethyläthersäure. Sm. 111° (B. 28, 61).
- 48) Methylester d. syn- α -Oximidomethyläther- α -Phenylessigsäure. Sm. 55–56° (B. 16, 2987). — II, 1599.
- 49) Methylester d. β -[6-Amido-3-Oxyphenyl]akrylsäure. Sm. 178 bis 179° (B. 27, 1936). — II, 1635.
- 50) 1-Methylester d. Benzol-1-Carbonsäure-2-Methylcarbonsäureamid (M. d. o-Homophtalamidsäure). Sm. 110–112° (B. 20, 1204). — II, 1842.
- 51) Aethylester d. Benzoylamidoameisensäure. Sm. 110°. K (J. pr. [2] 10, 254; B. 26, 928; 28, 2383; Am. 20, 70). — II, 1181.
- 52) Aethylester d. Phenylloxaminsäure. Sm. 66–67°; Sd. 260–300° (A. 184, 263). — II, 407.
- 53) Aethylester d. syn- α -Oximido- α -Phenylessigsäure. Sm. 112–113° (B. 16, 519). — II, 1599.
- 54) Aethylester d. Phenylformylamidoameisensäure. Sd. 149–151°₁₅ (Am. 19, 226).
- 55) 3-Aethylester d. 1,5-Anhydro-2,4-Dimethylpyrrol-3,5-Dicarbonsäure. Sm. bei 270° (B. 21, 2877). — IV, 93.
- 56) Aethylester d. 2-Acetylpyridin-3-Carbonsäure. Fl. HCl (B. 26, 1511). — IV, 156.
- 57) Acetat d. 2-Acetylamido-1-Oxybenzol + 1½ H_2O . Sm. 76–77° (123 bis 124° wasserfrei) (Soc. 69, 1324).
- 58) Acetat d. 3-Acetylamido-1-Oxybenzol. Sm. 101° (Am. 15, 41). — II, 715.
- 59) Acetat d. 4-Acetylamido-1-Oxybenzol. Sm. 150–151° (B. 9, 1529). — II, 719.
- 60) Hemipinimidin. Sm. 181° (B. 20, 883). — II, 1996.
- 61) Amid d. α -Benzoyloxypropionsäure. Sm. 124° (A. 133, 281). — II, 1154.
- 62) 5-Monamid d. 1,3-Dimethylbenzol-2,5-Dicarbonsäure. Sm. 246° (Am. 20, 812).
- $C_{10}H_{11}O_3N_3$ C 54,3 — H 5,0 — O 21,7 — N 19,0 — M. G. 221.
- 1) Benzoylamidoacetylarnstoff. Sm. 216° u. Zers. (B. 16, 757). — II, 1186.
- 2) β -[2-Nitrobenzoyl]hydrazonpropan. Sm. 205° (J. pr. [2] 51, 174).
- 3) β -[3-Nitrobenzoyl]hydrazonpropan. Sm. 152° (J. pr. [2] 51, 174).
- 4) β -[4-Nitrobenzoyl]hydrazonpropan (J. pr. [2] 51, 174).
- 5) Methyläther d. γ -Nitro- α -[4-Oxyphenyl]azopropen. Sm. 80° (B. 25, 1705). — IV, 1407.

- C₁₀H₁₁O₂N₂** 6) α -[2-Nitro-4-Methylphenyl]azo- β -Ketopropan. Sm. 134—134,5° (B. 17, 2421). — IV, 1477.
 7) 6-Nitro-1-Nitroso-2-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 155° (152°) (A. 242, 315; B. 29, 2980; 31, 2540). — IV, 204.
 8) 8-Nitro-1-Nitroso-2-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 105 bis 107° (B. 31, 2540).
 9) 8-Nitro-1-Nitroso-6-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 122° (B. 31, 2538).
 10) 6-Nitro-1-Nitroso-8-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 100 bis 102° (B. 31, 2539).
 11) β -Oximido- α -Phenylhydrazonbuttersäure. Na (B. 30, 1163). — IV, 690.
 12) α -[2-Amidophenyl]hydrazonacetessigsäure. Sm. 157° u. Zers. (B. 17, 2420). — IV, 1126.
 13) Methylmonamid d. Phenylhydrazonmethan- $\alpha\alpha$ -Dicarbonsäure. Sm. 158° u. Zers. (B. 31, 2162).
 14) Phenylamid d. $\alpha\beta$ -Dioximidobuttersäure. Sm. 192° (B. 27, 1170).
 15) Acetylphenylhydrazid d. Oxaminsäure. Sm. 224° (J. pr. [2] 48, 79).
- C₁₀H₁₁O₂Cl** 1) 3[oder 6]-Chlor-6[oder 3]-Oxy-5-Isopropyl-2-Methyl-1,4-Benzochinon. Sm. 122° (B. 10, 1223). — III, 368.
 2) Monobenzoat d. Chlordioxypropan. Sd. 222°_{40—50} (BERTHELOT, Chim. org. synth. 2, 146; A. 138, 298). — II, 1141.
 3) Aethylester d. 3-Chlor-4-Oxybenzolmethyläther-1-Carbonsäure (A. 56, 313). — II, 1536.
- C₁₀H₁₁O₂Br** 1) α -Brompropyl-3,4-Dioxyphenylketon. Sm. 135° (J. r. 25, 160). — III, 148.
 2) Methyläther d. Methylbromresacetophenon. Sm. 63—64° (Soc. 67, 997). — III, 146.
 3) γ -Brom- α -Oxy- γ -Phenylbuttersäure. Sm. 126° (B. 24, 4074). — II, 1584.
 4) β -Brom- α -Oxy- α -Methyl- β -Phenylpropionsäure. Sm. 148° (B. 21, 276). — II, 1584.
 5) 5-Brom-2-Oxybenzolpropyläther-1-Carbonsäure. Sm. 62—63° (G. 16, 414). — II, 1505.
 6) 5-Brom-2-Oxybenzolisopropyläther-1-Carbonsäure. Sm. 101—102° (G. 16, 415). — II, 1505.
 7) Methylester d. 5-Brom-2-Oxybenzoläthyläther-1-Carbonsäure. Sm. 49°; Sd. 300—302° (G. 16, 413). — II, 1505.
 8) Aethylester d. Oxyessig-2-Bromphenyläthersäure. Sd. 160—170°₁₆ (B. 27, 2799).
 9) Aethylester d. Oxyessig-4-Bromphenyläthersäure. Sm. 59° (J. pr. [2] 20, 298). — II, 673.
 10) Aethylester d. 3-Brom-4-Oxybenzolmethyläther-1-Carbonsäure. Sm. 73,5—74° (A. 56, 313; G. 11, 406). — II, 1536.
 11) Aethylester d. isom. p-Brom-4-Oxybenzolmethyläther-1-Carbonsäure. Sm. 60—60,5° (G. 11, 411). — II, 1536.
- C₁₀H₁₁O₂Br₂** 1) Diäthyläther d. 2,4,6-Tribrom-1,3,5-Trioxybenzol. Sm. 62—64° (M. 15, 701).
 2) Verbindung (aus Campherchinon). Sm. 197—198° (B. 30, 3160).
- C₁₀H₁₁O₂J** 1) α -Jod- γ -Oxy- γ -Phenylpropionmethyläthersäure. Sm. 164—165° (A. 289, 274).
 2) α -Jod- β -[2-Oxyphenylmethyläther]propionsäure (Soc. 39, 429). — II, 1564.
 3) Aethylester d. 3-Jod-4-Oxybenzolmethyläther-1-Carbonsäure. Sm. 64,75—67,75° (J. pr. [2] 57, 496; [2] 58, 147).
 C 57,4 — H 5,3 — O 30,6 — N 6,7 — M. G. 209.
- C₁₀H₁₁O₂N** 1) 3-Methyläther d. 5-Nitro-3,4-Dioxy-1-Allylbenzol. Sm. 43—44°. K, Ba (M. 3, 388). — II, 976.
 2) α -Oxy- γ -Keto- α -[2-Nitrophenyl]butan. Sm. 68—69° (B. 15, 2857). — III, 149.
 3) α -Oxy- γ -Keto- α -[4-Nitrophenyl]butan. Sm. 58° (B. 16, 1968). — III, 149.
 4) α -Acetat d. α -Oximido- α -[2,4-Dioxyphenyl]äthan. Sm. 174—175° u. Zers. (Soc. 67, 998).

- $C_{10}H_{11}O_4N$
- 5) α -Acetat d. α -Oximido- α -[2,5-Dioxyphenyl]butan. Sm. 146—147° u. Zers. (Soc. [67](#), 999).
 - 6) α -[2-Nitrobenzyl]propionsäure. Fl. Ag + H_2O (Soc. [53](#), 559). — II, 1382.
 - 7) α -[4-Nitrobenzyl]propionsäure. Sm. 121°. Ag (Soc. [53](#), 558). — II, 1382.
 - 8) β -[2-Nitro-3-Methylphenyl]propionsäure. Sm. 130—136° (B. [17](#), 2327). — II, 1384.
 - 9) 2-Nitro-3,5-Dimethylphenylessigsäure. Sm. 139°. Ca + $4H_2O$, Ba + $4\frac{1}{2}H_2O$ (B. [16](#), 1579). — II, 1390.
 - 10) 2-Nitro-1-norm. Propylbenzol-4-Carbonsäure. Sm. 113°. Sr + $5H_2O$, Ba + $4H_2O$ (A. [216](#), 230; B. [21](#), 2231). — II, 1383.
 - 11) 2-Nitro-1-Isopropylbenzol-4-Carbonsäure. Sm. 156—157°. Pb, Ag (A. [69](#), 243; J. [1875](#), 589, 747; 1886, 1472; B. [12](#), 78; [15](#), 2548; [21](#), 2232; G. [11](#), 12; J. r. [16](#), 162; [17](#), 112; [21](#), 488; Ph. Ch. [5](#), 396). — II, 1386.
 - 12) 3-Nitro-1-Isopropylbenzol-4-Carbonsäure. Sm. 99° (B. [19](#), 269). — II, 1386.
 - 13) 2-Nitro-1,3,5-Trimethylbenzol-6-Carbonsäure. Sm. 182°. Ba, Ag (A. [278](#), 217). — II, 1391.
 - 14) 5-Acetylamido-2-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 275° (B. [23](#), 3477). — II, 1546.
 - 15) α -Oxy- α -[2-Acetylamidophenyl]essigsäure (Acetylhydrindinsäure). Sm. 142° (B. [11](#), 586). — II, 1613.
 - 16) Oxyessig-4-Acetylamidophenyläthersäure + H_2O . Sm. 175—176° (B. [30](#), 546; J. pr. [\[2\]](#) [55](#), 121).
 - 17) Phenylamidobernsteinsäure. Sm. 131—132° u. Zers. HCl (A. [239](#), 151; G. [14](#), 474). — II, 436.
 - 18) Phenyloxyacetamidoessigsäure. Sm. 127—128°. Ca + $6H_2O$, Ba + $7H_2O$ (J. pr. [\[2\]](#) [40](#), 499). — II, 430.
 - 19) α -Phenylamidoformoxylpropionsäure (Milchsäurephenylurethan). Sm. 139—140°. Na (Bl. [\[3\]](#) [19](#), 773).
 - 20) 4-Methoxybenzoylamidoessigsäure. Ca + $3H_2O$, Ag (A. [109](#), 32; [142](#), 348; J. pr. [\[2\]](#) [53](#), 358). — II, 1530.
 - 21) γ -Oxy- α [oder β] Oximido- α -Phenylpropan- γ -Carbonsäure. Sm. 125° (B. [25](#), 2562). — II, 1782.
 - 22) 3,4-Dioxy-1-[- β -Amidoäthyl]benzolmethylenäther-2-Carbonsäure + H_2O . Sm. 180—182°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), H₂SO₄ + $2H_2O$, Oxalat (Soc. [57](#), 1053). — II, 1764.
 - 23) Diglykolphenylaminsäure. Sm. 118° (A. [259](#), 190). — II, 403.
 - 24) Phenylimidodiessigsäure. Sm. 150—151° u. Zers. Anilinsalz (B. [14](#), 1325; [22](#), 1798; [23](#), 1990; Ph. Ch. [10](#), 643). — II, 431.
 - 25) 3-Uramido-4-Methylphenyloxaminsäure. Sm. 203° (A. [268](#), 338). — IV, 605.
 - 26) 2,4,6-Trimethylpyridin-3,5-Dicarbonsäure. K, Mg + $1\frac{1}{2}(2)H_2O$, Ca + H_2O , Ba + $3H_2O$, 3CuO + $11H_2O$, Ag₂, (2HCl, PtCl₄) (A. [215](#), 26; B. [14](#), 1638). — IV, 168.
 - 27) 1,2-Laktond.-Amido-3,4-Dioxy-1-Oxymethylbenzol-3,4-Dimethyläther-2-Carbonsäure (Amidomekonin). Sm. 171° (B. [20](#), 887). — II, 1928.
 - 28) 1,2-Laktond.-Amido-5,6-Dioxy-1-Oxymethylbenzol-5,6-Dimethyläther-2-Carbonsäure (Amidopseudomekonin). Sm. 165° (B. [20](#), 887). — II, 1929.
 - 29) Methylester d. 5-Acetylamido-2-Oxybenzol-1-Carbonsäure. Sm. 147° (A. [301](#), 111).
 - 30) Dimethylester d. 5-Amidobenzol-1,3-Dicarbonsäure. Sm. 176° (J. pr. [\[2\]](#) [25](#), 504). — II, 1830.
 - 31) Dimethylester d. 2-Amidobenzol-1,4-Dicarbonsäure. Sm. 126°. HCl, (2HCl, PtCl₄) (B. [19](#), 1636; A. [121](#), 92). — II, 1839.
 - 32) Aethylester d. Anthranilcarbonsäure. Sm. 126°. Ag (B. [22](#), 1674). — II, 1251.
 - 33) Aethylester d. Benzoxylamidoameisensäure. Sm. 38—39° (Am. [20](#), 49).
 - 34) 3-Aethylester d. Benzol-1-Carbonsäure-3-Amidoameisensäure (3-Urethanbenzol-1-Carbonsäure). Sm. 189°. Ba + $2H_2O$, Ag (B. [9](#), 796; [11](#), 701). — II, 1260.

- C₁₀H₁₁O₄N** 35) Aethylester d. 2-Nitrophenylessigsäure. Sm. 69° (B. 31, 395).
 36) Aethylester d. 4-Nitrophenylessigsäure. Sm. 64° (65,5—66°) (B. 2, 209; 12, 1767). — II, 1319.
 37) Aethylester d. 6-Nitro-1-Methylbenzol-3-Carbonsäure. Sm. 55° (A. 144, 174). — II, 1338.
 38) Aethylester d. 2-Nitro-1-Methylbenzol-4-Carbonsäure (A. 63, 301). — II, 1347.
 39) Aethylester d. 2-Oxybenzaldoximkohlsäure. Sm. 69,5° (B. 31, 2809).
 40) Aethylester d. 2-[$\alpha\gamma$ -Diketopropyl]pyrrol- γ -Carbonsäure (Ac. d. 2-Pyrrolylbrenztraubensäure). Sm. 123° (B. 23, 1794; G. 22 [2] 25). — IV, 88.
 41) β -Oxyäthylmonamid d. Benzol-1,2-Dicarbonsäure. (HCl, Sm. 85,5°) (B. 21, 572). — II, 1796.
 42) Phenylmonamid d. Äpfelsäure (Malanilsäure). Sm. 145° (A. 96, 111). — II, 419.
 43) 4-Oxyphenylmonamid d. Bernsteinsäure. Sm. 171—172° (B. 29, 84).
 44) 4-Oxyphenylmonamid d. Oxalsäuremonoäthylester. Sm. 184—185° (B. 31, 331).
 45) 4-Methoxyphenylmonamid d. Methandicarbonsäure. Sm. 143° u. Zers. (G. 25 [2] 539).
 46) 4-Aethoxyphenylmonamid d. Oxalsäure. Sm. 180—181° (G. 25 [2] 536). C 50,6 — H 4,6 — O 27,0 — N 17,7 — M. G. 237.
- C₁₀H₁₁O₄N₂** 1) 4-Nitro-1,2-Di[Acetylamido]benzol. Sm. 227° (B. 17, 150). — IV, 558.
 2) p-Nitro-1,3-Di[Acetylamido]benzol. Sm. 246° (B. 7, 1258). — IV, 575.
 3) 2-Nitro-1,4-Di[Acetylamido]benzol. Sm. 185° (B. 7, 1533; 17, 148; 30, 979). — IV, 589.
 4) $\alpha\beta$ -Diacetyl- α -[2-Nitrophenyl]hydrazin. Sm. 57—58° (B. 22, 2804). — IV, 666.
 5) $\alpha\beta$ -Diacetyl- α -[3-Nitrophenyl]hydrazin. Sm. 150° (B. 22, 2811). — IV, 666.
 6) p-Dinitro-1-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 148° (B. 18, 2930). — IV, 191.
 7) 3-Uramidobenzoylamidoessigsäure. Ag (J. pr. [2] 1, 235). — II, 1188.
 8) α -Amido- β -Phenylhydrazonäthan- $\alpha\beta$ -Dicarbonsäure (B. 20, 245). — IV, 713.
 9) Aethylester d. α -Imido-3-Nitrobenzylamidoameisensäure. Sm. 176° (B. 28, 483). — IV, 846.
 10) Phenylhydrazid d. Acetyloxalhydroxamsäure. Sm. 147° (A. 295, 169). — IV, 700.
 11) Verbindung (aus α -Oximidophenylamidoessigsäureäthylester). Sm. 160° (B. 30, 2429; 31, 3036).
- C₁₀H₁₁O₄Cl** 1) 2,4-Dimethyläther d. Chlormethyl-2,4,6-Trioxyphenylketon. Sm. 142—144° (B. 30, 2153).
- C₁₀H₁₁O₄Br** 1) $\alpha\delta$ -Lakton d. p-Brom- δ -Oxy- β -Methyl- $\alpha\gamma$ -Pentadien- $\alpha\gamma$ -Dicarbonsäure- γ -Aethylester (Ac. d. Bromisodehydracetsäure). Sm. 87° (A. 222, 25; B. 26, 757). — I, 777.
 2) Methylester d. 2-Brom-3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 46° (A. 293, 187).
 3) Methylester d. 5-Brom-3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 71—72° (A. 293, 185).
 4) Methylester d. 6-Brom-3,4-Dioxybenzoldimethyläther-1-Carbonsäure (A. 293, 186).
- C₁₀H₁₁O₄J** 1) Acetat d. Jodosobenzol. Sm. 156—157° (B. 25, 3495). — II, 77.
C₁₀H₁₁O₅N C 53,3 — H 4,9 — O 35,5 — N 6,2 — M. G. 225.
 1) 2-Nitro-1-[α -Oxyisopropyl]benzol-4-Carbonsäure. Sm. 190—191°. NH₄ + 2H₂O, Ca. Ba + 6H₂O, Cu + 3H₂O, Ag + 1½H₂O (B. 15, 2549; 16, 2567; 21, 2232). — II, 1586.
 2) 3-Nitro-1-[α -Oxyisopropyl]benzol-4-Carbonsäure. Sm. 168° (B. 19, 271; 21, 2128). — II, 1586.
 3) p-Nitro-3-Oxy-1-Methylbenzoläthyläther-4-Carbonsäure. Sm. 161 bis 162° (J. 1879, 519). — II, 1550.
 4) 3,4-Dioxy-1-Oximidomethylbenzol-3,4-Dimethyläther-2-Carbonsäure (Opiansäureoxim). Sm. 82—83° (Soc. 57, 1071). — II, 1942.
 5) 5,6-Dioxy-1-Oximidomethylbenzol-5,6-Dimethyläther-2-Carbon-

- säure (Pseudoopiansäureoxim). Zers. bei 160—180° (*Soc.* 57, 1069). — II, 1945.
- C₁₀H₁₁O₅N** 6) **4-Keto-1,2,6-Trimethyl-1,4-Dihydropyridin-3,5-Dicarbonsäure.** Sm. 245° (*B.* 20, 159; 22, 80). — II, 2005.
- 7) **1-Aldehyd d. 6-Amido-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure** (Amidoopiansäure). Zers. bei 220°. HCl (*B.* 20, 876). — II, 1944.
- 8) **Methylester d. β -Oxy- β -[2-Nitrophenyl]propionsäure.** Sm. 51° (*B.* 16, 2214; 17, 1660). — II, 1573.
- 9) **Methylester d. β -Oxy- β -[4-Nitrophenyl]propionsäure.** Sm. 72—74° (*B.* 16, 3006; 17, 1661). — II, 1574.
- 10) **Methylester d. β -[3-Nitro-4-Oxyphenyl]propionsäure.** Sm. 64° (*A.* 225, 93). — II, 1565.
- 11) **Aethylester d. α -Oxy- α -[3-Nitrophenyl]essigsäure.** Sm. 63° (*J. pr.* [2] 31, 394). — II, 1554.
- 12) **Aethylester d. α -Oxy- α -[4-Nitrophenyl]essigsäure.** Sm. 75—76° (*B.* 22, 209). — II, 1555.
- 13) **Aethylester d. Oxyessig-2-Nitrophenyläthersäure.** Sm. 49° (46—47°) (*B.* 20, 1944; *J. pr.* [2] 55, 123). — II, 681.
- 14) **Aethylester d. Oxyessig-4-Nitrophenyläthersäure.** Sm. 75—76° (73—74°) (*J. pr.* [2] 55, 114; *C.* 1898 [1] 1252).
- 15) **Aethylester d. 3-Nitro-4-Oxybenzoldimethyläther-1-Carbonsäure.** Sm. 98—100° (*A.* 56, 314; *B.* 28, 599). — II, 1538.
- 16) **Aethylester d. 4- oder 6-Acetoxy-6- oder 4-Oxypyridin-3-Carbonsäure.** Sm. 147—148° (*B.* 31, 1686).
- 17) **Aethylester d. Acetylkomenaminsäure.** Sm. 152° (*J. pr.* [2] 29, 59). — IV, 158.
- 18) **1-Amid d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure + H₂O.** Sm. 142° (wasserfrei). Ag (*R.* 14, 273).
- 19) **2-Amid d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure + 2H₂O.** Sm. 160—162° u. Zers. (wasserfrei). Ag (*R.* 14, 271).
- 20) **Phenylmonamid d. Weinsäure** (Tartranilsäure). Sm. 181° u. Zers. Ba, Ag (*A.* 93, 355). — II, 421.
- 21) **Apiolaldoxim.** Sm. 160—161° (*B.* 21, 1628). — III, 109.
- 22) **α -Acetat d. α -Oximido- α -[p-Trioxypheyl]äthan** (Acetat d. Gallacetophenonoxim). Sm. 165° u. Zers. (*Soc.* 67, 998). — III, 139.
- 23) **Verbindung** (aus trans- π -Camphansäure). Zers. bei 196—206° (*Soc.* 69, 961).
- C₁₀H₁₁O₅N₂** C 47,4 — H 4,3 — O 31,6 — N 16,6 — M. G. 253.
- 1) **3,5-Dinitro-4-Acetylamido-1-Aethylbenzol.** Sm. 180—182° (*B.* 17, 768). — II, 537.
- 2) **4,6-Dinitro-2-Acetylamido-1,3-Dimethylbenzol.** Sm. 225—226° (*B.* 24, 568). — II, 542.
- 3) **2,5-Dinitro-4-Acetylamido-1,3-Dimethylbenzol.** Sm. 226° (*B.* 29, 312).
- 4) **Aethylester d. 3-Nitrobenzenylamidoximkohlsäure.** Sm. 152 bis 153° (*B.* 18, 1066). — II, 1235.
- 5) **Aethylester d. 4-Nitrobenzenylamidoximkohlsäure.** Sm. 169° (*B.* 22, 2422). — II, 1237.
- 6) **Amid d. 2,6-Dinitro-1-Isopropylbenzol-4-Carbonsäure** (*J.* 1858, 271). — II, 1387.
- 7) **Amid d. 2,4-Dinitro-1,3,5-Trimethylbenzol-6-Carbonsäure.** Sm. 198° (*A.* 278, 221). — II, 1391.
- C₁₀H₁₁O₆N** C 49,8 — H 4,6 — O 39,8 — N 5,8 — M. G. 241.
- 1) **β -Oxy- β -[2-Nitro-5-Methoxyphenyl]propionsäure.** Sm. 106° (*A.* 262, 170). — II, 1763.
- 2) **p-Nitro-2,5-Dioxyphenylessigdimethyläthersäure.** Sm. 204° (*H.* 15, 250; 20, 223). — II, 1748.
- 3) **6-Amido-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure** (Amidohemipiansäure). Na₂ + 3H₂O, Ba, Cu + 7H₂O (*J. pr.* [2] 24, 366; *B.* 19, 2305). — II, 1998.
- 4) **2,5-Dimethylpyrrol-3,4-Dicarbonsäure-1-Methylcarbonsäure.** K₃, Ag₂ (*A.* 236, 314). — IV, 97.
- 5) **Methylester d. 2-Nitro-3,4-Dioxybenzoldimethyläther-1-Carbonsäure.** Sm. 127—128° (*B.* 11, 134). — II, 1745.

- C₁₀H₁₁O₆N** 6) Methylester d. 5-Nitro-3,4-Dioxybenzoldimethyläther-1-Carbon-säure. Sm. 78° (A. 293, 192).
- C₁₀H₁₁O₆N₂** 7) Methylester d. 6-Nitro-3,4-Dioxybenzoldimethyläther-1-Carbon-säure. Sm. 143—144° (B. 11, 132). — II, 1745.
C 44,6 — H 4,1 — O 35,7 — N 15,6 — M. G. 269.
1) 2-Trinitro-tert.-Butylbenzol. Sm. 108—109° (B. 27, 1610).
2) 2-Trinitro-3-Isopropyl-1-Methylbenzol. Sm. 72—73° (A. 210, 54; 289, 162). — II, 104.
3) 2-Trinitro-4-Isopropyl-1-Methylbenzol. Sm. 119° (A. 145, 142). — II, 104.
4) isom. Trinitro-2-Isopropyl-1-Methylbenzol. Sm. 178—180° (B. 6, 938, 940). — II, 104.
5) 2-Trinitro-2-Isopropyl-1-Methylbenzol. Sm. 126° (B. 27, 2085).
6) 2-Trinitro-1,3-Diäthylbenzol. Sm. 62° (B. 21, 2830). — II, 105.
7) 3,5,6-Trinitro-4-Aethyl-1,2-Dimethylbenzol. Sm. 121° (B. 23, 992). — II, 106.
8) 2,5,6-Trinitro-4-Aethyl-1,3-Dimethylbenzol. Sm. 127° (119°) (A. 139, 194; B. 23, 989). — II, 106.
9) 2,4,6-Trinitro-5-Aethyl-1,3-Dimethylbenzol. Sm. 238° (234—235°) (B. 7, 1434; 25, 1534). — II, 106.
10) 3,5,6-Trinitro-2-Aethyl-1,4-Dimethylbenzol. Sm. 129° (B. 19, 2516). — II, 106.
11) Äethyläther d. 2,6-Dinitro-4-Acetylamido-1-Oxybenzol. Sm. 206° (G. 19, 220). — II, 735.
12) Methylester d. 2-[3,5-Dinitro-4-Amidophenyl]propionsäure. Sm. 102° (A. 225, 89). — II, 1368.
13) Verbindung (aus 6-Nitroopiansäureamid). Sm. 265° u. Zers. (B. 31, 928).
C₁₀H₁₁O₆N₅ C 40,4 — H 3,7 — O 32,3 — N 23,6 — M. G. 297.
1) Verbindung (aus 1,3,5-Trinitrobenzol u. Diazomethan). Sm. 194—195° u. Zers. (B. 31, 1398).
2) Verbindung (aus 2,4,6-Trinitro-1-Methylbenzol u. Diazomethan). Sm. 177° (B. 31, 1399).
C₁₀H₁₁O₇N C 46,7 — H 4,3 — O 43,6 — N 5,4 — M. G. 257.
1) Lakton d. Nitro- β -Diacetylbernsteinsäuremonäthylester. Sm. 58 bis 59° (B. 27, 1162). — III, 717.
C₁₀H₁₁O₇N₃ C 42,1 — H 3,8 — O 39,4 — N 14,7 — M. G. 285.
1) 2,5,6-Trinitro-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 111° (A. *ch.* [3] 49, 153; M. 19, 148). — II, 773.
C₁₀H₁₁O₇Cl₃ 1) $\alpha\gamma$ -Dimethylester- β -Trichloräthylidenester d. β -Oxypropan- $\alpha\beta\gamma$ -Tri-carbonsäure. Sm. 73° (C. 1895 [2] 213).
C₁₀H₁₁O₈N₃ C 39,9 — H 3,6 — O 42,5 — N 13,9 — M. G. 301.
1) 2,4,6-Trinitro-1,3-Dioxybenzol + Naphtalin. Sm. 159° (B. 15, 1863 Anm.). — II, 926.
2) Diäthyläther d. 2,4,6-Trinitro-1,3-Dioxybenzol. Sm. 120,5° (A. 141, 226). — II, 926.
3) Diäthyläther d. 2-Trinitro-1,4-Dioxybenzol. Sm. 130° (A. 215, 153; B. 11, 1448). — II, 947.
C₁₀H₁₁O₈N₅ C 36,5 — H 3,3 — O 38,9 — N 21,3 — M. G. 329.
1) 2,4,6-Trinitro-1-Isobutylnitroamidobenzol. Sm. 110° (R. 4, 193). — II, 336.
2) Äethyläther d. s-Acetyl-2,4,6-Trinitro-3-Oxyphenylhydrazin. Sm. 179° (G. 25 [2] 502).
C₁₀H₁₁O₉N₃ C 37,9 — H 3,5 — O 45,4 — N 13,2 — M. G. 317.
1) Diäthyläther d. 2,4,6-Trinitro-1,3,5-Trioxybenzol. Sm. 89°. Na (Am. 15, 613). — II, 1021.
C₁₀H₁₁NS 1) 4-norm. Propylphenylsenföl. Sd. 263° (B. 17, 1223). — II, 549.
2) 2,4,6-Trimethylphenylsenföl. Sm. 64° (B. 15, 1012). — IV, 555.
3) 5-Methyl-2-Phenyl-4,5-Dihydrothiazol. (2 HCl, PtCl₄), Pikrat (B. 24, 785; 26, 1328; 29, 2610; 31, 2835). — II, 1293.
4) 2-[2-Methylphenyl]-4,5-Dihydrothiazol. Sd. 281—282°. (2 HCl, PtCl₄), Pikrat (B. 24, 784; 26, 1329). — II, 1335.
5) 2-[4-Methylphenyl]-4,5-Dihydrothiazol. Sm. 81° (B. 24, 787; 26, 1329). — II, 1353.

- C₁₀H₁₁NS** 6) 2-Phenyl-5,6-Dihydro-1,3-Thiazin. Sm. 44—45°. (2HCl, PtCl₄) (HCl, HgCl₂) (B. 26, 1078; 27, 2173). — II, 1293.
 7) 1,3,5-Trimethylbenzthiazol. Sd. 274°. HCl, (2HCl, PtCl₄) (B. 22, 908). — II, 827.
 8) 3-Aethyl-2,4-Benzthiazin. Sd. 270—272°₇₅₈. (2 HCl, PtCl₄), HBr, Pikrat (B. 30, 1144). — IV, 227.
- C₁₀H₁₁NS₂** 1) 2-Thiocarbonyl-3-[2-Methylphenyl]tetrahydrothiazol (Aethylenester d. o-Tolyldithiocarbaminsäure). Sm. 129° (B. 15, 1317). — II, 464.
 2) 2-Thiocarbonyl-3-[4-Methylphenyl]tetrahydrothiazol (Aethylenester d. p-Tolyldithiocarbaminsäure). Sm. 126° (B. 15, 1314). — II, 497.
 3) 4-Methylphenylimidomethylenäther d. αβ-Dimerkaptoäthan. HCl (Sm. 168°) (A. 262, 76). — II, 497.
 4) 1,2,3,4-Tetrahydroisochinolin-2-Dithiocarbonsäure. Tetrahydroisochinolin-salz (B. 26, 1211). — IV, 201.
- C₁₀H₁₁N₂Cl** 1) Chlormethylat d. 2-Amidochinolin + H₂O. Sm. 268° (265°). 2 + PtCl₄ (A. 282, 380; J. pr. [2] 56, 210). — IV, 908.
 2) Chlormethylat d. 4-Amidochinolin. Sm. 310° (J. pr. [2] 56, 185). — IV, 909.
 3) Chlormethylat d. 5 [oder 8]-Amidoisochinolin. Sm. 288° u. Zers. (J. pr. [2] 52, 19). — IV, 915.
- C₁₀H₁₁N₂J** 1) Jodmethylat d. 1-Phenylpyrazol. Sm. 178—179° u. Zers. (G. 23 [1] 486). — IV, 497.
 2) Jodmethylat d. 1-[3-Pyridyl]pyrrol. Sm. 241° (B. 28, 1909). — IV, 907.
 3) Jodmethylat d. 2-[3-Pyridyl]pyrrol. Sm. 170—171° (B. 28, 1910). — IV, 908.
 4) Jodmethylat d. 2-Amidochinolin. Sm. 245° (247°) (J. pr. [2] 56, 209; A. 282, 380). — IV, 908.
 5) Jodmethylat d. 4-Amidochinolin. Sm. 224° (J. pr. [2] 56, 184). — IV, 909.
 6) Jodmethylat d. 6-Amidochinolin. Sm. 199° (J. pr. [2] 53, 119). — IV, 912.
 7) Jodmethylat d. 5 [oder 8]-Amidoisochinolin. Sm. 228° (J. pr. [2] 52, 19). — IV, 915.
 8) 3-Jodmethylat d. 1-Methyl-2,3-Benzdiazin. Sm. 142—143° (B. 30, 3031). — IV, 904.
 9) Jodäthylat d. 1,4-Benzdiazin. Sm. 146° u. Zers. (A. 292, 246). — IV, 898.
 10) Jodäthylat d. 2,3-Benzdiazin (J. d. Phthalazin). Sm. 204—210° (B. 28, 1835). — IV, 900.
- C₁₀H₁₁N₂S** 1) 2-Phenylimido-3,5-Dimethyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 193 bis 194°. HJ (B. 27, 621). — IV, 1107.
 2) Aethylecyanamid d. Phenylamidothioameisensäure. Sm. 144° (119°) (B. 19, 451; 23, 1665). — II, 399.
 3) Benzylecyanamid d. Methylamidothioameisensäure. Sm. 173° (B. 23, 1659). — II, 529.
- C₁₀H₁₁N₂S₂** 1) 5-Aethylhydrosulfamin-2-Thiocarbonyl-3-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 95—96° (B. 29, 2139). — IV, 684.
- C₁₀H₁₂ON₂** C 68,2 — H 6,8 — O 9,1 — N 15,9 — M. G. 176.
 1) s-Allylphenylharnstoff. Sm. 115° (Z. 1869, 263; Soc. 67, 564; J. pr. [2] 56, 90; C. 1899 [1] 831). — II, 378.
 2) α-Imido-α-Acetylamido-α-[4-Methylphenyl]methan (p-Acetyltolenylamidin). Sm. 108° (A. 298, 9). — IV, 851.
 3) Methyläther d. α-Phenylallenylamidoxim. Sm. 98° (B. 19, 1510). — II, 1408.
 4) γ-Phenylhydrazon-β-Ketobutan. Sm. 133° (B. 21, 1413; A. 249, 218). — IV, 772.
 5) α-[4-Methylphenyl]azo-β-Ketopropan. Sm. 112—113° (B. 17, 1929). — IV, 1477.
 6) 4-Oxy-2-Methyl-5-Isopropyl-1-Diazobenzolanhydrid (B. 8, 1502). — IV, 1551.
 7) 5-Aethyl-3-Phenyl-4,5-Dihydro-1,2,4-Oxdiazol. Sm. 64°. HCl (B. 22, 3142). — II, 1205.
 8) 5-Methyl-3-[4-Methylphenyl]-4,5-Dihydro-1,2,4-Oxdiazol. Sm. 127,5° (B. 22, 2437). — II, 1344.

- C₁₀H₁₂ON₂**
- 9) **5-Keto-3-Methyl-1-Phenyltetrahydropyrazol.** Sm. 84°; Sd. 321° (B. 25, 762; 26, 108). — IV, 488.
 - 10) **3-Keto-5-Methyl-1-Phenyltetrahydropyrazol.** Sm. 127° (J. pr. [2] 45, 88). — IV, 489.
 - 11) **2-Keto-1-Phenylhexahydro-1,3-Diazin** (Trimethylenphenylharnstoff). Sm. 213—215° (B. 23, 1173). — II, 378.
 - 12) **Kotin.** Sm. 50°; Sd. bei 330°. (2HCl, PtCl₄) (B. 26, 297; 27, 2869). — IV, 858.
 - 13) **1-Nitroso-3,3-Dimethyl-2,3-Dihydroindol.** Sm. 66° (M. 18, 119).
 - 14) **Oxy-1,2,5-Trimethylbenzimidazol + 2H₂O.** Sm. 163° (wasserfrei). HCl, (2HCl, PtCl₄) (B. 20, 1880). — IV, 882.
 - 15) **Aethyläther d. 2-Oxy-5 oder 6-Methylbenzimidazol.** Sm. 163° (B. 19, 2651). — IV, 614.
 - 16) **7-Amido-2-Keto-3-Methyl-1,2,3,4-Tetrahydrochinolin.** Sm. 216° (Soc. 63, 560). — II, 1382.
 - 17) **p-Nitroso-1-Methyl-1,2,3,4-Tetrahydrochinolin** (B. 18, 2388). — IV, 191.
 - 18) **1-Nitroso-2-Methyl-1,2,3,4-Tetrahydrochinolin.** Fl. (A. 242, 314). — IV, 203.
 - 19) **1-Nitroso-6-Methyl-1,2,3,4-Tetrahydrochinolin.** Sm. 65° (B. 24, 2068). — IV, 205.
 - 20) **1-Nitroso-8-Methyl-1,2,3,4-Tetrahydrochinolin.** Sm. 51° (B. 24, 2063). — IV, 205.
 - 21) **6-Nitroso-8-Methyl-1,2,3,4-Tetrahydrochinolin.** Sm. 140° (B. 21, 866). — IV, 205.
 - 22) **Methyloxydhydrat d. 4-Amidochinolin.** Chlorid, Jodid, Bichromat (J. pr. [2] 56, 184).
 - 23) **2-Keto-3-Aethyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin.** Sm. 142° (J. pr. [2] 51, 134). — IV, 632.
 - 24) **3-Keto-2,2-Dimethyl-1,2,3,4-Tetrahydro-1,4-Benzdiazin.** Sm. 177° (A. 292, 250). — IV, 887.
 - 25) **3-Keto-2,7-Dimethyl-1,2,3,4-Tetrahydro-1,4-Benzdiazin.** Sm. 157° (B. 25, 2418). — IV, 887.
 - 26) **3-Aethylimido-3,4-Dihydro-2,1-Benzoxazin.** Sm. 94—95°. (2HCl, PtCl₄), (HCl, AuCl₃) (B. 22, 2937). — IV, 877.
 - 27) **Base** (aus salzs. 3,4-Diamido-1-Methylbenzol u. Milchsäure). Sm. 176 bis 177° (B. 25, 956). — IV, 887.
 - 28) **Nitril d. 2-Keto-4,6-Dimethyl-1-Aethyl-1,2-Dihydropyridin-3-Carbonsäure.** Sm. 174—175° (C. 1899 [1] 289).
 - 29) **Nitril d. 2-Keto-1,4,5,6-Tetramethyl-1,2-Dihydropyridin-3-Carbonsäure.** Sm. 180° (C. 1899 [1] 289).
 - 30) **Amid d. 1,2,3,4-Tetrahydrochinolin-1-Carbonsäure** (Tetrahydrochinolinharnstoff). Sm. 146,5° (B. 16, 733). — IV, 192.
 - 31) **Amid d. 1,2,3,4-Tetrahydroisochinolin-2-Carbonsäure** (Tetrahydroisochinolyharnstoff). Sm. 169° (B. 26, 1212). — IV, 201.
 - 32) **Methylallylamid d. Pyridin-3-Carbonsäure.** Fl. (C. 1898 [1] 678).
 - 33) **Phenylamid d. β-Amidocrotonsäure.** Sm. 147° (145°) (J. pr. [2] 45, 412; B. 25, 776). — II, 371, 406.
 - 34) **Propylidenhydrazid d. Benzolcarbonsäure.** Sm. 117° (J. pr. [2] 50, 304). — II, 1309.
 - 35) **Isopropylidenhydrazid d. Benzolcarbonsäure.** Sm. 142° (J. pr. [2] 50, 305). — II, 1309.
- C₁₀H₁₂ON₄** C 58,8 — H 5,9 — O 7,8 — N 27,4 — M. G. 204.
- 1) **Methyläther d. 1-Aethyl-5-[4-Oxyphenyl]-1,2,3,4-Tetrazol.** Sm. 62° (A. 298, 111). — IV, 1272.
 - 2) **Aethyläther d. 4-Methylbenzenyloxytetrazotsäure.** Fl. (A. 298, 77). — IV, 1272.
- C₁₀H₁₂OC₂**
- 1) **αα-Dichlor-β-Oxy-α-Phenyl-β-Methylpropan** (Phenyldichlorpseudo-butylalkohol). Sd. 217° (J. pr. [2] 37, 367). — II, 1066.
 - 2) **2,6-Dichlor-3-Oxy-4-Isopropyl-1-Methylbenzol.** Fl. (H. 16, 518). — II, 771.
 - 3) **Methyläther d. 4-Oxy-1-[αβ-Dichlorpropyl]benzol** (Anetholdichlorid). Fl. (C. 1897 [1] 804).

- $C_{10}H_{12}OCl_2$ 4) Verbindung (aus Pseudocumenol). Sm. 96,5° (B. 17, 2977; 29, 1109). — III, 90.
- $C_{10}H_{12}OCl_6$ 1) Verbindung (aus Isovaleraldehyd). Sd. 203—204° (B. 4, 401). — I, 253.
- $C_{10}H_{12}OBr_2$ 1) p-Dibrom-4-Oxy-1-Isobutylbenzol. Sm. 78° (Am. 17, 114).
- 2) 3,5-Dibrom-2-Oxy-4-Isopropyl-1-Methylbenzol. Fl. (G. 19, 471). — II, 767.
- 3) Methyläther d. 4-Oxy-1-[αβ-Dibrompropyl]benzol (Anetholbromid). Sm. 65° (67°) (A. Spl. 8, 95; J. pr. [2] 52, 198). — II, 852.
- 4) Methyläther d. 3,5-Dibrom-2-Oxy-1-Isopropylbenzol. Sd. 278—280° (G. 16, 119). — II, 762.
- 5) Methyläther d. 3,6-Dibrom-5-Oxy-1,2,4-Trimethylbenzol. Sm. 96° (B. 18, 2657). — II, 763.
- 6) Verbindung (aus Pseudocumenol). Sm. 105° (B. 18, 2656; 29, 1109). — III, 90.
- $C_{10}H_{12}OS$ 1) Aethyläther d. 4-Merkapto-1-Acetylbenzol (Sulfäthylacetophenon). Sm. 43,5° (B. 27, 1738). — III, 139.
- 2) 4-Methylphenyläther d. α-Merkapto-β-Ketopropan (4-Methylphenyläther d. Acetylmercaptan). Sd. 150—151°₁₅ (A. 260, 268). — II, 825.
- $C_{10}H_{12}OS_2$ 1) Aethylenäther d. 2-Methoxyl-1-Dimerkaptomethylbenzol. Sm. 64 bis 65° (B. 21, 1476). — III, 82.
- 2) 2-Methylphenylester d. Aethylxanthogensäure. Fl. (J. pr. [2] 41, 188). — II, 820.
- 3) 3-Methylphenylester d. Aethylxanthogensäure. Fl. (J. pr. [2] 41, 189). — II, 820.
- 4) 4-Methylphenylester d. Aethylxanthogensäure. Fl. (J. pr. [2] 41, 191). — II, 824.
- $C_{10}H_{12}O_2N_2$ C 62,5 — H 6,2 — O 16,7 — N 14,6 — M. G. 192.
- 1) 2-Nitro-1-Allylamidomethylbenzol (Allyl-2-Nitrobenzylamin). Fl. HCl, (2HCl, PtCl₄) (J. pr. [2] 48, 569). — II, 516.
- 2) 4-Nitro-1-Allylamidomethylbenzol (Allyl-4-Nitrobenzylamin). Fl. HCl, (2HCl, PtCl₄), Oxalat, Pikrat (B. 30, 68).
- 3) p-Dinitroso-4-Isopropyl-1-Methylbenzol. Sm. 72° (B. 23, 3560). — II, 72.
- 4) αβ-Dioximido-α-Phenylbutan. Sm. 204—206° (Bl. [3] 17, 77).
- 5) βγ-Dioximido-α-Phenylbutan (Methylbenzylacetoximsäure). Sm. 180 bis 181° (B. 16, 181). — III, 142.
- 6) 1,4-Di[α-Oximidoäthyl]benzol (p-Diacetylbenzoldioxim). Sm. 240° u. Zers. (B. 27, 2527). — III, 272.
- 7) δ-Amido-δ-Oximido-γ-Oxy-α-Phenyl-α-Buten. Zers. bei 136° (B. 19, 1513). — II, 1654.
- 8) α-Oximido-α-[2-Acetylamidophenyl]äthan. Sm. 149—150° (B. 24, 2378). — III, 132.
- 9) s-Propionylphenylharnstoff. Sm. 137° (138—139°) (B. 17, 2881; Soc. 69, 857). — II, 382.
- 10) α-Aethyl-α-Benzoylharnstoff (J. pr. [2] 10, 251). — II, 1171.
- 11) α-Aethyl-β-Benzoylharnstoff. Sm. 192° (168°) (A. ch. [5] 11, 318; J. pr. [2] 21, 33). — II, 1171.
- 12) 2-Aethylbenzoylharnstoff. Sm. 197—198° (B. 29, 2535).
- 13) α-Methylphenylhydrazon-β-Ketopropan. Sm. 64° (A. 247, 201). — IV, 757.
- 14) Methyläther d. α-[2-Oxyphenyl]hydrazon-β-Ketopropan. Sm. 150° (B. 30, 1165). — IV, 815.
- 15) Dimethyläther d. 1,3-Di[Imidooxymethyl]benzol (1,3-Phtalimido-dimethyläther). Sm. 59—62° (B. 17, 1430). — II, 1827.
- 16) Methyläther d. 2-Acetylamidobenzaldoxim. Sm. 109° (B. 14, 2340). — III, 51.
- 17) Dimethyläther d. 1,3-Di[Oximidomethyl]benzol. Sm. 77° (B. 20, 509). — III, 22.
- 18) Phenylcarbamidoacetoxim. Sm. 108° (B. 22, 3103). — II, 446.
- 19) 1,2-Di[Acetylamido]benzol. Sm. 185—186° (B. 23, 1878). — IV, 558.
- 20) 1,3-Di[Acetylamido]benzol. Sm. 191° (B. 7, 1257). — IV, 574.
- 21) 1,4-Di[Acetylamido]benzol. Sm. oberh. 295° (B. 7, 1531). — IV, 589.
- 22) αβ-Diacetyl-α-Phenylhydrazin. Sm. 107—108° (A. 252, 302; J. pr. [2] 55, 166). — IV, 665.

- $C_{10}H_{12}O_2N$, 23) 4-Methyläther d. 5-Methyl-3-[4-Oxyphenyl]-4,5-Dihydro-1,2,4-Oxiazol. Sm. $127,5^\circ$ (B. 22, 2794). — II, 1532.
- 24) Acetat d. 2-[α -Oximidoäthyl]pyridin. Sm. 46° (B. 24, 2531). — IV, 184.
- 25) 5-Nitro-1,2-Dimethyl-2,3-Dihydroindol. Sm. $48-49^\circ$ (B. 28, 1296). — IV, 188.
- 26) Dimethyläther d. 5,6-Dioxy-2-Methylbenzimidazol. Sm. 170° (Bl. 3, 17, 819).
- 27) p-Nitro-1-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. $93-94^\circ$ (B. 18, 2390). — IV, 191.
- 28) 6-Nitro-2-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. $130-132^\circ$ (B. 31, 2540).
- 29) 8-Nitro-6-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. $103-105^\circ$ (B. 31, 2538).
- 30) isom. p-Nitro-6-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 67° (B. 31, 2538).
- 31) 6-Nitro-8-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 142° (B. 31, 2539).
- 32) 1-Nitroso-8-Oxy-6-Methyl-1,2,3,4-Tetrahydrochinolin (B. 17, 442). — IV, 205.
- 33) Methyläther d. 1-Nitroso-8-Oxy-1,2,3,4-Tetrahydrochinolin. Sm. 80° (B. 14, 2572). — IV, 199.
- 34) 4-Amidoformyl-3-Methyl-3,4-Dihydro-1,4-Benzoxazin. Sm. 119° (B. 30, 1637).
- 35) Isopropylidenphenylhydrazin-3-Carbonsäure. Sm. 150° (A. 236, 165). — II, 1289.
- 36) α -Benzylidenhydrazidopropionsäure. Sm. 106° (B. 29, 672).
- 37) α -Phenylhydrazonbuttersäure. Sm. 152° u. Zers. ($144-145^\circ$) (A. 246, 333; 247, 216). — IV, 690.
- 38) γ -Phenylhydrazonbuttersäure. Sm. 175° (A. ch. [6] 22, 342). — IV, 691.
- 39) α -Methylphenylhydrazonpropionsäure. Sm. 78° (B. 16, 2245). — IV, 689.
- 40) α -[2-Methylphenyl]hydrazonpropionsäure. Sm. $158-159^\circ$ (156°) (A. 239, 228; 247, 214). — IV, 803.
- 41) α -[4-Methylphenyl]hydrazonpropionsäure. Sm. 162° ($158-160^\circ$) (A. 239, 224; 247, 215). — IV, 807.
- 42) Aethylphenylhydrazonessigsäure. Sm. 121° u. Zers. (A. 227, 354). — IV, 700.
- 43) Anhydro- α -[β -Phenylhydrazido]isobuttersäure. Sm. 175° . HCl (B. 17, 1459; 25, 3324). — IV, 740.
- 44) Aethylester d. Phenylhydrazonessigsäure. Sm. 129° ($130-131^\circ$; 127°) (B. 28, 1232; 29, 2163; M. 17, 630). — IV, 699.
- 45) Aethylester d. Benzylidenhydrazidoameisensäure. Sm. $135-136^\circ$. K (A. 288, 293). — III, 39.
- 46) Aethylester d. α -Imidobenzylamidoameisensäure (Benzenylamidinurethan). Sm. $57-58^\circ$ (B. 23, 2919). — IV, 846.
- 47) Nitril d. 6-Oxy-2-Keto-1,5-Dimethyl-4-Aethyl-1,2-Dihydropyridin-3-Carbonsäure. Sm. 198° u. Zers. (C. 1897 [1] 905).
- 48) Amid d. α -Benzoylamidopropionsäure. Sm. $226-227^\circ$ (H. 16, 581). — II, 1191.
- 49) Amid d. Phenylacetylamidoessigsäure. Sm. 174° . Hg (J. pr. [2] 38, 108). — II, 1313.
- 50) Amid d. 4-Acetylamidophenylessigsäure. Sm. 235° (G. 20, 599). — II, 1322.
- 51) Amid d. 2-Methylacetylamidobenzol-1-Carbonsäure. Sm. 155° (J. pr. [2] 36, 153). — II, 1250.
- 52) Diamid d. α -Phenyläthan- $\beta\beta$ -Dicarbonsäure (Benzylmalonyldiamid). Sm. 225° (A. 239, 96). — II, 1849.
- 53) Diamid d. Benzol-1-Carbonsäure-4-[Aethyl- α -Carbonsäure]. Sm. 227 bis 229° (G. 21 [1] 84). — II, 1853.
- 54) Diamid d. Benzol-1,4-Di[Methylcarbonsäure]. Sm. über 290° (B. 9, 1768). — II, 1852.
- 55) Methylamid d. 2-Acetylamidobenzol-1-Carbonsäure. Sm. $171-172^\circ$ (J. pr. [2] 36, 151). — II, 1250.

- C₁₀H₁₂O₂N₂** 56) Phenylamid d. β -Oximidobuttersäure. Sm. 125° (115°) (B. 25, 778; 27, 1169; 28, 2731). — II, 405.
 57) Monophenyldiamid d. Bernsteinsäure. Sm. 181° (A. 162, 182; R. 9, 42). — II, 413.
 58) α -Aethylphenylamid d. Oxalsäure. Sm. 169—170° (A. 184, 66; B. 14, 740). — II, 409.
 59) α -Phenyläthylidenhydrazid d. Oxyessigsäure (J. pr. [2] 51, 368). — III, 130.
 60) Acetat d. β -Oximido- β -Amido- α -Phenyläthan. Sm. 124° (B. 18, 1070). — II, 1314.
- C₁₀H₁₂O₂N₄** C 54,5 — H 5,4 — O 14,5 — N 25,5 — M. G. 220.
 1) $\alpha\gamma$ -Dioximido- β -Methylphenylhydrazonpropan. Sm. 137° (A. 248, 3003). — IV, 763.
 2) α -Ureido- α -Phenylhydrazon- β -Ketopropan. Sm. 183° (B. 26, 2784). — IV, 1222.
 3) Hexahydrobenzo-5,5'-Diketo-1,1'-Dimethyl-3,4-Dipyrazol. Sm. über 250° (B. 27, 473; J. pr. [2] 51, 66). — IV, 1270.
 4) 4-Nitro-6-Pseudobutylbenzimidazol? Sm. 205°. Na (J. pr. [2] 48, 107). — IV, 1152.
 5) Diamid d. Phenylhydrazonäthan- $\alpha\beta$ -Dicarbonsäure. Sm. bei 180° u. Zers. (Bl. [3] 11, 98). — IV, 713.
- C₁₀H₁₂O₂Br₂** 1) 4,5-Dibrom-3,6-Dioxy-2-Propyl-1-Methylbenzol. Sm. 131° (J. pr. [2] 43, 577). — II, 970.
 2) 4,6-Dibrom-2,5-Dioxy-3-Propyl-1-Methylbenzol. Sm. 153—154° (J. pr. [2] 43, 573). — II, 970.
 3) 3,6-Dibrom-2,5-Dioxy-4-Propyl-1-Methylbenzol. Sm. 138—139° (J. pr. [2] 43, 580). — II, 970.
 4) 2-Methyläther d. 3,6-Dibrom-5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol. Sm. 91—92° (B. 28, 2904; 29, 2339).
 5) 5-Methyläther d. 3,6-Dibrom-5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol. Sm. 144° (B. 29, 2338).
 6) Monomethyläther d. Alkohol C₉H₁₀O₂Br₂. Sm. 106° (B. 32, 23).
 7) Diäthyläther d. 2-Dibrom-1,3-Dioxybenzol. Sm. 75—77° (M. 11, 303). — II, 921.
 8) Diäthyläther d. 2-Dibrom-1,3-Dioxybenzol. Sm. 100—101° (M. 11, 303; 16, 884 Anm.; Am. 18, 120). — II, 921.
 9) Verbindung (aus d. Methyläther d. 3-Brom-4-Oxy-1-[$\alpha\beta$ -Dibrompropyl]benzol). Fl. (J. pr. [2] 52, 195).
- C₁₀H₁₂O₂S** 1) Allyl-2-Methylphenylsulfon. Fl. (J. pr. [2] 54, 529).
 2) Allyl-4-Methylphenylsulfon. Sm. 52—53° (A. 283, 185).
 3) α -Merkaptopropionbenzyläthersäure. Sm. 73° (74°) (H. 20, 578).
 4) β -Merkaptopropion-4-Methylphenyläthersäure. Sm. 70—71°. Ca + 3H₂O, Ba + 2H₂O, Ag (B. 25, 2980). — II, 824.
 5) Aethylester d. Merkptoessigphenyläthersäure. Sd. 276—278° (Bl. 23, 441). — II, 785.
 6) Aethylester d. 2-Oxybenzoldimethyläther-1-Thiolcarbonsäure. Sd. 197—198°₆₀ (J. pr. [2] 31, 475). — II, 1514.
- C₁₀H₁₂O₂S₂** 1) γ -[2-Methylphenyl]sulfon- $\alpha\beta$ -Thiopropion. Fl. (J. pr. [2] 56, 461).
 2) γ -[4-Methylphenyl]sulfon- $\alpha\beta$ -Thiopropion. Sm. 180—181° (J. pr. [2] 56, 456).
- C₁₀H₁₂O₂Hg** 1) Propionat d. Quecksilber-3-Methylphenyloxyhydrat. Sm. 102° (B. 28, 590). — IV, 1710.
- C₁₀H₁₂O₂N₂** C 57,7 — H 5,8 — O 23,1 — N 13,4 — M. G. 208.
 1) 2,4-Di[Acetylamido]-1-Oxybenzol. Sm. 220—222° (B. 31, 2399).
 2) 2,5-Di[Acetylamido]-1-Oxybenzol. Sm. 265° (B. 30, 2099).
 3) 3,4-Di[Acetylamido]-1-Oxybenzol. Sm. 205—207° (B. 31, 2404).
 4) Nitrosit d. δ -Phenyl- α -Buten? (B. 11, 1511). — II, 171.
 5) Nitrosit d. α -Phenyl- β -Methylpropen. Sm. 112° (B. 25, 1962). — II, 171.
 6) Methyläther d. 4-Oxy-1-[$\alpha\beta$ -Diisonitrosopropyl]benzol (α -Diisonitrosoanethol). Sm. 125° (G. 23 [2] 177). — II, 852.
 7) isom. Methyläther d. 4-Oxy-1-[$\alpha\beta$ -Diisonitrosopropyl]benzol (β -Diisonitrosoanethol). Sm. 206° u. Zers. (G. 23 [2] 182). — II, 853.

- $C_{10}H_{11}O_3N_2$ 8) 4-Aethyläther d. $\alpha\beta$ -Dioximido- α -[4-Oxyphenyl]äthan. Sm. 170 bis 171°. — III, 106.
- 9) N-Propyl-syn-3-Nitrobenzaloxim. Sm. 65° (B. 30, 1892).
- 10) N-Isopropyl-syn-3-Nitrobenzaloxim. Sm. 138° (B. 30, 1891).
- 11) N-Acetat d. 4-Methoxybenzenylamidoxim. Sm. 106° (B. 22, 2793). — II, 1531.
- 12) N-Acetat d. α -Oxy- α -Phenyläthenylamidoxim. Sm. 140° u. Zers. (B. 18, 1075). — II, 1553.
- 13) N-Acetat d. 6-Oxy-3-Methylbenzenylamidoxim. Sm. 148—149° (B. 24, 3665). — II, 1547.
- 14) 3,5-Dioximido-2-Furanyl-1,2,3,4-Tetrahydrobenzol. Sm. 180° (A. 294, 313).
- 15) Aethylderivat d. 5-Keto-3-Methyl-4,5-Dihydroisoxazol. Sm. 90 bis 91° (A. 296, 55).
- 16) 4,5-Dimethyläther d. 7-Amido-3,4,5-Trioxypseudoisocindol. Sm. 223—224° u. Zers. HCl (B. 31, 935).
- 17) Jaboridin (J. 1875, 844). — III, 925.
- 18) isom. Jaboridin. Fl. HCl, (2HCl, PtCl₄) (A. 238, 234). — III, 925.
- 19) α -[Phenylharnstoff]propionsäure (Phenyl- α -Ureidopropionsäure). Sm. 168° (170°) u. Zers. (B. 17, 2884; 27, 976). — II, 383.
- 20) β -[Phenylharnstoff]propionsäure (Phenyl- β -Ureidopropionsäure). Sm. 171—172° u. Zers. Ca, Ag (R. 9, 60). — II, 433.
- 21) 4-Methylphenylhydantoinsäure. Zers. über 200° (B. 11, 1129). — II, 506.
- 22) α -Benzenylamidoximpropionsäure. Sm. 129°. HCl + H₂O (B. 27, 3353). — II, 1201.
- 23) 4-Amidophenylacetylamidoessigsäure. Zers. bei 200° (J. pr. [2] 38, 113). — II, 1313.
- 24) α -Aethylphenylharnstoff-3-Carbonsäure. Ba + 3H₂O, Ag (J. pr. [2] 5, 454). — II, 1261.
- 25) α -Methyl- β -Phenylharnstoff- α -Methylcarbonsäure (Methylphenylureidoessigsäure). Sm. 102° (B. 28, 3233).
- 26) 3-[Aethoxylimidomethyl]amidobenzol-1-Carbonsäure + 1½ H₂O (J. pr. [2] 4, 296; B. 11, 1987). — II, 1269.
- 27) 4-Dimethylamidophenylloxaminsäure. Sm. 192° u. Zers. K, Ba (B. 12, 531). — IV, 592.
- 28) Oxim d. 4-Methoxybenzoylamidoessigsäurealdehyd. Sm. bei 163° u. Zers. (B. 27, 3100). — II, 1530.
- 29) Methylester d. Benzoylamidoacetylamidoameisensäure. Sm. 162° (J. pr. [2] 52, 267).
- 30) Methylester d. p-Nitroso-4-Dimethylamidobenzol-1-Carbonsäure. Sm. 101°. HCl, Pikrat (B. 22, 344). — II, 1281.
- 31) Aethylester d. 1-Amidooximidomethylbenzol-3-Carbonsäure. Sm. 118° (B. 19, 1495). — II, 1229.
- 32) Aethylester d. 1-Amidooximidomethylbenzol-4-Carbonsäure. Sm. 135° (B. 18, 2486). — II, 1229.
- 33) Aethylester d. Phenylnitrosamidoessigsäure. Fl. (B. 28, 1224).
- 34) Aethylester d. Benzylnitrosamidoameisensäure. Fl. (B. 31, 2644).
- 35) Aethylester d. 2-Methylnitrosamidobenzol-1-Carbonsäure. Fl. (J. pr. [2] 43, 448). — II, 1247.
- 36) Aethylester d. α -Oximido- α -Phenylamidoessigsäure. Sm. 109° (B. 30, 2428).
- 37) Aethylester d. Phenylharnstoff-3-Carbonsäure. Sm. 176° (J. pr. [2] 4, 293). — II, 1261.
- 38) Aethylester d. 2-Amidoformylphenylamidoameisensäure. Sm. 152 bis 153° (J. pr. [2] 39, 142). — II, 1261.
- 39) Aethylester d. Benzenylamidoximkohlenensäure. Sm. 127° (B. 18, 2467). — II, 1202.
- 40) Aethylester d. Phenylallophansäure. Sm. 120° (106°) (J. pr. [2] 32, 18; Am. 19, 344). — II, 382.
- 41) Amid d. Phenylxyacetamidoessigsäure. Sm. 128—129° (J. pr. [2] 40, 501). — II, 430.
- 42) Amid d. Oxyessig-4-Acetylamidophenyläthersäure. Sm. 208° (C. 1898 [1] 1252).
- 43) Monamid d. Phenylamidobernsteinsäure. Pb (A. 252, 164). — II, 437.

- $C_{10}H_{11}O_3N$, 44) **1-Amid d. Benzol-1-Carbonsäure-3-Amidoameisensäureäthylester.** Sm. 157—158° (B. 11, 704). — II, 1261.
- 45) **Amid d. 2-Nitro-1,3,5-Trimethylbenzol-6-Carbonsäure.** subl. bei 135°; Sm. 158° (A. 278, 216). — II, 1391.
- 46) **Methylamid d. β -[4-Nitrophenyl]propionsäure.** Sm. 166—167° (R. 18, 41).
- 47) **Dimethylamid d. 4-Nitrophenylessigsäure.** Sm. 90—91° (R. 18, 38).
- 48) **2-Nitrobenzylamid d. Propionsäure.** Sm. 61—62° (B. 25, 3036). — II, 525.
- 49) **Aethyl-3-Nitrophenylamid d. Essigsäure.** Sm. 88—89° (B. 19, 550). — II, 367.
- 50) **Aethyl-4-Nitrophenylamid d. Essigsäure.** Sm. 118—119° (117,5°) (B. 16, 31; 17, 267; Soc. 53, 778). — II, 367.
- 51) **2-Nitro-4-Aethylphenylamid d. Essigsäure.** Sm. 45—47° (B. 17, 769; Bl. [3] 11, 210). — II, 537.
- 52) **3-Nitro-2,4-Dimethylphenylamid d. Essigsäure.** Sm. 149° (B. 17, 2425). — II, 544.
- 53) **5-Nitro-2,4-Dimethylphenylamid d. Essigsäure.** Sm. 159—160° (B. 17, 266, 2425). — II, 544.
- 54) **6-Nitro-2,4-Dimethylphenylamid d. Essigsäure.** Sm. 172—173° (180°) (B. 9, 1297; A. 207, 93). — II, 544.
- 55) **3-Nitro-2,5-Dimethylphenylamid d. Essigsäure.** Sm. 180° (B. 19, 2320). — II, 546.
- 56) **4-Nitro-2,5-Dimethylphenylamid d. Essigsäure.** Sm. 166° (192°) (B. 11, 1538; 18, 2666). — II, 547.
- 57) **5-Nitro-2,6-Dimethylphenylamid d. Essigsäure.** Sm. 170° (B. 24, 568). — II, 542.
- 58) **Methyl-2-Nitrobenzylamid d. Essigsäure.** Sm. 57—58° (B. 24, 3095). — II, 524.
- 59) **Methyl-4-Nitro-2-Methylphenylamid d. Essigsäure.** Sm. 97° (B. 25, 3133). — II, 462.
- 60) **Methyl-5-Nitro-2-Methylphenylamid d. Essigsäure.** Sm. 119° (A. 304, 102).
- 61) **Methyl-2-Nitro-4-Methylphenylamid d. Essigsäure.** Sm. 64°; Sd. 250—255°₇₁₀ (B. 20, 1876). — II, 492.
- 62) **Methyl-3-Nitro-4-Methylphenylamid d. Essigsäure.** Sm. 128—128,5° (B. 28, 3040).
- 63) **Aethyl-2-Nitrobenzylamid d. Ameisensäure.** Sm. 65—67° (B. 25, 3039). — II, 523.
- 64) **4-Aethoxyphenylamid d. Oxaminsäure.** Sm. 241,5° (B. 31, 335).
- 65) **4-Hydrazid d. Benzol-1,4-Dicarbonsäure-1-Aethylester.** Sm. 164 bis 165°. HCl, Na (J. pr. [2] 54, 78).
- 66) **Phenylmonohydrazid d. Bernsteinsäure.** Sm. 110—120° (A. ch. [6] 22, 339). — IV, 703.
- 67) **Phenylhydrazid d. Oxalsäuremonoäthylester.** Sm. 119° (113°) (J. pr. [2] 48, 78; A. 236, 197; 295, 167; Bl. [3] 19, 78). — IV, 700.
- 68) **Verbindung (aus Bernsteinsäureanhydrid u. 1,4-Diamidobenzol)** (G. 24 [1] 142). — IV, 593.
- $C_{10}H_{11}O_3N$, C 50,8 — H 5,1 — O 20,3 — N 23,7 — M. G. 236.
- 1) **Amid d. 3-Uramido-4-Methylphenyloxaminsäure.** Sm. 239° u. Zers. (A. 268, 339). — IV, 605.
- $C_{10}H_{11}O_3Br$, 1) **Anhydrid d. π - ω -Dibromcamphersäure.** Sm. 210° (C. 1896 [1] 308; Soc. 75, 130).
- 2) **Verbindung (aus Campherchinon).** Sm. 137—138° (B. 30, 3161).
- $C_{10}H_{11}O_3J$, 1) **Verbindung (aus Cantharidin).** Sm. 131° (B. 12, 577). — III, 625.
- $C_{10}H_{11}O_3S$, 1) **α -[2-Methylphenylsulfon]- β -Ketopropan.** Fl. (J. pr. [2] 54, 532).
- 2) **α -Tetrahydronaphtalin- β -Sulfonsäure.** Na + H₂O, Ba + 2H₂O (B. 5, 680; 16, 3030; Bl. 42, 66). — II, 183.
- 3) **β -Tetrahydronaphtalin- β -Sulfonsäure** (B. 23, 1563). — II, 184.
- 4) **β -Phenylmerkpto- α -Oxyisobuttersäure.** Sm. 97°. Ca + 2H₂O, Ba + H₂O, Ag (A. 260, 256). — II, 789.
- 5) **4-Methylphenylsulfonaceton.** Sm. 51° (J. pr. [2] 36, 426). — II, 825.
- $C_{10}H_{11}O_3S$, 1) **Diäthyläther d. 2,5,6-Trioxyphenylen-1,3-Disulfid.** K (Bl. [3] 15, 415).

- $C_{10}H_{11}O_3Hg$ 1) Acetat d. 2-Aethoxyphenylquecksilberoxydhydrat. Sm. 150,5° (B. 27, 262). — IV, 1709.
 2) Acetat d. 4-Aethoxyphenylquecksilberoxydhydrat (B. 27, 259). — IV, 1710.
- $C_{10}H_{11}O_4N_2$ C 53,6 — H 5,3 — O 28,6 — N 12,5 — M. G. 224.
 1) p-Dinitro-tert.-Butylbenzol. Sm. 61–62° (B. 27, 1610).
 2) 2,6-Dinitro-4-Isopropyl-1-Methylbenzol. Sm. 54° (A. 92, 70; G. 20, 146). — II, 104.
 3) isom. Dinitro-p-Isopropyl-1-Methylbenzol. Sm. 250° (J. 1873, 368). — II, 104.
 4) isom. Dinitro-p-Isopropyl-1-Methylbenzol. Fl. (B. 6, 937). — II, 104.
 5) 5,6-Dinitro-1,2,3,4-Tetramethylbenzol. Sm. 178° (B. 19, 1214). — II, 106.
 6) 4,6-Dinitro-1,2,3,5-Tetramethylbenzol. Sm. 156° (B. 15, 1853; Am. 15, 266). — II, 106.
 7) isom. Dinitro-1,2,3,5-Tetramethylbenzol. Sm. 112° (B. 27, 3443).
 8) isom. Dinitro-1,2,3,5-Tetramethylbenzol. Sm. 181° (B. 27, 3443).
 9) 3,6-Dinitro-1,2,4,5-Tetramethylbenzol. Sm. 203° (Z. 1870, 162; A. 237, 4; B. 28, 967). — II, 106.
 10) Methyläther d. 6-Nitro-3-Acetylamido-4-Oxy-1-Methylbenzol. Sm. 156° (B. 22, 790). — II, 755.
 11) Methyläther d. 3-Nitro-4-Oxy-1-Acetylamidomethylbenzol. Sm. 137° (B. 20, 2410). — II, 755.
 12) Äthyläther d. 4-Nitro-2-Acetylamido-1-Oxybenzol. Sm. 196° (B. 32, 164).
 13) Äthyläther d. 5-Nitro-2-Acetylamido-1-Oxybenzol. Sm. 165° (B. 32, 165).
 14) Äthyläther d. 3-Nitro-4-Acetylamido-1-Oxybenzol. Sm. 103° (A. 305, 279). — II, 732.
 15) α -Oxy- α -[3-Nitrophenyl]acetimidoäthyläther. Sm. 84°. HCl (J. pr. [2] 31, 392). — II, 1555.
 16) 2,5-Di[Acetylamido]1,4-Dioxybenzol. subl. bei 285–290°; Zers. bei 310° (B. 30, 2101).
 17) Dimethyläther d. 2,3-Diacetyldiamido-1,4-Dioxybenzol. Sm. 240° u. Zers. (B. 19, 2249). — II, 948.
 18) α -Harnstoff- β -[4-Oxyphenyl]propionsäure (Tyrosinhydantoinsäure). Sm. 154–155° (bis 170°). K + H₂O (H. 7, 310). — II, 1569.
 19) α -[2,4-Nitroamidobenzoyl]propionsäure. Sm. 138° (Soc. 53, 560). — II, 1382.
 20) α -[3-Nitro-4-Methylphenyl]amidopropionsäure. Sm. 148° (B. 25, 2417). — II, 507.
 21) 1,3-Phenylendi[amidoessigsäure]. 2HCl (B. 15, 518; 16, 515). — IV, 576.
 22) 1,4-Phenylendi[amidoessigsäure]. 2HCl (B. 16, 515). — IV, 590.
 23) Äthylester d. 2-Nitro-4-Amidophenylessigsäure. Sm. 100° (B. 14, 825). — II, 1327.
 24) Äthylester d. 4-Nitrobenzylamidoameisensäure. Sm. 116–117° (118°) (B. 23, 341; 31, 180). — II, 525.
 25) Äthylester d. 4-Nitro-2-Methylphenylamidoameisensäure (4-Nitro-2-Tolylurethan). Sm. 137° (A. 268, 323). — II, 463.
 26) Äthylester d. 5-Nitro-2-Methylamidobenzol-1-Carbonsäure. Sm. 103° (J. pr. [2] 43, 471). — II, 1282.
 27) Äthylester d. 3-Nitro-4-Methylamidobenzol-1-Carbonsäure. Sm. 100° (J. pr. [2] 43, 459). — II, 1285.
 28) Äthylester d. Hydroxynitrosamidoameisenbenzyläthersäure. Sd. 106°₃₃ (A. 299, 79).
 29) Äthylester d. 2-Oxybenzenylamidoximkohlenensäure. Sm. 96° (B. 22, 2799). — II, 1502.
 30) Isopropylester d. 2-Nitrophenylamidoameisensäure. Sm. 12° (Am. 19, 313).
 31) Isopropylester d. 4-Nitrophenylamidoameisensäure. Sm. 78° (Am. 19, 318).
 32) Äthylenimid d. Äthan- $\alpha\beta$ -Dicarbonsäure (Ä. d. Bernsteinsäure; Äthylendisuccinimid). Sm. 250–251°; Sd. 395° (Soc. 55, 11). — I, 1381.

- $C_{10}H_{12}O_4N_2$ 1) *p*-Säure (aus d. Chlorid d. Benzolcarbonsäure). Sm. 240° u. Zers. (*J. pr.* [2] 24, 240; [2] 26, 197; *B.* 16, 756). — II, 1182, 1190.
 $C_{10}H_{12}O_4N_4$ C 47,6 — H 4,8 — O 25,4 — N 22,2 — M. G. 252.
 1) 2-Nitrophenyläther d. β -Semicarbazon- α -Oxypropan. Sm. 178° (*B.* 30, 1635).
 2) 4-Nitrophenyläther d. β -Semicarbazon- α -Oxypropan. Sm. 216° u. Zers. (*B.* 30, 1633).
 3) 4-Nitro-5-Keto-3-Methyl-4,5-Dihydroisoxazol + Phenylhydrazin (*B.* 28, 2099). — IV, 654.
 4) Methylester d. Kaffeincarbonsäure. Sm. 201,5° (*Am.* 17, 418). — III, 962.
 $C_{12}H_{12}O_4Cl_2$ 1) 2,5-Diäthyläther d. 3,6-Dichlor-1,2,4,5-Tetraoxybenzol. Sm. 151 bis 152° (*J. pr.* [2] 40, 373; [2] 42, 168). — II, 1032.
 2) isom. 2,5-Diäthyläther d. 3,6-Dichlor-1,2,4,5-Tetraoxybenzol. Sm. 108–109° (*J. pr.* [2] 40, 374). — II, 1032.
 3) Diäthylester d. $\beta\gamma$ -Dichlor- $\alpha\gamma$ -Butadien- $\alpha\delta$ -Dicarbonsäure? (Diäthylester d. α -Dichlormukonsäure). Sm. 95–96° (*A.* 135, 251; *B.* 12, 1273). — I, 731.
 4) Diäthylester d. β -Dichlormukonsäure. Sd. 195–196°₈₀ (*Soc.* 57, 931). — I, 731.
 $C_{10}H_{12}O_4Br_2$ 1) Tetramethyläther d. 4,6-Dibrom-1,2,3,5-Tetraoxybenzol. Sm. 76° (*B.* 21, 610). — II, 1031.
 2) Dimethylester d. cis-trans-2,3-Dibrom-1,2,3,4-Tetrahydrobenzol-1,4-Dicarbonsäure. Sm. 110° (*A.* 258, 11). — II, 1834.
 3) Dimethylester d. 1,2-Dibrom-1,2,3,4-Tetrahydrobenzol-2,5-Dicarbonsäure. Sm. 64° (*A.* 258, 23). — II, 1833.
 4) Dimethylester d. 2,3-Dibrom-1,2,3,4-Tetrahydrobenzol-2,5-Dicarbonsäure. Sm. 90° (*A.* 245, 156). — II, 1833.
 $C_{10}H_{12}O_4Br_4$ 1) Dimethylester d. 1,2,4,5-Tetrabromhexahydrobenzol-1,4-Dicarbonsäure. Sm. 149° (*A.* 258, 28). — II, 1836.
 2) Dimethylester d. 2,3,5,6-Tetrabromhexahydrobenzol-1,4-Dicarbonsäure. Sm. 98° (*A.* 258, 13). — II, 1836.
 $C_{10}H_{12}O_4S$ 1) α -Phenylsulfonbuttersäure. Sm. 123–124°. Ba (*B.* 21, 996; 27 [2] 269). — II, 787.
 2) α -Phenylsulfonisobuttersäure (*B.* 27 [2] 269).
 3) α -[4-Methylphenylsulfon]propionsäure. Sm. 37° (*J. pr.* [2] 40, 555). — II, 824.
 4) Metanetholsulfonsäure (polym. 4-Oxy-1-Propenylbenzylmethyläther-2-Sulfonsäure). Ca + H₂O, Ba + H₂O (*A.* 187, 73). — II, 851.
 5) isom. Metanetholsulfonsäure. Ba + H₂O, Pb (*J. pr.* [1] 36, 275). — II, 851.
 6) Äthylester d. Phenylsulfonessigsäure. Sm. 41–42° (45°) (*Am.* 5, 116; *B.* 22, 1453; *J. pr.* [2] 30, 343; *J.* 1885, 1598). — II, 786.
 7) Diäthylester d. Thiophen-2,4-Dicarbonsäure. Sm. 35–36° (*B.* 20, 2023). — III, 759.
 8) Diäthylester d. Thiophen-2,5-Dicarbonsäure. Sm. 50–51° (46–47°) (*B.* 18, 3023; 19, 193). — III, 760.
 9) Acetat d. Oxyäthylphenylsulfon. Fl. (*J. pr.* [2] 30, 190). — II, 782.
 $C_{10}H_{12}O_4S_2$ 1) γ -[4-Methylphenyl]sulfon- $\alpha\beta$ -Sulfonpropan. Sm. noch nicht bei 200° (*J. pr.* [2] 56, 457).
 $C_{10}H_{12}O_4S_3$ 1) 4-Äthylxanthogen-1-Methylbenzol-3-Sulfonsäure. K + 2 H₂O (*Soc.* 73, 751).
 2) 2-Äthylxanthogen-1-Methylbenzol-5-Sulfonsäure. K + H₂O (*Soc.* 73, 757).
 $C_{10}H_{12}O_5N_2$ C 50,0 — H 5,0 — O 33,3 — N 11,7 — M. G. 240.
 1) *p*-Dinitro-4-Oxy-1-tert. Butylbenzol. Sm. 93° (*B.* 14, 1474, 1843; *A.* 211, 244). — II, 765.
 2) 3,5-Dinitro-2-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 117° (*G.* 20, 185; 28 [1] 309). — II, 767.
 3) 2,6-Dinitro-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 55°. K, Ca + 5 H₂O, Ba + 3 H₂O, Ag (*B.* 8, 1501; 10, 611; *Z.* 1871, 261; *A. ch.* [3] 49, 152; *G.* 19, 68; 28 [1] 308; *M.* 19, 146). — II, 773.
 4) Dimethyläther d. *p*-Nitro-2-Acetylamido-1,4-Dioxybenzol. Sm. 164° (*B.* 17, 2121). — II, 948.

- C₁₀H₁₃O₅N₂** 5) Oximidotropinonmonooxalsäure (B. 30, 2713).
 6) Dimethylester d. $\alpha\gamma$ -Dicyan- β -Oxy- β -Methylpropan- $\alpha\gamma$ -Dicarbonsäure. Sm. 101° (Bl. [3] 15, 769).
 7) Aethylester d. 5-Nitro-6-Oxy-2,4-Dimethylpyridin-3-Carbonsäure. Sm. 215° (Soc. 73, 233).
 8) Amid d. β -Oxy- β -[2-Nitro-5-Methoxylphenyl]propionsäure. Sm. 187–188° (A. 262, 176). — II, 1763.
- C₁₀H₁₂O₆S** 1) β -Phenylsulfon- α -Oxyisobuttersäure. Sm. 120–121°. K, Ca (A. 260, 260). — II, 782.
 2) 1-norm. Propylbenzol-4-Carbonsäure-2-Sulfonsäure. Ba + H₂O (B. 22, 2278). — II, 1383.
 3) 1-Isopropylbenzol-4-Carbonsäure-2-Sulfonsäure. Sm. 160°. BaH + 4½ H₂O, Ba + H₂O (B. 22, 2275). — II, 1389.
 4) 1-Methylester-2-Aethylester d. Benzol-1-Carbonsäure-2-Sulfonsäure (Am. II, 343). — II, 1295.
 5) 2-Methylester-1-Aethylester d. Benzol-1-Carbonsäure-2-Sulfonsäure (Am. II, 343). — II, 1295.
 6) C-Aethylester d. Phenylmethan- α -Carbonsäure- α -Sulfonsäure. NH₄, K (J. 1880, 856). — II, 1329.
- C₁₀H₁₂O₆N₂** C 46,9 — H 4,7 — O 37,5 — N 10,9 — M. G. 256.
 1) Diäthyläther d. 4,6-Dinitro-1,3-Dioxybenzol. Sm. 133° (Am. 13, 179; 21, 527). — II, 925.
 2) Diäthyläther d. p-Dinitro-1,3-Dioxybenzol. Sm. 126° (Am. 18, 122).
 3) Diäthyläther d. 2,3-Dinitro-1,4-Dioxybenzol. Sm. 130° (B. 12, 41; A. 215, 150). — II, 946.
 4) Diäthyläther d. 2,5-Dinitro-1,4-Dioxybenzol. Sm. 176° (B. 11, 1448; 12, 41; A. 215, 150). — II, 946.
 5) 3,6-Di[Acetylamido]-1,2,4,5-Tetraoxybenzol (B. 21, 1852). — II, 1033.
 C 42,2 — H 4,2 — O 33,8 — N 19,7 — M. G. 284.
- C₁₀H₁₂O₆N₄** 1) 2,4,6-Trinitro-1-Isobutylamidobenzol. Sm. 95° (R. 4, 193). — II, 336.
 2) 2,4,6-Trinitro-5-Amido-3-Isopropyl-1-Methylbenzol. Sm. 103–104° (B. 29, 171).
 3) 2,4,6-Trinitro-1-Diäthylamidobenzol. Sm. 163–164° (R. 2, 107). — II, 334.
 4) 2,4-Dinitro-6-Methylnitrosamido-1,3,5-Trimethylbenzol. Sm. 137 bis 138° (R. 6, 33). — II, 554.
- C₁₀H₁₂O₆S** 1) 1-[α -Oxyisopropyl]benzol-2-Carbonsäure- β -Sulfonsäure. Ba (A. 220, 33). — II, 1585.
 2) 1-[α -Oxyisopropyl]benzol-4-Carbonsäure-3-Sulfonsäure. K₂ + 5 H₂O, Ba + H₂O, Pb (A. 220, 7, 29). — II, 1588.
- C₁₀H₁₂O₇N₂** C 44,1 — H 4,4 — O 41,2 — N 10,3 — M. G. 272.
- C₁₀H₁₂O₆N₃** 1) 1,3-Diäthyläther d. 2,4-Dinitro-1,3,5-Trioxymethylbenzol. Sm. 166°. Na + H₂O (Am. 18, 672).
 C 41,7 — H 4,2 — O 44,4 — N 9,7 — M. G. 288.
 1) Tetramethyläther d. 5,6-Dinitro-1,2,3,4-Tetraoxybenzol. Sm. 92° (B. 23, 2292). — II, 1030.
 2) Tetracetat d. $\alpha\beta$ -Dioximido- $\alpha\beta$ -Dioxyäthan (T. d. Oxalldihydroxamsäure). Sm. 141° (B. 28, 755).
- C₁₀H₁₂O₆Cl₂** 1) Dimethylester d. Di[Chloracetyl]weinsäure. Sm. 55°; Sd. 217°₁₈ (Soc. 73, 193, 207; Bl. [3] 13, 1056).
- C₁₀H₁₂O₆S** 1) Opianchweflige Säure. Ba + 3 H₂O, Pb + 6 H₂O (A. 50, 10). — II, 1942.
- C₁₀H₁₂O₁₀S₂** 1) Tetraoxytetrahydronaphtalindisulfonsäure. Ca (A. 136, 345, 346). — II, 135.
- C₁₀H₁₂NBr** 1) 6-Brom-8-Methyl-1,2,3,4-Tetrahydrochinolin. Fl. HCl, (2HCl, PtCl₄) (A. 252, 326). — IV, 206.
- C₁₀H₁₂N₂Cl₄** 1) 1,2-Di[Dimethylamidodichlormethyl]benzol (Phtalsäuremethyamidchlorid) (A. 214, 243). — II, 1794.
- C₁₀H₁₂N₂Br₄** 1) Dibromnikotindibromid. HBr (J. 1864, 435; B. 15, 2372).
- C₁₀H₁₂N₂S** 1) α -Allylphenylthioharnstoff. Sm. 98° (A. 84, 348; B. 8, 1529). — II, 392.
 2) 2-Phenylamido-5-Methyl-4,5-Dihydrothiazol (N-Phenylpropylenpseudothioharnstoff). Sm. 117°. (2HCl, PtCl₄), Pikrat (B. 22, 2993). — II, 393.

- $C_{10}H_{12}N_2S$ 3) 2-Imido-3-Benzyltetrahydrothiazol. CHNS (*B.* 29, 2385; 32, 973 Ann.).
 4) 1-Phenyl-2-Thiocarbonylhexahydro-1,3-Diazin (Trimethylenphenylthioharnstoff). Sm. 215° (*B.* 23, 1172). — II, 392.
 5) 2-Thiocarbonyl-5-Methyl-1-Aethyl-2,3-Dihydrobenzimidazol (Thiocarbon-4-Aethyltoluylendiamin). Sm. 139° (*B.* 26, 200). — IV, 614.
 6) 1-Methyl-5-Dimethylamidobenzthiazol. Fl. HCl (*A.* 251, 29). — II, 800.
 7) 2-Thiocarbonyl-3-Aethyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 185° (*J. pr.* [2] 51, 135). — IV, 634.
 8) 3-Aethylimido-3,4-Dihydro-2,1-Benzthiazin. Sm. 103°. (2HCl, PtCl₄), (HCl, AuCl₃) (*B.* 22, 2936). — IV, 878.
- $C_{10}H_{12}N_2S_2$ 1) Diamid d. Benzol-1,4-Di[Methylthiocarbonsäure]. Sm. 205—206° (*B.* 9, 1768). — II, 1852.
 2) Aethylphenylamid d. Dithiooxalsäure. Sm. 36—37° (*B.* 14, 740). — II, 409.
- $C_{10}H_{12}N_3Cl$ 1) 2-Chlor-3,4-Dimethyl-1-Phenyl-2,3-Dihydro-1,2,5-Triazol. Sm. 152°; Sd. 285° (*J. pr.* [2] 57, 169). — IV, 1097.
 2) Chlormethylat d. 3-Methyl-1-Phenyl-1,2,4-Triazol. 2 + PtCl₄. — IV, 1104.
- $C_{10}H_{12}N_3Br$ 1) 2-Brom-3,4-Dimethyl-1-Phenyl-2,3-Dihydro-1,2,5-Triazol. Sm. 150 bis 151° (*J. pr.* [2] 57, 171). — IV, 1097.
 2) Verbindung (aus β-4-Bromphenylhydrazonpropan u. CHN). Sm. 95—96° (*Am.* 21, 42).
- $C_{10}H_{12}N_3J$ 1) 2-Jod-3,4-Dimethyl-1-Phenyl-2,3-Dihydro-1,2,5-Triazol. Sm. 142° (*J. pr.* [2] 57, 171). — IV, 1097.
 2) Jodmethylat d. 3-Methyl-1-Phenyl-1,2,4-Triazol. Sm. 185—186° u. Zers. — IV, 1104.
- $C_{10}H_{12}ClBr$ 1) 3-Chlor-6-Brom-4-Isopropyl-1-Methylbenzol. Sd. 259—261°_{750°} (*G.* 23 [2] 69). — II, 70.
- $C_{10}H_{12}Cl_2Br$ 1) Camphendichloridtetrabromid. Sm. 85—86° (*J.* 1887, 756). — II, 18.
- $C_{10}H_{13}ON$ C 73,6 — H 8,0 — O 9,8 — N 8,6 — M. G. 163.
 1) Aethenyläther d. 2-Dimethyl-1-Oxybenzol. Sd. 224—225° (*B.* 32, 734).
 2) 2-Isopropylidenamido-1-Oxymethylbenzol. Sm. 120° (*B.* 25, 2973). — II, 1062.
 3) Dimethyläther d. 4-Acetylamido-1,3-Dioxybenzol. Sm. 115—116° (*B.* 22, 2379). — II, 928.
 4) β-Phenylimido-β-Oxybutan (*B.* 27, 1293).
 5) Aethyläther d. 2-Methylphenylimidooxymethan. Sd. 101°₁₂ (*Am.* 18, 389).
 6) Aethyläther d. 4-Methylphenylimidooxymethan. Sd. 231—232°₇₄₃ (239—240°) (*Am.* 16, 377; *B.* 32, 37).
 7) Propyläther d. Phenylimidooxymethan. Sd. 233—235° (*Am.* 13, 528). — II, 359.
 8) Benzimidopropyläther. Sd. 232°₇₃₅. HCl, Pikrat (*Am.* 20, 74).
 9) 4-Methylbenzimidooäthyläther. Fl. HCl, (2HCl, PtCl₄ + H₂O) (*B.* 21, 2650; PINNER, Imidoäther 62). — II, 1342.
 10) Phenylacetimidoäthyläther. Sd. 116°₁₅. HCl (*Am.* 20, 76; *B.* 17, 1421). — II, 1314.
 11) γ-Keto-α-[3-Amidophenyl]butan. Fl. (*B.* 23, 1888). — III, 149.
 12) Methyl-2-Aethylamidophenylketon. Fl. (2HCl, PtCl₄) (*B.* 17, 791). — III, 124.
 13) Methyl-4-Dimethylamidophenylketon. Sm. 58—59° (*B.* 18, 2694). — III, 125.
 14) Methyl-5-Amido-2,4-Dimethylphenylketon. Sm. 88°. HCl, (2HCl, PtCl₄ + 4H₂O) (*J. pr.* [2] 41, 498). — III, 152.
 15) α-Oximido-β-Methyl-α-Phenylpropan. Sm. 61° (58°) (*B.* 20, 506; *J. pr.* [2] 46, 480; *M.* 18, 601). — III, 150.
 16) α-Oximido-α-[4-Methylphenyl]propan. Sm. 86—87° (*G.* 21 [1] 95). — III, 150.
 17) β-Oximido-α-[4-Methylphenyl]propan. Sm. 90—91° (*G.* 21 [1] 101). — III, 150.
 18) α-Oximido-α-[2,5-Dimethylphenyl]äthan. Sm. 58° (*J. pr.* [2] 46, 479). — III, 152.

- $C_{10}H_{13}ON$ 19) α -Oximido- α -[3,4-Dimethylphenyl]äthan. Sm. 84,5—85° (Soc. 63, 84). — III, 151.
- 20) Aethyläther d. α -Oximido- α -Phenyläthan. Sd. 200—202°₄₈ (B. 26, 1427). — III, 131.
- 21) N-Benzylpropionaldoxim. Sm. 106° (J. pr. [2] 56, 74).
- 22) anti-4-Isopropylbenzaldoxim. Sm. 58° (B. 16, 2994; 23, 2175; 28, 2018). — III, 56.
- 23) syn-4-Isopropylbenzaldoxim. Sm. 112° (B. 23, 2175). — III, 57.
- 24) anti-2,3,4-Trimethylbenzaldoxim. Sm. 115° (B. 29, 956).
- 25) syn-2,3,4-Trimethylbenzaldoxim. Sm. 168° (B. 29, 956).
- 26) anti-2,4,6-Trimethylbenzaldoxim. Sm. 127° (124°) (B. 24, 3544; 28, 746). — III, 57.
- 27) syn-2,4,6-Trimethylbenzaldoxim. Sm. 179° (B. 24, 3544; 28, 747). — III, 57.
- 28) Propyläther d. anti-Benzaldoxim. Sd. 225—226° (B. 16, 828). — III, 42.
- 29) Benzyläther d. Acetoxim. Fl. (B. 16, 168, 174). — II, 536.
- 30) 3-Amido-2-Oxy-1,2,3,4-Tetrahydronaphtalin. Fl. HCl, (2HCl, PtCl₄) (B. 26, 1838; A. 288, 131). — II, 855.
- 31) 5-Amido-1-Oxy-5,6,7,8-Tetrahydronaphtalin. Fl. HCl (B. 22, 960). — II, 854.
- 32) 2-Methyl-4-Phenyltetrahydrooxazol? Sd. 248—251° (B. 21, 926). — IV, 207.
- 33) 4-Phenylmorpholin. Sm. 53°; Sd. 270°. HCl (B. 22, 2094). — II, 426.
- 34) 8-Oxy-1-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 114°. HCl + H₂O, Pikrat (B. 16, 714). — IV, 199.
- 35) 8-Oxy-2-Methyl-1,2,3,4-Tetrahydrochinolin. Sd. 278—282° (B. 17, 1706). — IV, 205.
- 36) 8-Oxy-6-Methyl-1,2,3,4-Tetrahydrochinolin (B. 17, 442). — IV, 205.
- 37) Methyläther d. 6-Oxy-1,2,3,4-Tetrahydrochinolin (Thallin). Sm. 42 bis 43°; Sd. 283°₁₈₈. HCl, HJ, H₂SO₄ + 2H₂O, Tartrat, Pikrat (M. 6, 767; J. 1886, 931). — IV, 197.
- 38) Methyläther d. 8-Oxy-1,2,3,4-Tetrahydrochinolin. Fl. HCl, (2HCl, PtCl₄), Pikrat (B. 14, 2571). — IV, 198.
- 39) Methyläther d. 7-Oxy-1,2,3,4-Tetrahydroisochinolin. Sm. 184 bis 186°₅₀. HCl, (2HCl, PtCl₄) (A. 286, 19). — IV, 202.
- 40) 3,4-Dimethyl-3,4-Dihydro-1,4-Benzoxazin. Sd. 259—261°. HCl, Pikrat (B. 31, 755).
- 41) Amid d. α -Benzylpropionsäure. Sm. 109° (B. 20, 618). — II, 1382.
- 42) Amid d. 2,4-Dimethylphenylelessigsäure. Sm. 183° (B. 20, 2469; 21, 534; J. pr. [2] 41, 488; C. 1896 [2] 381). — II, 1389.
- 43) Amid d. 2,5-Dimethylphenylelessigsäure. Sm. 154° (C. 1897 [2] 411).
- 44) Amid d. 1-Isopropylbenzol-2-Carbonsäure. Sm. 124° (B. 19, 3015). — II, 1384.
- 45) Amid d. 1-Isopropylbenzol-4-Carbonsäure. Sm. 153,5°. Hg + 1 $\frac{1}{2}$ H₂O (A. 65, 49; 87, 167, 299; 244, 52; G. 16, 282). — II, 1385.
- 46) Amid d. 1,2,4-Trimethylbenzol-5-Carbonsäure. Sm. 200—201° (A. 244, 54). — II, 1390.
- 47) Amid d. 1,3,5-Trimethylbenzol-2-Carbonsäure. Sm. 189° (B. 28, 748).
- 48) Methylamid d. β -Phenylpropionsäure. Sm. 59—60° (R. 16, 391).
- 49) Dimethylamid d. Phenylelessigsäure. Sm. 43,5°; Sd. 155°₁₀ (R. 16, 37).
- 50) Aethylamid d. 1-Methylbenzol-4-Carbonsäure. Sm. 90° (A. 244, 52). — II, 1341.
- 51) Phenylamid d. norm. Buttersäure. Sm. 92° (90°). 2 + Al₂Cl₆ (A. 87, 166; B. 16, 1200; J. pr. [2] 52, 60; Bl. [3] 11, 927; Am. 18, 700). — II, 370.
- 52) Phenylamid d. Isobuttersäure. Sm. 102,5° (105°) (Am. 7, 117; B. 27 [2] 516; Soc. 73, 34). — II, 370.
- 53) Methylphenylamid d. Propionsäure. Sm. 58,5° (B. 18, 1998).
- 54) 2-Methylphenylamid d. Propionsäure. Sm. 87°; Sd. 298—299°₁₃₀ (B. 20, 3421). — II, 462.
- 55) 3-Methylphenylamid d. Propionsäure. Sm. 81° (B. 27 [2] 516; J. pr. [2] 51, 569).

- C₁₀H₁₃ON** 56) 4-Methylphenylamid d. Propionsäure. Sm. 123° (126°) (B. 20, 2270; A. 279, 172). — II, 493.
- 57) Aethylphenylamid d. Essigsäure. Sm. 54,5°; Sd. 248–250° (B. 15, 691; 16, 30; 20, 3423; 21, 1108; J. 1884, 464; 1885, 866). — II, 367.
- 58) 2-Aethylphenylamid d. Essigsäure. Sm. 111–112°; Sd. 304–305° (A. 156, 209; B. 17, 768). — II, 536.
- 59) 3-Aethylphenylamid d. Essigsäure. Sm. 24–25°; Sd. 312–313° (Bl. [3] 11, 211). — II, 536.
- 60) 4-Aethylphenylamid d. Essigsäure. Sm. 94°; Sd. 315–317° (A. 156, 208; B. 15, 1649). — II, 537.
- 61) α-Phenyläthylamid d. Essigsäure. Sm. 57°; Sd. 292–293°₇₅₂ (B. 27, 2307).
- 62) β-Phenyläthylamid d. Essigsäure. Sm. 42–44° (51°); Sd. 305–306°₇₂₅ (B. 26, 1908, 2167). — II, 539.
- 63) Methyl-2-Methylphenylamid d. Essigsäure. Sm. 55–56°; Sd. 260° (250–251°) (B. 11, 2279; 16, 30). — II, 462.
- 64) Methyl-3-Methylphenylamid d. Essigsäure. Sm. 66° (B. 11, 2279). — II, 478.
- 65) Methyl-4-Methylphenylamid d. Essigsäure. Sm. 83° (81°); Sd. 283° (B. 10, 1583; 16, 914). — II, 493.
- 66) 2,3-Dimethylphenylamid d. Essigsäure. Sm. 131° (B. 16, 28; 18, 2562, 2671). — II, 540.
- 67) 2,4-Dimethylphenylamid d. Essigsäure. Sm. 129° (B. 18, 2677). — II, 543.
- 68) 2,5-Dimethylphenylamid d. Essigsäure. Sm. 138–139° (139,5°) (B. 11, 1538; 26, 39). — II, 547.
- 69) 2,6-Dimethylphenylamid d. Essigsäure. Sm. 174° (176°) (B. 17, 2431; 18, 2676; 21, 3150; M. 19, 639). — II, 542.
- 70) 3,4-Dimethylphenylamid d. Essigsäure. Sm. 99° (B. 17, 161). — II, 541.
- 71) 3,5-Dimethylphenylamid d. Essigsäure. Sm. 144,5° (138°; 140,5°) (A. 207, 96; B. 18, 362, 2678). — II, 545.
- 72) 2-Methylbenzylamid d. Essigsäure. Sm. 69° (B. 21, 578). — II, 541.
- 73) 3-Methylbenzylamid d. Essigsäure. Sd. 235–240° (B. 21, 2704). — II, 545.
- 74) 4-Methylbenzylamid d. Essigsäure. Sm. 106,5° (107–108°) (B. 23, 1032; 28, 2988). — II, 547.
- 75) norm. Propylphenylamid d. Ameisensäure. Sd. 267°₇₃₁ (B. 21, 1109). — II, 359.
- 76) Isopropylphenylamid d. Ameisensäure. Sd. 261–263°₇₂₀ (B. 21, 1109). — II, 359.
- 77) 2,4,5-Trimethylphenylamid d. Ameisensäure. Sm. 121° (B. 18, 2296). — II, 552.
- 78) 2,4,6-Trimethylphenylamid d. Ameisensäure. Sm. 177° (176°) (B. 21, 641; 28, 749; C. 1897 [1] 548). — II, 554.
- 79) 3,4,5-Trimethylphenylamid d. Ameisensäure. Sm. 98,5° (B. 21, 643). — II, 351.
- C₁₀H₁₃ON₃** 80) Isolauronolylecyanid. Sd. 120°₇₈ (Bl. [3] 17, 845).
C 62,8 — H 6,8 — O 8,4 — N 22,0 — M. G. 191.
- 1) γ-Oximido-β-Phenylhydrazonbutan. Sm. 158° (B. 21, 2754, 2997). — IV, 780.
- 2) α-Oximido-β-Methylphenylhydrazonpropan. Sm. 118° (B. 21, 3003). — IV, 758.
- 3) Amid d. β-Isopropyliden-α-Phenylhydrazidoameisensäure. Sm. 140° (B. 30, 1016). — IV, 766.
- 4) Acetonylhydrazid d. Phenylamidoameisensäure. Sm. 155–156° (J. pr. [2] 53, 530).
- 5) Verbindung (aus 2-Amido-1-Methyl-1,2,3,4-Tetrahydrochinolin) + 5 H₂O. Sm. 144° u. Zers. HCl (B. 18, 2391). — IV, 191.
- C₁₀H₁₃OCl** 1) 6-Chlor-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 58–60° (62–64°). (G. 26 [2] 403; 28 [1] 214).
- 2) Methyläther d. 3-Chlor-4-Oxy-1-Isopropylbenzol. Sd. 246,7 bis 248,7°_{750,4} (G. 28 [1] 218).
- 3) Anetholhydrochlorid (A. 41, 60). — II, 852.

- $C_{10}H_{13}OCl_3$ 1) Trichlorcampher. Sm. 54° (*J.* 1884, 1063). — III, 489.
- $C_{10}H_{13}OBr$ 1) *p*-Brom-4-Oxy-1-Isobutylbenzol. Sm. 50° (*Am.* 17, 113).
 2) 4-[α -Bromäthyl]-1-[α -Oxyäthyl]benzol. Sm. 136° (*B.* 27, 2527). — II, 1066.
 3) 5-Brom-2-Oxy-4-Isopropyl-1-Methylbenzol. Fl. (*G.* 16, 194). — II, 767.
 4) *p*-Brom-2-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 46° ; Sd. 162 bis 163_{11}° (*B.* 28, 1664).
 5) 2-Brom-3-Oxy-4-Isopropyl-1-Methylbenzol. Sd. 240° (*J. pr.* [2] 43, 347). — II, 772.
 6) 6-Brom-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. $55-56^\circ$ (*G.* 18, 516; 23 [2] 76). — II, 772.
 7) *p*-Brom-3-Oxy-4-Isopropyl-1-Methylbenzol (*J.* 1876, 453).
 8) 6-Brom-5-Oxy-1,2,3,4-Tetramethylbenzol. Sm. 151° (*B.* 21, 907). — II, 775.
 9) 6-Brom-3-Oxy-1,2,4,5-Tetramethylbenzol. Sm. 118° (*B.* 18, 2844). — II, 775.
 10) Methyläther d. 5-Brom-2-Oxy-1-Isopropylbenzol. Sd. 250,4 bis $251,4_{740,1}^\circ$ (*G.* 16, 118). — II, 762.
 11) β -Bromäthyläther d. 4-Oxy-1,3-Dimethylbenzol. Sd. $263-265_{770}^\circ$ (*B.* 29, 2399).
 12) Bromcamphenon. Sm. 70° (*G.* 25 [2] 163; 26 [2] 51). — III, 501.
- $C_{10}H_{13}OBr_3$ 1) *p*-Dibrom-5-Bromoxyl-3-Isopropyl-1-Methylbenzol. Sm. 118° (*B.* 27, 2347).
 2) Tribromcampher. Sm. $63-64^\circ$ (*Bl.* 38, 580; *B.* 15, 1621, 1625). — III, 491.
 3) Tribromthujon. Sm. 122° (*A.* 275, 179; 286, 109). — III, 511.
- $C_{10}H_{13}OBr_5$ 1) d-Carvon- α -Pentabromid. Sm. $142-143^\circ$ (*A.* 286, 122, 143).
 2) d-Carvon- β -Pentabromid. Sm. $86-87^\circ$ (*A.* 286, 123).
 3) l-Carvon- β -Pentabromid. Sm. $86-87^\circ$ (*A.* 286, 123).
 4) i-Carvon- α -Pentabromid. Sm. $124-126^\circ$ (*A.* 286, 122).
 5) i-Carvon- β -Pentabromid. Sm. $96-98^\circ$ (*A.* 286, 123).
- $C_{10}H_{13}OJ$ 1) 6-Jod-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 69° (*J. pr.* [2] 39, 290). — II, 772.
- $C_{10}H_{13}O_2N$ C 67,0 — H 7,3 — O 17,9 — N 7,8 — M. G. 179.
 1) α -Nitrobutylbenzol. Sd. $250-256_{758}^\circ$ (*B.* 28, 1857).
 2) stabil. α -Nitroisobutylbenzol. Sd. 244° u. Zers. Na, K, Cu (*B.* 28, 1858).
 3) labil. α -Nitroisobutylbenzol. Sm. 54° u. Zers. (*B.* 29, 2197).
 4) 3-Nitro-1-Isobutylbenzol. Sd. $250-252_{704}^\circ$ (*B.* 21, 2946). — II, 103.
 5) 2-Nitro-1-[tert.]Butylbenzol. Sd. $247,4-248,4^\circ$ (*B.* 23, 2414; 27, 1610). — II, 103.
 6) 4-Nitro-1-[tert.]Butylbenzol. Sm. 30° ; Sd. $274,6-275^\circ$ (*B.* 23, 2414). — II, 103.
 7) *p*-Nitro-3-Isopropyl-1-Methylbenzol. Sd. $255-265^\circ$ u. Zers. (*A.* 221, 161). — II, 104.
 8) 2-Nitro-4-Isopropyl-1-Methylbenzol. Fl. (*A.* 172, 314; *B.* 6, 937; 10, 1251; 11, 1092; 21, 2126; *J. r.* 19, 119). — II, 104.
 9) *p*-Nitro-1,3-Diäthylbenzol. Sd. $280-285^\circ$ u. Zers. (*B.* 21, 2830). — II, 105.
 10) 2-Nitro-1,4-Diäthylbenzol. Sd. 155_{73}° u. Zers. (*B.* 22, 316). — II, 105.
 11) 6-Nitro-5-Aethyl-1,3-Dimethylbenzol. Sd. $270-272^\circ$ u. Zers. (*B.* 25, 1535). — II, 106.
 12) 5-Nitro-1,2,3,4-Tetramethylbenzol. Sm. 61° ; Sd. 295° u. Zers. (*B.* 21, 905). — II, 106.
 13) 5-Nitroso-2-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 153° (*B.* 12, 383; 28, 1661; *G.* 21 [2] 155). — II, 767.
 14) *p*-Nitroso-3-Oxy-*p*-Propyl-1-Methylbenzol. Sm. 140° u. Zers. (*G.* 12, 332). — II, 765.
 15) *p*-Nitroso-3-Oxy-*p*-Isopropyl-1-Methylbenzol. Sm. $165-167^\circ$ (*G.* 12, 505). — II, 766.
 16) 4-Acetyläthylamido-1-Oxybenzol. Sm. 187° (*A.* 305, 285).
 17) 5-Acetylamido-4-Oxy-1,3-Dimethylbenzol. Sm. 96° (*Sec.* 63, 106). — II, 759.

- $C_{10}H_{13}O_2N$ **18** Methyläther d. 3-Acetylamido-4-Oxy-1-Methylbenzol. Sm. 110° (B. **22**, 349). — II, **753**.
- 19** Methyläther d. 2-Oxy-1-Acetylamidomethylbenzol. Sm. 97° (B. **23**, 2743). — II, **742**.
- 20** Methyläther d. 4-Oxy-1-Acetylamidomethylbenzol. Sm. 96° (B. **20**, 2409). — II, **754**.
- 21** Aethyläther d. 2-Acetylamido-1-Oxybenzol. Sm. 79° (B. **32**, 159).
- 22** Aethyläther d. 3-Acetylamido-1-Oxybenzol. Sm. 96,7° (J. pr. **2** **32**, 75). — II, **715**.
- 23** Aethyläther d. 4-Acetylamido-1-Oxybenzol (Phenacetin). Sm. 135° (Medizinische Lit. bed.) (A. **305**, 278). — II, **719**.
- 24** Acetat d. 3-Dimethylamido-1-Oxybenzol. Sm. 36,5°; Sd. 160° (B. **29**, 508).
- 25** Isobutytrat d. 2-Amido-1-Oxybenzol. Sm. 112—115° (B. **30**, 2928).
- 26** α -Oxyphenylacetimidoäthyläther (α -Aethyläther d. $\alpha\beta$ -Dioxy- α -Imido-phenyläthan). Sm. 71—72°. HCl (J. pr. **2** **31**, 384). — II, 1552.
- 27** 4-Methyläther d. 4-Oxybenzimidäthyläther. Sm. oberh. 30°. HCl, (2HCl, PtCl₄), Dioxalat (B. **23**, 106). — II, 1529.
- 28** 4-Oximido-1-Keto-3-Methyl-6-Isopropyl-1,4-Dihydrobenzol (6-Nitroso-3-Oxy-4-Isopropyl-1-Methylbenzol). Sm. 155—156° (160—162°; 167° u. Zers.) (B. **8**, 1500; **10**, 77; **15**, 170; **17**, 2061; **18**, 3194; **19**, 2315; G. **11**, 124; **27** **2** 581; Bt. **3** **19**, 516). — II, **772**.
- 29** α -Oximido- β -Oxy- α -Phenylbutan. Fl. (Soc. **59**, 888). — III, **148**.
- 30** 4-Methyläther d. α -Oximido- α -[4-Oxyphenyl]propan. Sm. 74° (67°) (B. **23**, 1204; **28**, 2715). — III, **141**.
- 31** α -[2,4-Dimethylphenyl]äther d. β -Oximido- α -Oxyäthan. Sm. 98° (B. **30**, 1708).
- 32** α -[2,5-Dimethylphenyl]äther d. β -Oximido- α -Oxyäthan. Sm. 114° (B. **30**, 1708).
- 33** α -[3,4-Dimethylphenyl]äther d. β -Oximido- α -Oxyäthan. Sm. 99° (B. **30**, 1707).
- 34** α -[4-Aethylphenyl]äther d. β -Oximido- α -Oxyäthan. Sm. 104° (B. **30**, 1709).
- 35** α -Propylbenzhydroxamsäure. Sm. 33,5° (A. **281**, 202). — II, **1199**.
- 36** β -Propylbenzhydroxamsäure. Sm. 47,5—48° (A. **281**, 206). — II, **1199**.
- 37** Aethyl-3-Methylbenzhydroxamsäure. Fl. (A. **281**, 208). — II, **1336**.
- 38** α -Aethyl-4-Methylbenzhydroxamsäure. Sm. 34° (A. **281**, 208). — II, **1342**.
- 39** β -Aethyl-4-Methylbenzhydroxamsäure. Sm. 103° (A. **281**, 209). — II, **1343**.
- 40** Methyläther d. α -Aethylbenzhydroxamsäure. Fl. HCl (A. **182**, 224; **252**, 226; **281**, 216). — II, **1197**.
- 41** Aethyläther d. anti-Methylbenzhydroxamsäure. Fl. (A. **181**, 393). — II, **1197**.
- 42** Aethyläther d. 4-Methylbenzhydroxamsäure. Sm. 101° (A. **281**, 188). — II, **1342**.
- 43** Bithymochinonmonoxim. Sm. 264° u. Zers. (B. **18**, 3198). — III, **365**.
- 44** 2-Dipropionylpyrrol. Sm. 116—117° (B. **20**, 1761). — IV, **102**.
- 45** 2,5-Diacetyl-1-Aethylpyrrol. Sm. 58—59°; Sd. 183°₂₉ (B. **22**, 2516). — IV, **102**.
- 46** 3,5-Diacetyl-2,4-Dimethylpyrrol. Sm. 136°. (HCl, AuCl₃) (G. **23** **2** 300). — IV, **102**.
- 47** 3,4-Diacetyl-2,5-Dimethylpyrrol. Sm. 180—181°. (HCl, AuCl₃), (HBr, Br₂) (G. **23** **2** 307; Am. **15**, 531). — IV, **102**.
- 48** Base (aus Dimethyleytisinjodmethyolat). (2HCl, PtCl₄ + 2 $\frac{1}{2}$ H₂O), (HCl, AuCl₃). — III, **872**.
- 49** γ -Amido- γ -Phenylbuttersäure + H₂O. Sm. 85—86° (wasserfrei) (B. **17**, 202). — II, **1381**.
- 50** α -Phenylamidobuttersäure. Sm. 140—141° (139—140°). HCl (A. ch. **5** **20**, 203; B. **22**, 1794; **25**, 2036; Ph. Ch. **10**, 653). — II, **433**.
- 51** β -Phenylamidobuttersäure. Sm. 127—128°. Ba (B. **13**, 313). — II, **434**.
- 52** γ -Phenylamidobuttersäure. Ag, HCl (A. **295**, 41).
- 53** α -Phenylamidoisobuttersäure. Sm. 142° u. Zers. (B. **25**, 2326, 2333; Ph. Ch. **10**, 658). — II, **434**.

- 59) **α -Methylphenylamidopropionsäure.** Sm. 184—185° (B. 15, 2042; 25, 2329; — II, 435.
 60) **β -Methylphenylamidopropionsäure.** Fl. (B. 31, 3019).
 61) **3-Methylphenylamidopropionsäure.** Sm. 116° (B. 15, 2039; 19, 2505; Ph. Ch. 10, 648). — II, 471.
 62) **4-Methylphenylamidopropionsäure.** Sm. 158° (152°) (B. 15, 2037; 25, 2305). — II, 507.
 63) **5-Methylphenylamidopropionsäure.** Sm. 86° (B. 25, 2352; Ph. Ch. 10, 649). — II, 508.
 64) **α -(3-Amidobenzyl)propionsäure.** Fl. (B. 23, 1900). — II, 1382.
 65) **2-Amido-3,5-Dimethylphenylessigsäure.** Siehe Anhydrid C₁₀H₁₁ON (B. 16, 1580). — II, 1390.
 66) **2,4-Dimethylphenylamidoessigsäure.** Sm. 132—134° (B. 16, 206). — II, 544.
 67) **2-Amido-1-Isopropylbenzol-4-Carbonsäure.** Sm. 104° u. 129°. HCl, (2HCl, PtCl₄), H₂SO₄, Zn + 3H₂O, Ag (J. 1875, 747; A. 109, 18; B. 7, 81; 12, 79; 13, 1661, 1876; G. 11, 12; M. 1, 217). — II, 1387.
 68) **3-Amido-1-Isopropylbenzol-4-Carbonsäure.** (B. 19, 270). — II, 1387.
 69) **1-Dimethylamidomethylbenzol-4-Carbonsäure.** Sm. 235°. (2HCl, PtCl₄) (B. 28, 1142).
 70) **Inn. Anhydrid d. 3-Trimethylamidobenzol-1-Carbonsäure + H₂O** (B. 6, 586). — II, 1258.
 71) **Inn. Anhydrid d. 4-Trimethylamidobenzol-1-Carbonsäure + H₂O.** Sm. 255°. (2HCl, PtCl₄), HJ (Am. 7, 195). — II, 1271.
 72) **N-Anhydrid d. Dimethylphenylammoniumessigsäure.** HCl (B. 12, 2206).
 73) **β -Butyranilbetaïn.** HCl, Oxalat (B. 13, 313). — II, 434.
 74) **Methylbetaïn d. 2,4,6-Trimethylpyridin-3-Carbonsäure + 3H₂O.** Zers. oberh. 200° (B. 19, 35). — IV, 150.
 75) **isom. Methylbetaïn d. 2,4,6-Trimethylpyridin-3-Carbonsäure.** Sm. 102—103° (B. 17, 1024). — IV, 170.
 76) **Aldehyd d. 4-Methoxylbenzylamidoessigsäure.** HCl + $\frac{1}{2}$ H₂O (B. 27, 3098).
 77) **Methylester d. 3-Dimethylamidobenzol-1-Carbonsäure.** Sd. 270°. (2HCl, PtCl₄), H₂SO₄ (B. 6, 587). — II, 1258.
 78) **Methylester d. 4-Dimethylamidobenzol-1-Carbonsäure.** Sm. 102° (B. 22, 343). — II, 1271.
 79) **Aethylester d. 6-Amido-1-Methylbenzol-3-Carbonsäure.** Sm. 79° (B. 28, 597).
 80) **Aethylester d. 2-Methylamidobenzol-1-Carbonsäure.** Sd. bei 270° (J. pr. [2] 43, 447). — II, 1247.
 81) **Aethylester d. Phenylamidoessigsäure.** Sm. 57—58°; Sd. 273—274° (B. 8, 1156; 25, 2270; 30, 2309; J. pr. [2] 38, 437). — II, 428.
 82) **Aethylester d. α -Amido- α -Phenylessigsäure.** Sd. 257°. HCl, HNO₃ (B. 24, 4146, 4148). — II, 1323.
 83) **Aethylester d. 3-Amidophenylessigsäure.** Fl. HCl (B. 28, 1920).
 84) **Aethylester d. 4-Amidophenylessigsäure.** Sm. 49,5°. HCl, HBr, HJ (B. 28, 1917, 1922).
 85) **Aethylester d. Benzylamidoameisensäure.** Sm. 48—49° (44°); Sd. 262—264° (B. 3, 518; 31, 180, 2644).
 86) **Aethylester d. Methylphenylamidoameisensäure.** Sd. 243—244° (B. 17, 3042). — II, 373.
 87) **Aethylester d. 2-Methylphenylamidoameisensäure.** Sm. 45—46° (42°) (B. 12, 1349, 1450, 2324; 13, 1090). — II, 463.
 88) **Aethylester d. 3-Methylphenylamidoameisensäure (m-Tolylurethan).** Fl. (B. 13, 1090). — II, 478.
 89) **Aethylester d. 4-Methylphenylamidoameisensäure.** Sm. 52° (J. 1882, 384; B. 3, 656). — II, 494.
 90) **Aethylester d. 2,4-Dimethylpyridin-3-Carbonsäure.** Sd. 246—247° (B. 18, 2022; Soc. 71, 306). — IV, 149.
 91) **Aethylester d. β -Dimethylpyridin- β -Carbonsäure (Ac. d. Lutidin-carbonsäure).** Sd. 260° (G. 14, 450). — IV, 149.
 92) **β -Amidoäthylester d. Phenylessigsäure.** Pikrat (B. 24, 3222). — II, 1310.

- C₁₀H₁₃O₂N** 88) β -Amidoäthylester d. 1-Methylbenzol-2-Carbonsäure. Fl. HBr, Pikrat (B. 26, 1323). — II, 1329.
- 89) β -Amidoäthylester d. 1-Methylbenzol-4-Carbonsäure. HBr, Pikrat (B. 26, 1325). — II, 1340.
- 90) Propylester d. Phenylamidoameisensäure. Sm. 57—59° (B. 6, 1103). — II, 372.
- 91) Isopropylester d. Phenylamidoameisensäure. Sm. 90° (42—43°) (G. 17, 167; J. pr. [2] 32, 279). — II, 372.
- 92) γ -Amido-norm. Propylester d. Benzolcarbonsäure. Fl. (2HCl, PtCl₄), HBr, Pikrat (B. 24, 3216). — II, 1140.
- 93) β -Amidoisopropylester d. Benzolcarbonsäure. Fl. (2HCl, PtCl₄), HBr, Pikrat (B. 23, 2501). — II, 1140.
- 94) Isobutylester d. Pyridin-2-Carbonsäure. Sd. 261,5°. (2HCl, PtCl₄) (B. 27, 1786). — IV, 142.
- 95) Amid d. 1-[α -Oxyisopropyl]benzol-4-Carbonsäure. Sm. 144—145°. Hg (G. 21 [2] 401). — II, 1586.
- 96) Amid d. γ -Oxy- γ -Phenylbuttersäure + H₂O. Sm. 40° (86° wasserfrei). HCl (A. 256, 156). — II, 1583.
- 97) Amid d. α -Oxybutterphenyläthersäure. Sm. 111° (B. 29, 1422).
- 98) Amid d. 2-Oxybenzolisopropyläther-1-Carbonsäure (A. 150, 8). — II, 1499.
- 99) Amid d. 1-Oxymethylbenzoläthyläther-4-Carbonsäure. Sm. 112° (B. 28, 1144).
- 100) Amid d. 4-Oxy-1-Methylbenzoläthyläther-3-Carbonsäure. Sm. 152° (A. 244, 67). — II, 1547.
- 101) Amid d. 6-Oxy-1-Methylbenzoläthyläther-3-Carbonsäure. Sm. 167° (A. 244, 66). — II, 1549.
- 102) β -Oxypropylamid d. Benzolcarbonsäure. Sm. 92—93° (B. 23, 970, 2502). — II, 1161.
- 103) Phenylamid d. α -Oxy-norm. Buttersäure. Sm. 90° (A. 279, 104).
- 104) Phenylamid d. α -Oxyisobuttersäure. Sm. 136° (130°). HCl (B. 25, 2927; A. 279, 112; Bl. [3] 19, 778). — II, 404.
- 105) Phenylamid d. Oxyessigäthyläthersäure. Sd. 185°₃₅ (Bl. [3] 17, 359).
- 106) Methylphenylamid d. α -Oxypropionsäure. Sm. 95—96° (A. 279, 94).
- 107) 2-Methylphenylamid d. α -Oxypropionsäure. Sm. 75—76° (72°) (M. 9, 49; A. 279, 82). — II, 466.
- 108) 4-Methylphenylamid d. α -Oxypropionsäure. Sm. 102—103° (107°) (M. 9, 49; A. 279, 89). — II, 500.
- 109) β -Phenoxyäthylamid d. Essigsäure. Sm. 78° (B. 24, 189). — II, 653.
- C₁₀H₁₃O₂N₂** C 58,0 — H 6,3 — O 15,4 — N 20,3 — M. G. 207.
- 1) 4-Nitroso-1-Isobutylnitrosamidobenzol (A. 243, 298). — II, 336.
- 2) 4-Methylnitrosamido-2-Acetylamido-1-Methylbenzol. Sm. 142° (B. 31, 2929).
- 3) 4-Nitroso-3-Acetylamido-1-Dimethylamidobenzol (Bl. [3] 21, 23).
- 4) 2-Amido-1,4-Di[Acetylamido]benzol. Sm. 231—232° (B. 30, 986). — IV, 1122.
- 5) Propionylphenylamidoharnstoff. Sm. 185—186° u. Zere. (B. 29, 1948). — IV, 675.
- 6) Acetyl-4-Methylphenylamidoharnstoff. Sm. 212,5° (Soc. 73, 369).
- 7) 2,4-Dimethylbenzenyluramidoxim. Sm. 155° (B. 22, 2447). — II, 1377.
- 8) 2-Methylphenyläther d. β -Semicarbazon- α -Oxyäthan. Sm. 151° (B. 30, 1705).
- 9) 4-Methylphenyläther d. β -Semicarbazon- α -Oxyäthan. Sm. 177° (B. 30, 1704).
- 10) β -Acetyl- α -[3-Acetylamidophenyl]hydrazin. Sm. 150—151° (B. 22, 2815). — IV, 1126.
- 11) β -Acetyl- α -[4-Acetylamidophenyl]hydrazin. Sm. 221° (B. 26, 1320). — IV, 1126.
- 12) α -Nitro- α -Phenylazo- β -Methylpropan. Fl. (B. 10, 2088). — IV, 1375.
- 13) 1-[4-Nitrophenyl]hexahydro-1,4-Diazin. Sm. 129° (B. 24, 3240). — II, 344.
- 14) Amid d. Phenylamidobernsteinsäure. Sm. 175° (A. 252, 164). — II, 437.
- 15) Amid d. 4-Dimethylamidophenylloxaminsäure. Sm. 257—259°. H₂SO₄ (B. 12, 532). — IV, 592.

- $C_{10}H_{13}O_2N_3$ 16) Diamid d. Phenylimidoessigsäure. Sm. 225° (B. 30, 2311).
 17) Verbindung (aus Diamido-1,4-Dioxybenzoldiäthyläther). Sm. 233° (B. 12, 42; A. 215, 151). — IV, 1446.
- $C_{10}H_{13}O_2N_5$ C 51,1 — H 5,5 — O 13,6 — N 29,8 — M. G. 235.
 1) Monacetylderivat d. α -Oximido- $\alpha\beta$ -Diamido- β -Phenylhydrazon-äthan. Sm. 146° (A. 295, 137). — IV, 1312.
- $C_{10}H_{13}O_2Cl$ 1) 6-Chlor-2,5-Dioxy-4-Isopropyl-1-Methylbenzol. Sm. 70° (B. 20, 1317). — II, 971.
- $C_{10}H_{13}O_2Cl_3$ 1) Chlorid d. Chlorcamphersäure. Sm. 28°; Sd. 145—148°₁₁ (Sec. 69, 81).
- $C_{10}H_{13}O_2Br$ 1) 6-Brom-2,5-Dioxy-4-Isopropyl-1-Methylbenzol. Sm. 58° (B. 20, 1318). — II, 971.
- $C_{10}H_{13}O_2P$ 1) Betain d. Trimethylphenylphosphoniumoxydrat-4-Carbonsäure + 3H₂O. Chlorid, 2 Chlorid + PtCl₄, Sulfat. (B. 15, 2018). — IV, 1673.
- $C_{10}H_{13}O_3N$ C 61,5 — H 6,7 — O 24,6 — N 7,2 — M. G. 195.
 1) 3-Nitro-4-Oxy-1-tert. Butylbenzol. Sm. 95°; Sd. 289—290°₁₁ (B. 21, 2947). — II, 765.
 2) ?-Nitro-2-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 77—78° (B. 12, 383). — II, 767.
 3) 6-Nitro-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 140° (137°) (B. 8, 1501; 10, 612). — II, 773.
 4) 3-Nitro-4-Isopropyl-1-Oxymethylbenzol. Fl. — II, 1066.
 5) 6-Nitro-3-Oxy-1,2,4,5-Tetramethylbenzol. Sm. 130° (B. 18, 2844). — II, 775.
 6) Methyläther d. 3-Nitro-5-Oxy-1,2,4-Trimethylbenzol. Sm. 41—42° (B. 18, 2659). — II, 763.
 7) Aethyläther d. ?-Nitro-2-Oxy-1,4-Dimethylbenzol. Sm. 85° (B. 18, 2667). — II, 760.
 8) Isobutyläther d. 2-Nitro-1-Oxybenzol. Sd. 275—280° (B. 3, 780). — II, 680.
 9) Isobutyläther d. 4-Nitro-1-Oxybenzol. Sd. 285—290° u. Zers. (B. 3, 780). — II, 682.
 10) Dimethyläther d. 4-Acetylamido-1,2-Dioxybenzol. Sm. 132,5—133° (B. 29, 2690).
 11) Dimethyläther d. 2-Acetylamido-1,4-Dioxybenzol. Sm. 91° (B. 17, 2121). — II, 948.
 12) Monäthyläther d. ?-Nitroso-1,3-Dioxy-?-Aethylbenzol. Zers. bei 150° (M. 11, 378). — II, 967.
 13) Diäthyläther d. 4-Nitroso-1,3-Dioxybenzol (M. 12, 373). — II, 923.
 14) Dimethylamidomethyl-3,4-Dioxyphenylketon. HCl, Oxalat (J. r. 25, 277). — III, 138.
 15) 6-Amido-3-Oxy-5-Isopropyl-2-Methyl-1,4-Benzochinon. Sm. 190° (B. 25, 1661). — III, 369.
 16) α -Aethyl-4-Methoxylbenzhydroxamsäure. Sm. 49° (A. 281, 212). — II, 1532.
 17) β -Aethyl-4-Methoxylbenzhydroxamsäure. Sm. 97° (A. 281, 213). — II, 1533.
 18) Aethyläther d. 4-Methoxylbenzhydroxamsäure. Sm. 84° (A. 217, 17; 281, 190). — II, 1532.
 19) Ratanhin. HCl, (2HCl, PtCl₄), H₂SO₄, H₃PO₄, Na₂, K₂, Mg, Ca, Sr + 2H₂O, Ba + 2H₂O, Ag₂ (J. 1862, 493; 1869, 773, 774; A. 176, 64). — III, 927.
 20) 5-Aethylpyridin-2-[β -Oxyäthyl- β -Carbonsäure]. Sm. 66°. (HCl, AuCl₃ + H₂O), Ca + 4 $\frac{1}{2}$ H₂O, Sr (B. 27, 89). — IV, 156.
 21) Aethylester d. 2-Keto-4,6-Dimethyl-1,2-Dihydropyridin-5-Carbonsäure. Sm. 138—139° (B. 20, 445; A. 259, 173; Sec. 71, 303). — IV, 155.
 22) Aethylester d. 2-Keto-4-Methyl-1,2-Dihydropyridin-6-Methylcarbonsäure. Sm. 166—167° (A. 226, 311; Sec. 59, 174; 71, 309). — IV, 155.
 23) 2-Aethoxylphenylamidoessigsäure. Sm. 120° (J. pr. [2] 29, 292). — II, 713.
 24) 4-Aethoxylphenylamidoessigsäure. Sm. 163° (B. 22, 1788). — II, 721.
 25) 2-Amido-1-[α -Oxyisopropyl]benzol-4-Carbonsäure (B. 16, 2571). — II, 1587.

- C₁₀H₁₃O₃N** 26) 3-Amido-1-[α -Oxyisopropyl]benzol-4-Carbonsäure. Sm. 158° (B. 19, 271). — II, 1586.
- 27) Inn. Anhydrid d. 5-Trimethylamido-2-Oxybenzol-1-Carbonsäure + 4H₂O. HCl, (2HCl, PtCl₄ + 4H₂O), HJ + H₂O (B. 12, 2307). — II, 1513.
- 28) Methylester d. 5-Dimethylamido-2-Oxybenzol-1-Carbonsäure (B. 12, 2308). — II, 1513.
- 29) Aethylester d. 6-Amido-3-Oxy-1-Methylbenzol-4-Carbonsäure. Sm. 71–72° (B. 27, 1934). — II, 1550.
- 30) Aethylester d. 3-Amido-4-Oxybenzylmethyläther-1-Carbonsäure. HCl, (2HCl, PtCl₄) (A. 109, 25; B. 28, 600). — II, 1540.
- 31) Aethylester d. 4-Amidophenoxylessigsäure. Sm. 58° (B. 30, 2107).
- 32) Aethylester d. 2-Methoxyphenylamidoameisensäure. Sd. 180 bis 182°₁₀ (B. 31, 1063).
- 33) Aethylester d. Benzoyloxyamidoameisensäure. Sd. 171–172°₁₁ (Am. 20, 48).
- 34) Aethylester d. Hydroxylamidoameisenbenzyläthersäure. Sm. 31° (A. 299, 78).
- 35) β -Amidoäthylester d. 4-Oxybenzylmethyläther-1-Carbonsäure. Sm. 52°. HBr, Pikrat (B. 27, 2158). — II, 1526.
- 36) 4-Methylphenylamid d. $\alpha\beta$ -Dioxypropionsäure. Sm. 120–122° (A. 279, 95).
- 37) 4-Aethoxyphenylamid d. Oxyessigsäure. Sm. 159–160° (C. 1896 [1] 797).
- 38) Cantharidinimid. Sm. 200–201° (G. 21 [1] 457). — III, 622.
- 39) Imid d. Cantharsäure. Sm. 187° (G. 21 [2] 56). — III, 624.
- 40) Acetylderivat d. Base C₆H₁₁O₂N (aus Furfurbutylennitrit). Sm. 153°; Sd. 305–310° (B. 17, 856). — III, 693.
- C₁₀H₁₃O₃N₂** C 53,8 — H 5,8 — O 21,5 — N 18,8 — M. G. 223.
- 1) s-[β -Amidoäthyl]-Phenylharnstoff-3-Carbonsäure. HCl + 2½H₂O (B. 18, 2416). — II, 1261.
- 2) Aethylester d. 4-Harnstoffphenylamidoameisensäure. Sm. 197 bis 198° (B. 27, 399; A. 293, 377). — IV, 590.
- 3) Aethylester d. Ureidophenylamidoameisensäure. Sm. 172° (B. 32, 12).
- 4) Phenylnitrosohydrazid d. α -Oxyisobuttersäure. Sm. 96–98° (B. 22, 2927). — IV, 688.
- C₁₀H₁₃O₃Cl** 1) Anhydrid d. d-Chlorcamphersäure. Sm. 234° (C. 1895 [2] 972; Soc. 69, 82).
- 2) Anhydrid d. l-Chlorcamphersäure. Sm. 234° (C. 1895 [2] 972).
- 3) Anhydrid d. i-Chlorcamphersäure. Sm. 234° (C. 1895 [2] 972).
- 4) Anhydrid d. d- π -Chlorcamphersäure. Sm. 196–197° (Soc. 71, 16).
- 5) Anhydrid d. i- π -Chlorcamphersäure. Sm. 193–194° (Soc. 71, 968).
- C₁₀H₁₃O₄Br** 1) Bromketopinsäure. Sm. 181° (C. 1897 [1] 816).
- 2) Anhydrid d. d-Bromcamphersäure. Sm. 216° (C. 1895 [2] 972).
- 3) Anhydrid d. l-Bromcamphersäure. Sm. 215° (215,5–216°) (A. 163, 330; 227, 3; B. 26, 1200, 1525, 1639; 27, 2112, 3504; C. 1895 [2] 972). — I, 725.
- 4) Anhydrid d. i-Bromcamphersäure. Sm. 216° (C. 1895 [2] 972).
- 5) Anhydrid d. d- π -Bromcamphersäure. Sm. 155–156° (Soc. 69, 927; 71, 12).
- 6) Anhydrid d. i- π -Bromcamphersäure. Sm. 155–156° (B. 29 [2] 663; C. 1895 [1] 749; Soc. 71, 970).
- 7) Anhydrid d. w-Bromcamphersäure. Sm. 214° (Soc. 69, 63).
- 8) Lakton d. Säure C₁₀H₁₃O₄Br (aus Dibromcampholid). Sm. 196–197° (C. 1896 [1] 306; Soc. 69, 44).
- C₁₀H₁₃O₃Br₂** 1) Dimethyläther d. ?-Tribrom-?-Trioxy-1,3-Dimethylbenzol? Sm. 93 bis 95° (B. 29, 1131).
- C₁₀H₁₃O₄N** C 56,9 — H 6,1 — O 30,3 — N 6,6 — M. G. 211.
- 1) 3-Methyläther d. ?-Nitro-3,4-Dioxy-1-Propylbenzol. Sm. 124° u. Zers. (M. 4, 191). — II, 970.
- 2) Diäthyläther d. 2-Nitro-1,4-Dioxybenzol. Sm. 49° (A. 215, 146; B. 12, 39). — II, 946.
- 3) Dimethylamidomethyl-?-Trioxyphenylketon (Dimethylamidoacetylpyrogallol). Sm. 190° (J. r. 25, 278). — III, 139.

- C₁₀H₁₃O₄N**
- 4) 2,4,5-Trimethyläther d. 2,4,5-Trioxy-1-Oximidomethylbenzol. Sm. 138,3°. HCl, HBr, H₂SO₄. — III, 108.
 - 5) 3,5-Diäthyläther d. 2-Oximido-3,5-Dioxy-1-Keto-1,2-Dihydrobenzol (α -Diäthoxychinonoxim). Sm. 117°. K, Ag (M. 17, 465; 18, 351, 358).
 - 6) 3,5-Diäthyläther d. 4-Oximido-3,5-Dioxy-1-Keto-1,4-Dihydrobenzol (β -Diäthoxychinonoxim). Sm. 192—195° u. Zers. K + H₂O, Ag (M. 17, 467; 18, 352, 358).
 - 7) Oxim d. Cantharidin. Sm. 166°. Ag (B. 19, 1084; M. 18, 407). — III, 623.
 - 8) Oxim d. Cantharsäure. Sm. 175—180° (166°) (B. 19, 1087; G. 21 [2] 55). — III, 625.
 - 9) Tropinonmonooxalsäure. HCl (B. 30, 2712).
 - 10) 3-Oxy-2-Keto-4,6-Dimethyl-1,2-Dihydropyridin-5-Carbonsäure. Sm. 118° (B. 26, 757). — IV, 159.
 - 11) 4,6-Dioxypyridindiäthyläther-2-Carbonsäure. Sm. 93—95°. Na + 2H₂O (Soc. 67, 409). — IV, 159.
 - 12) Anhydrid d. Acetylcincholoiponsäure. Sm. 130—131° (M. 17, 372). — III, 843.
 - 13) Methylester d. 2-Nitro-1,3,5-Trimethylbenzol-6-Carbonsäure. Sm. 50° (A. 278, 218).
 - 14) Methylester d. 6-Amido-3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 133° (A. 293, 189).
 - 15) Aethylester d. 1-Acetyl-2-Keto-5-Methyl-2,3-Dihydropyrrol-4-Carbonsäure. Sm. 141—142° (A. 260, 144). — I, 1215.
 - 16) Monäthylester d. 2,4-Dimethylpyrrol-3,5-Dicarbonsäure. Sm. 202°. Ag (A. 236, 322). — IV, 92.
 - 17) Monäthylester d. 2,5-Dimethylpyrrol-3,4-Dicarbonsäure. Sm. 227° (B. 18, 1562). — IV, 91.
 - 18) Aethylester d. 2-Keto-3-Oxy-4,6-Dimethyl-1,2-Dihydropyridin-5-Carbonsäure. Sm. 118° (B. 26, 757).
 - 19) Aethylester d. Aethylkamenaminsäure + H₂O. Sm. 114—115°. Ba + H₂O, HCl (J. pr. [2] 32, 179). — IV, 158.
 - 20) Aethylester d. 6-Aethoxyl-2-Keto-1,2-Dihydropyridin-5-Carbonsäure. Sm. 66—67° (J. pr. [2] 58, 422).
 - 21) Diäthylester d. Pyrrol-?-Dicarbonsäure. Sm. 82° (B. 19, 1960). — IV, 90.
 - 22) Amid d. 3,4,5-Trioxybenzoltrimethyläther-1-Carbonsäure. Sm. 176 bis 177° (A. 263, 250). — II, 1922.
 - 23) Verbindung (aus d. Lakton d. β -Diacetylbernsteinsäuremonäthylester). Sm. 220—221° (B. 27, 1162). — III, 717.
- C₁₀H₁₃O₄N₃**
- 24) Verbindung (aus Phtalimid). Sm. 90—94° (A. 215, 195). — II, 1799.
C 50,2 — H 5,4 — O 26,8 — N 17,6 — M. G. 239.
 - 1) 2,4-Dinitro-1-Isobutylamidobenzol. Sm. 80° (R. 4, 192). — II, 336.
 - 2) 3,5-Dinitro-4-Amido-1-Pseudobutylbenzol. Sm. 127° (B. 21, 1544; J. pr. [2] 48, 100). — II, 558.
 - 3) 2,6-Dinitro-3-Amido-4-Isopropyl-1-Methylbenzol. Sm. 113—114° (G. 19, 161). — II, 560.
 - 4) 2,4-Dinitro-1-Diäthylamidobenzol. Sm. 80° (R. 2, 40). — II, 333.
 - 5) Aethyläther d. 5-Nitro-2-Aethylnitrosamido-1-Oxybenzol (J. pr. [2] 21, 354). — II, 731.
- C₁₀H₁₃O₄Br**
- 1) π -Bromcamphansäure. Sm. 176—177° (C. 1896 [1] 308; Soc. 75, 138).
- C₁₀H₁₃O₄P**
- 1) Phosphit d. 3,4-Dioxy-1-Allylbenzol-3-Methyläther (Eugenolphosphit) (A. 131, 282). — II, 973.
- C₁₀H₁₃O₅N**
- C 52,9 — H 5,7 — O 35,2 — N 6,2 — M. G. 227.
 - 1) Diäthyläther d. 2-Nitro-1,2,3-Trioxybenzol. Sm. 123° (M. 2, 217). — II, 1015.
 - 2) Monäthylester d. 1-Oxy-2,5-Dimethylpyrrol-3,4-Dicarbonsäure. Zers. bei 185° (A. 236, 299). — IV, 96.
- C₁₀H₁₃O₅Cl**
- 1) Diäthylester d. 2-Chlor-2-Dihydrofuran-2,5-Dicarbonsäure. Sm. 40° (B. 19, 1276). — I, 773.
- C₁₀H₁₃O₅Cl₃**
- 1) 1,2,2,4-Tetramethyläther d. 3,5,6-Trichlor-1,1,2,2,4-Pentaoxy-1,2-Dihydrobenzol. Sm. 142—143° u. Zers. (B. 27, 551). — II, 1040.
- C₁₀H₁₃O₅Br**
- 1) 2-Brom-3,4,5-Trioxybenzoltrimethyläther-1-Carbonsäure. Sm. 151° (M. 19, 598).

- $C_{10}H_{13}O_5Br$ 2) Monomethylester d. Bromcamphoronsäureanhydrid (2 isom. Formen). α -Modif. Sm. 100°; Sd. 177°₁₅; β -Modif. Sm. 142° (B. 28, 319; A. 299, 146).
- $C_{10}H_{13}O_5P$ 1) Trimethylester d. Phenylphosphinsäure-4-Carbonsäure. Fl. (B. 14, 408). — IV, 1672.
2) Monoöugenolester d. Phosphorsäure + xH₂O. Sm. 46—50° (105° wasserfrei). Anilinsalz (C. 1898 [2] 950).
3) Monoisöugenolester d. Phosphorsäure + H₂O. Sm. 105—106° (133° wasserfrei). Anilinsalz (C. 1898 [2] 950).
- $C_{10}H_{13}O_6N$ C 49,4 — H 5,3 — O 39,5 — N 5,8 — M. G. 243.
1) Trimethylester d. β -Cyanpropan- $\alpha\beta\gamma$ -Tricarbonsäure. Sm. 46,5°; Sd. 212°₃₅ (A. ch. [6] 27, 264). — I, 1226.
- $C_{10}H_{13}O_6N_3$ C 44,3 — H 4,8 — O 35,4 — N 15,5 — M. G. 271.
1) Diäthylester d. 4,6-Dioxy-2-Methyl-1,3,5-Triazin-2',2'-Dicarbonsäure. Sm. 181°. Ag₃ (J. pr. [2] 49, 93).
- $C_{10}H_{13}O_7Cl_3$ 1) Diäthylester d. Trichloracetylweinsäure. Sd. 195°₁₆ (Soc. 73, 185).
- $C_{10}H_{13}NS$ 1) Aethyläther d. α -Imido- β -Phenyläthylmerkaptan. HCl, (2 HCl, PtCl₄), HBr, HJ (A. 192, 59; 197, 343). — II, 1328.
2) Aethyläther d. α -Phenylimido- α -Merkaptoäthan. Sd. 255—257°. (2 HCl, PtCl₄) (B. 11, 1592; 12, 1061). — II, 369.
3) Aethyläther d. 4-Methylphenylimidomerkaptomethan. Sd. 250 bis 252° (Am. 18, 377).
4) Amid d. 1-Isopropylbenzol-4-Thiocarbonsäure (B. 2, 185). — II, 1388.
5) 2,4-Dimethylphenylamid d. Thioessigsäure. Sm. 94—95° (B. 21, 2551; 22, 907). — II, 543.
- $C_{10}H_{13}NS_2$ 1) Aethylbenzylamidodithioameisensäure. Aethylbenzylaminsalz, Sm. 114° (A. 245, 284). — II, 527.
2) Aethylester d. 2-Methylphenylamidodithioameisensäure. Sm. 72° (B. 15, 1317). — II, 464.
3) Aethylester d. 4-Methylphenylamidodithioameisensäure. Sm. 74° (B. 15, 1312). — II, 497.
- $C_{10}H_{13}N_2Br$ 1) Brommetanikotin. Pikrat (B. 27, 2868). — IV, 860.
- $C_{10}H_{13}N_2J$ 1) Jodmethylat d. 1,2-Dimethylbenzimidazol. Sm. 254° (B. 25, 2841). — IV, 876.
2) Jodmethylat d. 2-Methyl-1,2-Dihydro-2,3-Benzdiazin. Sm. 153 bis 154° (B. 28, 1834). — IV, 875.
- $C_{10}H_{13}N_2S$ 1) β -Phenylamido- α -Allylthioharnstoff. Sm. 118—119° (B. 24, 268; Soc. 57, 263). — IV, 678.
2) 2-Phenylhydrazido-5-Methyl-4,5-Dihydrothiazol. Sm. 93°. HCl, Pikrat (B. 24, 269). — IV, 678.
3) 5-Diäthylamidobenzthiodiazol. Sm. 106—107° (A. 251, 56) — IV, 1549.
- $C_{10}H_{13}N_2S_2$ 1) Amid d. Aethylphenyldithioallophansäure (Aethylphenyldithiobiuret). Sm. 109° (B. 17, 585). — II, 400.
- $C_{10}H_{13}ClHg$ 1) Quecksilber-5-Isopropyl-2-Methylphenylchlorid. Sm. 156° (B. 28, 592). — IV, 1712.
- $C_{10}H_{13}Cl_2P$ 1) 4-Isopropyl-1-Methylphenyldichlorphosphin. Sd. 275—278° (A. 294, 54). — IV, 1680.
- $C_{10}H_{13}BrHg$ 1) Quecksilber-5-Isopropyl-2-Methylphenylbromid. Sm. 163° (B. 28, 592). — IV, 1712.
- $C_{10}H_{13}JHg$ 1) Quecksilber-5-Isopropyl-2-Methylphenyljodid. Sm. 169° (B. 28, 592). — IV, 1712.
- $C_{10}H_{13}S_2P$ 1) Dimethyl-4-Methylphenylphosphin + Schwefelkohlenstoff. Sm. 110°. (2 HCl, PtCl₄) (B. 15, 2018). — IV, 1670.
- $C_{10}H_{14}ON_2$ C 67,4 — H 7,9 — O 9,0 — N 15,7 — M. G. 178.
1) Butylnitrosamidobenzol. Fl. (B. 18, 3367). — II, 336.
2) 4-Nitroso-1-Isobutylamidobenzol. Sm. 93—94°. HCl (A. 243, 298). — II, 336.
3) Methylpropylnitrosamidobenzol (Methylpropylphenylnitrosamin). HCl (B. 29, 2112).
4) 4-Isopropylnitrosamido-1-Methylbenzol. Sm. 58—59° (Soc. 59, 34). — II, 485.
5) 2-Nitroso-1-Diäthylamidobenzol. Sm. 84°. (2 HCl, PtCl₄), H₂SO₄. Pikrat, 2 + J₂, 3 + J₂ (B. 8, 621; M. 4, 506). — II, 333.
6) 3-Aethylnitrosamido-1,2-Dimethylbenzol. Sm. 123—124°. HCl (A. 263, 327). — II, 540.

- $C_{10}H_{14}ON_2$ 7) 2-Nitroso-5-Dimethylamido-1,3-Dimethylbenzol. Sm. 104° (B. 31, 565).
- 8) Aethyläther d. β -Oximido- β -Amido- α -Phenyläthan. Sm. 58° (B. 18, 1071). — II, 1314.
- 9) 2-Acetylamido-1-Aethylamidobenzol. Sm. 104° (J. pr. [2] 41, 164). — IV, 558.
- 10) 3-Acetylamido-1-Dimethylamidobenzol. Sm. 87° (B. 19, 1945; Bt. [3] 21, 22). — IV, 574.
- 11) 4-Acetylamido-1-Dimethylamidobenzol. Sm. 130°; Sd. 355° u. ger. Zers. (B. 12, 525). — IV, 588.
- 12) 2-Amido-1-Acetylmethylamidomethylbenzol. Sm. 94—95° (B. 24, 3096). — IV, 630.
- 13) γ -Phenylpropylharnstoff. Sm. 143° (B. 27, 2310).
- 14) 4-[norm.] Propylphenylharnstoff. Sm. 143° (B. 17, 1225). — II, 542.
- 15) 2-Isopropylphenylharnstoff. Sm. 133—134° (B. 21, 1162). — II, 550.
- 16) 4-Isopropylphenylharnstoff. Sm. 152° (B. 21, 1159). — II, 551.
- 17) α -Aethyl-4-Methylphenylharnstoff (A. 126, 102). — II, 494.
- 18) α -Aethylbenzylharnstoff. Sm. 104—105° (Soc. 67, 562).
- 19) 2,4-Dimethylbenzylharnstoff. Sm. 184,5° (B. 22, 122). — II, 553.
- 20) 3,5-Dimethylbenzylharnstoff. Sm. 181° (B. 25, 3014). — II, 555.
- 21) ?-Trimethyl-?-Phenylharnstoff. Zers. bei 227° (B. 18, 2232). — II, 556.
- 22) γ -Phenylhydrazon- β -Oxybutan. Sm. 83—84° (B. 23, 2422). — IV, 769.
- 23) Aethyläther d. 2-Methylbenzenylamidoxim. Sm. 140° (B. 22, 2439). — II, 1330.
- 24) Aethyläther d. 4-Methylbenzenylamidoxim. Sm. 64° (61,5°) (B. 19, 1487; A. 281, 282). — II, 1343.
- 25) Propyläther d. Benzenylamidoxim. Sm. 27° (A. 281, 280). — II, 1200.
- 26) Nikoton. Sd. 253°. 2 Pikrat (B. 25, 1430; 28, 463). — IV, 858.
- 27) Oxynikotin. Zers. bei 150°. (2HCl, PtCl₄), 2 Pikrat (B. 24, 63; 25, 1428; 28, 456). — IV, 858.
- 28) Pseudonikotinoxid (Nikotol). Sd. 265—275° u. Zers. 2HCl, (2HCl, PtCl₄) (B. 25, 1429; 28, 464). — IV, 858.
- 29) Diazocampher. Sm. 73—74° (B. 14, 1375; G. 23 [2] 351; 24 [2] 318). — III, 496.
- 30) Nitril d. 6-Keto-1,2,3,4-Tetramethyl-1,2,3,6-Tetrahydropyridin-5-Carbonsäure. Sm. 142—143,5°. — IV, 75.
- 31) Amid d. α -Phenylamidobuttersäure. Sm. 122—123° (B. 25, 2036; 30, 2314). — II, 434.
- 32) Amid d. β -Phenylamidoisobuttersäure. Sm. 137° (B. 15, 2042; 30, 2314). — II, 435.
- 33) Amid d. α -[2-Methylphenyl]amidopropionsäure. Sm. 125° (B. 15, 2038). — II, 471.
- 34) Amid d. α -[4-Methylphenyl]amidopropionsäure. Sm. 145° (B. 15, 2037; 30, 2474). — II, 507.
- 35) Amid d. 1-Dimethylamidomethylbenzol-4-Carbonsäure. Sm. 144° (B. 28, 1142).
- 36) 2-Amidobenzylamid d. Propionsäure. Sm. 68—70°. HCl, (2HCl, PtCl₄) (B. 25, 3037). — IV, 631.
- 37) Amidin d. γ -Oxybutterphenyläthersäure. (2HCl, PtCl₄), H₂S₂O₄ (B. 25, 3043). — II, 665.
- 38) Phenylhydrazid d. Buttersäure. Sm. 103—104° (A. 252, 308; B. 27, 1517). — IV, 666.
- 39) α -Phenylhydrazid d. Isobuttersäure (α -Isobutyryl- α -Phenylhydrazin). Sm. 46—48° (B. 27, 1964). — IV, 666.
- 40) β -Phenylhydrazid d. Buttersäure (β -Isobutyryl- α -Phenylhydrazin). Sm. 140° (142—143°) (B. 25, 1552; 27, 1967; M. 18, 97; Am. 20, 678). — IV, 666.
- 41) 2-Methylphenylhydrazid d. Propionsäure. Sm. 83—84° (B. 20, 1079). — IV, 801.
- 42) 4-Methylphenylhydrazid d. Propionsäure. Sm. 170° (B. 25, 1080). — IV, 805.
- 43) β -Propionyl- α -Methyl- α -Phenylhydrazin. Sm. 86—87° (M. 17, 484). — IV, 666.

- C₁₀H₁₁ON₂** 44) β -Acetyl- α -Aethyl- α -Phenylhydrazin. Sm. 80° (A. 252, 278). — IV, 665.
 45) β -Acetyl- $\alpha\beta$ -Dimethyl- α -Phenylhydrazin. Sm. 68° (A. 239, 251). — IV, 665.
 46) β -Formyl- α -Methyl- β -Aethyl- α -Phenylhydrazin. Sd. 169°₁₂ (B. 27, 702). — IV, 663.
- C₁₀H₁₄ON₂** C 58,2 — H 6,8 — O 7,8 — N 27,2 — M. G. 206.
 1) Isoamylhypoxanthin (H. 18, 443). — III, 968.
- C₁₀H₁₄OCl₂** 1) α -Dichlorcampher. Sm. 96°; Sd. 263° (Bl. 37, 454; J. 1882, 770). — III, 489.
 2) β -Dichlorcampher. Sm. 77° (Bl. 38, 8). — III, 489.
 3) α - π -Dichlorcampher. Sm. 118—118,5° (Soc. 67, 389). — III, 489.
- C₁₀H₁₄OBr₂** 1) α -Dibromcampher. Sm. 61° (B. 14, 1379; 15, 1343, 1621, 2135; M. 3, 205, 231; 4, 486, 554; G. 22 [1] 268; Soc. 73, 587). — III, 490.
 2) β -Dibromcampher. Sm. 115° (B. 11, 150; 15, 2135; Z. 1866, 628; M. 3, 205, 231; 4, 486; Soc. 73, 588). — III, 491.
 3) α - π -Dibromcampher. Sm. 152—153° (Soc. 67, 391). — III, 491.
 4) Camphenondibromid. Sm. 58—59° (G. 26 [2] 50). — III, 491.
- C₁₀H₁₄OBr₄** 1) d-Carvontetrabromid. Sm. 120—122° (A. 279, 390; 286, 120, 142).
 2) l-Carvontetrabromid. Sm. 120—122° (A. 279, 390; 286, 120, 142).
 3) i-Carvontetrabromid. Sm. 112—114° (107—109°) (A. 279, 390; 286, 121, 143).
- C₁₀H₁₄OS** 1) p-Propionyl-3-Isopropylthiophen. Sd. 251°₄₄ (A. 267, 136). — III, 766.
 2) 3-Acetyl-2,5-Diäthylthiophen. Sd. 250° (B. 19, 635). — III, 766.
- C₁₀H₁₄O₂N₂** C 61,9 — H 7,2 — O 16,5 — N 14,4 — M. G. 194.
 1) 4-Nitro-3-Amido-1-Isobutylbenzol. Sm. 124° (B. 21, 2950). — II, 556.
 2) 3-Nitro-4-Amido-1-Isobutylbenzol. Sm. 106,5° (B. 20, 3254). — II, 557.
 3) p-Nitro-4-Amido-3-Isopropyl-1-Methylbenzol. Fl. (A. 221, 176). — II, 558.
 4) 4-Nitro-1-Propylamidomethylbenzol (Propyl-4-Nitrobenzylamin). Fl. HCl, (2HCl, PtCl₄), Oxalat (B. 30, 65).
 5) 3-Nitro-1-Diäthylamidobenzol. Sd. 288—290° (B. 19, 199, 550). — II, 333.
 6) 4-Nitro-1-Diäthylamidobenzol. Sm. 77—78°. (2HCl, PtCl₄) (M. 4, 293; B. 19, 199). — II, 333.
 7) 6-Nitro-5-Amido-1,2,3,4-Tetramethylbenzol. Sm. 131° (B. 21, 906). — II, 562.
 8) 6-Nitro-4-Amido-1,2,3,5-Tetramethylbenzol. Sm. 87—88° (B. 24, 572). — II, 562.
 9) 6-Nitro-3-Amido-1,2,4,5-Tetramethylbenzol. Sm. 158—159° (B. 28, 968).
 10) Propylnitroamidomethylbenzol (Propylbenzylnitroamin). Sm. 8—10°; Sd. 200—205°₁₀ (R. 9, 81). — II, 516.
 11) 6-Nitroso-3-Diäthylamido-1-Oxybenzol. Sm. 84°. HCl (B. 25, 1059). — II, 730.
 12) Aethyläther d. p-Nitroso-3-Dimethylamido-1-Oxybenzol. HCl (B. 16, 33). — II, 714.
 13) N-Aethyläther d. α -Oxy- α -Phenyläthenylamidoxim. Sm. 89° (B. 18, 1079). — II, 1553.
 14) 4-Methyläther-N-Aethyläther d. 4-Oxybenzenylamidoxim. Sm. 51 bis 52° (B. 22, 2792; A. 281, 284). — II, 1531.
 15) Phenyläther d. γ -Oxy-norm. Propylharnstoff. Sm. 114° (B. 24, 2635). — II, 653.
 16) Benzyläther d. β -Oxy- $\alpha\alpha$ -Dimethylharnstoff. Fl. HCl (A. 299, 87).
 17) 4-Methylphenyläther d. Oxyäthylharnstoff. Sm. 158° (B. 24, 193). — II, 750.
 18) 3,6-Diamido-5-Isopropyl-2-Methyl-1,4-Benzochinon? (A. 237, 115). — III, 368.
 19) p-Di[Dimethylamido]-1,4-Benzochinon. Sm. 173—174° (B. 18, 467). — III, 339.
 20) 1,4-Dioximido-5-Isopropyl-2-Methyl-1,4-Dihydrobenzol (Thymo-
 chinondioxim). Zers. bei 255° (B. 23, 3558). — III, 366.

- C₁₀H₁₄O₂N₂** 21) Bithymochinondioxim. Sm. 290° u. Zers. (B. 18, 3200). — III, 366.
 22) 4-Oxy-2-Methyl-5-Isopropyl-1-Diazobenzol. Sulfat (B. 8, 1502). — IV, 1551.
 23) Pernitrosocamphenon. Sm. 47° (B. 28, 1078; G. 26 [2] 29). — III, 492.
 24) Pilocarpidin. Fl. (2HCl, PtCl₄ + 4H₂O), (HCl, AuCl₃), HNO₃ (A. 238, 230; C. 1897 [1] 476, 1126, 1213; 1897 [2] 361; 1898 [1] 678; M. 18, 382; 19, 58). — III, 925.
 25) isom. Pilocarpidin. HCl, (2HCl, PtCl₄ + H₂O), (HCl, AuCl₃ + H₂O), HBr, HNO₃, Ag, + AuCl₃ (Bl. 46, 479; 48, 224; [3] 17, 554; M. 19, 58). — III, 925.
 26) Nitrosopseudoephedrin. Sm. 80—82° (B. 22, 1825). — III, 881.
 27) α-[2-Diamido-4-Methylphenyl]propionsäure (G. 21 [2] 420). — II, 1389.
 28) 2,5-Diamido-1-Isopropylbenzol-4-Carbonsäure + H₂O. Sm. 192°. Ag + H₂O, HCl + H₂O (B. 15, 2144; J. 1856, 467). — II, 1388.
 29) 3,6-Diamido-1,2,4-Trimethylbenzol-5-Carbonsäure + xH₂O. Sm. 221° u. Zers. (A. 237, 9). — II, 1391.
 30) α-[β-Phenylhydrazido]buttersäure. Erweicht bei 165° (B. 25, 2037; A. 247, 217). — IV, 740.
 31) β-[α-Phenylhydrazido]buttersäure. Sm. 111° (J. pr. [2] 45, 87). — IV, 740.
 32) α-[β-Phenylhydrazido]isobuttersäure. Sm. 165—166° (B. 25, 3323). — IV, 740.
 33) α-[2-Methylphenyl]hydrazidopropionsäure. Sm. 143° (A. 247, 214). — IV, 803.
 34) Aethylester d. α-Phenylhydrazidoessigsäure. Sd. 157—161°, HCl, HNO₃, H₂SO₄ (B. 28, 1224). — IV, 738.
 35) Aethylester d. β-Phenylhydrazidoessigsäure. Fl. HCl (B. 24, 1520; 28, 1234). — IV, 738.
 36) Aethylester d. 5-Amido-2-Methylphenylamidoameisensäure. Sm. 95° (A. 268, 325; B. 25, 2211). — IV, 603.
 37) Aethylester d. 2-Amido-4-Methylphenylamidoameisensäure. Sm. 90—91° (A. 268, 315). — IV, 603.
 38) Dibutyryldicyanid. Sd. 232—235° (Soc. 39, 16; M. 15, 750). — I, 1474.
 39) Diisobutyryldicyanid. Sd. 226—228° (Soc. 39, 13; M. 15, 758). — I, 1474.
 40) Phenylhydrazid d. α-Oxyisobuttersäure. Sm. 151—152° (B. 22, 2927). — IV, 688.
 41) Aethyläther d. β-Acetyl-α-[4-Oxyphenyl]hydrazin. Sm. 141,5° (B. 25, 1847). — IV, 815.
- C₁₀H₁₄O₂N₄** C 54,0 — H 6,3 — O 14,4 — N 25,2 — M. G. 222.
 1) 1,4-Di[Aethylnitrosamido]benzol. Sm. 90° (B. 18, 465). — IV, 583.
 2) Acetaldoximphenylhydrazid. Sm. 86° (B. 25, 1687). — IV, 747.
 3) 2,6-Diketo-3-Methyl-1,7-Diäthylpurin. Sm. 127—128° (C. 1898 [2] 1192).
 4) Propyltheobromin. Sm. oberh. 270° (136°) (C. 1897 [1] 284; 1897 [2] 1047; B. 30, 2585). — III, 955.
 5) Isopropyltheobromin. Sm. oberh. 270° (B. 30, 2585).
 6) αα-Di[5-Keto-3-Methyl-4,5-Dihydropyrazolyl-4]äthan. Sm. 255° u. Zers. (A. 279, 243). — IV, 1265.
 7) 2,2'-Bi[1-Acetyl-4,5-Dihydroimidazol]. Sm. 250° (B. 25, 2134). — I, 1366.
- C₁₀H₁₄O₂Cl₂** 1) Chlorid d. d-Camphersäure. Fl. (A. 120, 252; Bl. [3] 15, 985). — I, 725.
- C₁₀H₁₄O₂Br₂** 1) i-Carvenoliddibromid. Sm. 95—96° (A. 286, 126; 305, 251).
 2) l-Carvenoliddibromid. Sm. 97—99° (A. 305, 251).
 3) Dibromcampholid. Sm. 152° (C. 1895 [1] 648; 1896 [1] 306; Soc. 69, 41). — III, 491.
- C₁₀H₁₄O₂S** 1) Propyl-2-Methylphenylsulfon. Fl. (J. pr. [2] 54, 524).
 2) Isopropyl-2-Methylphenylsulfon. Fl. (J. pr. [2] 54, 525).
 3) Propyl-4-Methylphenylsulfon. Sm. 53° (A. 284, 304).
 4) 4-Isopropyl-1-Methylbenzol-2-Sulfinsäure. K + 3½H₂O, Pb, Cu, Ag (B. 10, 977). — II, 111.

- $C_{10}H_{14}O_2S$ 1) α -[2-Methylphenyl]sulfon- $\beta\gamma$ -Dimerkaptopropan. Sm. bei 120° (*J. pr.* [2] 56, 462).
- $C_{10}H_{14}O_2N_2$ 2) α -[4-Methylphenyl]sulfon- $\beta\gamma$ -Dimerkaptopropan (*J. pr.* [2] 56, 457).
C 57,1 — H 6,7 — O 22,9 — N 13,3 — M. G. 210.
- 1) 3-Nitro-5-Amido-2-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 134—135° (*G.* 25 [2] 406).
- 2) 2-Nitro-6-Amido-3-Oxy-4-Isopropyl-1-Methylbenzol (*G.* 25 [2] 404).
- 3) 6-Aethylamido-2-Keto-1-Aethyl-1,2-Dihydropyridin-3[oder 5]-Carbonsäure. Sm. 207° (*A.* 285, 81). — IV, 834.
- 4) Methylester d. α -Amido- α -Phenylamido- α -Oxyessigmethyläthersäure. Sm. 215° (*B.* 28, 61).
- $C_{10}H_{14}O_2N_4$ C 50,4 — H 5,9 — O 20,2 — N 23,5 — M. G. 238.
- 1) 3,5-Di[Aethylnitrosamido]-1-Oxybenzol. Sm. 136—138° u. Zers. (*M.* 14, 413). — II, 724.
- 2) Methyläther d. 4-Oxybenzylidendiarnstoff (Anisodiureid) (*A.* 151, 198). — III, 85.
- 3) Aethyläther d. Oxykaffein. Sm. 140° (*B.* 14, 640; *A.* 215, 266). — III, 961.
- $C_{10}H_{14}O_3Br$ 1) Bromcamphersäureanhydridhydrobromid (*A.* 163, 330).
- $C_{10}H_{14}O_3S$ 1) Butylbenzol- α -Sulfonsäure. Ca, Ba, Zn + 7 H₂O, Pb + H₂O, M + 6 H₂O (*J.* 1877, 862). — II, 151.
- 2) Butylbenzol- β -Sulfonsäure. Ba + 2 H₂O, Pb + 2 H₂O (*J.* 1877, 862). — II, 151.
- 3) Isobutylbenzolsulfonsäure. K + H₂O, Ba + 2 H₂O (*B.* 19, 1728). — II, 151.
- 4) 1-[tert.] Butylbenzol- ρ -Sulfonsäure. Sm. 62—63°. K + H₂O, Ca + 4 H₂O (*B.* 23, 2418). — II, 151.
- 5) 2-Propyl-1-Methylbenzol- α -Sulfonsäure. K + 1/2 H₂O, Ba + H₂O, Cu + 4 H₂O (*B.* 13, 897). — II, 152.
- 6) 2-Propyl-1-Methylbenzol- β -Sulfonsäure. Ba, Cu (*B.* 13, 897). — II, 152.
- 7) 3-Propyl-1-Methylbenzol- α -Sulfonsäure. K, Ca + 2 H₂O, Ba + H₂O, Pb + 3 H₂O, Cu + 4 H₂O (*B.* 13, 899). — II, 152.
- 8) 3-Propyl-1-Methylbenzol- β -Sulfonsäure. Ba + H₂O (*B.* 13, 899). — II, 152.
- 9) 4-Propyl-1-Methylbenzol-2-Sulfonsäure. Na + H₂O, K + H₂O, Ba + H₂O (*B.* 12, 431; 24, 444; *A.* 220, 29; *Bl.* [3] 13, 895). — II, 152.
- 10) 4-Propyl-1-Methylbenzol-3-Sulfonsäure. Ba + 4 H₂O (*B.* 24, 447; *Bl.* [3] 13, 895). — II, 152.
- 11) 3-Isopropyl-1-Methylbenzol-4-Sulfonsäure. Na + 3 H₂O, Ca + 5 1/2 H₂O, Ba + 8 H₂O, Cu + 3 1/2 H₂O (*A.* 210, 35; 235, 285; *B.* 17, 1747). — II, 155.
- 12) 3-Isopropyl-1-Methylbenzol-6-Sulfonsäure. Sm. 88—90° (86—87°). K + 3 H₂O, Ba + H₂O, Pb + H₂O, Cu + 2 H₂O (*A.* 210, 31; *B.* 14, 653; 16, 2258). — II, 155.
- 13) 3-Isopropyl-1-Methylbenzol- ρ -Sulfonsäure. K + 2 1/2 H₂O, Ca + 5 1/2 H₂O, Ba + 9 H₂O (*B.* 16, 2748). — II, 155.
- 14) 4-Isopropyl-1-Methylbenzol-2-Sulfonsäure + 2 H₂O. Sm. 78—79° (50—51°); 220° wasserfrei. Na + 5 H₂O, K + H₂O, Ca + 2 H₂O, Ba + 3 H₂O, Pb + 3 H₂O, Ni + 5 H₂O (*A.* 106, 260; 170, 287; 220, 7; *B.* 11, 1059; 13, 901, 2044; 14, 653, 2139, 2497; *J.* 1878, 856). — II, 153.
- 15) 4-Isopropylbenzol-1-Methylbenzol-3-Sulfonsäure. Sm. 130—131°. Na + H₂O, K + H₂O, Ca + 2 H₂O, Ba, Pb + 3 H₂O, Cu + H₂O (*B.* 14, 635, 2143; 19, 1733; *Am.* 5, 154). — II, 153.
- 16) 1,2-Diäthylbenzol- ρ -Sulfonsäure. Ba + H₂O (*B.* 21, 3500). — II, 152.
- 17) 1,3-Diäthylbenzol- ρ -Sulfonsäure. K + H₂O, Ba + 3 H₂O, Cu + 4 H₂O (*B.* 21, 2830). — II, 152.
- 18) 1,4-Diäthylbenzol-2-Sulfonsäure. Salze meist bek. (*A.* 144, 286; 216, 214; *Am.* 4, 197; *B.* 22, 316). — II, 152.
- 19) 4-Aethyl-1,2-Dimethylbenzol- ρ -Sulfonsäure. Na + 1 1/2 H₂O, Mg + 9 H₂O, Ba + 3 H₂O, Cu + 8 H₂O (*B.* 16, 2259; 23, 2348). — II, 156.
- 20) 4-Aethyl-1,3-Dimethylbenzol- ρ -Sulfonsäure. Na + 2 H₂O, Ba + 2 H₂O (*A.* 139, 195; *B.* 19, 2515). — II, 156.

- C₁₀H₁₄O₃S** 21) 5-Aethyl-1,3-Dimethylbenzol-2-Sulfonsäure. K + 2½ H₂O, Ba (A. 195, 284; B. 7, 1433; 23, 993). — II, 156.
 22) 5-Aethyl-1,3-Dimethylbenzol-4-Sulfonsäure. Ba + 6H₂O (B. 25, 1537). — II, 156.
 23) 2-Aethyl-1,4-Dimethylbenzol-?-Sulfonsäure. Na + H₂O, K, Ba, Cu + 8H₂O (B. 19, 2516). — II, 156.
 24) 1,2,3,4-Tetramethylbenzol-5-Sulfonsäure. Na + H₂O (B. 19, 1552). — II, 157.
 25) 1,2,3,5-Tetramethylbenzol-4-Sulfonsäure + 2H₂O. Sm. unter 100°. Na + ½ H₂O, K + H₂O, Ca + 3H₂O, Sr + 9H₂O, Ba, Pb + 3H₂O, Co + 7½ H₂O, Cu, Ag (A. 198, 381; B. 15, 1853). — II, 157.
 26) 1,2,4,5-Tetramethylbenzol-3-Sulfonsäure. Na + ½ H₂O, K, Ca, Ba, Cu (A. 234, 99; B. 18, 2841; 19, 1210). — II, 157.
 27) Laurolsulfonsäure. Ba + 31H₂O (A. ch. [5] 14, 91). — II, 158.
 28) Sulfonsäure d. Kohlenw. C₁₀H₁₄ (aus Aceton) (Z. 1867, 689). — II, 157.
- C₁₀H₁₄O₄N₂** 1) 5-Acetyl-2,4,6-Triketo-1,3-Diäthylhexahydro-1,3-Diazin (Acetylmalonyldiäthylharnstoff). Sm. 62,5° (B. 30, 1816).
 2) 2,5-Diäthyläther d. 1,4-Dioximido-2,5-Dioxy-1,4-Dihydrobenzol. Sm. oberh. 300° (B. 23, 1215). — III, 349.
- C₁₀H₁₄O₄N₄** C 47,2 — H 5,5 — O 25,2 — N 22,0 — M. G. 254.
 1) ?-Dinitro-1,3-Di[Dimethylamido]benzol (B. 30, 3119).
- C₁₀H₁₄O₄Br₂** 1) π-ω-Dibromcamphersäure. Sm. 210—211° u. Zers. (C. 1896 [1] 308; Soc. 75, 133).
 2) Dimethylester d. 1,2-Dibromhexahydrobenzol-1,4-Dicarbon-säure. Sm. 87° (B. 19, 1808; A. 245, 165). — II, 1835.
 3) Dimethylester d. 1,4-Dibrom-cis-Hexahydrobenzol-1,4-Dicarbon-säure. Sm. 68° (A. 245, 178). — II, 1836.
 4) Dimethylester d. 1,4-Dibrom-trans-Hexahydrobenzol-1,4-Dicarbon-säure. Sm. 150° (A. 245, 176). — II, 1836.
 5) Dimethylester d. 2,3-Dibrom-cis-trans-Hexahydrobenzol-1,4-Di-carbonsäure. α-Modif. Sm. 171°; β-Modif. Sm. 51°; γ-Modif. Sm. 94° (A. 258, 35). — II, 1835.
 6) Dimethylester d. 2,5[?]-Dibromhexahydrobenzol-1,4-Dicarbon-säure. Sm. 166° (A. 245, 152). — II, 1835.
 7) Diäthylester d. γδ-Dibrom-α-Buten-αδ-Dicarbon-säure (D. d. Dibromdihydromukonsäure). Sm. 84—85° (Soc. 59, 752). — I, 714.
- C₁₀H₁₄O₄Br₄** 1) Tetrabromsebacinsäure. Sm. 165°. Na₂ + 9H₂O (B. 27, 1214).
 2) Diäthylester d. αβγδ-Tetrabrombutan-αδ-Dicarbon-säure (D. d. Tetrabromadipinsäure). Sm. 70—71° (Soc. 59, 753). — I, 671.
 3) Diacetat d. αβγδ-Tetrabrom-γδ-Dioxyhexan. Sm. 195—205° (GRINER, thèse 73). — I, 414.
- C₁₀H₁₄O₄S** 1) Di[Diacetylmethyl]sulfid. Sm. 67—72° (G. 24 [1] 349).
 2) βγ-Dioxypropyl-4-Methylphenylsulfon. Sm. 93—95° (J. pr. [2] 55, 213).
 3) 4-Oxy-1-[tert.]Butylbenzol-?-Sulfonsäure. Ba + 2H₂O (B. 15, 151, 1990). — II, 847.
 4) 2-Oxy-4-Isopropyl-1-Methylbenzol-3-Sulfonsäure. Salze meist bek. (B. 8, 441; 15, 818; Archiv d. Pharm. [1879] 215, 6). — II, 848.
 5) 2-Oxy-4-Isopropyl-1-Methylbenzol-5-Sulfonsäure + 2H₂O. Na + H₂O, K + H₂O, Ca + 5H₂O, Ba + 5H₂O, Pb + 5H₂O (J. pr. [2] 39, 356). — II, 849.
 6) 3-Oxy-4-Isopropyl-1-Methylbenzol-2-Sulfonsäure. K + H₂O, Ba + 4H₂O, Ag + 2H₂O (Z. 1869, 46; J. pr. [2] 43, 345). — II, 847.
 7) 3-Oxy-4-Isopropyl-1-Methylbenzol-6-Sulfonsäure + H₂O. Sm. 91 bis 92°. NH₄ + 2H₂O, Na + 2½ H₂O, K + 2½ H₂O, Ca + 2H₂O, Ba + 4H₂O, Pb + 4H₂O (Z. 1869, 44; 1871, 261; Am. Soc. 3, 103, 111). — II, 847.
 8) 3-Oxy-4-Isopropyl-1-Methylbenzol-?-Sulfonsäure. K, Ba + 3H₂O (Z. 1869, 46). — II, 847.
 9) 4-Oxy-1-Methylbenzolpropyläther-3-Sulfonsäure (Am. 15, 317). — II, 844.
 10) 4-Oxy-1,3-Dimethylbenzoläthyläther-5-Sulfonsäure. Ba + 3H₂O (A. 230, 337). — II, 846.

- C₁₀H₁₄O₄S** 11) **5-Isopropyl-2-Methylphenyl-1-Schwefelsäure** (B. 19, 3309). — II, 849.
 12) **6-Isopropyl-3-Methylphenyl-1-Schwefelsäure**. K (B. 19, 3307). — II, 848.
 13) **Thianisoönsäure** + 2H₂O. Sm. unter 100°. NH₄ + H₂O, Na + H₂O, Mg + 5H₂O, Ca + 2H₂O, Ba + 3H₂O, Ag (A. 116, 163). — II, 853.
 14) **Aethylester d. 3-Oxybenzoläthyläther-1-Sulfonsäure**. Fl. (B. 25, 1836). — II, 832.
- C₁₀H₁₄O₄S₂** 1) **Di[Diacetylmethyl]disulfid**. Sm. 89—90° (90—91°). Na₂, K₂, Mg, Al₂, UO₂, Fe₂, Co, Ni, Cu (G. 23 [2] 415; 24 [1] 355; Bl. [3] 11, 1149; [3] 15, 514; [3] 19, 246, 693).
 2) **1,3-Phenylendiäthylidisulfon**. Sm. 142° (J. pr. [2] 36, 449). — II, 935.
- C₁₀H₁₄O₄S₃** 1) **Di[Diacetylmethyl]trisulfid**. Sm. 130° (G. 24 [1] 357).
 2) **Thiorufinsäure**. Na (B. 10, 701). — I, 900.
- C₁₀H₁₄O₅N₂** C 49,6 — H 5,8 — O 33,1 — N 11,5 — M. G. 242.
 1) **5-Amid-4-Aethylester d. 3-Oxy-2-Keto-6-Methyl-1,2,3,4-Tetrahydropyridin-4,5-Dicarbonsäure**. Sm. 195° (Soc. 69, 533). — III, 720.
- C₁₀H₁₄O₅S** 1) **2,5-Dioxy-4-Isopropyl-1-Methylbenzol-3-Sulfonsäure**. K (J. pr. [2] 15, 478). — II, 971.
- C₁₀H₁₄O₆N₂** C 46,5 — H 5,4 — O 37,2 — N 10,9 — M. G. 258.
 1) **Aethylester d. αβ-Di[Acetoximido]buttersäure**. Sm. 50° (B. 25, 2154). — I, 495.
 2) **Aethylester d. isom. αβ-Di[Acetoximido]buttersäure**. Sm. 119—120° (B. 25, 2156; 28, 2732). — I, 495.
 3) **Trimethylester d. 4-Methyl-4,5-Dihydropyrazol-3,4,5-Tricarbonsäure**. Sm. 86° (B. 27, 877). — IV, 494.
 4) **Trimethylester d. 4,5-Dihydropyrazol-3,5-Dicarbonsäure-5-Methylcarbonsäure**. Sm. 91° (B. 27, 879). — IV, 494.
- C₁₀H₁₄O₆N₄** C 42,0 — H 4,9 — O 33,5 — N 19,6 — M. G. 286.
 1) **Dioxyweinsäurediäthylestercarbamid** (Diäthylester d. Diureinbersteinsäure). Zers. bei 245° (268—269°) (A. 261, 131; 306, 59). — I, 1407.
- C₁₀H₁₄O₆Cl₂** 1) **Dimethyläther d. 3,6-Dichlor-2,5-Dioxy-1,4-Benzochinondimethylhemiacetal**. Na₂ + 2CH₄O (Am. 17, 600; 20, 408).
- C₁₀H₁₄O₆Br₂** 1) **Dimethyläther d. 3,6-Dibrom-2,5-Dioxy-1,4-Benzochinondimethylhemiacetal**. Sm. 178—188° u. Zers. (Am. 17, 652). — III, 353.
- C₁₀H₁₄O₆S** 1) **Anhydrid d. d-Sulfocampfersäure**. Sm. 220—222° (Soc. 71, 11).
- C₁₀H₁₄O₆S₂** 1) **Hexahydronaphtalin-α-Disulfonsäure**. K₂ (G. 12, 496). — II, 184.
 2) **Hexahydronaphtalin-β-Disulfonsäure**. K₂ + 1½ H₂O (G. 12, 496). — II, 184.
- C₁₀H₁₄O₆S₃** 1) **4-Isopropyl-1-Methylbenzol-β-Disulfonsäure**. Ba + H₂O (A. 192, 226; B. 14, 2142). — II, 153.
 2) **1,2,4,5-Tetramethylbenzol-3,6-Disulfonsäure** (B. 19, 1217). — II, 157.
- C₁₀H₁₄O₇S₂** 1) **3-Oxy-4-Isopropyl-1-Methylbenzol-2,6-Disulfonsäure**. K₂ + 1½ H₂O (A. 102, 119; Z. 1869, 47). — II, 848.
- C₁₀H₁₄O₆S₂** 1) **Dipropyldisulfid-αβ'β'-Tetracarbonsäure** (Dithiobrenzweinsäure). Ba₂ + H₂O (M. 18, 68).
- C₁₀H₁₄O₉N₅** C 30,8 — H 3,6 — O 36,9 — N 28,7 — M. G. 390.
 1) **Oxyguanin?** Ag₂ (A. 103, 253). — III, 967.
- C₁₀H₁₄O₁₁N₄** C 32,8 — H 3,8 — O 48,1 — N 15,3 — M. G. 366.
 1) **Verbindung** (aus Lävulinsäure) (B. 20, 1323). — I, 601.
- C₁₀H₁₄NCI** 1) **4-Chlor-1-Diäthylamidobenzol**. Fl. (2HCl, PtCl₄) (A. 74, 144). — II, 333.
- C₁₀H₁₄NBr** 1) **3-Brom-4-Amido-1-Isobutylbenzol**. Sd. 264—265°₁₁₀. HCl, (2HCl, PtCl₄), Pikrat, + PtCl₄ (B. 21, 2942). — II, 556.
 2) **β-Brom-3-Amido-4-Isopropyl-1-Methylbenzol**. Fl. (G. 16, 193). — II, 560.
 3) **4-Brom-1-Diäthylamidobenzol**. Sm. 33°; Sd. 270° (B. 17, 1327; 31, 1145). — II, 333.
- C₁₀H₁₄NJ** 1) **4-Jod-1-Diäthylamidobenzol**. Sm. 32° (B. 31, 1144).
- C₁₀H₁₄N₂Br₂** 1) **4,5-Dibrom-3,6-Diamido-2-Propyl-1-Methylbenzol**. Sm. 126° (J. pr. [2] 43, 575). — IV, 647.
 2) **4,6-Dibrom-2,5-Diamido-3-Propyl-1-Methylbenzol**. (2HCl, PtCl₄) (J. pr. [2] 43, 570). — IV, 647.
 3) **2,5-Dibrom-3,6-Diamido-4-Propyl-1-Methylbenzol**. Sm. 120—121° (J. pr. [2] 43, 579). — IV, 647.

- C₁₀H₁₄N₂Br** 4) **2,5-Dibrom-3,6-Diamido-4-Isopropyl-1-Methylbenzol.** Sm. 105° (2 HCl, PtCl₄) (*J. pr.* [2] **43**, 565). — IV, **647**.
 5) **2-Dibrom-1,3-Di[Dimethylamido]benzol.** Fl. HCl (*B.* **12**, 1815). — IV, **571**.
- C₁₀H₁₄N₂Br** 1) **Metanicotintetrabromid.** 2 HBr (Sm. 170°) (*B.* **27**, 2868).
- C₁₀H₁₄N₂S** 1) **s-Propylphenylthioharnstoff.** Sm. 63° (*B.* **23**, 286). — II, **392**.
 2) **4-[norm.]Propylphenylthioharnstoff.** Sm. 159° (*B.* **17**, 1223). — II, **549**.
 3) **s-Aethyl-2-Methylphenylthioharnstoff.** Sm. 83—84° (*B.* **13**, 136). — II, **465**.
 4) **s-Aethyl-4-Methylphenylthioharnstoff.** Sm. 93° (95—96°) (*B.* **8**, 1530; **13**, 136). — II, **497**.
 5) **s-Aethylbenzylthioharnstoff.** Sm. 102—103° (*B.* **25**, 819; *Soc.* **55**, 300). — II, **527**.
 6) **3,5-Dimethylbenzylthioharnstoff.** Sm. 135° (*B.* **25**, 3014). — II, **555**.
 7) **2,4,6-Trimethylphenylthioharnstoff.** Sm. 222° (*B.* **15**, 1013). — II, **555**.
 8) **β-Methyl-α-Aethyl-α-Phenylthioharnstoff.** Sm. 67—68° (*B.* **17**, 3037; *Soc.* **61**, 544). — II, **392**.
 9) **Methylester d. Methylimidomethylphenylamidothioameisensäure.** Sd. 265° (*B.* **25**, 53). — II, **391**.
- C₁₀H₁₄N₂S₂** 1) **γ-Phenylamidopropylamidodithioameisensäure. γ-Phenylamidopropylaminsalz** (*G.* **19**, 692; *B.* **23**, 1171). — II, **388**.
- C₁₀H₁₄N₃Cl** 1) **Chloräthylat d. 1-Aethyl-1,2,3-Benzotriazol.** 2 + PtCl₄ (*B.* **27**, 3382). — IV, **1143**.
- C₁₀H₁₄ClBr** 1) **Chlorbromfenchen.** Sd. 113—114°₁₁ (*Soc.* **73**, 708).
- C₁₀H₁₄ClP** 1) **Diäthyl-4-Chlorphenylphosphin.** Sd. 255—257° (*A.* **293**, 236). — IV, **1655**.
- C₁₀H₁₄Cl₃P** 1) **Verbindung (aus Chlorfenchen)** (*Soc.* **73**, 707).
- C₁₀H₁₄Cl₃S₂** 1) **Tetrachloramylenchlorosulfid** (*A.* **116**, 245). — I, **118**.
- C₁₀H₁₄BrP** 1) **Diäthyl-4-Bromphenylphosphin.** Sd. 265°. (2 HCl, PtCl₄) (*A.* **293**, 246). — IV, **1655**.
- C₁₀H₁₅ON** C **72,7** — H **9,1** — O **9,7** — N **8,5** — M. G. **165**.
 1) **Oxypentaldin** (*J.* 1857, 388; *A. Spl.* **8**, 14). — I, **918**.
 2) **γ-[4-Methylphenyl]amido-α-Oxypropan.** Sm. 74°; Sd. 293°. Oxalat (*B.* **15**, 179; **16**, 82; *Soc.* **41**, 387). — II, **504**.
 3) **α-[Methylphenyl]amido-β-Oxypropan.** Sd. 262° (*B.* **17**, 678). — II, **426**.
 4) **β-Aethylphenylamido-α-Oxyäthan.** Sd. 267—268,5° (*B.* **17**, 677). — II, **426**.
 5) **β-[Methyl-4-Methylphenyl]amido-α-Oxyäthan.** Sd. 290—300°. (2 HCl, PtCl₄), HJ (*A.* **173**, 134). — II, **504**.
 6) **2-Isopropylamido-1-Oxymethylbenzol.** Sd. 250—260° u. Zers. (*B.* **25**, 2976). — II, **1061**.
 7) **5-Amido-2-Oxy-4-Isopropyl-1-Methylbenzol.** Sm. 134° (304°?). HCl (*B.* **12**, 384; **28**, 1661; *G.* **25** [2] 391). — II, **768**.
 8) **6-Amido-3-Oxy-4-Isopropyl-1-Methylbenzol.** Sm. 173—174° (177,5 bis 179°). HCl (*A.* **279**, 370; *B.* **8**, 1502; **18**, 3199; **19**, 2316; **28**, 1663; *J. pr.* [2] **23**, 168; *G.* **25** [2] 385). — II, **773**.
 9) **2-Diäthylamido-1-Oxybenzol.** Sm. 219—220°. HCl, (2 HCl, PtCl₄), HBr. (*J. pr.* [2] **21**, 367). — II, **704**.
 10) **3-Diäthylamido-1-Oxybenzol.** Sm. 74° (78°); Sd. 201°₁₁. HCl + 1/2 H₂O (*B.* **27**, 3301; **29**, 502; *J. pr.* [2] **54**, 222; *C.* 1895 [2] 591).
 11) **Aethyläther d. 2-Aethylamido-1-Oxybenzol.** Sd. 234—236°₁₁ (238°). HCl, (2 HCl, PtCl₄), HBr, HJ, Oxalat (*J. pr.* [2] **21**, 346; *M.* **19**, 633). — II, **703**.
 12) **Aethyläther d. 2-Dimethylamido-1-Oxybenzol.** Sm. 35—36,5° (*A.* **293**, 34).
 13) **Aethyläther d. 3-Dimethylamido-1-Oxybenzol.** Sd. 247° (*B.* **16**, 33; *J. pr.* [2] **32**, 77). — II, **714**.
 14) **β-Amidoäthyläther d. 4-Oxy-1,3-Dimethylbenzol.** Sd. 249—250°₁₁. HCl, (2 HCl, PtCl₄), Pikrat (*B.* **29**, 2401).
 15) **Phenyläther d. β-Amido-α-Oxybutan.** Sd. 254—257° (*B.* **24**, 3232). — II, **653**.
 16) **Diäthylphenylaminoxid** (*B.* **32**, 352).

- C₁₀H₁₅ON** 17) **2-Oximido-1,1'-Bi[R-Pentamethylen]** (Bicyklo-Penten-Pentanonoxim). Sm. 123—124° (B. 29, 2964).
 18) Oxim d. Camphenon. Sm. 132° (B. 28, 1078; G. 26 [2] 47). — III, 501.
 19) Oxim d. Isocamphenon. Sm. bei 170° (G. 26 [2] 48). — III, 501.
 20) Oxim d. d-Carvon. Sm. 72° (A. 246, 227; Ph. Ch. 26, 710). — III, 113.
 21) Oxim d. l-Carvon (Isonitrosoterpen). Sm. 72°. HCl (J. 1877, 428; 1879, 396; B. 18, 1730, 2220; A. 246, 227; Ph. Ch. 26, 710). — III, 113.
 22) Oxim d. i-Carvon. Sm. 92—93° (B. 17, 1578; 18, 1729; A. 245, 268; 246, 271; 275, 118; 277, 134; 281, 133; 291, 348; Ph. Ch. 26, 710). — III, 113.
 23) isom. Oxim d. Carvon. Sm. 142—143°. Na (B. 20, 2073). — III, 114.
 24) Oxim d. Eucarvon. Sm. 106° (B. 27, 813; A. 305, 239). — II, 769.
 25) Oxim d. Pinocarvon. Sm. 98° (A. 277, 150; 300, 286). — III, 114.
 26) Oximidopinen (Nitrosoterpen). Sm. 132°. Na (J. 1875, 391; 1879, 396; B. 18, 2223; 28, 646; A. 268, 198). — III, 521.
 27) **5-Methyl-3-[δ-Methyl-γ-Pentenyl]isoxazol**. Sd. 118—119° (Bl. [3] 17, 749).
 28) **1-Acetyl-β-Diäthylpyrrol**. Sm. 98°; Sd. 295—300° (B. 23, 2566). — IV, 100.
 29) Carvolin. Sm. 94° (B. 20, 2075). — III, 114.
 30) Pseudoephedrin. Sm. 114—115°. HCl, (HCl, AuCl₃), HBr, HJ (B. 22, 1823). — III, 881.
 31) Base (aus Carvontribromid). HCl (A. 305, 246).
 32) Verbindung (aus d. isom. Base C₁₀H₁₅ON aus Carvontribromid). Sm. 165—167° (A. 305, 248).
 33) Verbindung (Amidophenol). HCl, (2HCl, PtCl₄) (B. 11, 1512). — II, 765.
 34) Verbindung (aus d. Keton C₁₀H₁₄O) (B. 20, 2963).
C₁₀H₁₅ON₂ 1) **4-[γ-Amidopropyl]nitrosamido-1-Methylbenzol**. Fl. HCl (Sm. 175°), (2HCl, PtCl₄) (B. 30, 2503).
 2) **4-Nitroso-1,3-Di[Dimethylamido]benzol**. HCl (B. 18, 877; 30, 3110). — IV, 571.
 3) **γ-Phenylamidopropylharnstoff**. Sm. 96—98° (B. 23, 1173). — II, 377.
 4) **2,4,5-Trimethylphenylamidoharnstoff**. Sm. 195° (Soc. 57, 55). — IV, 813.
 5) **uns-Aethyl-2-Acetylamidophenylhydrazin**. Sm. 89—91° (J. pr. [2] 41, 172). — IV, 1126.
 6) **Amid d. α-[β-Phenylhydrazido]buttersäure**. Sm. 79° (B. 25, 2037). — IV, 740.
 7) **Amid d. α-[β-Phenylhydrazon]isobuttersäure**. Sm. 117° (B. 17, 1461; 25, 3321). — IV, 740.
C₁₀H₁₅OCl 1) **p-[α]-Chlorcampher**. Sm. 124—125°; Sd. 220° u. ger. Zers. (A. 146, 81; Bl. [3] 2, 710; [3] 17, 705). — III, 488.
 2) **o-[β]-Chlorcampher**. Sm. 92—92,5°; Sd. 240—247° (Bl. 38, 9; 39, 501; 44, 161; [3] 3, 679; [3] 9, 1052; G. 17, 96, 243; B. 16, 888). — III, 488.
 3) **γ-Chlorcampher**. Sm. 100°; Sd. 230—237° u. ger. Zers. (Bl. 39, 116; G. 17, 97, 243). — III, 488.
 4) **d-π-Chlorcampher**. Sm. 139—139,3°; subl. (Soc. 67, 377). — III, 488.
 5) **i-π-Chlorcampher**. Sm. 138—138,5° (Soc. 67, 379). — III, 488.
 6) **isom. i-π-Chlorcampher**. Sm. 25—28° (Soc. 67, 381).
 7) **Chlorpulegon**. Sm. 124—125° (B. 29, 1082).
C₁₀H₁₅OBr 1) **β-Bromcampher**. Sm. 61°; Sd. 130°_m (J. 1862, 463; Z. 1866, 628; Soc. 57, 828; 59, 968). — III, 490.
 2) **o-Bromcampher**. Sm. 76°; Sd. 274°. + Br₂. Lit. bedeutend. — III, 489.
 3) **p-Bromcampher**. Sm. 144—145° (Bl. [3] 2, 713; G. 22 [1] 267). — III, 490.
 4) **d-π-Bromcampher**. α-Modif. Sm. 93,4°; β-Modif. Sm. 60—63° (Soc. 67, 382; C. 1896 [1] 1168). — III, 490.
 5) **r-π-Bromcampher**. Sm. 92,7° (Soc. 67, 387). — III, 490.
 6) **Camphenonhydrobromid**. Sm. 114° (G. 25 [2] 163; 26 [2] 49). — III, 490.
C₁₀H₁₅OBr₂ 1) **Bromcampherdibromid** (Z. 1866, 628; A. Spl. 4, 126). — III, 490.
 2) **Brompinoldibromid**. Sm. 160° (A. 259, 323). — III, 508.

- $C_{10}H_{15}OBr_3$ 3) racem. i-Dihydrocarvontribromid. Sm. 65° (A. [286](#), [128](#), [142](#)). — III, [505](#).
 4) i-Dihydrocarvontribromid. Sm. 74—76° (A. [286](#), [119](#); [305](#), [245](#)).
 5) act. Dihydrocarvontribromid. Sm. 88—89° (A. [286](#), [127](#), [141](#)). — III, [505](#).
- $C_{10}H_{15}OJ$ 1) Jodecampher. Sm. 43—44° (J. 1878, [643](#)). — III, [492](#).
 $C_{10}H_{15}OP$ 1) Diäthylphenylphosphinoxid. Sm. 55—56°; Sd. oberh. 360° (A. [181](#), [354](#)). — IV, [1655](#).
 2) Dimethyl-2,4-Dimethylphenylphosphinoxid. Fl. (B. [31](#), 2920). — IV, [1676](#).
- $C_{10}H_{15}O_2N$ C [66,2](#) — H [8,3](#) — O [17,7](#) — N [7,7](#) — M. G. [181](#).
 1) Nitrosocampher. Zers. bei 180° (Bl. [3](#) [1](#), [558](#)). — III, [492](#).
 2) Nitrosocarveol (oder $C_{10}H_{15}O_2N_2$). Sm. 133° u. Zers. (B. [28](#), [646](#)).
 3) Nitrosodihydroeucarvon. Zers. bei 121—124° (B. [27](#), 1923; [28](#), [646](#)). — III, [505](#).
 4) Nitrophellandren. Sd. bei 150° (i. V.) u. Zers. (G. [16](#), [227](#); A. [287](#), [375](#)). — III, [530](#).
 5) Nitropinen. Fl. (G. [16](#), [339](#); [18](#), [221](#)). — III, [522](#).
 6) Oximidocampher (Isonitrosocampher). Sm. 153—154° (A. [274](#), [73](#); B. [22](#), [530](#); [28](#), 1915; G. [23](#) [1](#) [87](#), [300](#); [26](#) [1](#) [405](#)). — III, [492](#).
 7) Oximidopulegon. Zers. bei 122—127° (B. [29](#), [1081](#)). — III, [509](#).
 8) Anhydroecgoninmethylbetain + x H₂O. Sm. 169° (wasserfrei) u. Zers. (HCl, AuCl₃), HJ (B. [21](#), 3042; [26](#), [327](#); [27](#), 2448). — II, [1132](#).
 9) Di[β-Oxyäthyl]amidobenzol (Diäthoxylanilin). Sd. oberh. 350° (B. [22](#), 2093). — II, [426](#).
 10) 1-Methyläther d. 2-[Methyl-β-Oxyäthyl]amido-1-Oxybenzol. Sd. 290° (B. [22](#), 2098). — II, [705](#).
 11) Monäthyläther d. 2-Amido-1,3-Dioxy-2-Aethylbenzol. HCl (M. [11](#), 377). — II, [967](#).
 12) Diäthyläther d. 2-Amido-1,3-Dioxybenzol. Sm. 124°. HCl (B. [20](#), [1148](#)). — II, [928](#).
 13) Diäthyläther d. 4-Amido-1,3-Dioxybenzol. Sm. 32°; Sd. 250—252°. HCl, (2HCl, PtCl₄ + 2H₂O) (B. [20](#), [1124](#)). — II, [928](#).
 14) Diäthyläther d. 4,6-Dioxy-2-Methylpyridin. Sd. 238—240°. (2HCl, PtCl₄) (Soc. [67](#), [411](#)). — IV, [124](#).
 15) α-Cyan-α-Okten-α-Carbonsäure (α-Cyanhexylakrylsäure). Sm. 116—118° (Bl. [3](#) [7](#), [770](#)). — I, [1221](#).
 16) Inn. Anhydrid d. Diacetylcapronsäureamid. Sm. 233—235° u. Zers. (Soc. [55](#), [339](#)). — I, [1388](#).
 17) Lakton d. ζ-Cyan-ζ-Oxy-β-Methylheptan-δ-Carbonsäure. Sm. 53° (Soc. [73](#), [54](#)).
 18) Aethylester d. 2,6-Dimethyl-1,4-Dihydropyridin-3-Carbonsäure. Sd. 235° (2HCl, PtCl₄) + HgCl₂ (G. [25](#) [2](#) [74](#)). — IV, [86](#).
 19) α-Mononitril d. Camphersäure. Sm. 151—152°. Ag, HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (R. [14](#), [262](#); G. [26](#) [1](#) [409](#); Bl. [3](#) [15](#), [986](#)).
 20) β-Mononitril d. Camphersäure. Sm. 109—111° (R. [14](#), [267](#)).
 21) Imid. d. Camphersäure. Sm. 244—245°. Ag (A. [60](#), [329](#); [197](#), [331](#); [257](#), [308](#); [274](#), [81](#); Bl. [49](#), 299; B. [26](#), [58](#), [241](#); G. [23](#) [1](#) [305](#); Am. [16](#), [502](#)). — I, [1392](#).
 22) α-Isoimid d. Camphersäure. HCl, (HCl, AuCl₃) (R. [14](#), [261](#); G. [26](#) [1](#) [418](#)).
 23) β-Isoimid d. Camphersäure. HCl, (HCl, AuCl₃) (R. [14](#), [266](#)).
 24) Verbindung (aus d. Base $C_{10}H_{15}ON$). Sm. 100° (A. [305](#), [247](#)).
- $C_{10}H_{15}O_2N_3$ C [57,4](#) — H [7,2](#) — O [15,3](#) — N [20,1](#) — M. G. [209](#).
 1) 5-Nitro-3,5-Diamido-1-Pseudobutylbenzol. Sm. 104—105°. 2HCl, H₂SO₄ (J. pr. [2](#) [48](#), 104). — IV, [646](#).
 2) Methyläther d. α-[2-Oxyphenyl]amido-β-Aethylharnstoff. Sm. 110° (A. [221](#), [322](#)). — IV, [814](#).
- $C_{10}H_{15}O_2N_5$ C [50,6](#) — H [6,3](#) — O [13,5](#) — N [29,5](#) — M. G. [237](#).
 1) Aethylamidokaffein. Sm. 226—230° (B. [27](#), 3089). — III, [960](#).
- $C_{10}H_{15}O_2Br$ 1) 2-Brom-5-Isopropyl-1,2,3,4-Tetrahydrobenzol-2-Carbonsäure (Bromtetrahydrocuminsäure). Sm. 175° u. Zers. (B. [29](#), 1925).
 2) Bromcamphorensäure. Sm. 195° (159°). Ba + 2H₂O, Zn, Cu, Ag (C. 1895 [1](#) [648](#); 1896 [1](#) [306](#); Soc. [69](#), [46](#)). — III, [490](#).

- C₁₀H₁₅O₂Br** 3) **Lakton d. 4-Brom-3-Oxy-1,1,2-Trimethyl-R-Pentamethylen-5-Methylcarbonsäure** (γ -Bromdihydrocampholenlakton). Sm. 146° u. Zers. (B. 30, 414).
- 4) α -Bromcampholid. Sm. 92–93° (C. 1896 [1] 306; Soc. 69, 50).
- 5) β -Bromcampholid. Sm. 62° (C. 1896 [1] 306; Soc. 69, 54).
- C₁₀H₁₅O₃P** 1) **4-Isopropyl-1-Methylphenylphosphinige Säure**. Fl. Ba + H₂O (A. 294, 54). — IV, 1680.
- 2) **Diäthylester d. Phenylphosphinigen Säure**. Sd. 235° (B. 10, 817). — IV, 1650.
- C₁₀H₁₅O₃B** 1) **Diäthylester d. Phenylborsäure**. Sd. 176° (B. 15, 184). — IV, 1699.
- C₁₀H₁₅O₃N** C 60,9 — H 7,6 — O 24,4 — N 7,1 — M. G. 197.
- 1) **1,3-Diäthyläther d. 2-Amido-1,3,5-Trioxylbenzol**. HCl + H₂O (M. 18, 361).
- 2) **3,5-Diäthyläther d. 2-Amido-1,3,5-Trioxylbenzol**. HCl (M. 18, 359).
- 3) α -Nitrocampher. Sm. 100–101° (103°). Na, K, Ca, Zn + H₂O, Pb + H₂O, Cu + H₂O, Ag, HCl (Bl. 47, 920; [3] 1, 242; G. 24 [1] 530; 25 [2] 418; A. ch. [6] 20, 7; C. 1897 [2] 550; Soc. 73, 991; 75, 215). — III, 492.
- 4) β -Nitrocampher. Sm. 83–84° (B. 13, 1403; A. ch. [6] 29, 9; Bl. 47, 925; [3] 2, 707; G. 24 [1] 529; Soc. 73, 991). — III, 493.
- 5) **Camphonitrosophenol + H₂O**. Sm. 70° (220° wasserfrei). Na + 2 H₂O, Ca (Bl. [3] 1, 417; Soc. 73, 1002). — III, 493.
- 6) **Nitrofenchon**. Sd. 146–151°₁₄ (Soc. 73, 712).
- 7) **Leukonitrosocampholenolid**. Sm. 134,5° (Bl. [3] 15, 26).
- 8) **Cöruleonitrosocampholenolid** (Bl. [3] 15, 26).
- 9) **Acetylscopolein**. Sm. 250°. (HCl, AuCl₃) (C. 1895 [1] 435).
- 10) **Damascenin**. Sm. 27°; Sd. 168°. HCl, (2 HCl, PtCl₄), H₂SO₄. — III, 879.
- 11) **2-Trimethylamidobenzol-1-Carbonsäure**. Ag (Bl. [3] 9, 976). — II, 1248.
- 12) **Dimethylphenylammoniumessigsäure**. HCl (B. 12, 2206). — II, 429.
- 13) **Oximidoketopinsäure**. Sm. 216° (Soc. 69, 1402).
- 14) α -Anhydro-N-Aethylcincholoiponsäure. Sm. 194°. Ag (B. 30, 1333).
- 15) β -Anhydro-N-Aethylcincholoiponsäure. Sm. 105°. Ag (B. 30, 1333).
- 16) **Aethylester d. 2-Keto-1-Aethyl-5-Methyl-2,3-Dihydropyrrol-4-Carbonsäure**. Sm. 75–76°; Sd. 165°₁₄ (A. 280, 148). — I, 1215.
- 17) **Aethylester d. α -Cyan- β -Ketohehexan- α -Carbonsäure**. Sm. 21° (C. 1896 [2] 17; Bl. [3] 15, 133).
- 18) **Amylester d. α -Cyan- β -Ketopropan- α -Carbonsäure** (A. d. Acetylcyanessigsäure). Sd. 168°₄₅ (Bl. [3] 13, 1034).
- 19) **Amid d. trans- π -Camphansäure**. Sm. 107–108° (C. 1896 [2] 248; Soc. 69, 936).
- 20) **Amid d. β -Oxycamphersäureanhydrid** (A. d. Camphansäure). Sm. 208°; subl. bei 150° (A. 163, 339; B. 26, 1526). — I, 1397.
- 21) **Monoxim d. Camphersäureanhydrid**. Sm. 225–226°. Na (G. 24 [2] 341).
- 22) **Verbindung** (aus Dammarharz). — III, 555.
- C₁₀H₁₅O₃N₃** C 53,3 — H 6,7 — O 21,3 — N 18,6 — M. G. 225.
- 1) **Semicarbazonisolauronsäure**. Sm. 247–248° u. Zers. (Soc. 73, 841).
- C₁₀H₁₅O₃P** 1) **4-Isopropyl-1-Methylphenylphosphinsäure**. Fl. Ag, Ag₂, Phenylhydrazinsalz (A. 294, 54). — IV, 1680.
- 2) α -Oxy-4-Isopropylbenzylphosphinige Säure. Sm. 105° (A. ch. [6] 23, 337). — IV, 1680.
- 3) **Diäthylester d. Phenylphosphinsäure**. Sd. 267° (A. 181, 335). — IV, 1651.
- C₁₀H₁₅O₄N** C 56,3 — H 7,0 — O 30,1 — N 6,6 — M. G. 213.
- 1) **Mesitencarbaminäthyläthersäure**. Sm. 82° u. Zers. NH₄, Pb + H₂O (A. 259, 177; 274, 273).
- 2) **Lakton d. 5-Nitro-3-Oxy-1,1,2-Trimethyl-R-Pentamethylen-5-Methylcarbonsäure** (Nitrocampholensäure). Sm. 175° (B. 15, 2136, 2337; 18, 2228; 30, 412; M. 4, 648; Bl. [3] 15, 27). — I, 534.
- 3) **Monoäthylester d. α -Cyan- $\beta\beta$ -Dimethylpropan- $\alpha\gamma$ -Dicarbonsäure** (Soc. 75, 52).
- 4) **Diäthylester d. α -Cyanpropan- $\alpha\beta$ -Dicarbonsäure** (D. d. β -Cyan- α -Methylbernsteinsäure). Sd. 167–168°₃₃ (A. ch. [6] 27, 277). — I, 1225.

- C₁₀H₁₅O₄N** 5) Diäthylester d. α -Cyanpropan- $\alpha\gamma$ -Dicarbonsäure (D. d. Cyanglutar-säure). Sd. 198°₅₀ (B. 27 [2] 506).
 6) Diäthylester d. β -Cyanpropan- $\alpha\beta$ -Dicarbonsäure. Sd. 189—191°₅₀ (A. ch. [6] 27, 253). — I, 1225.
 7) Monamid d. ϵ -Keto- β -Hexen- $\gamma\delta$ -Dicarbonsäuremonoäthylester. Sm. 169—170° (Soc. 69, 1393; 71, 325).
- C₁₀H₁₅O₄Cl** 1) d- π -Chlorcamphersäure. Sm. 195—213° (Soc. 71, 15).
 2) i- π -Chlorcamphersäure. Sm. 195° (C. 1896 [1] 309; Soc. 71, 967).
- C₁₀H₁₅O₄Br** 1) d- π -Bromcamphersäure. Sm. 217° u. Zers. (C. 1895 [1] 749; Soc. 69, 924).
 2) i- π -Bromcamphersäure. Sm. 203—204° (Soc. 71, 969).
 3) w-Bromcamphersäure. Sm. 195—196° u. Zers. (C. 1896 [1] 308; Soc. 69, 63).
 4) l-Bromisocamphersäure. Sm. 196°. + $\frac{1}{2}$ C₆H₆ (C. 1895 [2] 972).
 5) Dimethylester d. l-Brom-trans-Hexahydrobenzol-1,4-Dicarbonsäure. Sm. 70—71° (A. 245, 181). — II, 1835.
 6) Dimethylester d. 2-Bromhexahydrobenzol-1,4-Dicarbonsäure. Sm. 94—95° (A. 245, 167). — II, 1835.
 7) Diäthylester d. β -Brom- β -Buten- $\alpha\delta$ -Dicarbonsäure (D. d. Bromdi-hydromukonsäure). Sd. 162—163°₅₅ (Soc. 57, 371, 936). — I, 714.
- C₁₀H₁₅O₄P** 1) 2-Methyl-5-Isopropylphenylphosphorsäure. K₂ + 5H₂O (B. 19, 3310). — II, 767.
 2) 3-Methyl-6-Isopropylphenylphosphorsäure. Ba + 4H₂O (G. 15, 279). — II, 770.
 3) 4-[α -Oxyisopropyl]-1-Methylphenylphosphinsäure. Ag₂ (A. 294, 55). — IV, 1680.
- C₁₀H₁₅O₅N** C 52,4 — H 6,5 — O 34,9 — N 6,1 — M. G. 229.
 1) Acetylcincholiponsäure. Sm. 168°. Cu + 2H₂O (M. 17, 373). — III, 843.
 2) Oxim d. Cantharidinsäure (B. 19, 1085). — III, 623.
 3) Oxim d. Homoterpenoylameisensäure. Sm. 170° u. Zers. (B. 29, 1919).
- C₁₀H₁₅O₅N₃** C 46,7 — H 5,8 — O 31,1 — N 16,3 — M. G. 257.
 1) Fleisachsäure (Antipepton). Ba + 2H₂O, Cu, Zn, Ag₂ + 2H₂O, HCl (B. 27, 2762; 28, 515; H. 21, 365, 367; 22, 248). — II, 2109.
 2) Diäthylcarboxyäthylecyanurat. Sm. 107° (Bl. 44, 29). — I, 1266.
- C₁₀H₁₅O₅Br** 1) Diäthylester d. α -Brom- β -Oxyfumaräthyläthersäure. Sd. 160°₁₇ (A. 276, 229).
 2) Diäthylester d. δ -Brom- γ -Ketobutan- $\alpha\beta$ -Dicarbonsäure. Fl. (Soc. 71, 333).
- C₁₀H₁₅O₅P** 1) Methyl-2,5-Dimethylphenylketon + Phosphorsäure. Sm. 82—83° (B. 31, 1300).
- C₁₀H₁₅O₆N** C 49,0 — H 6,1 — O 39,2 — N 5,7 — M. G. 245.
 1) Imid d. α -Acetoxylpropionsäure. Sm. 110°. 2 + C₆H₆ (C. 1896 [1] 199; Bl. [3] 17, 56).
- C₁₀H₁₅O₆Cl** 1) Diäthylester d. β -Chlor- α -Acetoxylbernsteinsäure. Sd. 178—180°₅₅₋₅₇ (C. 1898 [2] 918).
 2) Triäthylester d. Chlormethantricarbonsäure. Sd. 210°₁₄₀ (B. 14, 618).
- C₁₀H₁₅O₇N** C 46,0 — H 5,7 — O 42,9 — N 5,4 — M. G. 261.
 1) Triacetat d. β -Nitroso- $\alpha\gamma$ -Dioxy- β -Oxymethylpropan. Sm. 73°; Zers. oberh. 110° (B. 31, 223).
- C₁₀H₁₅O₇Cl₃** 1) Urobutyrechloralsäure (Trichlorbutylglykuronsäure). K, Ag (B. 14, 2291; 15, 1021; H. 6, 491; A. 290, 158). — I, 945.
- C₁₀H₁₅O₈N** C 43,3 — H 5,4 — O 46,2 — N 5,1 — M. G. 277.
 1) Triacetat d. β -Nitro- $\alpha\gamma$ -Dioxy- β -Oxymethylpropan. Sm. 74—75° (B. 31, 221).
 2) Triäthylester d. Nitromethantricarbonsäure. Fl. (R. 9, 220). — I, 807.
- C₁₀H₁₅O₈N₃** C 39,3 — H 4,9 — O 41,9 — N 13,8 — M. G. 305.
 1) Convicin + H₂O (aus Saubohnen oder Wicken) (B. 29, 896; J. pr. [2] 24, 218; [2] 59, 487). — III, 952.
- C₁₀H₁₅N₂Br** 1) 5-Brom-3,4-Diamido-1-Isobutylbenzol. Sm. 85,5°. Oxalat, Pikrat (B. 21, 2954). — IV, 646.
- C₁₀H₁₅N₂S** 1) α -Aethyl- β -[2-Methylphenylamido]thioharnstoff. Sm. 129—130° (Soc. 57, 262). — IV, 802.

- $C_{10}H_{15}N_4Cl$ 1) Chlormethylat d. 6-Dimethylamido-1-Methyl-1,2,3-Benzotriazol. (HCl, HgCl₂) (B. 30, 2859). — IV, 1258.
- $C_{10}H_{15}N_4Br$ 1) Brommethylat d. 6-Dimethylamido-1-Methyl-1,2,3-Benzotriazol. Sm. 262° (B. 30, 2854). — IV, 1258.
- $C_{10}H_{15}Cl_2P$ 1) Diäthylphenylphosphindichlorid. Fl. (A. 181, 352). — IV, 1655.
- $C_{10}H_{15}Cl_2As$ 1) Diäthylphenylarsindichlorid (A. 201, 212). — IV, 1687.
- $C_{10}H_{15}Br_2P$ 1) Dimethyl-β-Bromäthylphenylphosphoniumbromid. Sm. 173° (B. 15, 198). — IV, 1654.
- $C_{10}H_{15}J_2P$ 1) Jodtrimethyl-4-Methylphenylphosphoniumjodid. Sm. 158—159° (J. 1883, 1307). — IV, 1671.
- $C_{10}H_{15}SP$ 1) Diäthylphenylphosphinsulfid. Sd. oberh. 360° (A. 181, 355). — IV, 1655.
- $C_{10}H_{16}ON_2$ C 66,7 — H 8,9 — O 8,9 — N 15,5 — M. G. 180.
- 1) 3,5-Diäthylamido-1-Oxybenzol. Sm. 106—108°. 2HCl, (2HCl, PtCl₄ + H₂O) (M. 14, 403). — II, 724.
- 2) 3,5-Diamido-2-Oxy-4-Isopropyl-1-Methylbenzol (G. 20, 186). — II, 768.
- 3) 6-Oxy-4-Methyl-2-Hexyl-1,3-Diazin. Sm. 100° (PINNER, Imidoäther 231). — IV, 831.
- 4) 6-Oxy-4-Methyl-5-Aethyl-2-Propyl-1,3-Diazin. Sm. 121° (PINNER, Imidoäther 228). — IV, 831.
- 5) 6-Oxy-4-Methyl-5-Aethyl-2-Isopropyl-1,3-Diazin. Sm. 153° (PINNER, Imidoäther 230). — IV, 831.
- 6) 6-Oxy-2,4,5-Triäthyl-1,3-Diazin. Sm. 144°. Ag (J. pr. [2] 39, 248). — IV, 831.
- 7) 4-Keto-1,5-Dimethyl-2,6-Diäthyl-1,4-Dihydro-1,3-Diazin. Sm. 76,5°; Sd. 275—276°. HJ, + HgCl₂ + $\frac{1}{2}$ H₂O (J. pr. [2] 26, 348; [2] 39, 271). — IV, 829.
- 8) Methyläther d. 6-Oxy-5-Methyl-2,4-Diäthyl-1,3-Diazin. Sd. 225° (J. pr. [2] 26, 353 Anm.). — IV, 829.
- 9) Verbindung (aus Oxybenzol u. Diäthylendiamin). Sm. 99—101° (B. 24, 3242). — II, 651.
- $C_{10}H_{16}ON_4$ C 57,7 — H 7,7 — O 7,7 — N 26,9 — M. G. 208.
- 1) Methoxyhydrat d. 6-Dimethylamido-1-Methyl-1,2,3-Benzotriazol. Bromid, Pikrat (B. 30, 2855). — IV, 1258.
- $C_{10}H_{16}OCl_2$ 1) i-Dichlortetrahydrocarvon. Sm. 66—68° (B. 28, 1597). — III, 504.
- 2) d-Dichlortetrahydrocarvon. Sm. 42° (B. 28, 1597). — III, 504.
- $C_{10}H_{16}OBr_2$ 1) Dibrommenthon. Sm. 79—80° (B. 29, 418). — III, 480.
- 2) i-Dibromtetrahydrocarvon. Sm. 98—100° (96—97°) (A. 279, 389; 286, 127, 129, 141; B. 28, 1559, 1597). — III, 504.
- 3) act. Dibromtetrahydrocarvon. Sm. 69—70° (68—70°) (A. 279, 389; 286, 127; B. 28, 1597). — III, 504.
- 4) d-Borneolbromid (A. 230, 226). — III, 469.
- 5) Campherbromid (J. 1862, 462; Berz. J. 21, 353). — III, 489.
- 6) Pinoldibromid. Sm. 94°; Sd. 143—144°₁₁ (A. 253, 253; 268, 224; 281, 151). — III, 507.
- 7) Pulegondibromid. Fl. (A. 289, 349).
- $C_{10}H_{16}O_2N$ 1) Säure (aus Oxysparteïn) + 3 H₂O. Sm. 287—289°. (HCl, AuCl₃) (B. 30, 198). — III, 934.
- $C_{10}H_{16}O_2N_2$ C 61,2 — H 8,2 — O 16,3 — N 14,3 — M. G. 196.
- 1) Diäthyläther d. 2,5-Diamido-1,4-Dioxybenzol (B. 23, 1211). — II, 948.
- 2) Methyläther d. Dioxykyanconin. Ag + $\frac{1}{2}$ H₂O (J. pr. [2] 30, 155). — IV, 830.
- 3) β-(3,5-Dioximido-4-Phenylhexahydrophenyl)propen (Carvondioxim). Sm. 153—154° (B. 31, 1811).
- 4) Camphenylnitramin (Pernitrosocampher). Sm. 43°. K (B. 28, 1078, 1080; 29, 2810; C. 1896 [1] 301; G. 26 [2] 29, 35; 28 [1] 12). — IV, 77.
- 5) Fenchonnitrimin (Pernitrosofenchon). Sm. 58° (66—67°) (B. 29, 2818; G. 26 [2] 505). — IV, 78.
- 6) Isopernitrosofenchon. Sm. 88° (G. 26 [2] 507). — IV, 78.
- 7) d-Campherdioxim. α-Modif. Sm. 181—182° u. Zers.; β-Modif. Sm. 220 bis 221° u. Zers.; γ-Modif. Sm. 131—132° (B. 26, 243, 244). — III, 500.
- 8) Oxim d. Oximidopulegon + H₂O (B. 29, 1082). — III, 509.

- C₁₀H₁₆O₂N₂** 9) Verbindung (aus Camphersäureamid). Sm. 235° (*G.* 24 [2] 349).
 10) Verbindung (aus Oxynicotin) + H₂O. Zers. bei 175°₅₀ (i. V.) (*B.* 28, 463).
- C₁₀H₁₆O₂N₄** C 53,6 — H 7,1 — O 14,3 — N 25,0 — M. G. 224.
 1) Di[Isopropylidenhydrazid] d. Fumarsäure. Sm. 220° u. Zers. (*J. pr.* [2] 52, 452).
- C₁₀H₁₆O₂Cl₂** 1) Chlorid d. Oktan- α β -Dicarbonsäure (Ch. d. Sebacinsäure). Sd. 220°₇₅ (*A. ch.* [6] 22, 363). — I, 687.
- C₁₀H₁₆O₂Br₂** 1) 5,6-Dibrom-1,3,3-Trimethylhexahydrobenzol-2-Carbonsäure. Sm. 121° (*B.* 26, 2726).
 2) Bromverbindung d. Campholensäure. Sm. 96,5—97° (*B.* 26, 924).
 3) Methylester d. Dibromiselaunonsäure (*Soc.* 73, 835).
 C 56,6 — H 7,5 — O 22,6 — N 13,2 — M. G. 212.
- C₁₀H₁₆O₃N₂** 1) d-Carobisnitrosylsäure. Sm. 80—90° u. Zers. (*B.* 28, 642). — III, 502.
 2) Pulegonbisnitrosylsäure. Sm. 115—116° (*B.* 29, 1082). — III, 510.
 3) d-Phellandrennitrit. Sm. 103° (*A.* 246, 282). — III, 530.
 4) l-Phellandrennitrit. Sm. 105° (*A.* 41, 76; 287, 373; *Z.* 1869, 579; *G.* 16, 226). — III, 530.
 5) Terpinennitrosit. Sm. 155° (*A.* 239, 36; 241, 315). — III, 532.
- C₁₀H₁₆O₃Cl₂** 1) Aethylester d. $\alpha\alpha$ -Dichlor- β -Keto- γ -Aethylpentan- γ -Carbonsäure (Ae. d. Dichlordiäthylacetessigsäure). Fl. (*A.* 231, 239). — I, 610.
- C₁₀H₁₆O₃Br₂** 1) β -Dibrom- ϵ -Keto- β -Dimethylheptan- α -Carbonsäure (Dibromoxymenthylsäure). Fl. (*A.* 289, 375).
- C₁₀H₁₆O₃Br₄** 1) Aethylester d. $\alpha\beta\gamma\eta$ -Tetrabrom- δ -Oxyheptan- δ -Carbonsäure. Fl. (*J. r.* 17, 73). — I, 575.
- C₁₀H₁₆O₄N₂** C 52,6 — H 7,0 — O 28,1 — N 12,3 — M. G. 228.
 1) Dipentinnitrosat. Sm. 84° u. Zers. (*A.* 245, 270). — III, 528.
 2) Aethylendi[β -Amidopropen- α -Carbonsäure]. Sm. 167—168° (*B.* 20, 274). — I, 1207.
 3) Aethylester d. Nitroso-Nor-d-Eegonin. Fl. (*B.* 26, 1485). — III, 563.
- C₁₀H₁₆O₄Cl₂** 1) β -Dichloroktan- α β -Dicarbonsäure (Dichlorsebacinsäure) (*J.* 1853, 429).
 2) Diäthylester d. $\beta\gamma$ -Dichlorbutan- $\alpha\delta$ -Dicarbonsäure (D. d. Dichloradipinsäure). Sm. 48—49° (*Soc.* 57, 939). — I, 670.
- C₁₀H₁₆O₄Br₂** 1) α β -Dibromoktan- α β -Dicarbonsäure (Dibromsebacinsäure). Sm. 136° (*B.* 27, 1212).
 2) isom. Dibromsebacinsäure. Sm. 117,5—119°. Na₂ + 2 $\frac{1}{2}$ H₂O, K, Ca + 2 H₂O, Ba + 2 H₂O, Pb, Ag₂ (*B.* 20, 2882; 24, 2232; *J. pr.* [2] 51, 335). — I, 687.
 3) $\delta\epsilon$ -Dibrom- β -Methylheptan- $\epsilon\eta$ -Dicarbonsäure (Dibromisoamylglutarsäure). Sm. 148° (*A.* 282, 350).
 4) Diäthylester d. $\beta\gamma$ -Dibrombutan- $\alpha\delta$ -Dicarbonsäure (D. d. Dibromadipinsäure). Sm. 64°; Sd. 212°₄₀ (*Soc.* 57, 372). — I, 670.
 5) Diäthylester d. $\alpha\beta$ -Dibrom- β -Methylpropan- $\alpha\gamma$ -Dicarbonsäure (D. d. Dibrom- β -Methylglutarsäure). Fl. (*A. ch.* [6] 24, 120). — I, 676.
 6) Verbindung (aus Bromcamphersäureanhydrid) (*A.* 163, 330).
- C₁₀H₁₆O₄S** 1) Camphersulfonsäure. Sm. 56—58°. Na + 3 H₂O, K + 1 $\frac{1}{2}$ H₂O, Ba + 3 $\frac{1}{2}$ H₂O (*Soc.* 63, 573). — III, 498.
 2) kryst. Camphersulfonsäure. Sm. 193°. NH₄, Ba, Chininsalz (*Bl.* [3] 19, 122).
 3) amorphe Camphersulfonsäure. NH₄, Ba (*Bl.* [3] 19, 127).
- C₁₀H₁₆O₅N** 1) Verbindung (aus Acetessigsäureäthylester, Glykose u. NH₃) = (C₁₀H₁₆O₅N)₂. Sm. 130—131° (*G.* 19, 217). — I, 593.
- C₁₀H₁₆O₅N₂** C 49,2 — H 6,5 — O 32,8 — N 11,5 — M. G. 244.
 1) Diäthylester d. β -Keto- β^1 -Hydrazoadipinsäure. Sm. 93° (*B.* 26, 870).
- C₁₀H₁₆O₅N₄** C 44,1 — H 5,9 — O 29,4 — N 20,6 — M. G. 272.
 1) Dimethoxyhydroxykaffein. Sm. 178—179° (*B.* 14, 642; *A.* 215, 275). — III, 961.
- C₁₀H₁₆O₅S** 1) Monomethylester d. Sulfocamphersäure. Sm. 140° (*B.* 27, 3467).
- C₁₀H₁₆O₆N₂** C 41,1 — H 6,1 — O 36,9 — N 10,8 — M. G. 260.
 1) $\gamma\delta$ -Dioximidoktan- α β -Dicarbonsäure. Sm. 164—165°. Ag₂ (*A.* 294, 174).
 2) Aethylendisuccinaminsäure. Sm. 184—185°. Ca + 3 H₂O, Ag₂ (*Soc.* 55, 12). — I, 1377.
 3) Dimethylester d. β -Succinylharnstoffpropionsäure. Sm. 65,5° (*Am.* 15, 220, 514). — I, 1380.

- $C_{10}H_{16}O_6N_2$ 4) Diäthylester d. Aethylenoxaminsäure (B. 5, 248). — I, 1364.
- $C_{10}H_{16}O_6Cl_4$ 1) Diäthyläther d. 2,6-Di[Dichloroxymethyl]-1,3,5,7-Tetroxan. Sm. 114° (B. 31, 1932).
- $C_{10}H_{16}O_6S_2$ 1) Verbindung (aus Acetessigsäureäthylester u. Dithioglykolsäure). Sm. 95 bis 96° (B. 21, 485). — I, 892.
- $C_{10}H_{16}O_7N_2$ C 43,5 — H 5,8 — O 40,6 — N 10,1 — M. G. 276.
- 1) Diäthylester d. Dinitrosodilaktylsäure. Fl. (Bl. [3] 11, 887).
- $C_{10}H_{16}O_7S$ 1) d-Sulfocampfersäure. Sm. 188° (wasserfrei). NH_4 , K (Soc. 71, 8; C. 1897 [1] 103).
- $C_{10}H_{16}O_8N_2$ C 41,1 — H 5,5 — O 43,8 — N 9,6 — M. G. 292.
- 1) Diäthylester d. Allophanylweinsäure. Sm. 188° (B. 22, 1578). — I, 1308.
- $C_{10}H_{16}O_{11}S$ 1) Stärkeschwefelsäure (A. 55, 13).
- $C_{10}H_{16}NCl$ 1) Trimethylbenzylammoniumchlorid (Soc. 57, 778). — II, 515.
- 2) Trimethyl-3-Methylphenylammoniumchlorid. 2 + $PtCl_4$ (B. 11, 2280). — II, 477.
- 3) Trimethyl-4-Methylphenylammoniumchlorid. 2 + $PtCl_4$ (B. 10, 1586). — II, 484.
- 4) Chloräthylat d. 2-Methyl-5-Aethylpyridin. 2 + $PtCl_4$ (A. 155, 304). — IV, 135.
- 5) Chloräthylat d. α -Collidin (A. 94, 362). — IV, 134.
- $C_{10}H_{16}NJ$ 1) Dimethyläthylphenylammoniumjodid. Sm. 124,5–126° (B. 14, 620; 17, 1325; A. 240, 70; J. 1882, 510). — II, 334.
- 2) Trimethyl-2-Methylphenylammoniumjodid (B. 10, 1585, 1586). — II, 458.
- 3) Trimethyl-4-Methylphenylammoniumjodid (B. 10, 1586; J. 1885, 911). — II, 484.
- 4) Jodäthylat d. 2-Methyl-5-Aethylpyridin (A. 155, 304). — IV, 135.
- 5) Jodäthylat d. α -Collidin (A. 94, 362). — IV, 134.
- 6) Jodäthylat d. Paracollidin (A. 155, 307). — IV, 137.
- $C_{10}H_{16}NJ_3$ 1) Dimethyläthylphenylammoniumtrijodid. Sm. 81° (A. 240, 70). — II, 334.
- $C_{10}H_{16}NJ_5$ 1) Dimethyläthylphenylammoniumpentajodid. Sm. 50° (A. 240, 70). — II, 334.
- $C_{10}H_{16}NJ_7$ 1) Dimethyläthylphenylammoniumheptajodid. Sm. 45° (A. 240, 70). — II, 334.
- $C_{10}H_{16}NP$ 1) Dimethyl-4-Dimethylamidophenylphosphin. Sm. 10°; Sd. 265° (A. 260, 21). — IV, 1654.
- $C_{10}H_{16}N_2Br_2$ 1) Dibromid d. 2,5-Dimethyl-3,6-Diäthyl-1,4-Diazin (B. 14, 1468). — IV, 831.
- $C_{10}H_{16}N_2S$ 1) 2-Amido-5-Diäthylamido-1-Merkaptobenzol. Zn (A. 251, 55). — II, 801.
- 2) 2,5-Tetramethyldiamido-1-Merkaptobenzol. Zn (A. 251, 61). — II, 801.
- $C_{10}H_{16}ClP$ 1) Trimethyl-4-Methylphenylphosphoniumchlorid. 2 + $PtCl_4$ (B. 15, 2015). — IV, 1671.
- $C_{10}H_{16}Cl_2Br_2$ 1) Terpendichloriddibromid. Sm. 98° (A. 270, 202). — III, 527.
- $C_{10}H_{16}Cl_2S_2$ 1) Verbindung (aus Kautschuk) (C. 1895 [2] 266).
- $C_{10}H_{16}JP$ 1) Dimethyläthylphenylphosphoniumjodid. Sm. 137° (A. 181, 362). — IV, 1654.
- 2) Trimethyl-4-Methylphenylphosphoniumjodid. Sm. 255° (B. 15, 2015). — IV, 1671.
- $C_{10}H_{16}J_3P$ 1) Trimethyl-4-Methylphenylphosphoniumtrijodid. Sm. 137° (B. 15, 2015; J. 1883, 1305). — IV, 1671.
- $C_{10}H_{17}ON$ C 71,8 — H 10,2 — O 9,6 — N 8,4 — M. G. 167.
- 1) Anhalin. Sm. 115°. HCl , H_2SO_4 + $2H_2O$, Oxalat (B. 27, 2976). — III, 778.
- 2) Amidocampher. Sm. 110–115°; Sd. 243–245°. HCl , ($2HCl$, $PtCl_4$), HNO_3 (A. 274, 90; B. 28, 777; 30, 322). — III, 495.
- 3) Isoamidocampher. Sm. 39°; Sd. 254°. HCl , ($2HCl$, $PtCl_4$), (HCl , $AuCl_3$), Oxalat (B. 28, 1082, 2168; 30, 321). — III, 496.
- 4) β -Amidocampher. Sd. 246,4°. HCl , ($2HCl$, $PtCl_4$) (B. 13, 1404; M. 4, 567; Soc. 69, 315). — III, 495.
- 5) o-Amidocampher. Sm. bei 180° (Bl. [3] 2, 715). — III, 496.

$C_{10}H_{17}ON$

- 6) α -Dihydrocamphin. Sm. 190°; Sd. bei 300°. HCl, (HCl, PtCl₄), HNO₃, H₂SO₄, 2 + HgO (*J.* 1887, 1121). — III, 523.
- 7) β -Dihydrocamphin. Sm. 67°; Sd. 290° (*J.* 1887, 1121). — III, 523.
- 8) γ -Dihydrocamphin. Sm. 128° (*J.* 1887, 1121). — III, 523.
- 9) Acetyl- γ -Conicein. Sd. 252—255° (*B.* 18, 116). — IV, 37.
- 10) 1-Aethyl-4-[α -Oximidoäthyl]-5-Methyl-2,3-Dihydro-R-Penten. Fl. (*Soc.* 57, 253). — I, 1033.
- 11) 1-Oximido-2-Isopropyl-5-Methyl-1,2,3,4-Tetrahydrobenzol (*B.* 30, 645).
- 12) 1-Oximido-3-Isopropyl-5-Methyl-1,2,3,4-Tetrahydrobenzol. 2 isom. Formen. Sm. 117—118° (u. 88°) (*A.* 297, 145).
- 13) Oxim d. d-Campher. Sm. 120°; Sd. 249—250°. Na, HCl, (2HCl, PtCl₄), HBr (*B.* 16, 498, 2981; 20, 110; 21, 767; 22, 605; *A.* 250, 354; 289, 6; *G.* 26 [2] 35; *Bl.* [3] 13, 835; *Soc.* 71, 1045). — III, 499.
- 14) Oxim d. l-Campher. Sm. 115°. HCl (*A.* 250, 355, 357). — III, 502.
- 15) Oxim d. i-Campher. Sm. 118° (*Soc.* 71, 1048).
- 16) Oxim d. Isocampher. Sm. 105° (106°) (*B.* 29, 2817; *G.* 26 [2] 38, 510). — III, 502.
- 17) Oxim d. d-Caron. Fl. (*B.* 27, 3485; 28, 640). — III, 502.
- 18) Oxim d. l-Caron. Fl. (*B.* 28, 640).
- 19) Oxim d. i-Caron. Sm. 77—79° (*B.* 28, 640). — III, 503.
- 20) Oxim d. Carvenon. Sm. 91—92° (*A.* 277, 126). — III, 503.
- 21) Oxim d. Carvotanacetone. Sm. 92—93° (*B.* 27, 895; 28, 1959). — III, 504.
- 22) Oxim d. d-Dihydrocarvon. Sm. 88—89° (*A.* 275, 117). — III, 505.
- 23) Oxim d. l-Dihydrocarvon. Sm. 88—89° (*A.* 279, 381). — III, 505.
- 24) isom. Oxim d. l-Dihydrocarvon? Sm. 87—88° (*A.* 279, 381). — III, 505.
- 25) Oxim d. i-Dihydrocarvon. Sm. 145—116° (*A.* 275, 117; 300, 291). — III, 505.
- 26) Oxim d. Isodihydrocarvon. Sm. 111—112° (*A.* 279, 386). — III, 505.
- 27) isom. Oxim d. Isodihydrocarvon. Sm. 164—165° (*A.* 279, 386). — III, 505.
- 28) Oxim d. Dihydroeucarvon (3-Oximido-2,5,5-Trimethyl 1,2,3,4-Tetrahydro-R-Hepten). HJ (*B.* 31, 2071).
- 29) Oxim d. d-Fenchon. Sm. 164—165°; Sd. bei 240°. HCl (*A.* 259, 427; 263, 136; 276, 318; *B.* 29, 2818; *G.* 26 [2] 504). — III, 506.
- 30) Oxim d. l-Fenchon. Sm. 161° (*A.* 272, 104). — III, 506.
- 31) Oxim d. i-Fenchon. Sm. 158—160° (*A.* 272, 107). — III, 506.
- 32) Isooxim d. d-Fenchon. Sm. 137°. HCl, H₂SO₄ (*A.* 269, 332; 294, 335). — III, 506.
- 33) Isooxim d. l-Fenchon. α -Modif. Sm. 114—115°; β -Modif. Sm. 135 bis 137° (*A.* 272, 105). — III, 506.
- 34) Isooxim d. i-Fenchon. α -Modif. Sm. 98—99°; β -Modif. Sm. 160—161° (*A.* 272, 108). — III, 506.
- 35) Oxim d. Pinocamphon. Sm. 86—87° (*A.* 300, 288).
- 36) Oxim d. Pulegon. Sm. 118—119° (*A.* 277, 160; 289, 347; *B.* 30, 26). — III, 510.
- 37) Oxim d. Isopulegon. α -Modif. Sm. 120—121°; β -Modif. Sm. 134° (*B.* 29, 915; 30, 26; *C.* 1897 [2] 305). — III, 510.
- 38) Oxim d. Rhodinal (9-Oximido β -Dimethyl- β -Oktadien; Citraloxim). Sd. 143—145°₁₂ (*B.* 26, 2716; 26 [2] 404; 28, 2133). — III, 507.
- 39) Oxim d. Thujon (Oxim d. Tanacetone). Sm. 51,5° (53—54°). Sd. 135 bis 136°₂₀ (*B.* 25, 3344, 3352; *A.* 286, 94). — III, 511.
- 40) Oxim d. isom. Thujon. Sm. 90° (*A.* 277, 159; 286, 94). — III, 511.
- 41) Oxim d. Isothujon. Sm. 119—120° (*A.* 286, 95, 103; *B.* 28, 1958). — III, 511.
- 42) Oxim d. Keton C₁₀H₁₆O (aus Isolaurensäure). Sm. 64°; Sd. 140°₁₃ (*C.* 1897 [1] 814; *Bl.* [3] 19, 704).
- 43) Oxim d. Keton C₁₀H₁₆O (aus Nitrosomenthen). Sm. 115—115,5° (*Am.* 18, 773).
- 44) Trimethylbenzylammoniumhydrat. Chlorid (*Soc.* 57, 778). — II, 515.
- 45) Trimethyl-3-Methylphenylammoniumhydrat. 2 Chlorid + PtCl₄ (*B.* 11, 2280). — II, 477.

- C₁₀H₁₇ON** 46) Trimethyl-4-Methylphenylammoniumhydrat. 2 Chlorid + PtCl₄, Jodid (B. 10, 1586). — II, 484.
 47) Hydratderivat d. Geraniumsäurenitril. *Sd.* 152°₁₀ (Bl. [3] 15, 1002).
 48) Hydratderivat d. Isogeraniumsäurenitril. *Sm.* 115° (118°). *Sd.* 135°₁₀ (Bl. [3] 15, 1003; B. 31, 887).
 49) Dihydrocampholenimid (3,5-Anhydro-3-Amido-1,1,2-Trimethyl-R-Pentamethylen-5-Methylcarbonsäure). *Sm.* 108°; *Sd.* 266° (B. 30, 329).
 50) Amid d. 1,1,5-Trimethyl-2,3-Dihydro-R-Penten-2-Methylcarbonsäure (A. d. α-Campholensäure). *Sm.* 130° (B. 17, 808, 2071, 2401; 28, 2168; 29, 3009; Bl. [3] 13, 836; C. 1895 [1] 1145). — I, 1251.
 51) Amid d. 1,2,2-Trimethyl-2,3-Dihydro-R-Penten-3-Methylcarbonsäure (A. d. β-Campholensäure). *Sm.* 86° (B. 28, 2168; 30, 245; Bl. [3] 13, 836; C. 1895 [1] 50, 1145).
 52) Amid d. Fencholensäure. *Sm.* 113—114° (A. 269, 331; 284, 333; 300, 308).
 53) Amid d. Isogeraniumsäure. *Sm.* 121°; *Sd.* 208°₁₀ (Bl. [3] 15, 1003).
 54) Amid d. isom. Isogeraniumsäure. *Sm.* 202°; *subl.* bei 165°₁₀ (Bl. [3] 15, 1003; B. 31, 887).
 55) Amid d. Pulegensäure. *Sm.* 121—122° (A. 289, 351).
 56) Amid d. Säure C₁₀H₁₆O₂ (aus Pulegensäure). *Sm.* 152° (A. 300, 262).
 57) Verbindung (aus Campherroxim) (B. 28, 1127).
 58) Verbindung (aus Fencholensäureamid). *Sm.* 137°. HCl, H₂SO₄ (A. 269, 332; 284, 334).
 59) Verbindung (aus d. Verb. C₁₀H₁₆O₂N₂ aus Campherroxim). **Sm.* 106° (B. 28, 1127).
- C₁₀H₁₇ON₂** C 61,5 — H 8,7 — O 8,2 — N 21,5 — M. G. 195.
 1) 4-Semicarbazon-1,1,6-Trimethyl-1,2,3,4-Tetrahydrobenzol (Semicarbazon d. Isocampherphoron). *Sm.* 211° (B. 30, 250).
 2) 1-Semicarbazon-3,3,5-Trimethyl-1,2,3,4-Tetrahydrobenzol (Semicarbazon d. Phoron). *Sm.* 186° (A. 297, 189).
 3) Semicarbazon d. Nopinon. *Sm.* 188,5° (B. 29, 1928).
 4) Methyläther d. 6-Amido-2-Oxy-5-Methyl-2,4-Diäthyl-1,3-Diazin + H₂O (M. d. Oxykyanäthin). *subl.* bei 70°; *Sm.* 130° (wasserfrei). (2 HCl, PtCl₄), (HCl, AuCl₃), + AgNO₃ (J. pr. [2] 30, 153). — IV, 1133.
- C₁₀H₁₇OCl** 1) Chlormenthon. Fl. (B. 28, 1587). — III, 480.
 2) Pulegonhydrochlorid. *Sm.* 24—25° (B. 28, 653).
 3) Chlorid d. Campholsäure. *Sd.* 222—226° (220—222°) (A. 162, 265; Bl. [3] 11, 613). — I, 522.
 4) Chlorid d. Isocampholsäure. *Sd.* 135—137°₁₀₀ (Bl. [3] 13, 774).
- C₁₀H₁₇OBr₃** 1) 1-Brommenthondibromid. Fl. (A. 289, 376). — III, 480.
 2) Pinolbromhydrobromid. *Sm.* 160° (A. 259, 324; 281, 152). — III, 508.
 3) Verbindung (aus Diosmelaeopten) (J. pr. [2] 54, 440; C. 1896 [2] 552).
- C₁₀H₁₇OJ** 1) Jodwasserstoffcampher (B. 6, 936). — III, 487.
 2) Verbindung (aus d. Säure C₁₀H₁₆O₂ aus Petroleum) (B. 24, 1812). — I, 523.
- C₁₀H₁₇O₂N** C 65,6 — H 9,3 — O 17,5 — N 7,6 — M. G. 183.
 1) Diäthylphenyloxyammoniumoxydhydrat. Pikrat (B. 32, 352).
 2) Nitromenthen. Cu (J. r. 26, 381).
 3) Bisnitrosomenthon, siehe C₁₀H₁₆O₂N₂.
 4) 2-Oximidomenthon (G. 27 [2] 108).
 5) Oxybishydrocarvoxim. *Sm.* 133—134° (A. 291, 347, 356). — III, 483.
 6) Oxim d. Oxycampher (aus Campherchinon) + ¹/₂ H₂O. *Sm.* 86—87° (wasserhaltig); *Sm.* 121—122° (wasserfrei) (B. 30, 668).
 7) Oxim d. d-Oxycaron. *Sm.* 138° (B. 31, 3213).
 8) Oxim d. Diosphenol. *Sm.* 156° (J. pr. [2] 54, 437).
 9) Hydroazocamphen. α-Derivat *Sm.* 210°; *Sd.* 283° u. Zers.; β-Derivat *Sm.* 100—114°; *Sd.* 274°. Ca + 3 H₂O (J. 1887, 1119; B. 21 [2] 237, 352). — III, 522.
 10) Acetyltropein. *Sd.* 235—237°. (HCl, AuCl₃) (C. 1895 [1] 434).
 11) Trimethyl[2-Methoxyphenyl]ammoniumhydrat. Fl. 2 Chlorid + PtCl₄, Jodid (B. 13, 649; A. 207, 250). — II, 703.
 12) Trimethyl[4-Methoxyphenyl]ammoniumhydrat. 2 Chlorid + PtCl₄, Jodid (B. 13, 649). — II, 716.

- C₁₀H₁₇O₂N** 13) Lakton d. 5-Amido-3-Oxy-1,1,2-Trimethyl-R-Pentamethylen-5-Methylcarbonsäure (Amidocampholensäure). Sm. 250° u. Zers. HCl, (2HCl, PtCl₄) (M. 4, 650; Bl. [3] 15, 29). — I, 534.
- 14) Acetat d. ζ-Oximido-β-Methyl-β-Hepten. Sd. 140°₃₀ (Bl. [3] 17, 177).
- 15) Acetat d. Base C₉H₁₅ON (aus d-Lupandin). HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (C. 1897 [1] 1233).
- 16) Nitril d. α-Acetoxyheptan-α-Carbonsäure. Sd. 245°₁₀₀ (C. 1898 [2] 662).
- 17) Nitril d. γ-Acetoxy-ββ-Dimethylpentan-β-Carbonsäure. Sd. 112°₁₆ (M. 17, 675).
- 18) Imid d. ββ-Dimethylhexan-γδ-Dicarbonsäure. Sm. 62° (A. 292, 172).
- 19) β-Methylisoimid d. Camphersäure. Sm. 85–86,5°; Sd. 255–258° (HCl, AuCl₃) (R. 14, 269).
- 20) Verbindung (aus β-Amidocampholensäure). Sm. 228–230° (G. 26 [1] 419).
- 21) Verbindung (aus Isoamidocampher). Sm. 165° (B. 30, 330).
- 22) isom. Verbindung (aus Isoamidocampher). Sm. 111° (B. 30, 330).
- C₁₀H₁₇O₂Cl** 1) Pinolglykolchlorhydrin. α-Modif. Sm. 105–107°; β-Modif. Sm. 131–133° (B. 29, 888; C. 1899 [1] 50).
- 2) Pinolchlorhydrin. Sm. 52–54° (C. 1899 [1] 50).
- 3) Hydrochlorfencholensäure. Sm. 97–98° (A. 269, 336). — I, 522.
- 4) Aethylester d. trans-1-Chlormethylhexahydrobenzol-2-Carbonsäure. Sd. 145–147°₁₅ (A. 300, 177).
- 5) Isobutylester d. β-Chlor-α-Penten-γ-Carbonsäure? (I. d. β-Chlor-α-Aethyltetraakrylsäure). Sm. 207–208° (A. 249, 317). — I, 517.
- C₁₀H₁₇O₂Cl₃** 1) Oktylester d. Trichloressigsäure. Sd. 260° (Bl. 47, 960). — I, 471.
- C₁₀H₁₇O₂Br** 1) d-8-Brom-1-Oxytetrahydrocarvon. Sm. 69–72° (B. 31, 3211).
- 2) Bromdihydrosantiansäure. α-Modif. Sm. 150–151° u. Zers.; β-Modif. Sm. 145–146° (G. 22 [2] 28). — II, 1444.
- 3) Methylester d. Bromdihydroisolauronolsäure. Sd. 123–126°₈₀ (Soc. 73, 838).
- C₁₀H₁₇O₂P** 1) Dimethyl-m-Xylolphosphindioxydhydrat. + HgCl₂ (B. 31, 2920).
- C₁₀H₁₇O₃N** C 60,3 — H 8,5 — O 24,1 — N 7,0 — M. G. 199.
- 1) Nitromenthon. Sd. 135–140°₁₅ (J. r. 27, 410; Bl. [3] 15, 171; B. 31, 1478). — III, 480.
- 2) ζ-Cyan-ζ-Oxy-β-Methylheptan-δ-Carbonsäure + H₂O (Isobutyloxycyanvaleriansäure). Sm. 95–96° (Soc. 73, 53).
- 3) α-Campheraminsäure. Sm. 174–176° (176–177°). Cu + 4H₂O, Ag (A. 60, 326; 197, 321; 274, 79; B. 26, 242, 1522; Am. 16, 501; R. 14, 258; G. 26 [1] 416). — I, 1392.
- 4) β-Campheraminsäure. Sm. 182–183°. Na (B. 27, 918; Am. 16, 309, 502; R. 14, 265).
- 5) α-Tanacetketoximcarbonsäure (α-Thujaketoximsäure). Sm. 168,5° (B. 25, 3347; 30, 423; A. 272, 115). — II, 1485.
- 6) β-Tanacetketoximcarbonsäure (β-Thujaketoximsäure). Sm. 103° (104 bis 106°) (B. 25, 3348; A. 272, 116). — II, 1485.
- 7) Isothujaketoximsäure. Sm. 153° (B. 30, 426).
- 8) Oximidopinonsäure. 2 isom. Form. α-Modif. Sm. 125°; β-Modif. Sm. 160° (B. 28, 1346).
- 9) l-Pinonsäureoxim (α-Oxim). Sm. 150° (B. 29, 24, 534, 2785).
- 10) d-Pinonsäureoxim (β-Oxim). Sm. 128° (131°) (B. 29, 534, 2786).
- 11) l-Pinonsäureoxim (γ-Oxim). Sm. 190–191° (B. 29, 535, 2787).
- 12) isom. l-Pinonsäureoxim. Sm. 147° (B. 29, 3016).
- 13) Oxim d. Säure C₁₀H₁₆O₃ (aus Campherchinon). Sm. 163–164° (B. 30, 3159).
- 14) βγ-Lakton d. β-Oxy-ζ-Oximido-β-Methylheptan-γ-Methylcarbon-säure. Sm. 76–77° (80–81°) (B. 28, 1775, 1779, 2618; A. 291, 343).
- 15) Oxim d. Ketolakton C₁₀H₁₆O₃ (aus Thujamenthon). Sm. 156° (B. 30, 428).
- 16) d-Methylecgonin. Sm. 264° u. Zers. HCl, (HCl, AuCl₃) (B. 23, 511). — III, 865.
- 17) Methylester d. Ecgonin. Sd. 177°₁₅. HCl + H₂O (Sm. 212°) (B. 21, 3336; 27, 1523).
- 18) Methylester d. α-Ecgonin. Sm. 114°. (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃), Pikrat (B. 29, 2220). — III, 872.

- C₁₀H₁₇O₃N** 19) **Methylester d. d-Ecgonin.** Sm. 115° (B. 23, 472, 928). — III, 865.
 20) **Methylester d. l-Ecgonin.** HCl + H₂O (B. 21, 3336). — III, 864.
 21) **Aethylester d. Nor-d-Ecgonin.** Sm. 137° (B. 26, 1484). — III, 863.
 22) **Aethylester d. 5-Keto-2,4,4-Trimethyltetrahydropyrrol-2-Carbonsäure** (Ae. d. Mesitylsäure). Sm. 90° (87°) (B. 14, 1074; 15, 578; M. 13, 608). — II, 1009.
 23) **Amid d. β-γ-Diketononan-γ-Carbonsäure** (Ae. d. Diacetylcapronsäure) + 2H₂O. Sm. 228° u. Zers. (Soc. 55, 342). — I, 1388.
 24) **Monamid d. δ-Methyl-α-Penten-αβ-Dicarbonsäuremonäthylester** (Ae. d. Isobutylfumaraminsäure). Sm. 87° (A. ch. [5] 20, 493). — I, 1392.
C₁₀H₁₇O₃N₂ C 52,9 — H 7,5 — O 21,1 — N 18,5 — M. G. 227.
 1) **Verbindung** (aus d. Lakton d. β-Diacetylbernsteinsäuremonäthylester). Sm. 260° u. Zers. (B. 27, 1163). — III, 717.
C₁₀H₁₇O₃Cl 1) **Aethylester d. α-Chlor-β-Keto-γ-Aethylpentan-γ-Carbonsäure** (Ae. d. Chlordiäthylacetessigsäure). Sd. 210—220° u. Zers. (A. 231, 235). — I, 609.
C₁₀H₁₇O₃Cl₂ 1) **Aethylester d. βββ-Trichlor-α-Oxyisobutterisobutyläthersäure.** Sd. 166° (J. pr. [2] 41, 525). — I, 565.
C₁₀H₁₇O₃Br 1) **Aethylester d. β-Brom-ε-Keto-β-Methylhexan-δ-Carbonsäure** (Ae. d. Bromisobutylacetessigsäure). Fl. (Bl. 31, 513). — I, 609.
 2) **Aethylester d. α-Brom-β-Keto-γ-Aethylpentan-γ-Carbonsäure.** Sd. 245—255° u. Zers. (B. 31, 2954).
C₁₀H₁₇O₃P 1) **α-Camphenphosphonsäure** + 2H₂O. Sm. bei 160°. NH₄, Na + 4H₂O, Ba + 5H₂O, Zn (Soc. 65, 37). — IV, 1681.
 2) **β-Camphenphosphonsäure.** Sm. 167° u. Zers. NH₄, Na + 5H₂O (Soc. 65, 38). — IV, 1681.
C₁₀H₁₇O₄N C 55,8 — H 7,9 — O 29,8 — N 6,5 — M. G. 215.
 1) **Camphermonohydroxamsäure.** Na₂, Cu + 2H₂O (G. 24, [2] 346).
 2) **Oxycampheraminsäure** + H₂O. Sm. 155—156°. Ca + 2H₂O, Cu (A. 183, 340; B. 26, 1528). — I, 1397.
 3) **Cinneolaminsäure** (A. 271, 25). — I, 1398.
 4) **d-N-Aethylcincholoiponsäure.** Sm. 214—215° u. Zers. (B. 30, 1333).
 5) **l-N-Aethylcincholoiponsäure.** Sm. 228° u. Zers. Ba (B. 30, 1334).
 6) **2-Methylester d. Hexahydrobenzol-1-Methylcarbonsäure-2-Carbaminsäure.** Sm. 153,5° (B. 27, 1476). — II, 1128.
 7) **Methylester d. Dioxyanhydroecgonin.** Sm. 138—139°. (2HCl, PtCl₄) (B. 25, 1396). — III, 872.
 8) **Dimethylester d. d-Tropinsäure.** Sd. 268—272°. Pikrat (B. 28, 3279). — III, 793.
 9) **Dimethylester d. i-Tropinsäure.** Sd. 268—272° u. ger. Zers. Pikrat (B. 24, 610; 28, 3278). — III, 793.
 10) **2-Aethylester d. Hexahydrobenzol-1-Carbonsäure-2-Carbaminsäure.** Sm. 158,5° (A. 295, 201).
 11) **Diäthylester d. γ-Amido-β-Buten-αβ-Dicarbonsäure** (D. d. α-Amidoäthylidenbernsteinsäure). Sm. 62° (A. 260, 140; B. 20, 3058). — I, 1215.
C₁₀H₁₇O₄N₂ C 49,4 — H 7,0 — O 26,3 — N 17,3 — M. G. 243.
 1) **Säure** (aus Phellandrennitrit). Sm. 75—76°. Pb, Cu (G. 16, 227). — III, 530.
C₁₀H₁₇O₄Cl 1) **Chlorsebacinsäure** (J. 1853, 429).
 2) **Diäthylester d. δ-Chlorbutan-αβ-Dicarbonsäure** (D. d. Chloräthylbernsteinsäure). Sd. 189°₄₃ (M. 11, 518). — I, 675.
 3) **Diäthylester d. δ-Chlorbutan-αγ-Dicarbonsäure** (D. d. δ-Chlor-α-Methylglutarsäure). Sd. 184°₆₀ (M. 11, 504). — I, 675.
 4) **Diäthylester d. δ-Chlorbutan-ββ-Dicarbonsäure.** Sd. 127—128° (A. 294, 103).
 5) **Diisopropylester d. d-Chlorbernsteinsäure** (B. 31, 1419; C. 1898 [2] 917).
C₁₀H₁₇O₄Br 1) **δ-Brom-β-Methylheptan-εγ-Dicarbonsäure** (Bromisoamylglutarsäure). Sm. 109° (A. 282, 351).
 2) **Diäthylester d. δ-Brombutan-ββ-Dicarbonsäure.** Sd. 134—135° (B. 28, 8; A. 294, 102).
 3) **Dipropylester d. d-Brombernsteinsäure** (B. 31, 1418).
 4) **Diisopropylester d. d-Brombernsteinsäure** (B. 31, 1418).

- C₁₀H₁₇O₅N** C 51,9 — H 7,4 — O 34,6 — N 6,1 — M. G. 231.
 1) δ -Oximido- $\gamma\gamma$ -Dimethylpentan- α -Carbonsäure- β -Methylcarbonsäure (Isoketocampfersäureoxim). Sm. 185—186° (B. 29, 3017).
- C₁₀H₁₇O₅Cl** 1) Monäthylester d. β -Chlor- β -[α -Oxyisopropyl]propan- α - γ -Dicarbonsäure (M. d. β -Chlor- β -Oxyisopropylglutarsäure). Sd. 175—178° (J. pr. [2] 41, 521). — I, 756.
- C₁₀H₁₇O₅N** C 48,6 — H 6,9 — O 38,9 — N 5,6 — M. G. 247.
 1) Triacetat d. β -Amido- $\alpha\gamma$ -Dioxy- β -Oxymethylpropan. HCl (Sm. 132 bis 133°) (B. 30, 2065).
 2) Verbindung (aus Natriumnitroäthan u. Fumarsäurediäthylester). Fl. (B. 29, 1796).
- C₁₀H₁₇O₇N** C 45,6 — H 6,5 — O 42,6 — N 5,3 — M. G. 263.
 1) Triacetat d. β -Hydroxylamido- $\alpha\gamma$ -Dioxy- β -Oxymethylpropan. Oxalat + $\frac{1}{2}$ H₂O (B. 31, 222).
- C₁₀H₁₇NS** 1) Camphelylsenfö. Sm. 24° (G. 23 [2] 505).
- C₁₀H₁₇NS₂** 1) Dekahydrochinolin-1-Dithiocarbonsäure. Dekahydrochinolinsalz (Sm. 120°) (B. 23, 1151). — IV, 55.
- C₁₀H₁₇N₂Cl** 1) Chloräthylat d. uns-Aethylphenylhydrazin. Sm. 197—198°. 2 + PtCl₄ (A. 252, 273). — IV, 659.
- C₁₀H₁₇N₂Br** 1) Bromäthylat d. uns-Aethylphenylhydrazin. Zers. bei 193° (A. 190, 104; B. 17, 2843). — IV, 659.
- C₁₀H₁₇N₂J** 1) Jodäthylat d. uns-Aethylphenylhydrazin. Sm. 145° u. Zers. (A. 252, 273). — IV, 659.
- C₁₀H₁₈ON₂** C 65,9 — H 9,9 — O 8,8 — N 15,4 — M. G. 182.
 1) 2-[β -Oximido- β -Amidoäthyl]-1,1,5-Trimethyl-2,3-Dihydro-R-Penten (α -Campholenamidoxim). Sm. 102°. HCl (B. 17, 2070; 29, 3008).
 2) Aethyloxydhydrat d. uns-Aethylphenylhydrazin. Chlorid, Bromid, Jodid, Ferrieyanat + 2H₂O (A. 190, 104, 187; 252, 273; B. 17, 2843). — IV, 658.
 3) Terpinennitrolamin. Sm. 116—118°. HCl (A. 241, 321). — III, 532.
 4) Harnstoff (aus d. Phoronbase C₉H₁₇N). Sm. 185° (A. 290, 142). — IV, 56.
- C₁₀H₁₆OBr₂** 1) 4-Brom-1-Oxy-4-[α -Bromisopropyl]-1-Methylhexahydrobenzol. Sm. 114—115° (B. 27, 444). — III, 481.
 2) Cineolbromid (Cajeputolbromid) (B. 7, 598; A. 225, 303). — III, 474.
- C₁₀H₁₆OBr₄** 1) Geranioltetrabromid. Fl. (Bl. [3] 19, 86).
 2) Tetrabromid d. Licareol. Fl. (B. 26 [2] 404).
- C₁₀H₁₆OJ₂** 1) Cineoljodid (A. 225, 306). — III, 474.
- C₁₀H₁₆O₂N₂** C 60,6 — H 9,1 — O 16,2 — N 14,1 — M. G. 198.
 1) 1,2-Di[Acetylamido]hexahydrobenzol. Sm. 260—261° (A. 295, 214). — IV, 481.
 2) 1,3-Di[Acetylamido]hexahydrobenzol. Sm. 256° (A. 278, 38).
 3) 1,4-Di[Acetylamido]hexahydrobenzol. Sm. über 310° (B. 22, 2172). — I, 1239.
 4) ζ 9-Dioximido- β -Methyl- β -Nonen. Sm. 109—110° (Bl. [3] 17, 749).
 5) polym. γ -Oximido- β -Methyl- α -Buten. Sm. 67—68°; Sd. 120—122° (A. 262, 347). — I, 1031.
 6) 4-Oximido-3-[α -Oximidoäthyl]-1-Isopropyl-R-Pentamethylen. Sm. 165° (B. 29, 33).
 7) 4-Oximido-3-[α -Oximidoisobutyl]-1-Methyl-R-Pentamethylen. Sm. 144° (B. 29, 29).
 8) β -[3-Oxamido-5-Oximido-4-Methylhexahydrophenyl]propen (Oxamidocarvoxim). Sm. 60—65°; Sd. 190°₈₋₇. Oxalat, Pikrat (B. 31, 1810; 32, 1345).
 9) Pinolnitrolamin. Sd. 129—130°₁₄. HCl (A. 253, 262). — III, 508.
 10) Pernitrosomenthon (G. 26 [2] 511).
 11) Amid d. Campfersäure. Sm. 192—193° (A. 60, 326; 197, 321; 275, 307). — I, 1393.
 12) Verbindung (aus Carvon) oder C₁₀H₁₆O₂N₂. Sm. 174—175° (A. 279, 368; B. 32, 1347). — III, 113.
 13) Verbindung (aus 1,4-Dioxybenzol u. Diäthylendiamin). Sm. 195° u. Zers. (B. 24, 3242). — II, 939.
- C₁₀H₁₈O₂N₄** C 53,1 — H 8,0 — O 14,1 — N 24,8 — M. G. 226.
 1) 1,1'-Dinitroso-2,2'-Dipiperidyl. Sm. 159° (M. 10, 386). — IV, 492.

- $C_{10}H_{15}O_2N$ 2) 1,1'-Dinitroso-2,3'-Dipiperidyl. Sm. 87,5—88,5° (M. 13, 338). — IV, 493.
- 3) 1,1'-Dinitroso-4,4'-Dipiperidyl. Sm. 141—143° (B. 24, 1479). — IV, 492.
- $C_{10}H_{15}O_2Cl$ 4) Dinitrosodipiperidyl (aus Nikotin). Fl. (B. 18, 2970). — IV, 492.
- 1) Pinenhypochlorit. Fl. (Z. 1868, 170; C. 1899 [1] 50). — III, 521.
- 2) Oktylester d. Dichloressigsäure. Sd. 244° (Bl. 47, 960). — I, 470.
- $C_{10}H_{15}O_2Br$ 1) Pinolhydratdibromid. Sm. 131—132° (A. 291, 353). — III, 508.
- 2) Dibromnonan-?-Carbonsäure (Dibromcaprinsäure). Sm. 135° (B. 12, 193). — I, 488.
- 3) Dibromderivat d. Säure $C_{10}H_{20}O_2$ (B. 10, 455—456 Anm.).
- 4) Aethylester d. β ;-Dibromheptan- β -Dicarbonsäure. Fl. (B. 29, 1999).
- $C_{10}H_{15}O_2S$ 1) Isobutyldioxysulfocarbonat (B. 5, 976). — I, 886.
- $C_{10}H_{15}O_2N$ C 56,1 — H 8,4 — O 22,4 — N 13,1 — M. G. 214.
- 1) Menthonbisnitrosylsäure (B. 28, 1587). — III, 480.
- 2) Tetrahydrocarvonbisnitrosylsäure. Sm. 82° u. Zers. (B. 28, 1589; 29, 33). — III, 503.
- $C_{10}H_{15}O_2Cl$ 1) Isobutylester d. Dichloroxyessigisobutyläthersäure. Sd. 128°₁₄ (A. 254, 22). — I, 552.
- 2) Verbindung (aus Acetaldehyd). Sm. 98° (A. 162, 102). — I, 916.
- $C_{10}H_{15}O_2S$ 1) Hydrocamphensulfonsäure. Ba (A. ch. [5] 19, 145). — II, 18.
- $C_{10}H_{15}O_2N$ C 52,2 — H 7,8 — O 27,8 — N 12,2 — M. G. 230.
- 1) Oxytetrahydrocarvonbisnitrosylsäure. Sm. 184° (B. 29, 16). — III, 503.
- 2) Dimethylester d. α -Azoisobuttersäure. Sm. 33° (A. 290, 35).
- 3) Diäthylester d. Hexahydro-1,4-Diazin-1,4-Dicarbonsäure (D. d. Piperazin-1,4-Dicarbonsäure). Sm. 42°; Sd. 315° (J. pr. [2] 53, 20).
- 4) polym. Amid d. Butyrylameisensäure (polym. Butyrylformamid). Sm. 150° (M. 15, 752).
- 5) polym. Amid d. Isobutyrylameisensäure. Sm. 148° (M. 15, 765).
- 6) Verbindung (aus Isodehydracetsäureäthylester). Sm. 104° u. Zers. (A. 259, 177). — I, 777.
- $C_{10}H_{15}O_4S$ 1) Thiodiisovaleriansäure (J. pr. [2] 33, 113). — I, 897.
- 2) Borneolschwefelsäure. K (J. 1887, 722; Bl. [3] 17, 896). — III, 471.
- 3) Citralhydrosulfonsäure. Na (B. 31, 3322; Bl. [3] 19, 1012).
- 4) d-Fencholschwefelsäure. K (Bl. [3] 17, 1056).
- $C_{10}H_{15}O_5N$ C 48,8 — H 7,3 — O 32,5 — N 11,4 — M. G. 246.
- 1) Isoamylester d. Allophanylmilchsäure. Sm. 131° (B. 22, 1577). — I, 1308.
- $C_{10}H_{15}O_6S$ 1) Sulfondiisovaleriansäure. Fl. Ba + 7H₂O (J. pr. [2] 33, 114). — I, 897.
- 2) Diäthylester d. α -Sulfondipropionsäure. Fl. (B. 17, 2822). — I, 895.
- 3) Diäthylester d. β -Sulfondipropionsäure. Sm. 82,5° (B. 29, 1139).
- $C_{10}H_{15}NCl$ 1) Chlormethylat d. β -Methyltropidin. 2 + PtCl₄ (B. 24, 3125).
- 2) Chloräthylat d. Tropidin. + AuCl₃ (A. 217, 123). — III, 789.
- 3) Verbindung (aus l-Menthonoxim). Fl. (A. 289, 381, 388). — III, 479.
- $C_{10}H_{15}NJ$ 1) Jodmethylat d. α -Methyltropidin. Sm. 162° u. Zers. (B. 24, 3118). — III, 789.
- 2) Jodmethylat d. β -Methyltropidin (B. 24, 3125). — III, 789.
- 3) Jodmethylat d. n-Methylgranatenin. Sm. noch nicht bei 315° (B. 26, 2745). — IV, 53.
- 4) Jodäthylat d. Tropidin (B. 12, 946; A. 217, 122). — III, 789.
- $C_{10}H_{15}N_4S$ 1) $\alpha\alpha'$ -Aethylendi[β -Allylthioharnstoff]. Fl. (A. 228, 234). — I, 1324.
- 2) Dimethylester d. Dithioisoamylmelanurensäure. Sm. 96° (B. 18, 2778). — I, 1542.
- 3) Dimethylderivat d. Dipropylpseudohydrazodicarbonthioamid. Fl. (B. 29, 863).
- $C_{10}H_{19}ON$ C 71,0 — H 11,2 — O 9,5 — N 8,3 — M. G. 169.
- 1) Amidoborneol. Sm. 187° (wasserfrei); Sd. 264°₇₅₁. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrolonat (B. 31, 1903).
- 2) 4-Amido-3-Keto-4-Isopropyl-1-Methylhexahydrobenzol (Amidomenthon). Sd. 118°₁₃ (235—237°). HCl (B. 29, 926; 31, 1479). — III, 480.
- 3) 2-Amidomenthon. HCl, (2HCl, PtCl₄) (G. 27 [2] 110).
- 4) Pulegonamin. Fl. HCl (A. 262, 13). — III, 510.

- C₁₀H₁₉ON**
- 5) γ -Oximidomethyl- β -Dimethyl- γ -Hepten. Sd. 125°₂₀ (M. 17, 136; 18, 194; C. 1895 [2] 287).
 - 6) Oxim d. Carvanon. Sm. 104—104,5° (Soc. 73, S58).
 - 7) Oxim d. Diosmelaeopten. Sd. 140—143°₂₀ (J. pr. [2] 54, 439).
 - 8) Oxim d. d-Menthon. Fl. HCl (A. 250, 337; 289, 384). — III, 479.
 - 9) α -Isooxim d. d-Menthon. Sm. 88°. HCl (A. 289, 384). — III, 479.
 - 10) β -Isooxim d. d-Menthon. Fl. (A. 289, 384). — III, 479.
 - 11) Oxim d. l-Menthon. Sm. 58°. HCl (A. 250, 329; 289, 381). — III, 479.
 - 12) α -Isooxim d. l-Menthon. Sm. 119—120°; Sd. 295°. HCl (A. 277, 156; 278, 304; 289, 382). — III, 479.
 - 13) β -Isooxim d. l-Menthon. Fl. (A. 289, 382). — III, 479.
 - 14) Oxim d. i-Menthon. Sm. 78—82° (Am. 16, 400). — III, 480.
 - 15) Oxim d. act. Tetrahydrocarvon. Sm. 97—99° (A. 287, 377). — III, 484.
 - 16) Oxim d. i-Tetrahydrocarvon. Sm. 105° (B. 28, 1962; A. 277, 134). — III, 484.
 - 17) Isooxim d. i-Tetrahydrocarvon. α -Modif. Sm. 51—52°; β Modif. Sm. 104° (A. 277, 136). — III, 484.
 - 18) Oxim d. Thujamenthon. Sm. 95° (A. 286, 105; B. 28, 1959).
 - 19) isom. Oxim d. Thujamenthon. Sm. 113—114° (B. 28, 1959). — III, 485.
 - 20) Oxim d. Citronellalsäurealdehyd. Sd. 135—136°₁₄ (B. 26, 2255). — III, 475.
 - 21) Aethyltropin. (2HCl, PtCl₄), HJ (A. 133, 91). — III, 787.
 - 22) 5-Oxymethyl-6-Methyl-1-Propyl-1,2,3,4-Tetrahydropyridin. Sd. 225°₇₅₈. Pikrat (A. 304, 77).
 - 23) 6-Methyl-5-[α -Oxyäthyl]-1-Aethyl-1,2,3,4-Tetrahydropyridin. Sd. 221—223°₇₆₄. (HCl, HgCl₂), (2HCl, PtCl₄), Pikrat (A. 304, 63).
 - 24) 1-Acetyl-2-Propylhexahydropyridin (Acetylconiin). Sd. 125°₁₄ (B. 26, 859). — IV, 33.
 - 25) 1-Acetyl-2-Methyl-5-Aethylhexahydropyridin. Sd. 254° (A. 247, 92). — IV, 39.
 - 26) 4-Keto-1,2,2,6,6-Pentamethylhexahydropyridin (Methyltriacetonamin). Fl. (2HCl, PtCl₄) (B. 28 [2] 160).
 - 27) γ -Keto- β -Piperidyl- β -Methylbutan. Sd. 219—220°. (2HCl, PtCl₄) (A. 248, 173). — IV, 22.
 - 28) Amid d. 1-Isopropylhexahydrobenzol-4-Carbonsäure. Sm. 169,5 bis 170,5° (J. pr. [2] 57, 100).
 - 29) Amid d. Citronellalsäure. Sm. 82—83°; Sd. 165—167°₁₂ (A. 296, 125; B. 31, 2902).
 - 30) Amid d. Dekanaphtensäure. Sm. 101—105° (J. r. 19, 156). — I, 1250.
 - 31) Amid d. Campholsäure. Sm. 79—80° (G. 22 [1] 212; Bl. [3] 11, 611). — I, 1250.
 - 32) Amid d. Isocampholsäure. Sm. 116° (Bl. [3] 13, 775).
 - 33) Amid d. Menthonensäure. Sm. 104—105°; Sd. 165—167°₁₂ (A. 278, 311; 296, 125).
- C₁₀H₁₉ON₃**
- C 60,9 — H 9,6 — O 8,1 — N 21,3 — M. G. 197.
- 1) Nitrosohexahydronikotin. Fl. (B. 26, 1033). — IV, 857.
 - 2) 2-Semicarbazon-1,3-Diäthyl-R-Pentamethylen. Sm. 196—197° (B. 30, 1542).
 - 3) 5-Semicarbazon-1,1,3-Trimethylhexahydrobenzol. Sm. 204° (A. 297, 199).
 - 4) Dihydrocamphoketonsemicarbazon. Sm. 202—203° (Soc. 73, 27).
 - 5) Semicarbazon d. Thujaketon. Sm. 143° (B. 30, 425).
- C₁₀H₁₉OCl**
- 1) Chlorid d. Caprinsäure. Sd. 200—220° (A. 157, 272; B. 23, 2385). — I, 460.
 - 2) Chlorid d. β -Dimethylheptan- δ -Carbonsäure. Sd. 95°₂₀ (Soc. 73, 62).
 - 3) Verbindung (aus d. Keton C₁₀H₁₈O) (A. 188, 140). — I, 1010.
- C₁₀H₁₉OBr**
- 1) Cineolhydrobromid. Sm. 56—57° (B. 17, 2609; A. 246, 281). — III, 474.
- C₁₀H₁₉OJ**
- 1) Verbindung (aus d. Keton C₁₀H₁₈O) (A. 188, 140). — I, 1010.
- C₁₀H₁₉O₂N**
- C 64,8 — H 10,3 — O 17,3 — N 7,6 — M. G. 185.
- 1) 4-Nitro-5-Aethyl-1,3-Dimethylhexahydrobenzol. Sd. 148—150°₂₀ (C. 1899 [1] 176).

- C₁₀H₁₉O₃N** 2) **5-Nitro-5-Aethyl-1,3-Dimethylhexahydrobenzol**. *Sd.* 146—148°₄₀ (*C.* 1899 [1] 176).
 3) **5-Oximido-4-Oxy-1-Methyl-4-Isopropylhexahydrobenzol**. *Sm.* 132 bis 133° (*B.* 27, 1640).
 4) **Pulegonoximhydrat**. *Sm.* 157° (147°) (*A.* 262, 6; 289, 349; *B.* 25 [2] 110; 29, 915; 30, 29). — III, 510.
 5) **Tropinneurin** (*C.* 1898 [1] 740; 1899 [1] 119).
 6) **β-Amidocampholsäure**. *HCl*, (2 *HCl*, *PtCl*₄) (*R.* 14, 265; *G.* 26 [1] 418).
 7) **α-[1-Hexahydropyridyl]isovaleriansäure**. *Sm.* 152—155° (*B.* 31, 2843).
 8) **Methylester d. Dihydroamidocampholytischen Säure**. *HCl*, (2 *HCl*, *PtCl*₄) (*B.* 27, 918; *Am.* 16, 308).
 9) **Aethylester d. β-Diäthylamidopropen-α-Carbonsäure** (Ae. d. β-Diäthylamidocrotonsäure). *Sd.* 160—163°₁₀ (*B.* 18, 619). — I, 1207.
 10) **Aethylester d. α-[1-Hexahydropyridyl]propionsäure**. *Sd.* 217°₁₀₀ (*B.* 9, 41; 31, 2841). — IV, 20.
 11) **Aethylester d. β-[1-Hexahydropyridyl]propionsäure**. *Sd.* 217—219° (*B.* 32, 727).
 12) **Acetat d. 1-[γ-Oxypropyl]hexahydropyridin**. *HCl*, (*HCl*, *AuCl*₃) (*B.* 14, 2409; 15, 1144). — IV, 19.
 13) **Amid d. 3-Oxy-1,1,2-Trimethyl-R-Pentamethylen-5-Methylcarbon-säure** (Oxydihydrocampholenamid). *Sm.* 184° (*B.* 30, 329).
 14) **Amid d. Isocampholsäure**. *Sm.* 116° (*B.* 27 [2] 668).
- C₁₀H₁₉O₂Cl** 1) **Oktylester d. Chloressigsäure**. *Sd.* 234° (*Bl.* 47, 960). — I, 468.
 2) **p-Chloroktylester d. Essigsäure**. *Sd.* 225° (*A.* 152, 322). — I, 411.
- C₁₀H₁₉O₂Cl₃** 1) **Diisobutyläther d. βββ-Trichlor-αα-Dioxyäthan**. *Sd.* 241,7°₁₀₀ (*G.* 26, [2] 471).
- C₁₀H₁₉O₂Br** 1) **γ-Bromnonan-α-Carbonsäure**. *Fl.* (*A.* 227, 92). — I, 487.
 2) **Aethylester d. α-Bromheptan-α-Carbonsäure**. *Sd.* 245—247° (*B.* 24, 2223). — I, 487.
 3) **Aethylester d. δ-Brom-β-Methylhexan-δ-Carbonsäure**. *Sd.* 160 bis 165°_{80–100} (*Bl.* [3] 13, 185).
- C₁₀H₁₉O₃N** C 59,7 — H 9,4 — O 23,9 — N 7,0 — M. G. 201.
 1) **Oxim d. 1-Ketoterpin**. *Sm.* 163° (*B.* 31, 3215).
 2) **β-Oximido-γ-Methyloktan-η-Carbonsäure** (Oxim d. αε-Dimethyl-ε-Acetylcapronsäure). *Fl.* (*Soc.* 59, 584). — I, 612.
 3) **ε-Oximido-βζ-Dimethylheptan-α-Carbonsäure** (Menthoximsäure). *Sm.* 98,5° (103°; 96,5°). *Na*, *Cu*, *Ag* (*B.* 27, 1914; 29, 27; *A.* 289, 371).
 4) **ε-Oximido-β-Isopropylhexan-α-Carbonsäure**. *Sm.* 75—78° (*B.* 29, 31).
 5) **Oxim d. Säure C₁₀H₁₉O₃** (aus Tetrahydroeucarvon). *Sm.* 101—102° (*B.* 31, 2073).
 6) **Aethylester d. β-Oximido-γ-Aethylpentan-γ-Carbonsäure**. *Sm.* 56 bis 57° (*B.* 16, 2997; *G.* 28 [1] 275). — I, 497.
 7) **Aethylester d. Oxyhexinaminsäure**. *Sm.* 78—79° (*A. ch.* [5] 20, 490).
 8) **Aethylester d. Isooxyhexinaminsäure**. *Sm.* 94—95° (*A. ch.* [5] 20, 492).
 9) **Monamid d. Oktan-αζ-Dicarbonsäure** (Sebaminsäure). *Sm.* 170° (*A.* 82, 126; *J.* 1863, 358; *C.* 1896 [2] 1091). — I, 1387.
 10) **Diisobutylmonamid d. Oxalsäure** (Diisobutyloxaminsäure). *Ca* (*A. ch.* [6] 13, 532). — I, 1363.
- C₁₀H₁₉O₃N₂** C 52,4 — H 8,3 — O 21,0 — N 18,3 — M. G. 229.
 1) **ζ-Semicarbazon-β-Methylheptan-β-Carbonsäure**. *Sm.* 198° (*B.* 31, 883).
 2) **ζ-Semicarbazon-β-Methylheptan-δ-Carbonsäure**. *Sm.* 192° u. Zers. (*C.* 1898 [1] 108; *Soc.* 73, 52).
 3) **ε-Semicarbazon-γγ-Dimethylhexan-α-Carbonsäure**. *Sm.* 164° (*B.* 31, 859).
- C₁₀H₁₉O₄N** C 55,3 — H 8,7 — O 29,5 — N 6,4 — M. G. 217.
 1) **Nitrocaprinsäure**. *Ag* (*A.* 104, 293). — I, 498.
 2) **ζ-Nitro-βζ-Dimethylheptan-α-Carbonsäure**. *Na*₂ (*J. r.* 27, 410).
 3) **Aethylester d. Nitrocaprylsäure** (*A.* 104, 294). — I, 498.
 4) **Diäthylester d. α-Dimethylamidobernsteinsäure**. *Fl.* (*C.* 1896 [2] 537).
 5) **Diäthylester d. Aethylimidodiessigsäure**. *Sd.* 200—220° (*A.* 145, 230). — I, 1192.
 6) **Verbindung** (aus Conylurethan). *Fl.* *NH*₄, *Ag* (*B.* 15, 1948). — IV, 33.
- C₁₀H₁₉O₅N** C 51,5 — H 8,2 — O 34,3 — N 5,9 — M. G. 233.
 1) **Aethylester d. Aethylaminoxaleessigsäure**. *Sm.* 107° (*A.* 295, 354).

- $C_{10}H_{19}NBr_2$ 1) 1-Menthyldibromamin (*J. pr.* [2] [52](#), [426](#); *J. r.* [27](#), [538](#)). — IV, [42](#).
- $C_{10}H_{19}N_2Cl$ 1) Verbindung (aus d. Diäthylamid d. Ameisensäure). Fl. (2HCl, PtCl₄) (*A.* [214](#), [241](#); *B.* [14](#), [750](#)). — I, [1235](#).
- $C_{10}H_{20}ON_2$ C [65,2](#) — H [10,9](#) — O [8,7](#) — N [15,2](#) — M. G. [184](#).
- 1) 3-Oximido-4-Amido-4-Isopropyl-1-Methylhexahydrobenzol (Amidomenthonoxim). Sd. 182—185°₂₀. HCl (*B.* [31](#), [1480](#)).
- 2) Dekamethylnitrosimin. Sd. 160°₁₃ (*B.* [25](#), [2254](#)). — I, [1146](#).
- 3) Camphelylharnstoff. Sm. 116—117° (*G.* [22](#) [1] [220](#)). — I, [1300](#).
- 4) Harnstoff (aus Isophorylamin). Sm. 185° (*A.* [299](#), [223](#)).
- 5) stabil. 4-Acetylamido-2,2,6-Trimethylhexahydropyridin. Sm. [108](#) bis [109°](#); Sd. 154°₁₁. Acetat (*B.* [29](#), [526](#); *A.* [294](#), [357](#)). — IV, [485](#).
- 6) lab. 4-Acetylamido-2,2,6-Trimethylhexahydropyridin. Sm. 85—86°. Acetat (*A.* [294](#), [367](#)). — IV, [486](#).
- 7) γ-Oximido-β-Piperidyl-β-Methylbutan (Amylennitrolpiperidid). Sm. [95](#) bis [96°](#) (96—97°). (2HCl, PtCl₄) (*A.* [241](#), [303](#); [248](#), [172](#); *J.* [1888](#), [682](#); *Soc.* [65](#), [3251](#)). — IV, [8](#), [22](#).
- $C_{10}H_{20}OCl_2$ 1) Di[α-Chlorisoamyl]äther. Sd. 180° (*B.* [8](#), [414](#)). — I, [850](#).
- $C_{10}H_{20}OBr_2$ 1) αβ-Dibrom-δ-Oxy-ε-Methyl-δ-Isopropylhexan (Dibromdekylalkohol aus Allyldiisopropylcarbinol) (*J. pr.* [2] [23](#), [23](#); *A.* [196](#), [111](#); *J. r.* [10](#), [339](#)).
- $C_{10}H_{20}OS_2$ 1) Disulfamylenoxyd (*A.* [113](#), [283](#)). — I, [118](#).
- 2) Isoamylester d. Oxydithioameisenisobutyläthersäure (I. d. Isobutylxanthogensäure). Sd. 265—270° u. Zers. (*B.* [5](#), [975](#)). — I, [886](#).
- $C_{10}H_{20}O_2N_2$ C [60,0](#) — H [10,0](#) — O [16,0](#) — N [14,0](#) — M. G. [200](#).
- 1) αβ-Di[Butyrylamido]äthan. Sd. 230°₂₂ (*B.* [28](#), [1176](#)).
- 2) s-Isobutylisovalerylharnstoff. Sm. 102° (*B.* [15](#), [758](#)). — I, [1304](#).
- 3) Dioxim d. Carvenon? Sm. 162—163° (167—168°) (*A.* [277](#), [124](#); *B.* [31](#), [2896](#)). — III, [504](#).
- 4) Amid d. Oktan-αβ-Dicarbonsäure (A. d. Sebacinsäure). Sm. 208° (*A.* [82](#), [125](#); *B.* [25](#), [2252](#); [31](#), [2350](#); *C.* [1896](#) [2] [1091](#)). — I, [1388](#).
- 5) Di[Isobutylamid] d. Oxalsäure. Sm. 167° (*A. ch.* [5] [23](#), [301](#); [6] [13](#), [531](#)). — I, [1366](#).
- $C_{10}H_{20}O_2N_4$ C [52,6](#) — H [8,8](#) — O [14,0](#) — N [24,6](#) — M. G. [228](#).
- 1) Dinitrosooktohydronikotin. Fl. (*B.* [26](#), [768](#), [1030](#)). — IV, [486](#).
- 2) α-Azoisobutyrimidomethyläther. 2HCl (*A.* [290](#), [33](#)).
- $C_{10}H_{20}O_2N_6$ C [46,9](#) — H [7,8](#) — O [12,5](#) — N [32,8](#) — M. G. [256](#).
- 1) αβ-Disemicarbonoktan. Sm. 183—185° u. Zers. (*B.* [30](#), [1964](#)).
- $C_{10}H_{20}O_3N_2$ C [55,5](#) — H [9,2](#) — O [22,2](#) — N [13,0](#) — M. G. [216](#).
- 1) β-Nitro-γ-Oxy-β-Piperidylmethylbutan (*Bl.* [3] [15](#), [1226](#)).
- 2) Oktylester d. Harnstoffcarbonsäure (O. d. Allophansäure). Sm. [155](#) bis [156°](#) (*A.* [244](#), [41](#)). — I, [1306](#).
- $C_{10}H_{20}O_4N_2$ C [51,7](#) — H [8,6](#) — O [27,6](#) — N [12,0](#) — M. G. [232](#).
- 1) βγ-Dinitro-βγ-Dimethyloktan. Sm. [101,5](#)—[102°](#) (*B.* [29](#), [2200](#)).
- 2) Diäthyläther d. Diäthylloxalidihydroxamsäure. Fl. (*B.* [27](#), [1113](#)).
- 3) Dimethylester d. α-Hydrazoisobuttersäure. Sm. 53—54°; Sd. 216° (*A.* [290](#), [30](#)).
- 4) Diäthylester d. α-Hydrazopropionsäure. Sm. 78°; Sd. [245°](#)₇₄₀ (*A.* [303](#), [87](#)).
- 5) Dipropylester d. Aethylidendi[Amidoameisensäure]. Sm. 115—116° (*B.* [7](#), [1082](#)). — I, [1257](#).
- $C_{10}H_{20}O_4S$ 1) Aldehyd d. β⁺-Dimethylheptan-η-Carbonsäure-β oder γ-Sulfonsäure. Na, Ba (*B.* [31](#), [3309](#); *Bl.* [3] [19](#), [1012](#)).
- $C_{10}H_{20}O_4S_2$ 1) 3,3-Diäthylsulfon-1-Methyl-R-Pentamethylen. Sm. [110,5](#)—[111,5°](#) (*B.* [21](#), [339](#)).
- $C_{10}H_{20}O_5N_2$ C [46,4](#) — H [8,1](#) — O [32,2](#) — N [11,3](#) — M. G. [248](#).
- 1) Verbindung (aus Mesityloxyddicarbonsäuremonäthylester) (*B.* [16](#), [741](#)).
- $C_{10}H_{20}O_6S_2$ 1) Aethylester d. ββ-Di[Aethylsulfon]buttersäure. Sm. 63° (*B.* [19](#), [2810](#)). — I, [527](#).
- $C_{10}H_{20}O_6S_3$ 1) Trimethyldiäthyltrimethylentrisulfon. Sm. 239—240° (*B.* [27](#), [1674](#)).
- 2) Pentamethyläthyltrimethylentrisulfon. Sm. 241° (*B.* [25](#), [255](#)). — I, [996](#).
- $C_{10}H_{20}O_8S_4$ 1) labil. Dihydrodisulfonsäurederivat d. Citral. Na₂ (*B.* [31](#), [3315](#)).
- 2) stabil. Dihydrodisulfonsäurederivat d. Citral. Na₂ (*B.* [31](#), [3313](#)).
- $C_{10}H_{20}O_8N_2$ C [40,5](#) — H [6,8](#) — O [43,2](#) — N [9,5](#) — M. G. [296](#).
- 1) Arabinosealdazin (*B.* [29](#), [2309](#)).
- $C_{10}H_{20}O_{15}S_3$ 1) Camphophenoltrisulfonsäure. Fl. Ba₂ (*Bl.* [3] [4](#), [721](#)). — III, [492](#).

- C₁₀H₂₀NCl** 1) Chlormethylat d. 2-Dimethylamidomethyl-1,2,3,4-Tetrahydrobenzol (Ch. d. Methylhydrotropidin). + AuCl₃ (B. 30, 727).
2) Chlormethylat d. β -Methylconicein. 2 + PtCl₄, + AuCl₃ (B. 18, 20). — IV, 36.
- C₁₀H₂₀NJ** 1) Jodmethylat d. 2-Dimethylamidomethyl-1,2,3,4-Tetrahydrobenzol (J. d. Methylhydrotropidin). Sm. 240° u. Zers. (B. 30, 726).
2) Jodmethylat d. β -Methylconicein (B. 18, 20). — IV, 36.
- C₁₀H₂₀N₂S** 1) 1,1'-Dipiperidylsulfid (n-Monothiopiperidin). Sm. 74° (2HCl, PtCl₄), 2 Pikrat (B. 28, 1013; A. 290, 179). — IV, 5.
- C₁₀H₂₀N₂S₂** 1) 1,1'-Dipiperidyldisulfid (Dithiodipiperidin). Sm. 64° (B. 28, 166). — IV, 5.
2) Diäthyläther d. $\alpha\beta$ -Di[Aethylimido]- $\alpha\beta$ -Dimerkaptoäthan. Fl. (A. 262, 364). — I, 1370.
3) Dipropyläther d. $\alpha\beta$ -Di[Methylimido]- $\alpha\beta$ -Dimerkaptoäthan. Fl. (A. 262, 364). — I, 1370.
- C₁₀H₂₀N₂S₄** 1) Tetraäthylthiuramdisulfid. Sm. 70° (B. 14, 2756; C. 1899 [1] 128). — I, 1263.
- C₁₀H₂₀N₂S₄** 1) Piperazyldithiocarbaminsaures Piperazin. subl. bei 230—236° (B. 23, 3243). — I, 1262.
- C₁₀H₂₀Cl₂S₂** 1) Amylenchlorosulfid (A. 113, 275). — I, 118.
- C₁₀H₂₀Br₂S₂** 1) Pentaäthylentetrasulfindibromid (Soc. 49, 253).
C 70,2 — H 12,3 — O 9,3 — N 8,2 — M. G. 171.
- C₁₀H₂₁ON** 1) Propyläther d. α -Imido- α -Oxyheptan (Heptenylimidopropyläther). HCl (Sm. 70°) (B. 28, 474).
2) Amidomenthol (4-Amido-3-Oxy-4-Isopropyl-1-Methylhexahydrobenzol). Sd. 125°₁₂ (254°). H₂SO₄, Acetat (B. 29, 927; 31, 1480). — III, 468.
3) β -l-Benzoylcarvylamin. Sm. 103° (B. 30, 2074).
4) 2-[β -Oxyäthyl]-1-Propylhexahydropyridin. Sd. 246° (A. 301, 140).
5) 1-[β -Oxyäthyl]-2-Propylhexahydropyridin. Sd. 240—242° (B. 14, 2409). — IV, 33.
6) 2-[β -Oxyäthyl]-1-Isopropylhexahydropyridin. Sd. 235—239° (A. 301, 142).
7) 2-Methyl-3-[α -Oxyäthyl]-1-Aethylhexahydropyridin. Sd. 230,5°₇₆₉. (HCl, 5HgCl₂), (2HCl, PtCl₄ + H₂O), Pikrat (A. 304, 65).
8) 3-Oxymethyl-2-Methyl-1-Propylhexahydropyridin. Sd. 233 bis 234,5°_{734,2}. (HCl, 4HgCl₂), (2HCl, PtCl₄) (A. 304, 78).
9) 4-Oxy-1,2,2,6,6-Pentamethylhexahydropyridin (Methyltriacetonalkamin). Sm. 74° (Hydrat, Sm. 60°). (HBr, Br₂) (B. 18, 1605; 31, 1148; 32, 663). — I, 984.
10) Oxydimethylconiin. Sd. 225—226°. (HCl, AuCl₃) (B. 18, 118). — IV, 38.
11) Aethylconhydrin. HJ (J. 1863, 436). — IV, 35.
12) Amid d. Caprinsäure. Sm. 98° (A. 79, 243; B. 15, 984). — I, 1249.
13) Amid d. $\beta\zeta$ -Dimethylheptan- δ -Carbonsäure. Sm. 120—121° (Soc. 73, 63).
14) Amid d. Säure C₁₀H₂₀O₂ (aus l-Menthonoxim). Sm. 108—109° (A. 296, 128).
C 60,3 — H 10,6 — O 8,0 — N 21,1 — M. G. 199.
- C₁₀H₂₁ON₂** 1) Base (aus Amylalkohol). (2HCl, PtCl₄) (B. 30, 229).
C 64,2 — H 11,2 — O 17,1 — N 7,5 — M. G. 187.
- C₁₀H₂₁O₂N** 1) α -Nitrodekan. Fl. (Am. 21, 237).
2) β -Nitro- $\beta\eta$ -Dimethyloktan. Sd. 235—237° u. Zers. (B. 28, 1855).
3) γ [oder δ]-Nitro- $\beta\eta$ -Dimethyloktan. Sd. 129—132°₁₅ (B. 29, 2199).
4) ϵ -Oximido- δ -Oxy- $\beta\eta$ -Dimethyloktan. Sm. 128° (B. 31, 1223).
5) δ -Oxy- γ -Oximidomethyl- $\beta\zeta$ -Dimethylheptan (Valeraldoloxim). Sd. 169°₂₅ (M. 18, 194).
6) Dimethyltropin. (2HCl, PtCl₄), HJ (B. 14, 1832; 15, 288; A. 216, 336; 217, 132). — III, 787.
7) α -Diäthylamidocaprinsäure. (2HCl, PtCl₄ + H₂O), (HCl, AuCl₃), Cu (Bl. [3] 6, 90). — I, 1203.
C 59,1 — H 10,3 — O 23,6 — N 7,0 — M. G. 203.
- C₁₀H₂₁O₂N** 1) Amid d. Dioxyessigdiisobutyläthersäure. Sm. 42—45° (B. 11, 1479). — I, 1356.
- C₁₀H₂₁O₂Cl** 1) Diglycerindiäthylchlorhydrin. Sd. 285° (A. ch. [3] 67, 308; A. 119, 234). — I, 314.
- C₁₀H₂₁NJ₂** 1) Dimethylconiindijodid. Sm. 184° u. Zers. (A. 279, 362). — IV, 33.
C 64,5 — H 11,8 — O 8,6 — N 15,0 — M. G. 186.
- C₁₀H₂₁ON₂** 1) Diisoamylnitrosamin. Sd. 137—138°_{20—25} (C. 1898 [2] 888).

- $C_{10}H_{21}ON$, 2) Nonylharnstoff. Sm. 92° (B. 24, 3358). — I, 1300.
 3) 3,3,5-Trimethylhexahydrophenylharnstoff (Harnstoff aus Dihydroisophorylamin). Sm. 125–125,5° (A. 299, 223).
 $C_{10}H_{21}ON_4$ C 56,1 — H 10,3 — O 7,5 — N 26,2 — M. G. 214.
 $C_{10}H_{23}OS$ 1) α -Dipropylamido- β -Semicarbazonpropan. Sm. 110° (B. 29, 869).
 $C_{10}H_{23}OSn$ 1) Diisoamylsulfoxyd. Sm. 37–38° (A. 139, 355; B. 17, 539). — I, 362.
 $C_{10}H_{23}O_2S$ 1) Zinndiisoamyloxyd (A. 92, 392). — I, 1529.
 $C_{10}H_{23}O_2S$ 1) Diisoamylsulfon. Sm. 31°; Sd. 295° (J. pr. [2] 17, 441; B. 17, 538). — I, 362.
 $C_{10}H_{23}O_2S_2$ 1) Disulfamylenoxydhydrat (A. 113, 281). — I, 118.
 $C_{10}H_{23}O_2Si$ 1) Acetat d. Silicononylalkohol. Sd. 208–214° (A. 138, 22). — I, 1519.
 $C_{10}H_{23}O_3S$ 1) Diamylester d. Schwefligensäure. Sd. 127°₁₅ (B. 31, 1781).
 2) Diisoamylester d. Schwefligensäure. Sd. 230–250° u. Zers. (A. 109, 8). — I, 330.
 $C_{10}H_{23}O_4S$ 1) Dekylschwefelsäure. Anilinsalz (B. 28, 500).
 2) Diisoamylester d. Schwefelsäure. Fl. (B. 3, 920; J. pr. [2] 13, 163). — I, 333.
 $C_{10}H_{22}O_4S_2$ 1) Isorhamnoseäthylmerkaptal. Sm. 97–98° (B. 29, 1966).
 $C_{10}H_{22}O_5S_2$ 1) Galaktoseäthylmerkaptal (Diäthyläther d. Dimerkaptogalaktose). Sm. 140–142° (B. 27, 677).
 2) Glykoseäthylmerkaptal (Diäthyläther d. Dimerkaptoglykose). Sm. 127 bis 128°. Na (B. 27, 674).
 3) Mannoseäthylmerkaptal (Diäthyläther d. Dimerkaptomannose). Sm. 132 bis 134° (B. 27, 678).
 $C_{10}H_{22}O_7S_2$ 1) Dihydrosulfonsäurederivat d. Citronellal. Na₂ (B. 31, 3308).
 $C_{10}H_{23}NCl$ 1) Diisoamylchloramin. Sd. 89°₁₂ (Bl. [3] 3, 689). — I, 1135.
 2) Chlormethylat d. 1,2-Dimethyl-5-Aethylhexahydropyridin. + 2HgCl₂, 2 + PtCl₄ (A. 247, 93). — IV, 39.
 3) Chlormethylat d. Methyleconiin. + AuCl₃ (Sm. 136°) (A. 298, 143).
 4) Verbindung (aus Triäthylglycinäthylesterchlorid) (J. 1862, 333). — I, 1187.
 $C_{10}H_{23}NJ$ 1) Jodäthylat d. 1-Propylhexahydropyridin. Sm. 276,5° (Soc. 71, 524).
 2) Jodäthylat d. Coniin (A. 89, 131). — IV, 33.
 3) Jodmethylat d. 1,2-Dimethyl-5-Aethylhexahydropyridin. Sm. 267 bis 268° (A. 247, 93). — IV, 39.
 4) Jodmethylat d. Methyleconiin. Sm. 186–187° (A. 298, 142).
 5) Jodmethylat d. 1,2-Dimethyl-5-Propyl-R-Pentamethylen. Sm. 220° (A. 298, 142).
 6) Jodmethylat d. Base $C_9H_{19}N$ (aus Dimethylconiin). Sm. 151–152° (A. 298, 142).
 $C_{10}H_{23}N_2S$ 1) $\alpha\beta$ -Diäthyl- α -Isoamylthioharnstoff. Fl. HJ (B. 23, 2197). — I, 1320.
 $C_{10}H_{23}N_2S_2$ 1) Verbindung (aus Schwefelkohlenstoff u. Tetraäthylamidomethan). Sm. 130–140° u. Zers. (J. pr. [2] 36, 119). — I, 1151.
 $C_{10}H_{23}N_4J_2$ 1) Di[Jodäthylat] d. Hexamethylentetramin. (C. 1897 [2] 428).
 $C_{10}H_{23}Cl_4Sn$ 1) Zinndiisoamylchlorid (A. 92, 393). — I, 1529.
 $C_{10}H_{23}BrBi$ 1) Wismuthdiisoamylbromid (B. 21, 2041).
 $C_{10}H_{23}J_4S_2$ 1) Dijodäthylat d. Diäthyldisulfid + 2 Molec. Jodoform. Sm. 123° (C. 1898 [2] 524).
 $C_{10}H_{23}ON$ C 69,4 — H 13,3 — O 9,2 — N 8,1 — M. G. 173.
 1) Oxyhydromenthonylamin (Menthylaminhydrat). Sd. 252–255° (A. 278, 315; 296, 129). — IV, 60.
 $C_{10}H_{23}O_2N$ C 63,5 — H 12,2 — O 16,9 — N 7,4 — M. G. 189.
 1) Di[P-Oxyisoamyl]amin. Sd. 249–251° (B. 17, 839). — I, 1176.
 2) Diäthyläther d. β -Methylpropylamido- $\alpha\alpha$ -Dioxyäthan. Sd. 193 bis 195°. (HCl, AuCl₃) (B. 30, 1513).
 3) Diäthyläther d. β -Diäthylamido- $\alpha\alpha$ -Dioxyäthan. Sd. 194–195°. HCl (B. 30, 1505).
 $C_{10}H_{23}O_2P$ 1) Diisoamylphosphinsäure. Fl. (B. 6, 305). — I, 1504.
 $C_{10}H_{23}O_3P$ 1) Diisoamylphosphorige Säure (A. 58, 75). — I, 338.
 $C_{10}H_{23}O_4P$ 1) Diisoamylphosphorsäure. Ca, Ag (A. 118, 102). — I, 342.
 2) Di[Oxyisoamyl]unterphosphorige Säure. Sm. 160° u. Zers. K + 3H₂O, Ba + H₂O (A. ch. [6] 23, 325). — I, 1504.
 $C_{10}H_{23}N_2J$ 1) Jodäthylat d. 1,4-Diäthylhexahydro-1,4-Diazin (J. d. Diäthylpiperazin). Sm. 240°. + CdJ₂ (C. 1898 [1] 727).

- $C_{10}H_{24}O_5S_2$ 1) Rhamnoseäthylmerkaptal. Sm. 135—137° (B. 27, 678).
 $C_{10}H_{24}NCl$ 1) Methyldiäthylisoamylammoniumchlorid. 2 + $PtCl_4$ (A. 78, 284; B. 25 [2] 745). — I, 1135.
 2) Methyläthylpropylisobutylammoniumchlorid. 2 + $PtCl_4$, + $AuCl_3$ (B. 32, 563).
 $C_{10}H_{24}NJ$ 1) Methyldiäthylisoamylammoniumjodid (A. 78, 284). — I, 1134.
 2) Methyläthylpropylisobutylammoniumjodid. Sm. 196,5° (B. 32, 563).
 $C_{10}H_{24}JP$ 1) Methyläthylisopropylisobutylphosphoniumjodid (B. 6, 301). — IV, 1504.
 $C_{10}H_{24}N_2Br_2$ 1) Aethylentetraäthyldiaminhydrobromid (J. 1861, 520). — I, 1154.
 $C_{10}H_{24}N_2J_2$ 1) Aethylentetraäthyldiaminhydrojodid (J. 1859, 387). — I, 1154.
 $C_{10}ON_2Cl_{10}$ 1) Verbindung (aus Pyrokoll). Sm. 195—197° (G. 12, 31). — IV, 81.
 $C_{10}O_2N_2Cl_6$ 1) Hexachlorpyrokoll. Sm. oberh. 320° u. Zers. (G. 12, 31). — IV, 81.

C_{10} -Gruppe mit vier Elementen.

- $C_{10}HCl_3Br_6S_2$ 1) 3,3,3-Trichlor- $\alpha\alpha$ -Di[3,4,5-Tribrom-2-Thiänyl]äthan. Sm. 176° (B. 17, 1343). — III, 752.
 $C_{10}H_2O_2N_2Br_4$ 1) Tetrabrompyrokoll. Zers. bei 250° (B. 16, 2388). — IV, 81.
 $C_{10}H_3O_2NCl_4$ 1) p-Tetrachlor-p-Nitronaphtalin. Sm. 154—155° (B. 10, 1843). — II, 198.
 $C_{10}H_3O_3Cl_4Br$ 1) 2,3-Dichlor-4-Brom-1-Ketoinden-6-Carbonsäure (A. 293, 162).
 $C_{10}H_3O_4N_2Br_3$ 1) 1,2,4-Tribrom-p-Dinitronaphtalin (B. 18, 2164). — II, 199.
 $C_{10}H_3O_4Cl_4Br$ 1) 2,2-Dichlor-7-Brom-1,3-Diketo-2,3-Dihydroinden-5-Carbonsäure. Sm. 280° u. Zers. (A. 293, 145).
 $C_{10}H_3O_6N_3Cl_3$ 1) 1,3-Dichlor-p-Trinitronaphtalin. Sm. 178° (Bl. 28, 509; B. 23, 956). — II, 198.
 2) 2,6-Dichlor-p-Trinitronaphtalin. Sm. 198—200° (Bl. 36, 434). — II, 198.
 3) 2,7-Dichlor-p-Trinitronaphtalin. Sm. 200—201° (Bl. 36, 434). — II, 198.
 $C_{10}H_3O_8N_4Br$ 1) 4-Brom-1,3,5,8-Tetranitronaphtalin. Sm. 245° (B. 15, 2719). — II, 199.
 2) 4-Brom-1,3,6,8-Tetranitronaphtalin. Sm. 189—189,5° (B. 15, 2714). — II, 199.
 $C_{10}H_4O_2N_2Br_2$ 1) Dibrompyrokoll. Sm. 288—290° (G. 11, 321; 12, 29). — IV, 81.
 $C_{10}H_4O_2N_2S_2$ 1) Rhodanid d. Benzol-1,2-Dicarbonsäure. Sm. 112—113° (Soc. 67, 573).
 $C_{10}H_4O_2Cl_4S$ 1) Chlorid d. 1,2,3-Trichlornaphtalin-p-Sulfonsäure. Sm. 182° (B. 24 [2] 710). — II, 209.
 2) Chlorid d. 1,2,4-Trichlornaphtalin-p-Sulfonsäure. Sm. 157—158° (B. 24 [2] 710). — II, 209.
 3) Chlorid d. 1,2,7-Trichlornaphtalin-p-Sulfonsäure. Sm. 173° (C. 1895 [2] 121).
 4) Chlorid d. 1,2,8-Trichlornaphtalin-p-Sulfonsäure. Sm. 105° (C. 1895 [2] 121).
 5) Chlorid d. 1,3,6-Trichlornaphtalin-p-Sulfonsäure. Sm. 154° (C. 1895 [2] 122).
 $C_{10}H_4O_3ClBr$ 1) 3-Chlor-3-Brom-1,2,4-Triketo-1,2,3,4-Tetrahydronaphtalin + H_2O . Sm. 104—105° (B. 20, 3227). — III, 314.
 2) 2-Chlor-4-Brom-1-Ketoinden-6-Carbonsäure. Zers. bei 250° (A. 293, 164).
 $C_{10}H_4O_3Cl_3Br$ 1) 2,2,3-Trichlor-4-Brom-1-Keto-2,3-Dihydroinden-6-Carbonsäure. Sm. 230° (A. 293, 165).
 $C_{10}H_4O_3Cl_4S$ 1) p-Tetrachlornaphtalin-p-Sulfonsäure. K (A. 72, 300). — II, 209.
 $C_{10}H_4O_4NCl$ 1) 4-Chlor-3-Nitro-1,2-Naphtochinon. Sm. 184° (B. 21, 3388). — III, 392.
 $C_{10}H_4O_4N_2Cl_3$ 1) 1,2-Dichlor-p-Dinitronaphtalin. Sm. 169,5° (B. 21, 3268). — II, 198.
 2) 1,3-Dichlor- α -Dinitronaphtalin. Sm. 150° (B. 23, 956). — II, 198.
 3) 1,3-Dichlor- β -Dinitronaphtalin. Sm. 158° (B. 23, 956). — II, 198.
 4) 1,4-Dichlor-p-Dinitronaphtalin. Sm. 158° (Bl. 28, 510). — II, 198.
 5) 1,5-Dichlor-p-Dinitronaphtalin. Sm. 246° (B. 9, 1730). — II, 198.

- $C_{10}H_4O_4N_2Cl_2$ 6) 1,7-Dichlor-?-Dinitronaphtalin. Sm. 138 — 139° (A. 275, 258). — II, 198.
 7) 2,6-Dichlor-?-Dinitronaphtalin. Sm. 252—253° (Bl. 36, 434; B. 15, 320). — II, 198.
 8) 2,7-Dichlor-?-Dinitronaphtalin. Sm. 245 — 246° (Bl. 36, 434). — II, 198.
- $C_{10}H_4O_5Cl_2S$ 1) 2,3-Dichlor-1,4-Naphtochinon-7-Sulfonsäure. Sm. 229°. Na, Ba, Pb, Ag (J. pr. [2] 37, 181). — III, 388.
- $C_{10}H_4O_5Cl_2Br$ 1) 5-Brom-4-Trichloracetylbenzol-1,3-Dicarbonsäure. Sm. 235° (A. 293, 147).
- $C_{10}H_4O_6N_3Br$ 1) ?-Brom-?-Trinitronaphtalin. Sm. 184,5° (B. 12, 679).
- $C_{10}H_4O_6Cl_2S_2$ 1) Chlorid d. 1-Chlornaphtalin-2,4,7-Trisulfonsäure. Sm. 215° (B. 24 [2] 715). — II, 207.
- $C_{10}H_4O_7N_3Cl$ 1) ?-Chlor-?-Trinitro-2-Oxynaphtalin. + $C_2H_4O_2$ (Sm. 156° u. Zers.). Ba + 2 H_2O (B. 23, 957). — II, 884.
- $C_{10}H_5ONCl_4$ 1) 2,2,3,4-Tetrachlor-5-Keto-1-Phenyl-2,5-Dihydropyrrol (Dichlorid d. Dichlormaleinsäurephenylimid). Sm. 123—124°; Sd. 179°₁₁ (A. 263, 158; 295, 32; B. 28, 57, 59). — II, 417.
- $C_{10}H_5ON_2Br$ 1) 4-Brom- α -Naphtoxdiazol. Sm. 148 — 151° u. Zers. (Soc. 67, 908). — IV, 1551.
- $C_{10}H_5O_2NCl_2$ 1) 2,6-Dichlor-1-Nitronaphtalin? Sm. 113,5 — 114° (Bl. 36, 434). — II, 198.
 2) 2,7-Dichlor-1-Nitronaphtalin? Sm. 141,5 — 142° (Bl. 36, 433). — II, 197.
 3) 3,6-Dichlor-1-Nitronaphtalin. Sm. 95° (Bl. 36, 433). — II, 197.
 4) 3,7-Dichlor-1-Nitronaphtalin. Sm. 139 — 139,5° (Bl. 36, 434). — II, 198.
 5) 4,7-Dichlor-1-Nitronaphtalin. Sm. 119° (Bl. 29, 499). — II, 197.
 6) 4,8-Dichlor-1-Nitronaphtalin. Sm. 142° (B. 9, 928). — II, 197.
 7) 5,8-Dichlor-1-Nitronaphtalin. Sm. 92° (Bl. 28, 509). — II, 197.
 8) 3,4-Dichlor-1-Nitroso-2-Oxynaphtalin. Sm. 165 — 166° u. Zers. (A. 257, 145). — II, 882.
 9) Phenylimid d. Dichlormaleinsäure. Sm. 201° (J. pr. [2] 31, 17). — II, 416.
- $C_{10}H_5O_2NCl_4$ 1) Phenylimid d. Tetrachlorbernsteinsäure. Sm. 157 — 158° (B. 28, 58; A. 295, 33).
- $C_{10}H_5O_2NBr_2$ 1) 5,8-Dibrom-1-Nitronaphtalin. Sm. 117° (Bl. 28, 515). — II, 199.
 2) ?-Dibrom-1-Nitronaphtalin. Sm. 96,5—98° (A. 222, 286). — II, 199.
 3) 1,4-Dibrom-2-Nitronaphtalin. Sm. 117° (Soc. 61, 769; 67, 907). — II, 199.
 4) ?-Dibrom-?-Nitronaphtalin. Sm. 100—105° (B. 16, 422).
 5) 2,3-Dibrom-4-Nitroso-1-Oxynaphtalin. Sm. 174—175° (B. 21, 391). — II, 862.
- $C_{10}H_5O_3N_2Br$ 1) Brompyrokoll. Sm. 190—192° (G. 11, 321; 12, 29). — IV, 81.
- $C_{10}H_5O_3N_3Br_2$ 1) 8-Nitro-4-Tribrommethylechinolin. Sm. 162° (B. 31, 2369).
- $C_{10}H_5O_3Cl_2S_2$ 1) Chlorid d. 1,2-Dichlornaphtalin-5-Sulfonsäure. Sm. 106°. — II, 207.
 2) Chlorid d. 1,2-Dichlornaphtalin-6-Sulfonsäure. Sm. 167°. — II, 207.
 3) Chlorid d. 1,2-Dichlornaphtalin-7-Sulfonsäure. Sm. 124° (122 bis 123°) (B. 25, 2488; C. 1895 [2] 121). — II, 208.
 4) Chlorid d. 1,2-Dichlornaphtalin-8-Sulfonsäure. Sm. 138°. — II, 208.
 5) Chlorid d. 1,3-Dichlornaphtalin-5-Sulfonsäure. Sm. 145° (B. 12, 2229). — II, 208.
 6) Chlorid d. 1,3-Dichlornaphtalin-7-Sulfonsäure. Sm. 121° (B. 24 [2] 712). — II, 208.
 7) Chlorid d. 1,4-Dichlornaphtalin-6-Sulfonsäure. Sm. 133° (B. 12, 961). — II, 208.
 8) Chlorid d. 1,5-Dichlornaphtalin-2-Sulfonsäure. Sm. 124°. — II, 209.
 9) Chlorid d. 1,5-Dichlornaphtalin-3-Sulfonsäure. Sm. 139,5° (B. 24 [2] 711). — II, 208.
 10) Chlorid d. 1,6-Dichlornaphtalin-3-Sulfonsäure. Sm. 156° (C. 1897 [2] 552).

- $C_{10}H_5O_2Cl_2S$ 11) Chlorid d. 1,6-Dichlornaphtalin-4-Sulfonsäure. Sm. 151° (B. 24, 3477). — II, 209.
 12) Chlorid d. 1,7-Dichlornaphtalin-3-Sulfonsäure. Sm. 130° (C. 1897 [2] 552).
 13) Chlorid d. 1,7-Dichlornaphtalin-4-Sulfonsäure. Sm. 118° (B. 24, [2] 712). — II, 209.
 14) Chlorid d. 1,8-Dichlornaphtalin-3-Sulfonsäure. Sm. 158° (C. 1897 [2] 553).
 15) Chlorid d. 1,8-Dichlornaphtalin-4-Sulfonsäure. Sm. 116°. — II, 209.
 16) Chlorid d. 2,3-Dichlornaphtalin-5-Sulfonsäure. Sm. 142° (B. 24 [2] 712). — II, 209.
 17) Chlorid d. 2,3-Dichlornaphtalin-6-Sulfonsäure. Sm. 178° (B. 24 [2] 712). — II, 209.
 18) Chlorid d. 2,6-Dichlornaphtalin-8-Sulfonsäure. Sm. 136° (B. 24 [2] 712). — II, 209.
 19) Chlorid d. 2,7-Dichlornaphtalin-3-Sulfonsäure. Sm. 163,5° (B. 24 [2] 712). — II, 209.
- $C_{10}H_5O_2NBr$ 1) 2,4-Dibrom-*p*-Nitro-1-Oxynaphtalin. Sm. 120—125° (B. 6, 1120). — II, 864.
- $C_{10}H_5O_2ClBr$ 1) 2-Chlor-2,3-Dibrom-1-Keto-2,3-Dihydroinden-3-Carbonsäure. Sm. 171° (A. 283, 356). — II, 1679.
- $C_{10}H_5O_2ClS$ 1) Inn. Anhydrid d. *p*-Chlor-1-Oxynaphtalin-8-Sulfonsäure. Sm. 174—175° (A. 247, 354). — II, 872.
- $C_{10}H_5O_2Cl_3S$ 1) 1,2,3-Trichlornaphtalin-*p*-Sulfonsäure. Ba + 3½ H₂O (B. 24 [2] 710). — II, 209.
 2) 1,2,4-Trichlornaphtalin-*p*-Sulfonsäure. Ba + 3 H₂O (B. 24 [2] 710). — II, 209.
 3) 1,2,7-Trichlornaphtalin-*p*-Sulfonsäure. K + H₂O (C. 1895 [2] 121).
 4) 1,2,8-Trichlornaphtalin-*p*-Sulfonsäure. K (C. 1895 [2] 121).
 5) 1,3,6-Trichlornaphtalin-*p*-Sulfonsäure. K + H₂O (C. 1895 [2] 122).
 6) *p*-Trichlornaphtalin-*p*-Sulfonsäure. K, Ba (A. 72, 299).
- $C_{10}H_5O_4NCl_2$ 1) 3,4-Dichlor-3-Nitro-1,2-Diketo-1,2,3,4-Tetrahydronaphtalin + H₂O. Sm. 115—116° (A. 268, 301). — III, 277.
- $C_{10}H_5O_4N_2Cl$ 1) 1-Chlor-4,5-Dinitronaphtalin. Sm. 180° (B. 9, 928; J. pr. [2] 38, 171). — II, 197.
 2) 1-Chlor-4,8-Dinitronaphtalin. Sm. 106° (B. 9, 927; A. 160, 68). — II, 197.
- $C_{10}H_5O_4N_2Br$ 1) 1-Brom-4,5-Dinitronaphtalin. Sm. 170,5° (B. 12, 679; 15, 2711). — II, 199.
 2) 1-Brom-4,8-Dinitronaphtalin. Sm. 143° (B. 15, 2711). — II, 199.
 3) isom. *p*-Brom-*p*-Dinitronaphtalin (B. 10, 294). — II, 199.
- $C_{10}H_5O_4Cl_3S$ 1) Chlorid d. 1-Chlornaphtalin-2,7-Disulfonsäure. Sm. 144° (C. 1895 [2] 122).
 2) Chlorid d. 1-Chlornaphtalin-3,5-Disulfonsäure. Sm. 130° (C. 1896 [1] 651).
 3) Chlorid d. 1-Chlornaphtalin-3,6-Disulfonsäure. Sm. 127° (u. 114°) (C. 1895 [2] 122).
 4) Chlorid d. 1-Chlornaphtalin-3,8-Disulfonsäure. Sm. 110° (B. 24 [2] 708). — II, 206.
 5) Chlorid d. 1-Chlornaphtalin-4,6-Disulfonsäure. Sm. 126—127° (B. 24 [2] 715). — II, 206.
 6) Chlorid d. 1-Chlornaphtalin-4,7-Disulfonsäure. Sm. 107° (B. 24 [2] 709). — II, 207.
 7) Chlorid d. 1-Chlornaphtalin-4,8-Disulfonsäure. Sm. 182° (B. 24 [2] 715). — II, 207.
 8) Chlorid d. 2-Chlornaphtalin-1,5-Disulfonsäure. Sm. 158° (B. 24 [2] 716). — II, 207.
 9) Chlorid d. 2-Chlornaphtalin-1,6-Disulfonsäure. Sm. 124,5° (B. 21, 3498; 24 [2] 717). — II, 207.
 10) Chlorid d. 2-Chlornaphtalin-3,6-Disulfonsäure. Sm. 165° (B. 24 [2] 707). — II, 207.
 11) Chlorid d. 2-Chlornaphtalin-3,7-Disulfonsäure. Sm. 176° (B. 24 [2] 716). — II, 207.

- $C_{10}H_5O_4Cl_2S_2$ 12) Chlorid d. 2-Chlornaphtalin-4,6-Disulfonsäure. Sm. 148° (B. 24 [2] 717). — II, 207.
- 13) Chlorid d. 2-Chlornaphtalin-4,7-Disulfonsäure. Sm. 174° (B. 24 [2] 717). — II, 207.
- 14) Chlorid d. 2-Chlornaphtalin-5,7-Disulfonsäure. Sm. 156° (B. 24 [2] 716). — II, 207.
- 15) Chlorid d. 2-Chlornaphtalin-6,8-Disulfonsäure. Sm. 170° (B. 24 [2] 717). — II, 207.
- $C_{10}H_5O_3N_2Cl$ 1) 3,4-Dichlor- β -Dinitro-2-Oxy-6-Methylchinolin. Sm. 186° (B. 18, 2982). — IV, 320.
- $C_{10}H_5O_3Cl_2Br$ 1) 5-Brom-4-Dichloracetylbenzol-1,3-Dicarbonsäure. Sm. 226—227° (A. 293, 147).
- $C_{10}H_5O_6N_4Cl$ 1) β -Chlor- β -Trinitro- β -Amidonaphtalin. Sm. 252° (B. 23, 957). — II, 597.
- $C_{10}H_5O_6ClS$ 1) 2[oder 3]-Chlor-3[oder 2]-Oxy-1,4-Naphtochinon-7-Sulfonsäure. Sm. 211° u. Zers. $Na_2 + 2H_2O$, $Ba + 2H_2O$, $Ag_2 + H_2O$ (J. pr. [2] 37, 184). — III, 388.
- 2) β -Chlor- β -Oxy-1,4-Naphtochinonsulfonsäure. K (A. 151, 83). — III, 388.
- $C_{10}H_5O_6Cl_3S_3$ 1) Chlorid d. 1,3,6-Naphtalintrisulfonsäure. Sm. 191° (B. 24 [2] 715). — II, 204.
- 2) Chlorid d. 1,3,7-Naphtalintrisulfonsäure. Sm. 165—166° (B. 27, 1203).
- 3) Chlorid d. 2,3,6-Naphtalintrisulfonsäure. Sm. 200° (202°) (B. 27 [2] 81; 27, 1202). — II, 204.
- $C_{10}H_5O_7Cl_3S_3$ 1) Chlorid d. 1-Oxynaphtalin-2,4,7-Trisulfonsäure (B. 19, 1182). — II, 873.
- $C_{10}H_5O_6NS$ 1) 3-Nitro-2-Oxy-1,4-Naphtochinon-7-Sulfonsäure. K_2 , Ba (B. 21, 1782). — III, 389.
- $C_{10}H_5N_2Br_2Cl$ 1) 1,6-Dibrom-2-Diazonaphtalinchlorid. $2 + PtCl_4$ (J. pr. [2] 43, 53). — IV, 1540.
- $C_{10}H_6ONCl$ 1) 2-Chlorimido-1-Keto-1,2-Dihydronaphtalin. Zers. bei 98° (B. 27 241). — III, 390.
- 2) 1-Chlorimido-2-Keto-1,2-Dihydronaphtalin (1,2-Naphtochinonchlorimid). Sm. 86—87° (B. 27, 240). — III, 390.
- 3) 4-Chlorimido-1-Keto-1,4-Dihydronaphtalin (1,4-Naphtochinonchlorimid). Sm. 109,5° (B. 27, 239). — III, 379.
- 4) Chlorid d. α -Cyan- β -Phenylakrylsäure (A. ch. [6] 29, 459). — II, 1417.
- $C_{10}H_6ONBr_2$ 1) β -Tribrom-4-Oxy-2-Methylchinolin. Sm. 275° (B. 20, 950). — IV, 311.
- 2) β -Tribrom-2-Oxy-4-Methylchinolin. Sm. noch nicht bei 280° (B. 17, 1991). — IV, 317.
- 3) Methyläther d. β -Tribrom- β -Oxychinolin. Sm. 233° (M. 6, 772; 10, 705). — IV, 382.
- $C_{10}H_6ON_2Cl_2$ 1) 3,4-Dichlor-5-Phenylimido-2-Keto-2,5-Dihydropyrrol (Dichlormaleinimidanil). Sm. 151—152° (A. 295, 81).
- $C_{10}H_6ON_2Br_2$ 1) 4,5-Dibrom-3-Keto-2-Phenyl-2,3-Dihydro-1,2-Diazin. Sm. 145° (B. 32, 534).
- $C_{10}H_6ON_2Br_4$ 1) β -Tetrabrom-5-Keto-3-Methyl-1-Phenyl-4,5-Dihydropyrazol. Sm. 134—135° (B. 25, 1944). — IV, 509.
- $C_{10}H_6ON_4S$ 1) Carbonylphenylthioharnstoffcyanid. — II, 449.
- $C_{10}H_6OClBr$ 1) 1-Chlor-6-Brom-2-Oxynaphtalin. Sm. 101° (B. 24 [2] 705). — II, 880.
- $C_{10}H_6O_2NCl$ 1) 1-Chlor-4-Nitronaphtalin. Sm. 85° (B. 9, 927). — II, 197.
- 2) 1-Chlor-5-Nitronaphtalin. Sm. 111° (J. 1886, 1580). — II, 197.
- 3) 1-Chlor-8-Nitronaphtalin. Sm. 94° (C. 1899 [1] 464).
- 4) 2-Chlor-8-Nitronaphtalin. Sm. 116° (B. 24 [2] 704). — II, 197.
- 5) 2-Chlor-4-Nitroso-1-Oxynaphtalin. Sm. 220° u. Zers. $Na + 2H_2O$ (B. 23, 955). — II, 862.
- 6) 3-Chlor-1-Nitroso-2-Oxynaphtalin. Sm. 167—168° u. Zers. Na (A. 257, 141).
- 7) 2-Chlor-4-Imido-3-Oxy-1-Keto-1,4-Dihydronaphtalin. Sm. 179 bis 180° u. Zers. (A. 257, 145). — II, 881.

- $C_{10}H_6O_2NCl$ 8) 3-Chlor-4-Imido-2-Oxy-1-Keto-1,4-Dihydronaphtalin. Sm. 260° (B. 19, 2499). — III, 383.
9) 2-Chlorchinolin-3-Carbonsäure. Sm. bei 200° u. Zers. (B. 17, 460). — IV, 345.
- $C_{10}H_6O_2NCl_2$ 10) 6-Chlorchinolin-4-Carbonsäure (B. 12, 100). — IV, 347.
1) 3,3,4-Trichlor-1-Oximido-2-Keto-1,2,3,4-Tetrahydronaphtalin. Sm. 185—186° (A. 257, 150). — II, 882.
- $C_{10}H_6O_2NBr$ 1) 8-Bromchinolin-5-Carbonsäure. Sm. 275°. (2HCl, PtCl₄ + 4H₂O) (A. 237, 313). — IV, 349.
2) 1-Brom-3-Nitronaphtalin. Sm. 131—132° (A. 183, 262; Soc. 47, 507). — II, 198.
3) 1-Brom-4-Nitronaphtalin. Sm. 85° (Bl. 28, 515). — II, 198.
4) 1-Brom-5-Nitronaphtalin. Sm. 122,5° (A. 222, 291). — II, 199.
5) 1-Brom-8-Nitronaphtalin. Sm. 99—100° (Soc. 63, 1057). — II, 199.
6) 2 isom. Bromnitronaphtaline. Sm. 100° (u. 122°) (B. 10, 294).
7) 3-Brom-2-Nitroso-1-Oxynaphtalin. Sm. 175° (B. 21, 390). — II, 862.
8) 3-Brom-1-Nitroso-2-Oxynaphtalin. Sm. 172° (B. 21, 388; A. 257, 153). — II, 882.
9) 3-Brom-4-Imido-2-Oxy-1-Keto-1,4-Dihydronaphtalin. Sm. bei 265° (B. 20, 1514). — III, 384.
10) 3-Brom-2-Amido-1,4-Naphtochinon. Sm. 205° (B. 20, 1514). — III, 378.
- $C_{10}H_6O_2NBr_2$ 11) Phenylimid d. Brommaleinsäure. Sm. 159—160° (A. 292, 234).
1) Tribromäthylimid d. Benzol-1,2-Dicarbonsäure. Sm. 190—191° (B. 10, 1645; 31, 1233). — II, 1799.
- $C_{10}H_6O_2NJ$ 1) 1-Jod-2-Nitronaphtalin. Sm. 108,5° (Soc. 47, 519). — II, 199.
2) 1-Jod-4-Nitronaphtalin. Sm. 123° (Soc. 47, 519). — II, 200.
3) 2-Jod-1-Nitronaphtalin. Sm. 88,5° (Soc. 47, 521). — II, 200.
4) 3-Jod-2-Amido-1,4-Naphtochinon. Sm. 192—193° (B. 28, 348). — III, 379.
- $C_{10}H_6O_2N_2Br_2$ 1) 6-Nitro-4-Dibrommethylchinolin. Sm. 114—115° (B. 31, 2368).
- $C_{10}H_6O_2N_2S_2$ 1) 1,4-Di[Thionylamido]naphtalin. Sm. 126° (B. 28, 2203). — IV, 922.
- $C_{10}H_6O_2Cl_2S$ 1) Chlorid d. 1-Chlornaphtalin-2-Sulfonsäure. Sm. 80° (B. 24, 3474). — II, 204.
2) Chlorid d. 1-Chlornaphtalin-3-Sulfonsäure. Sm. 106° (B. 21, 3274; C. 1896 [1] 651). — II, 204.
3) Chlorid d. 1-Chlornaphtalin-4-Sulfonsäure. Sm. 95°. — II, 205.
4) Chlorid d. 1-Chlornaphtalin-5-Sulfonsäure. Sm. 95° (B. 20, 73). — II, 205.
5) Chlorid d. 1-Chlornaphtalin-6-Sulfonsäure. Sm. 114—115° (B. 20, 75). — II, 205.
6) Chlorid d. 1-Chlornaphtalin-7-Sulfonsäure. Sm. 94° (B. 25, 2481). — II, 205.
7) Chlorid d. 1-Chlornaphtalin-8-Sulfonsäure. Sm. 101° (B. 23, 963). — II, 205.
8) Chlorid d. 2-Chlornaphtalin-1-Sulfonsäure. Sm. 76° (C. 1896 [1] 650).
9) Chlorid d. 2-Chlornaphtalin-5-Sulfonsäure. Sm. 69° (B. 25, 2482). — II, 206.
10) Chlorid d. 2-Chlornaphtalin-6-Sulfonsäure. Sm. 110,5° (B. 20, 80; Bl. 45, 184). — II, 206.
11) Chlorid d. 2-Chlornaphtalin-7-Sulfonsäure. Sm. 86,5° (B. 25, 2484). — II, 206.
12) Chlorid d. 2-Chlornaphtalin-8-Sulfonsäure. Sm. 129° (Bl. 45, 184). — II, 206.
- $C_{10}H_6O_2Br_2S$ 1) Bromid d. 1-Bromnaphtalin-4-Sulfonsäure. Sm. 114,5° (Bl. 28, 516). — II, 210.
2) Bromid d. 1-Bromnaphtalin-5-Sulfonsäure. Sm. 116—117°. — II, 210.
3) Bromid d. 2-Bromnaphtalin-6-Sulfonsäure. Sm. 118° (B. 22, 1401). — II, 210.
4) Bromid d. 2-Bromnaphtalin-8-Sulfonsäure. Sm. 151° (B. 22, 1402; 24 [2] 706). — II, 211.

- $C_{10}H_6O_3NCl$ 1) 3-Chlor-4[oder 1]-Oximido-2-Oxy-1[oder 4]-Keto-1,4-Dihydro-naphtalin. Sm. 187—188° u. Zers. (B. 22, 1344; A. 257, 148). — III, 383.
 2) 2-Chlor-1-Oximidoinden-3-Carbonsäure. Sm. 256° (A. 283, 352). — II, 1687.
 3) Oximanhydrid d. Phenoxylmucochlorsäureoxim. Sm. 96—98° (Am. 19, 639).
 4) Imid d. α -Chlor- β -Oxymaleinphenyläthersäure. Sm. 118—119° (Am. 19, 640).
- $C_{10}H_6O_3NBr$ 1) 2-Brom-4-Nitro-1-Oxynaphtalin. Sm. 142° (136°). Na + H_2O , Ba + 3 H_2O (B. 7, 538; Soc. 47, 501). — II, 864.
 2) 6-Brom-1-Nitro-2-Oxynaphtalin. Sm. 190° (C. 1897 [1] 239).
 3) 6-Brom-1-Nitro-2-Oxynaphtalin? Sm. 122° (B. 24 [2] 721; C. 1897 [1] 238). — II, 884.
 4) ?-Brom-8-Oxychinolin-?-Carbonsäure. Sm. 233—235° u. Zers. (B. 20, 2694). — IV, 364.
 5) Oximanhydrid d. Phenoxylmucobromsäureoxim. Sm. 121° (u. 124 bis 126°) (Am. 19, 634).
 6) Acetat d. ?-Brom-2-Oxy-3-Ketopseudoindol (Acetyl bromisatin). Sm. 170—172° (B. 15, 2096). — II, 1606.
 7) Imid d. α -Brom- β -Oxymaleinphenyläthersäure. Sm. 144—145° (u. 148—150°). Ag, + CH_4O (Am. 19, 635).
- $C_{10}H_6O_3NBr_3$ 1) Verbindung (aus 2-Amido-4-Imido-1-Keto-1,4-Dihydronaphtalin). Sm. 213° (B. 17, 716; 20, 3218). — III, 379.
- $C_{10}H_6O_3NJ$ 1) 4-Jod-2-Nitro-1-Oxynaphtalin. Sm. 145—146° (150°). K + H_2O , Ba + 2 H_2O (Soc. 47, 524; 67, 913). — II, 864.
 2) 2-Jod-4-Oximido-3-Oxy-1-Keto-1,4-Dihydronaphtalin + 2 H_2O . Zers. bei 160° (B. 28, 351). — III, 384.
- $C_{10}H_6O_3N_2S$ 1) 4-Nitro-1-Thionylamidonaphtalin. Sm. 89° (A. 274, 258). — II, 605.
 2) 5-Nitro-1-Thionylamidonaphtalin. Sm. 134—135° (A. 274, 259). — II, 605.
- $C_{10}H_6O_3N_2S_2$ 1) 2-Nitrobenzylidenrhodaninsäure. Sm. 188—189°. Ba (M. 8, 358). — III, 12.
 2) 4-Nitrobenzylidenrhodaninsäure. Sm. 250—252° u. Zers. (M. 8, 357). — III, 12.
 3) 1-Diazonaphtalin-2-Sulfonsäure (E. 24, 3474). — IV, 1541.
 4) 1-Diazonaphtalin-3-Sulfonsäure + 2 H_2O (B. 21, 3272). — IV, 1541.
 5) 1-Diazonaphtalin-4-Sulfonsäure (Bl. 26, 241; A. 247, 329). — IV, 1541.
 6) 1-Diazonaphtalin-5-Sulfonsäure (A. 247, 331; Bl. 24, 512). — IV, 1541.
 7) 1-Diazonaphtalin-7-Sulfonsäure (B. 24, 3265). — IV, 1542.
 8) 1-Diazonaphtalin-8-Sulfonsäure (A. 247, 331). — IV, 1542.
 9) 2-Diazonaphtalin-6-Sulfonsäure (B. 20, 80). — IV, 1542.
 10) 2-Diazonaphtalin-7-Sulfonsäure (B. 19, 1716). — IV, 1542.
 11) 2-Diazonaphtalin-8-Sulfonsäure (B. 20, 2102). — IV, 1542.
- $C_{10}H_6O_3ClBr$ 1) Bromid d. Phenoxylmucochlorsäure. Sm. 89—90° (Am. 16, 295). — II, 666.
- $C_{10}H_6O_3Cl_2S$ 1) 1,2-Dichlornaphtalin-5-Sulfonsäure (B. 24 [2] 711). — II, 207.
 2) 1,2-Dichlornaphtalin-6-Sulfonsäure. Na, K, Ba + 6 H_2O (B. 24 [2] 711). — II, 207.
 3) 1,2-Dichlornaphtalin-7-Sulfonsäure. Na + $\frac{1}{2}H_2O$, K, Mg + 9 H_2O , Ca + 2 H_2O , Ba + 3 H_2O (B. 24 [2] 659; 25, 2487). — II, 207.
 4) 1,2-Dichlornaphtalin-8-Sulfonsäure. — II, 208.
 5) 1,3-Dichlornaphtalin-5-Sulfonsäure. Na + 2 H_2O , K + 2 H_2O , Ca + 4 H_2O , Ba, Zn + 7 H_2O , Ag + 2 H_2O (B. 12, 2231; 24 [2] 712). — II, 208.
 6) 1,3-Dichlornaphtalin-7-Sulfonsäure (B. 24 [2] 713). — II, 208.
 7) 1,4-Dichlornaphtalin-6-Sulfonsäure. K + $1\frac{1}{2}$ (5) H_2O , Ca + 2 H_2O , Ba + 4 H_2O , Zn + 13 H_2O , Pb + 4 H_2O , Mn + 7 H_2O , Ag + H_2O (B. 12, 963). — II, 208.
 8) 1,5-Dichlornaphtalin-2-Sulfonsäure. — II, 208.
 9) 1,5-Dichlornaphtalin-3-Sulfonsäure (B. 24 [2] 711). — II, 209.

- $C_{10}H_6O_3Cl_2S$ 10) 1,6-Dichlornaphtalin-3-Sulfonsäure. $K + 1\frac{1}{2}H_2O$, $Ba + 3\frac{1}{2}H_2O$ (C. 1897 [2] 552).
 11) 1,6-Dichlornaphtalin-4-Sulfonsäure. $Na + 3H_2O$, $K + H_2O$, $Ca + 3H_2O$, $Ba + 3H_2O$, $Zn + 5H_2O$, $Pb + 4H_2O$, $Cu + 6H_2O$, $Ag + H_2O$ (B. 24, 3477). — II, 209.
 12) 1,7-Dichlornaphtalin-3-Sulfonsäure. K (C. 1897 [2] 552).
 13) 1,7-Dichlornaphtalin-4-Sulfonsäure (B. 24 [2] 712). — II, 209.
 14) 1,8-Dichlornaphtalin-3-Sulfonsäure. K (C. 1897 [2] 553).
 15) 1,8-Dichlornaphtalin-4-Sulfonsäure. $Na + H_2O$, K , Ba (B. 24 [2] 711). — II, 209.
 16) 2,3-Dichlornaphtalin-5-Sulfonsäure (B. 24 [2] 712). — II, 209.
 17) 2,3-Dichlornaphtalin-6-Sulfonsäure (B. 24 [2] 712). — II, 209.
 18) 2,6-Dichlornaphtalin-8-Sulfonsäure (B. 24 [2] 712; C. 1897 [2] 552). — II, 209.
 19) 2,7-Dichlornaphtalin-3-Sulfonsäure (B. 24 [2] 712). — II, 209.
 20) isom.-p-Dichlornaphtalin-p-Sulfonsäure (J. pr. [1] 33, 37).
- $C_{10}H_6O_3Br_2S$ 1) 1,3-Dibromnaphtalin- α -Sulfonsäure (B. 25 [2] 749). — II, 211.
 2) 1,3-Dibromnaphtalin- β -Sulfonsäure (B. 25 [2] 749). — II, 211.
 3) 1,4-Dibromnaphtalin-6-Sulfonsäure. $Ba + 2H_2O$ (Bl. 28, 517; B. 25 [2] 749; 26, 2868). — II, 211.
 4) 1,5-Dibromnaphtalin-p-Sulfonsäure (B. 25 [2] 749). — II, 211.
 5) 1,6-Dibromnaphtalin-p-Sulfonsäure (B. 25 [2] 749). — II, 211.
 6) 1,7-Dibromnaphtalin-p-Sulfonsäure (B. 25 [2] 749). — II, 211.
 7) isom.-p-Dibromnaphtalin-p-Sulfonsäure (A. 72, 298, 299).
- $C_{10}H_6O_4N_2S$ 1) p-Dinitro-p-Phenylthiophen. Sm. 178° (Bl. [3] 3, 958). — III, 748.
 2) 4-Oxy-1-Diazonaphtalinanhydrid-3-Sulfonsäure + H_2O . Zers. bei 160° (B. 25, 427). — IV, 1551.
 3) 1-Oxy-7-Diazonaphtalin-3-Sulfonsäure (B. 29, 2268).
 4) Verbindung (aus 1-Oxy-7-Diazonaphtalin-3-Sulfonsäure) = $(C_{10}H_6O_4N_2S)_2$ (B. 29, 2268).
- $C_{10}H_6O_4ClBr$ 1) Benzol-1-Carbonsäure-2- $[\beta$ -Chlor- β -Bromäthenyl- α -Carbonsäure]. Sm. 214°. $Ba + H_2O$, Ag_2 (A. 283, 357). — II, 1865.
 2) 2-Chlor-2-Brom-1-Keto-3-Oxy-2,3-Dihydroinden-3-Carbonsäure. Sm. 127° (176–177° wasserfrei) (A. 283, 354). — II, 1866.
 3) 2, α -Lakton d. β -Chlor- β -Brom- α -Oxy- α -Phenyläthan-2, β -Dicarbonsäure. Sm. 175° (B. 27, 740). — II, 1952.
- $C_{10}H_6O_4ClBr_3$ 1) Diacetat d. p-Chlor-p-Tribrom-1,4-Dioxybenzol. Sm. 273° (Soc. 61, 592). — II, 945.
- $C_{10}H_6O_4Cl_2Br_2$ 1) Diacetat d. 2,5-Dichlor-3,6-Dibrom-1,4-Dioxybenzol. Sm. 265 bis 266° (268–270°) (B. 20, 2280; Soc. 61, 578). — II, 945.
- $C_{10}H_6O_4Cl_2S_2$ 1) Chlorid d. 1,3-Naphtalindisulfonsäure. Sm. 137° (138°) (B. 24 [2] 707; 27, 1197). — II, 203.
 2) Chlorid d. 1,4-Naphtalindisulfonsäure. Sm. 160° (B. 27 [2] 81). — II, 203.
 3) Chlorid d. 1,5-Naphtalindisulfonsäure. Sm. 183° (B. 15, 205). — II, 203.
 4) Chlorid d. 1,6-Naphtalindisulfonsäure. Sm. 128–129° (B. 15, 204; 27, 1197; J. 1886, 1577). — II, 203.
 5) Chlorid d. 1,7-Naphtalindisulfonsäure. Sm. 122,5° (B. 24 [2] 715; 27, 1196; C. 1896 [1] 651). — II, 203.
 6) Chlorid d. 2,6-Naphtalindisulfonsäure. Sm. 226° (B. 9, 597). — II, 203.
 7) Chlorid d. 2,7-Naphtalindisulfonsäure. Sm. 162° (157–158°) (B. 9, 597; 15, 204). — II, 203.
- $C_{10}H_6O_4Cl_3Br$ 1) Diacetat d. p-Trichlor-p-Brom-1,4-Dioxybenzol. Sm. 261–262° (Soc. 61, 593). — II, 945.
- $C_{10}H_6O_5NCl$ 1) Lakton d. 1- $[\beta$ -Chlor- β -Nitro- α -Oxyäthyl]benzol-2-Ketocarbonsäure. Sm. 139° (A. 268, 282). — II, 1782.
- $C_{10}H_6O_5Cl_2S_2$ 1) Chlorid d. 1-Oxynaphtalin-2,4-Disulfonsäure. Fl. (B. 19, 1182). — II, 872.
- $C_{10}H_6O_6N_2S_2$ 1) 1-Diazonaphtalin-3,7-Disulfonsäure + $3H_2O$. — IV, 1542.
 2) 2-Diazonaphtalin-1,6-Disulfonsäure. NH_4 , K (B. 21, 3497). — IV, 1542.

- $C_{10}H_6O_6NBr_2$ 1) Diacetat d. *p*-Tribrom-*p*-Nitro-1,3-Dioxybenzol. Sm. 161° (A. m. 18, 132).
- $C_{10}H_6O_6Cl_2S_2$ 1) 1,6-Dichlornaphtalin-3,8-Disulfonsäure. Na_2 (B. 29, 1982).
2) 1,6-Dichlornaphtalin-4,8-Disulfonsäure. Na, Ag_2 (B. 29, 1980).
- $C_{10}H_6O_7N_2S$ 1) 1,8-Dinitronaphtalin-3-Sulfonsäure. $NH_4, Na + H_2O, K, Mg + SH_2O, Ca + 2H_2O, Ba + 5H_2O, Zn + 9H_2O, Pb + 3H_2O, Cu + 4H_2O$. Ag. — II, 214.
- $C_{10}H_6O_7N_2S_2$ 1) 2,4-Diketo-5-[*p*-Sulfo-*p*-Nitrobenzyliden]tetrahydrothiazol (Nitrobenzylidenrhodaninoxysulfonsäure). $Na + H_2O$ (B. 19, 122). — III, 12.
- $C_{10}H_6O_8N_2S$ 1) 2,4-Dinitro-1-Oxynaphtalin-7-Sulfonsäure. $(NH_4)_2, Na_2, K_2, Ba, Pb$ (B. 14, 2029, 2031). — II, 874.
2) 2,4-Dinitro-1-Oxynaphtalin-8-Sulfonsäure. $Na, K + H_2O, Ba$ (J. 1886, 2205; B. 27, 2145; C. 1899 [1] 287). — II, 874.
3) 1,6-Dinitro-2-Oxynaphtalin-8-Sulfonsäure. K, K_2 (B. 22, 455). — II, 891.
- $C_{10}H_6O_{10}N_2S_2$ 1) 1,8-Dinitronaphtalin-3,6-Disulfonsäure. $(NH_4)_2 + 5H_2O, Na_2 + H_2O, K_2 + 4H_2O, Ba + 5H_2O, Ag_2 + H_2O$. — II, 215.
- $C_{10}H_6O_{10}N_2S_3$ 1) Sulfonsäure (aus Citrazinsäure). $Na_2 + 10H_2O$ (Soc. 65, 834).
- $C_{10}H_7ONCl_2$ 1) 3,4-Dichlor-2-Oxy-6-Methylechinolin. Sm. 290—292° u. Zers. (B. 18, 2981). — IV, 320.
2) 3,4-Dichlor-2-Oxy-8-Methylechinolin. Sm. 287—288° (B. 18, 2985). — IV, 322.
3) 2,3-Dichlor-4-Oxy-8-Methylechinolin. Sm. 245° (B. 18, 2983). — IV, 322.
- $C_{10}H_7ONBr_2$ 1) *p*-Dibrom-4-Oxy-2-Methylechinolin (B. 20, 949). — IV, 311.
- $C_{10}H_7ONS$ 1) 1-Thionylamidonaphtalin. Sm. 33°; Sd. 226°₁₀₀ (A. 274, 253). — II, 605.
2) 2-Thionylamidonaphtalin. Sm. 53° (A. 274, 255). — II, 615.
- $C_{10}H_7ONS_2$ 1) 8-Oxychinolin-*p*-Dithiocarbonsäure. Sm. 180° u. Zers. NH_4, Ba (M. 9, 297). — IV, 364.
2) Benzylidenrhodaninsäure. Sm. 200°. Ag (B. 17, 2278). — III, 12.
- $C_{10}H_7ON_2Cl_3$ 1) Aethyläther d. 2,3,5-Trichlor-6-Oxy-1,4-Benzdiazin. Sm. 144° (C. 1895 [1] 834).
- $C_{10}H_7ON_2Br$ 1) 3-Brom-2-Amido-4-Imido-1-Keto-1,4-Dihydronaphtalin. Sm. 200,5°. $HCl + 2H_2O, (2HCl, PtCl_4)$ (B. 20, 1513). — III, 372.
- $C_{10}H_7ON_2Br_2$ 1) 4,4-Dibrom-5-Keto-3-Methyl-1-[4-Bromphenyl]-4,5-Dihydropyrazol. Sm. 83—83,5° (B. 25, 766, 1944). — IV, 508.
- $C_{10}H_7ON_6Cl_3$ 1) Verbindung (aus 2,6-Dichlor-8-Keto-7-Methylpurin). Sm. 231° (B. 32, 272).
- $C_{10}H_7OClHg$ 1) Verbindung (aus 2-Oxynaphtalin u. $HgCl_2$) (Bl. [3] 11, 264).
- $C_{10}H_7OCl_2P$ 1) 1-Naphtylester d. Phosphorigsäuredichlorid. Sd. 174—176°₁₅ (B. 27, 2560). — II, 858.
2) 2-Naphtylester d. Phosphorigsäuredichlorid. Sd. 179—181°₁₃ (B. 27, 2563). — II, 877.
- $C_{10}H_7OCl_3Br_2$ 1) $\gamma\gamma\gamma$ -Trichlor- $\alpha\beta$ -Dibrompropylphenylketon. Sm. 65—66° (B. 26, 912). — III, 147.
- $C_{10}H_7O_2NCl_4$ 1) Amid d. 2,2,3,3-Tetrachlor-1-Oxy-2,3-Dihydroinden-1-Carbonsäure. Sm. 189° (A. 267, 338). — II, 1662.
- $C_{10}H_7O_2NBr_2$ 1) 3,4-Dibrom-2-Oximido-1-Keto-1,2,3,4-Tetrahydronaphtalin. Sm. 154—155° (B. 8, 1022; 21, 390). — II, 862.
2) 3,4-Dibrom-1-Oximido-2-Keto-1,2,3,4-Tetrahydronaphtalin. Sm. 130—131° (B. 21, 368). — II, 881.
3) Aethyläther d. *p*-Dibrom-2-Oxy-3-Ketopseudoindol (A. d. Dibromisatin). Sm. 87—89° (B. 16, 2099). — II, 1607.
4) $\alpha\beta$ -Dibrom- β -[2-Cyanphenyl]propionsäure. Sm. 98—99° (B. 27 [2] 262).
5) Chinolindibromid-4-Carbonsäure. Sm. 188° (B. 18, 1307). — IV, 346.
6) Phenylimid d. Dibrombernsteinsäure. Sm. 158—159° (A. 239, 143). — II, 413.
7) isom. Phenylimid d. Dibrombernsteinsäure. Sm. 177° (A. 292, 233).
- $C_{10}H_7O_2NBr_4$ 1) 1-Nitronaphtalin- α -Tetrabromid. Sm. 130,5—131° (A. 222, 286). — II, 195.

- $C_{10}H_7O_2NBr_4$ 2) 1-Nitronaphtalin- β -Tetrabromid. Sm. 142—143,5 (A. 222, 288). — II, 195.
 3) 1-Nitronaphtalin- γ -Tetrabromid. Sm. 172—173° u. Zers. (A. 222, 288). — II, 195.
- $C_{10}H_7O_2NJ_2$ 1) Chinolindijodid-4-Carbonsäure. Sm. 242° (B. 18, 1307). — IV, 346.
- $C_{10}H_7O_2NS$ 1) 2,4-Diketo-5-Benzylidentetrahydrothiazol (Benzylidensenfölessigsäure). Sm. 242° (M. 10, 75). — II, 1638.
- $C_{10}H_7O_2N_2Cl$ 1) 4-Chlor-3-Nitro-2-Methylechinolin. Sm. 93—94° (B. 21, 1981). — IV, 310.
 2) Imid d. Phenylamidochlormaleinsäure. Sm. 195—196° (B. 22, 2491). — II, 441.
- $C_{10}H_7O_2N_2Cl_2$ 1) Nitril d. $\beta\beta\beta$ -Trichlor- α -Phenylamidoformoxylpropionsäure (Trichlormilchsäurenitrilphenylurethan). Sm. 115—116° (Bl. [3] 19, 775).
- $C_{10}H_7O_2N_2Br$ 1) 4-Brom-2-Nitro-1-Amidonaphtalin. Sm. 200° (A. 183, 260; B. 25, 750; Soc. 47, 500). — II, 597.
- $C_{10}H_7O_2N_3S$ 1) Azid d. Naphtalin-2-Sulfonsäure. Sm. 44—46° u. Zers. (J. pr. [2] 58, 186).
- $C_{10}H_7O_2N_3S_2$ 1) 4-Nitro-1-[$\alpha\beta$ -Dirhodanäthyl]benzol. Sm. 111—112° (J. 1880, 405; A. 216, 325). — II, 1098.
- $C_{10}H_7O_2ClS$ 1) 1-Chlornaphtalin-2-Sulfinsäure. Ba + $1\frac{1}{2}H_2O$ (B. 9, 1504). — II, 200.
 2) Chlorid d. Naphtalin-1-Sulfonsäure. Sm. 66°; Sd. 194—195°₁₃ (A. 114, 132; 275, 233; J. pr. [2] 47, 94; [2] 49, 383; Z. 1869, 711). — II, 201.
 3) Chlorid d. Naphtalin-2-Sulfonsäure. Sm. 76°; Sd. 201°₁₃ (Z. 1869, 711; J. pr. [2] 47, 94; [2] 49, 383; B. 25, 2261; R. 16, 182). — II, 202.
- $C_{10}H_7O_2Cl_2Br$ 1) Methylester d. 1-[$\alpha\beta$ -Dichlor- β -Bromäthenyl]benzol-2-Carbonsäure. Sm. 82° (B. 20, 2056). — II, 1423.
- $C_{10}H_7O_2Cl_2P$ 1) 1-Mononaphtylester d. Phosphorsäuredichlorid. Sd. 325—327° (B. 27, 2561). — II, 858.
 2) 2-Mononaphtylester d. Phosphorsäuredichlorid. Sm. 39°; Sd. 204—205°₃₀ (B. 27, 2564). — II, 877.
- $C_{10}H_7O_2Cl_3S$ 1) Chlorid d. β -Tetrachlor- β -Tetrahydronaphtalin-1-Sulfonsäure (B. 12, 2229). — II, 201.
 2) Chlorid d. β -Tetrachlor- β -Tetrahydronaphtalin-2-Sulfonsäure. Sm. 131° (B. 12, 960). — II, 202.
- $C_{10}H_7O_2BrS$ 1) 1-Bromnaphtalin-2-Sulfinsäure (B. 9, 1503). — II, 200.
 2) Bromid d. Naphtalin-1-Sulfonsäure. Sm. 88—89° (J. pr. [2] 47, 99). — II, 201.
 3) Bromid d. Naphtalin-2-Sulfonsäure. Sm. 96—97° (J. pr. [2] 47, 99). — II, 202.
- $C_{10}H_7O_2JS$ 1) Jodid d. Naphtalin-1-Sulfonsäure. Zers. über 50° (J. pr. [2] 47, 99). — II, 201.
 2) Jodid d. Naphtalin-2-Sulfonsäure. Sm. 93—94° (J. pr. [2] 47, 99). — II, 202.
- $C_{10}H_7O_2NCl_2$ 1) 2,4-Diketo-5-Dichlormethyl-3-Phenyltetrahydrooxazol. Sm. 202° (Bl. [3] 19, 781).
 2) Amid d. 2,2-Dichlor-3-Oxy-1-Keto-2,3-Dihydroinden-3-Carbonsäure. Sm. 246° (A. 267, 340). — II, 1865.
- $C_{10}H_7O_2N_2Br$ 1) Methylenäther d. 3-[β -Brom-3,4-Dioxyphenyl]-4-Methyl-1,2,5-Oxdiazol. Sm. 120—121° (G. 23 [2] 41). — II, 979.
 2) 4-Brom-5-Nitro-2-Keto-1-Methyl-1,2-Dihydrochinolin. Sm. 232° (J. pr. [2] 45, 181). — IV, 285.
 3) 6-Brom-5-Nitro-2-Keto-1-Methyl-1,2-Dihydrochinolin. Sm. 203° (J. pr. [2] 45, 192). — IV, 285.
- $C_{10}H_7O_2N_3S$ 1) 1-Triazonaphtalin-4-Sulfonsäure. Phenylhydrazinsalz (B. 20, 1531). — IV, 1171.
- $C_{10}H_7O_2ClS$ 1) 1-Chlornaphtalin-2-Sulfonsäure. Na + $4H_2O$, K, Ca + H_2O (B. 24, 3474). — II, 204.
 2) 1-Chlornaphtalin-3-Sulfonsäure. K, Ba + $3H_2O$ (B. 21, 3273). — II, 204.
 3) 1-Chlornaphtalin-4-Sulfonsäure. Sm. 130—133° u. Zers. K, Ba +

- 2 H₂O, Zn + 6 H₂O, Mn + 2 H₂O, Cu + 6 H₂O, Ag + H₂O (*J. pr.* [1] 33, 36; *B.* 20, 73). — II, 205.
- C₁₀H₇O₃ClS**
- 1-Chlornaphtalin-5-Sulfonsäure + 2 H₂O. Na, K + H₂O, Ba + H₂O, Ag (*B.* 20, 72; 24 [2] 658, 714). — II, 205.
 - 1-Chlornaphtalin-6-Sulfonsäure. K, Ba + H₂O (*B.* 20, 74). — II, 205.
 - 1-Chlornaphtalin-7-Sulfonsäure. K + H₂O, Ba + 3 H₂O, Ag (*B.* 24, [2] 658; 25, 2480). — II, 205.
 - 1-Chlornaphtalin-8-Sulfonsäure. Ba + 2 H₂O, Ag (*B.* 23, 962). — II, 205.
 - 2-Chlornaphtalin-1-Sulfonsäure. Na + H₂O, K + H₂O, Ba + H₂O (*C.* 1896 [1] 650).
 - 2-Chlornaphtalin-5-Sulfonsäure. Na + H₂O, K + H₂O, Ca + 2 H₂O, Ba + 2 H₂O, Zn + 6 H₂O, Cu + 7 H₂O (*B.* 24 [2] 658; 25, 2481). — II, 206.
 - 2-Chlornaphtalin-6-Sulfonsäure. K, Ba, Pb + 2 H₂O, Ag (*Bl.* 45, 184; *B.* 20, 80). — II, 206.
 - 2-Chlornaphtalin-7-Sulfonsäure + 4 H₂O. Sm. 68°. K + H₂O, Mg + 8 H₂O, Ca + 8 H₂O, Ba + H₂O, Zn + 8 H₂O, Pb + 2 H₂O, Cu + 8 H₂O, Ag (*B.* 25, 2482). — II, 206.
 - 2-Chlornaphtalin-8-Sulfonsäure. K + H₂O, Ba + 4 H₂O, Pb + 4 H₂O (*B.* 19, 1716; 21, 2802; *Bl.* 45, 184). — II, 206.
 - Chlorid d. 1-Oxynaphtalin-2-Sulfonsäure (*B.* 15, 313).
- C₁₀H₇O₃BrS**
- 1-Bromnaphtalin-4-Sulfonsäure. Sm. 138–139°. Ca + 3 H₂O, Ba + 2 H₂O, Pb + 1½ H₂O (*A.* 72, 298; 147, 152, 303; *B.* 12, 1964; *Bl.* 28, 516). — II, 210.
 - 1-Bromnaphtalin-5-Sulfonsäure + 2 H₂O. Sm. 126–127°. Na, K, Ca + 2 H₂O, Ba + H₂O, Pb + 3 H₂O, Ag (*B.* 20, 3405; *A.* 152, 303). — II, 210.
 - 2-Bromnaphtalin-5-Sulfonsäure (*B.* 24 [2] 706). — II, 210.
 - 2-Bromnaphtalin-6-Sulfonsäure. NH₄, Na + ½ H₂O, K + ½ H₂O, Ag (*B.* 22, 1400). — II, 210.
 - 2-Bromnaphtalin-7-Sulfonsäure (*B.* 24 [2] 706). — II, 211.
 - 2-Bromnaphtalin-8-Sulfonsäure. K + H₂O (*B.* 22, 1402). — II, 211.
 - 2-Bromnaphtalin-2-Sulfonsäure. Sm. 62°. K (*A.* 152, 305). — II, 210.
- C₁₀H₇O₃JS**
- 1-Jodnaphtalin-5-Sulfonsäure + 2 H₂O. Sm. 129°. NH₄, Na + H₂O, K + H₂O, Ca + 2 H₂O, Ba + H₂O, Zn + 6 H₂O, Pb + 4 H₂O, Mn + 4 H₂O, Cu + 4 H₂O, Ag (*B.* 22, 2820). — II, 211.
 - 2-Jodnaphtalin-5-Sulfonsäure (*B.* 24 [2] 707). — II, 212.
 - 2-Jodnaphtalin-6-Sulfonsäure. Na + H₂O, Ba + H₂O (*B.* 24 [2] 706). — II, 212.
 - 2-Jodnaphtalin-7-Sulfonsäure (*B.* 24 [2] 707). — II, 212.
 - 2-Jodnaphtalin-8-Sulfonsäure (*B.* 24 [2] 707). — II, 212.
- C₁₀H₇O₃FS**
- 1-Fluornaphtalin-4-Sulfonsäure. K + ½ H₂O, Ba + H₂O, Ag + ½ H₂O. — II, 204.
 - 1-Fluornaphtalin-5-Sulfonsäure + 3 H₂O. Sm. 105–106°. K + ½ H₂O, Ba + 1½ H₂O, Ag (*B.* 22, 1844). — II, 204.
- C₁₀H₇O₄NCl₂**
- Methylester d. 2,2-Dichlor-1-Oxy-3-Keto-2,3-Dihydro-4-Pyriden-1-Carbonsäure. Sm. 171° u. Zers. (*A.* 290, 346). — IV, 238.
- C₁₀H₇O₄NBr₂**
- β-[2,5-Dibrom-2-Nitrophenyl]-α-Propen-4-Carbonsäure. Sm. 176 bis 177° (*G.* 21 [2] 398). — II, 1428.
- C₁₀H₇O₄NS**
- 1-Nitronaphtalin-8-Sulfonsäure. K + H₂O, Ba + 6 H₂O (*A.* 275, 306). — II, 200.
- C₁₀H₇O₄N₂Br**
- Oximanhydrid d. Methylenäthers d. 2-Brom-3,4-Dioxy-1-[αβ-Dioximidopropyl]benzol. Sm. 115° (*G.* 22 [2] 473). — II, 978.
- C₁₀H₇O₄N₂Br₂**
- 2,4,6-Tribrom-3-Nitro-1-Diacetylamidobenzol (*B.* 7, 351). — II, 366.
- C₁₀H₇O₄N₃S**
- 1,8-Anhydrid d. 6-Amido-2-Oxy-1-Diazonaphtalin-8-Sulfonsäure (*B.* 22, 455). — IV, 1551.
- C₁₀H₇O₄Cl₂Br**
- Diacetat d. 2,5-Dichlor-2-Brom-1,4-Dioxybenzol. Sm. 158–159° (*Soc.* 61, 565). — II, 945.
 - Diacetat d. 2,6-Dichlor-3-Brom-1,4-Dioxybenzol. Sm. 173–174° (*Soc.* 61, 567). — II, 945.

- C₁₀H₇O₄BrS** 1) 1-Brom-2-Oxynaphtalin-6-Sulfonsäure. K + 2H₂O, Ca + xH₂O (B. 15, 206; Soc. 39, 137). — II, 891.
2) 6-Brom-2-Oxynaphtalin-1-Sulfonsäure (C. 1897 [1] 238).
- C₁₀H₇O₄NCl₂** 1) 1-[αβ-Dichlor-β-Nitroäthyl]benzol-4-Ketocarbonsäure (4-Dichlor-nitroäthylbenzoylameisensäure). Sm. 174° u. Zers. (A. 268, 276; 295, 1). — II, 1660.
- C₁₀H₇O₄NS** 1) 1-Nitronaphtalin-3-Sulfonsäure. K, Ba + 3H₂O, Ag (B. 19, 2179). — II, 212.
2) 1-Nitronaphtalin-4-Sulfonsäure. Na + H₂O, K, Ca + 2H₂O, Ba + H₂O, Pb + 6H₂O, Ag (B. 23, 958). — II, 212.
3) 1-Nitronaphtalin-5-Sulfonsäure + 4H₂O. Salze meist bekannt (Bl. 24, 507; B. 7, 1369; 10, 1305; A. 72, 298; 275, 246). — II, 212.
4) 1-Nitronaphtalin-6-Sulfonsäure. Salze meist bekannt (Bl. 26, 444; B. 21, 3261). — II, 213.
5) 1-Nitronaphtalin-7-Sulfonsäure. Salze meist bekannt (Bl. 29, 414; B. 21, 3260; A. 275, 251). — II, 213.
6) 1-Nitronaphtalin-8-Sulfonsäure. NH₄ + 2H₂O, K + H₂O, Ca + 4½H₂O, Ba + 2½H₂O, Zn + 9H₂O (A. 275, 235). — II, 213.
7) 2-Nitroso-1-Oxynaphtalin-4-Sulfonsäure. Na, K, Ba + 3H₂O, Zn + 2NH₃ + H₂O, FeNa₃ + xH₂O, Cu + 3H₂O, Cu + 2NH₃ + H₂O, Ag (B. 24, 3160, 3741). — II, 873.
8) 2-Nitroso-1-Oxynaphtalin-5-Sulfonsäure + 2H₂O. Na + 2H₂O (B. 30, 1460).
9) 2-Nitroso-1-Oxynaphtalin-7-Sulfonsäure. Na + 1½H₂O (B. 30, 1461).
10) 4-Nitroso-1-Oxynaphtalin-2-Sulfonsäure. K, Ag + H₂O (A. 273, 112). — II, 874.
11) 1-Nitroso-2-Oxynaphtalin-6-Sulfonsäure. Salze meist bekannt (B. 13, 1994; 24, 3744; Soc. 39, 41). — II, 891.
12) 2-Amido-1,4-Naphtochinon-7-Sulfonsäure? Ba, o-Phenylendiamin-salz (B. 32, 235, 237).
13) Chinolin-4-Carbonsäure-6-Sulfonsäure + 2H₂O. NH₄ + 2H₂O, Ba + H₂O, Pb + 4H₂O (M. 2, 565; 8, 644; B. 23, 2683). — IV, 348.
14) Chinolin-4-Carbonsäure-8-Sulfonsäure + H₂O. (NH₄)₂ + 2H₂O, Ca + 2½H₂O, Ba + 3H₂O, Pb + H₂O, Cu + H₂O (M. 1, 847). — IV, 347.
- C₁₀H₇O₄NS₂** 1) 2,4-Diketo-5-[p-Sulfobenzyliden]tetrahydrothiazol (Benzyliden-rhodaninoxysulfonsäure). NH₄, Na, K (B. 19, 119; M. 10, 77). — III, 12.
- C₁₀H₇O₄NCl₂** 1) Dimethylester d. 2,5-Dichlor-3-Nitrobenzol-1,4-Dicarbonsäure. Sm. 207–208° u. Zers. (B. 21, 1962). — II, 1839.
- C₁₀H₇O₄NBr₂** 1) αβ-Dibrom-α-[3-Nitrophenyl]äthan-ββ-Dicarbonsäure (Soc. 49, 361). — II, 1850.
2) αβ-Dibrom-α-[4-Nitrophenyl]äthan-ββ-Dicarbonsäure (Soc. 49, 362). — II, 1850.
3) 3-Nitrobenzol-1-Carbonsäure-4-αβ-Dibromäthyl-β-Carbonsäure. Zers. bei 220° (A. 231, 372). — II, 1851.
- C₁₀H₇O₄N₂S** 1) Amid d. 1,8-Dinitronaphtalin-3-Sulfonsäure. Zers. bei 272°. — II, 215.
- C₁₀H₇O₄ClS₂** 1) 1-Chlornaphtalin-2,7-Disulfonsäure. K₂ + ½H₂O (C. 1895 [2] 121).
2) 1-Chlornaphtalin-3,5-Disulfonsäure (C. 1896 [1] 651).
3) 1-Chlornaphtalin-3,6-Disulfonsäure. K₂ + 2H₂O (C. 1895 [2] 122).
4) 1-Chlornaphtalin-3,8-Disulfonsäure (B. 24 [2] 708). — II, 206.
5) 1-Chlornaphtalin-4,6-Disulfonsäure (B. 24 [2] 715). — II, 206.
6) 1-Chlornaphtalin-4,7-Disulfonsäure (B. 24 [2] 709). — II, 207.
7) 1-Chlornaphtalin-4,8-Disulfonsäure (B. 24 [2] 715). — II, 207.
8) 2-Chlornaphtalin-1,5-Disulfonsäure (B. 24 [2] 716). — II, 207.
9) 2-Chlornaphtalin-1,6-Disulfonsäure. K + 5H₂O (B. 21, 3497). — II, 207.
10) 2-Chlornaphtalin-3,6-Disulfonsäure (B. 24 [2] 707). — II, 207.
11) 2-Chlornaphtalin-3,7-Disulfonsäure (B. 24 [2] 716). — II, 207.
12) 2-Chlornaphtalin-4,6-Disulfonsäure (B. 24 [2] 717). — II, 207.
13) 2-Chlornaphtalin-4,7-Disulfonsäure (B. 24 [2] 717). — II, 207.
14) 2-Chlornaphtalin-5,7-Disulfonsäure (B. 24 [2] 716). — II, 207.

- $C_{10}H_7O_5ClS_2$ 15) 2-Chlornaphtalin-6,8-Disulfonsäure (B. 24 [2] 717). — II, 207.
 $C_{10}H_7O_7BrS_2$ 1) 6-Brom-2-Oxynaphtalin-2-Disulfonsäure (C. 1897 [1] 238).
 $C_{10}H_7O_5NS_2$ 1) 1-Nitronaphtalin-3,6-Disulfonsäure. $Na + 6H_2O$, $K_2 + 3H_2O$, $Ca + 5H_2O$, $Ba + 5H_2O$, $Pb + 4H_2O$, $Ag + 3H_2O$ (B. 16, 570; C. 1895 [2] 121). — II, 214.
 2) 1-Nitronaphtalin-3,7-Disulfonsäure. $Na_2 + H_2O$, K_2 , $Ca + 2H_2O$, $Ba + 2H_2O$, $Pb + 2H_2O$, $Ag + 2H_2O$. — II, 214.
 3) 1-Nitronaphtalin-3,8-Disulfonsäure. K_2 (B. 28, 1535).
 4) 4-Nitroso-1-Oxynaphtalin-2,5-Disulfonsäure. $K_2 + 1\frac{1}{2}H_2O$ (B. 28, 1536).
 5) 4-Nitroso-1-Oxynaphtalin-2,7-Disulfonsäure (B. 30, 1463).
 $C_{10}H_7O_5NS_2$ 1) 1,8-Anhydrid d. 1-Amidonaphtalin-2,4,8-Trisulfonsäure. $Na_2 + 2H_2O$, $Na_2 + 8\frac{1}{2}H_2O$ (B. 27, 2139).
 2) 1,8-Anhydrid d. 1-Amidonaphtalin-3,6,8-Trisulfonsäure. $Na_2 + 4H_2O$ (B. 27, 2149).
 $C_{10}H_7O_5N_2Br$ 1) Diacetat d. 2-Brom-4,6-Dinitro-1,3-Dioxybenzol. Sm. 135° (B. 16, 1101).
 $C_{10}H_7O_9N_3S_2$ 1) 1,8-Dinitronaphtalin-3,6-Sulfaminsulfonsäure. $NH_4 + 1\frac{1}{2}H_2O$. — II, 215.
 $C_{10}H_7O_9Cl_3S$ 1) 1-Chlornaphtalin-2,4,7-Trisulfonsäure (B. 24 [2] 715). — II, 207.
 $C_{10}H_7O_{11}NS_4$ 1) 1,8-Anhydrid d. 1-Amidonaphtalin-3,4,6,8-Tetrasulfonsäure. $Na_2 + 4H_2O$, $Na_4 + 4H_2O$ (B. 27, 2147).
 $C_{10}H_7NClBr$ 1) 1-Chlor-4-Brom-2-Amidonaphtalin. Sm. 102–103° (Soc. 61, 768; 67, 910). — II, 595.
 2) 1-Chlor-6-Brom-2-Amidonaphtalin. Sm. 119° (B. 24 [2] 719). — II, 595.
 $C_{10}H_7NBrJ$ 1) 4-Brom-1-Jod-2-Amidonaphtalin. Sm. 89° (Soc. 61, 767). — II, 595.
 $C_{10}H_7NBr_3J$ 1) Jodmethylat d. 3,6,7-Tribromchinolin. Sm. 290° u. Zers. (J. pr. [2] 53, 38). — IV, 260.
 $C_{10}H_8ONCl$ 1) 2-Chlor-3-Methylamido-1-Ketoinden. Sm. 195° (B. 20, 1270, 2895). — III, 168.
 2) 2-Chlor-7-Oxy-4-Methylchinolin. Sm. 214–215° (B. 31, 800).
 3) Methyläther d. 4-Chlor-6-Oxychinolin. Sm. 76,5°. HCl , $(HCl, AuCl_3)$ (M. 17, 336). — IV, 275.
 4) Methyläther d. 3-Chlor-1-Oxyisochinolin. Sm. 73–74° (B. 19, 2359). — IV, 304.
 5) Methyläther d. 1-Chlor-3-Oxyisochinolin. Sm. 65–67° (B. 19, 2356). — IV, 304.
 6) 4-Chlor-2-Keto-1-Methyl-1,2-Dihydrochinolin. Sm. 117,5° (B. 20, 2013). — IV, 275.
 7) 1-Chlor-2-Keto-6-Methyl-1,2-Dihydrochinolin. Sm. 120,5° u. Zers. (A. 243, 358). — IV, 320.
 8) 2-Chlor-2-Keto-6-Methyl-1,2-Dihydrochinolin. Sm. 281° (A. 243, 359). — IV, 320.
 9) 3-Chlor-1-Keto-2-Methyl-1,2-Dihydroisochinolin. Sm. 111–112° (B. 19, 2361). — IV, 304.
 10) 1-Chlor-3-Keto-4-Methyl-3,4-Dihydroisochinolin. Sm. 224° (B. 20, 2504). — IV, 324.
 $C_{10}H_8ONCl_3$ 1) $\delta\delta\delta$ -Trichlor- α -Oximido- α -Phenyl- β -Buten. Sm. bei 300° u. Zers. (B. 26, 912). — III, 163.
 $C_{10}H_8ONBr$ 1) 3-Brom-2-Oxy-4-Methylchinolin. Sm. 258° (A. 236, 91). — IV, 317.
 2) Methyläther d. 4-Brom-2-Oxychinolin. Sm. 93° (B. 15, 1424). — IV, 280.
 3) 4-Brom-2-Keto-1-Methyl-1,2-Dihydrochinolin. Sm. 149°. HCl (J. pr. [2] 45, 162; B. 15, 186). — IV, 284.
 4) 5-Brom-2-Keto-1-Methyl-1,2-Dihydrochinolin. Sm. 146–147° (J. pr. [2] 45, 172). — IV, 285.
 5) 6-Brom-2-Keto-1-Methyl-1,2-Dihydrochinolin. Sm. 145° (J. pr. [2] 45, 172). — IV, 285.
 6) 7-Brom-2-Keto-1-Methyl-1,2-Dihydrochinolin. Sm. 173° ($2HCl, PtCl_4$) (J. pr. [2] 45, 171). — IV, 285.
 7) 2-Brom-1-Keto-2-Methyl-1,2-Dihydroisochinolin. Sm. 132° (B. 27, 206). — IV, 302.

- $C_{10}H_9ONBr_3$ 1) **p-Tribrom-2-Keto-1,3-Dimethyl-2,3-Dihydroindol.** Sm. 160° (*M.* 17, 488). — IV, 223.
- $C_{10}H_9ON_2Cl_2$ 1) **4,4-Dichlor-5-Keto-3-Methyl-1-Phenyl-4,5-Dihydropyrazol.** Sm. 61° (*A.* 238, 178; *B.* 25, 766). — IV, 508.
- $C_{10}H_9ON_2Br_2$ 1) **4,4-Dibrom-5-Keto-3-Methyl-1-Phenyl-4,5-Dihydropyrazol.** Sm. 80° (*A.* 238, 177). — IV, 508.
- 2) **3-Oxy-2-Dibrommethyl-6-Methylchinolin.** Sm. bei 235° u. Zers. (*A.* 248, 91). — IV, 935.
- $C_{10}H_9ON_2S$ 1) **Thionyl-1-Naphtylhydrazin.** Sm. 100° (*A.* 270, 119). — IV, 926.
- 2) **Thionyl-2-Naphtylhydrazin.** Sm. 136—139° u. Zers. (*A.* 270, 120). — IV, 928.
- 3) **2-Merkapto-6-Oxy-4-Phenyl-1,3-Diazin.** Sm. 253—254°. Ag_2 (*J. pr.* [2] 47, 208). — IV, 954.
- $C_{10}H_9ON_2S_2$ 1) **2-Amidobenzylidenrhodaninsäure.** Zers. bei 265—269° (*M.* 8, 361). — III, 12.
- $C_{10}H_9ON_2S_3$ 1) **5-Acetat d. 5-Merkapto-2-Thiocarbonyl-3-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol.** Sm. 121—122° (*B.* 27, 2513). — IV, 684.
- $C_{10}H_9O_2NCl$ 1) **3-Chlor-2,4-Dioxy-8-Methylchinolin.** Sm. 276—277° (*B.* 18, 2986). — IV, 323.
- 2) **$\alpha\gamma$ -Lakton d. β -Chlor- α -Phenylamido- γ -Oxypropen- α -Carbonsäure.** Sm. 183° (*Am.* 16, 287).
- 3) **Chlorid d. 1-Oxyindolmethyläther-2-Carbonsäure.** Sm. 61° (*B.* 29, 653). — IV, 237.
- 4) **Chlorid d. Fumarphenylaminsäure.** Sm. 119—120° (*A.* 259, 140). — II, 416.
- 5) **β -Chloräthylimid d. Benzol-1,2-Dicarbonsäure.** Sm. 79—81° (*B.* 24, 2626). — II, 1799.
- 6) **Phenylimid d. Chlorbernsteinsäure.** Sm. 118—119° (*R.* 17, 201 Anm.; *G.* 28 [2] 191).
- $C_{10}H_9O_2NCl_2$ 1) **Methyl-2-Trichloracetylamidophenylketon** (*B.* 26, 1397). — III, 124.
- $C_{10}H_9O_2NBr$ 1) **Äthyläther d. p-Brom-2-Oxy-3-Ketopseudoindol** (m-Bromisätiin-äthyläther). Sm. 107—109° (*B.* 15, 2095). — II, 1606.
- 2) **$\alpha\gamma$ -Lakton d. β -Brom- α -Phenylamido- γ -Oxypropen- α -Carbonsäure.** Sm. 186—187° (*Am.* 16, 208).
- 3) **β -Bromäthylimid d. Benzol-1,2-Dicarbonsäure.** Sm. 82—83,5° (*B.* 21, 566; 22, 1137; 24, 1119). — II, 1799.
- $C_{10}H_9O_2NBr_2$ 1) **2,4,6-Tribrom-1-Diacetylamidobenzol.** Sm. 123° (127—128°) (*B.* 7, 350; 27, 99). — II, 364.
- 2) **Dibrommethyl-5-Brom-2-Acetylamidophenylketon.** Sm. bei 185° u. Zers. (*B.* 17, 966). — III, 128.
- $C_{10}H_9O_2N_2Cl_2$ 1) **Chlormethylat d. 6-Chlor-5-Nitrochinolin.** Sm. 178° u. Zers. 2 + $PtCl_4$ (*J. pr.* [2] 49, 361).
- 2) **Nitril d. $\beta\beta$ -Dichlor- α -Phenylamidoformoxylpropionsäure.** Sm. 150° (*Bl.* [3] 19, 782).
- $C_{10}H_9O_2N_2Br_2$ 1) **4,4-Dibrom-3,5-Diketo-1-[4-Methylphenyl]tetrahydropyrazol.** Sm. 174° (*B.* 30, 1022). — IV, 808.
- 2) **3-Äthyläther d. p-Dibrom-3-Oximido-2-Oxypseudoindol** (Ac. d. Dibromisatoxin). Sm. 252° (*B.* 16, 1709). — II, 1611.
- 3) **Dibromtikonin.** Sm. 196° u. Zers. HCl , (2 HCl , $PtCl_4$), HBr , Pikrat (*B.* 25, 2816; 26, 300; 27, 2869). — IV, 859.
- 4) **$\alpha\beta$ -Dibrom- γ -Phenylhydrazonpropen- α -Carbonsäure.** Sm. 105 bis 110° (*B.* 32, 534).
- $C_{10}H_9O_2N_2S$ 1) **2-Thiocarbonyl-4,5-Diketo-1-Methyl-3-Phenyltetrahydroimidazol** (Methylphenylthioparabansäure). Sm. 170° (*B.* 31, 138).
- $C_{10}H_9O_2Cl_2Br$ 1) **$\gamma\gamma\gamma$ -Trichlor-p-Brom- β -Oxypropylphenylketon** (3 isom. Formen). α -Verb. Sm. 152—153°; β -Verb. Sm. 105°; γ -Verb. Sm. 97° (*B.* 26, 556, 911). — III, 148.
- $C_{10}H_9O_2NCl$ 1) **γ -Keto- α -[5-Chlor-2-Nitrophenyl]- α -Buten.** Sm. 143° (*A.* 262, 147). — III, 161.
- 2) **Phenylimidomucocooxychlorsäure + H_2O .** Sm. 145—147° u. Zers. K_2 , Ba + $\frac{1}{2}H_2O$, Ag_2 (*Am.* 9, 167). — II, 417.
- $C_{10}H_9O_2NBr$ 1) **Methylenäther d. p-Brom-7,8-Dioxy-1-Keto-1,2,3,4-Tetrahydroisochinolin.** Sm. 238—240° (*Soc.* 57, 1016). — II, 1765.

- $C_{10}H_8O_3NBr$ 2) γ -Keto- α -[5-Brom-2-Nitrophenyl]- α -Buten (Nitrobromcinnamyl-methylketon). Sm. 165,5—166° (A. 284, 154). — III, 161.
 3) Acetat d. Oximidomethyl-4-Bromphenylketon. Sm. 89° (B. 25, 3465). — III, 122.
 4) 3[P]-Brom-1-Oxyindolmethyläther-2-Carbonsäure. Sm. 189° (B. 29, 654). — IV, 237.
 5) Brommaleinphenylaminsäure (Am. 9, 185). — II, 416.
 6) Phenylimidomucocooxybromsäure + H_2O . Sm. 131—132°. K_2 , Ba + $\frac{1}{2}H_2O$, Ag_2 (Am. 9, 156). — II, 417.
 7) Äthylester d. α -Cyan- β -Brom- β -[2-Furanyl]akrylsäure. Sm. 111° (J. pr. [2] 50, 18). — III, 711.
- $C_{10}H_8O_3N_2S$ 1) 1-Diazonaphtalinschwefligsäure. K (B. 30, 80). — IV, 1540.
 2) 2-Diazonaphtalinschwefligsäure. K (B. 30, 81). — IV, 1540.
- $C_{10}H_8O_3N_3Br$ 1) Nitril d. 5-Brom-3-Nitro-4-Acetylamidophenylelessigsäure. Sm. 190—191° (B. 15, 1994). — II, 1327.
- $C_{10}H_8O_3Cl_2Br$ 1) 2-Chlorid d. 6-Brom-3,4-Dioxy-1-Dichlormethylbenzol-3,4-Dimethyläther-2-Carbonsäure (Bromopiansäuretrichlorid). Sm. 100 bis 101° (B. 25, 1996; 31, 923). — II, 1943.
- $C_{10}H_8O_4NCl$ 1) β -Chlor- γ -Oximido- α -Oxycroton- α -Phenyläthersäure? (Oxim d. Phenoxylmucocochlorsäure). Sm. 112—125° (Am. 16, 306). — II, 666.
- $C_{10}H_8O_4NCl_2$ 1) Diacetat d. 3-Chlor-5,6-Dioxy-2-Dichlormethylpyridin + $2H_2O$. Sm. 184—185° (B. 22, 1268). — IV, 124.
- $C_{10}H_8O_4NBr$ 1) 1,2-Lakton d. β -Brom-3,4-Dioxy-1-Oximidomethylbenzol-3,4-Dimethyläther-2-Carbonsäure (Anhydrid d. Bromopiansäureoxim). Sm. 163—165° (B. 25, 1998). — II, 1943.
 2) Phenoxylmucobromsäureoxim. Sm. 120—135° u. Zers. Ag (Am. 16, 306; 19, 631). — II, 666.
 3) Imidd. 6-Brom-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure (l. d. Bromhemipiansäure). Sm. 221—222° (B. 25, 1998). — II, 1997.
 4) 4-Nitrobenzoat d. α -Brom- γ -Oxypropen. Sm. 64—65° (C. 1897 [2] 181).
- $C_{10}H_8O_4N_2Cl$ 1) Nitril d. $\alpha\alpha\delta\delta$ -Tetrachlor- $\beta\gamma$ -Diacetoxylbutan- $\beta\gamma$ -Dicarbonsäure. Sm. 163° (A. 254, 101). — I, 1481.
- $C_{10}H_8O_4N_2S$ 1) 2,4-Diimido-1-Oxynaphtalin-7-Sulfonsäure. Ba (B. 14, 2030; 32, 233). — II, 875.
 2) 1,6-Diimido-2-Oxynaphtalin-8-Sulfonsäure (B. 22, 455). — II, 892.
 3) Amid d. 1-Nitronaphtalin-3-Sulfonsäure. Sm. 225° (B. 19, 2181). — II, 212.
 4) Amid d. 1-Nitronaphtalin-4-Sulfonsäure. Sm. 188° (B. 23, 960). — II, 212.
 5) Amid d. 1-Nitronaphtalin-5-Sulfonsäure. Sm. 229 (225°) (Bl. 24, 510; A. 275, 248). — II, 213.
 6) Amid d. 1-Nitronaphtalin-6-Sulfonsäure. Sm. 184° (180°) (Bl. 26, 446; B. 21, 3263). — II, 213.
 7) Amid d. 1-Nitronaphtalin-7-Sulfonsäure. Sm. 223° (216°) (Bl. 29, 415; B. 21, 3261). — II, 213.
 8) Amid d. 1-Nitronaphtalin-8-Sulfonsäure. Sm. 185° (A. 275, 243). — II, 214.
- $C_{10}H_8O_4N_3J$ 1) Jodmethylat d. ?-Dinitroisochinolin (J. pr. [2] 47, 266). — IV, 302.
- $C_{10}H_8O_4ClBr$ 1) 1-Aldehyd d. 6-Brom-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure-2-Chlorid. Sm. 98—99° (B. 31, 923).
 2) Diacetat d. 2-Chlor-5-Brom-1,4-Dioxybenzol. Sm. 145—146° (B. 15, 656). — II, 944.
- $C_{10}H_8O_4ClP$ 1) 1-Chlor-2-Naphtylester d. Phosphorsäure. Sm. 205° (B. 14, 1483). — II, 878.
- $C_{10}H_8O_4Br_3J$ 1) Diacetat d. 1,3,5-Tribrom-2-Jodosobenzol. Sm. 137° (Soc. 73, 693).
- $C_{10}H_8O_5NBr$ 1) 3,4-Methylenäther d. γ -Nitro- β -Keto- α -[β -Brom-3,4-Dioxyphenyl]-propan. Sm. 115° (G. 25 [2] 205). — III, 144.
 2) β -[β -Brom-3-Nitro-4-Methoxyphenyl]akrylsäure. Sm. 205° (A. 243, 377). — II, 1636.
 3) Verbindung (aus 6-Bromopiansäureamid). Sm. 227° u. Zers. (B. 31, 927).
- $C_{10}H_8O_5N_2S$ 1) 5-Nitro-1-Amidonaphtalin-4-Sulfonsäure (B. 22, 452). — II, 630.

- $C_{10}H_8O_5N_2S$ 2) 6-Nitro-2-Amidonaphtalin-8-Sulfonsäure (B. 26, 3033, 3034; D.R.P. 57023). — II, 630.
- $C_{10}H_8O_5N_2S_2$ 1) 1,8-Anhydrid d. 1,2-Diamidonaphtalin-3,8-Disulfonsäure (B. 23, 3094). — IV, 921.
- $C_{10}H_8O_5NCl$ 1) 1-Aldehyd d. 6-Nitro-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonylsäure-2-Chlorid. Sm. 137—138° (B. 31, 924).
2) 3-Aethylester d. 6-Chlorpyridin-2,3,4-Tricarbonsäure + 3H₂O. Sm. 169°. K (Soc. 73, 591).
- $C_{10}H_8O_5NBr$ 1) α -Brom- α -[3-Nitrophenyl]äthan- β,β -Dicarbonylsäure (Nitrophenylbromisobbernsteinsäure) (Soc. 49, 360). — II, 1849.
2) α -Brom- α -[4-Nitrophenyl]äthan- β,β -Dicarbonylsäure (Soc. 49, 362). — II, 1850.
- $C_{10}H_8O_5N_2Cl_2$ 1) Aethylester d. p-Dichlor-p-Dinitrophenylessigsäure. Sm. 67—68° (Am. 18, 683).
- $C_{10}H_8O_5N_2S$ 1) p-Nitro-p-Amido-1-Oxynaphtalin-7-Sulfonsäure (B. 14, 2029). — II, 875.
2) p-Nitro-1-Amido-2-Oxynaphtalin-4-Sulfonsäure (J. pr. [2] 44, 527). — II, 892.
3) 5-Keto-1-Phenyl-4,5-Dihydropyrazol-3-Carbonylsäure-1'-Sulfonsäure (Tartrazinogensulfonsäure). Na + 2H₂O, Ba, Ag (A. 294, 234). — IV, 536.
- $C_{10}H_8O_5N_6S_2$ 1) Oxallyldithiouramil (A. 288, 172).
- $C_{10}H_8O_7N_2S_2$ 1) Monamid d. 1-Nitronaphtalin-3,6-Disulfonsäure. NH₄ (B. 16, 570). — II, 214.
- $C_{10}H_8O_5N_4S_2$ 1) Amid d. 1,8-Dinitronaphtalin-3,6-Disulfonsäure. Sm. 306°. — II, 215.
- $C_{10}H_8NClBr_2$ 1) Chlormethylat d. 5,7-Dibromchinolin. Sm. 236°. 2 + PtCl₄ (J. pr. [2] 50, 30). — IV, 259.
2) Chlormethylat d. 5,8-Dibromchinolin. 2 + PtCl₄ (B. 15, 191). — IV, 260.
- $C_{10}H_8NClBr_4$ 1) Tetrabromid d. 4-Chlor-2-Methylchinolin (B. 20, 954). — IV, 309.
- $C_{10}H_8NCl_3J$ 1) Jodmethylat d. 5,7-Dichlorchinolin. Sm. 255—257° (J. pr. [2] 51, 416). — IV, 255.
- $C_{10}H_8NBr_2J$ 1) Jodmethylat d. 3,5-Dibromchinolin. Sm. 253° (J. pr. [2] 40, 392). — IV, 258.
2) Jodmethylat d. 4,7-Dibromchinolin. Sm. 271° (J. pr. [2] 40, 394). — IV, 259.
3) Jodmethylat d. 5,6-Dibromchinolin. Sm. 302° u. Zers. (J. pr. [2] 53, 27). — IV, 259.
4) Jodmethylat d. 5,7-Dibromchinolin. Sm. 287° (J. pr. [2] 50, 29). — IV, 259.
5) Jodmethylat d. 5,8-Dibromchinolin (B. 15, 191). — IV, 259.
6) Jodmethylat d. 6,7-Dibromchinolin. Sm. 255—260° (J. pr. [2] 53, 31). — IV, 260.
- $C_{10}H_8ONCl_2$ 1) 3,3-Dichlor-2-Keto-1-Aethyl-2,3-Dihydroindol. Sm. 56° (B. 30, 2812).
2) Chlormethylat d. 6-Chlor-5-Oxychinolin + H₂O. Sm. 235—240° (J. pr. [2] 45, 250). — IV, 276.
- $C_{10}H_8ONBr_2$ 1) 3,3-Dibrom-2-Keto-1-Aethyl-2,3-Dihydroindol. Sm. 95—96° (B. 30, 2813).
2) p-Dibrom-2-Keto-3-Aethyl-2,3-Dihydroindol. Sm. 150° (M. 18, 544).
3) p-Dibrom-2-Keto-3,3-Dimethyl-2,3-Dihydroindol. Sm. 181° (M. 18, 113, 120). — IV, 225.
4) 3,4-Dibrom-1-Keto-2-Methyl-1,2,3,4-Tetrahydroisochinolin? Sm. 120° (B. 27, 206).
5) Amid d. β -[2,5-Dibromphenyl]propen-4-Carbonylsäure. Sm. 201 bis 203° (G. 21 [2] 397). — II, 1428.
6) Nitril d. $\beta\gamma$ -Dibrom- α -Oxy- γ -Phenylbuttersäure. Sm. bei 140° u. Zers. (B. 25, 2556). — II, 1584.
7) Verbindung (aus d. Methyläther d. α -Bromäthyl-3,5-Dibrom-4-Oxyphenylketon) (J. pr. [2] 52, 207). — III, 142.
8) Verbindung (aus d. Base C₁₀H₁₁N aus Isobutylidenphenylhydrazin). Sm. 180—181° (M. 16, 862). — IV, 227.

- $C_{10}H_9ONJ_2$ 1) **2-Keto-1-Methyl-1,2-Dihydrochinolindijodid** (*B.* 20, 2011). — IV, 284.
- $C_{10}H_9ONS$ 1) β -**Rhodanäthylphenylketon**. *Fl.* (*B.* 19, 2897). — III, 141.
- $C_{10}H_9ON_3Br$ 1) **4-Brom-5-Keto-3-Methyl-1-Phenyl-4,5-Dihydropyrazol**. Sm. 128 bis 130° (*A.* 238, 176; *B.* 25, 766). — IV, 508.
 2) **Aldehyd d. p-Brom-1-Aethylisindazol-3-Carbonsäure**. Sm. 88° (*A.* 227, 339). — IV, 890.
 3) **Nitril d. 3-Brom-4-Acetylamidophenylelessigsäure**. Sm. 127—129° (*B.* 15, 840). — II, 1326.
- $C_{10}H_9ON_3S$ 1) **5-Phenylacetylamido-1,2,3-Thiodiazol**. Sm. 162° (*B.* 29, 2593). — IV, 1103.
 2) **3-Acetyl-2-Phenylimido-2,3-Dihydro-1,3,4-Thiodiazol**. Sm. 142° (*B.* 27, 618). — IV, 1103.
- $C_{10}H_9ON_3S_2$ 1) **1 [oder 2]-Acetyl-3,5-Dithiocarbonyl-4-Phenyltetrahydro-1,2,4-Triazol?** Sm. 240—252° (*B.* 28, 956).
- $C_{10}H_9ON_3Cl$ 1) **3-Acetylamido-1-Phenyl-1,2,5-Triazol-4-Diazochlorid**. Sm. 150 bis 155° u. Zers. (*A.* 295, 156). — IV, 1315.
- $C_{10}H_9OCl_2Br_2$ 1) **Verbindung** (aus d. Verb. $C_{10}H_9OCl_2$ aus Pseudocumenol). Sm. 203 bis 204° (*B.* 29, 1110).
- $C_{10}H_9O_2NBr_2$ 1) **2,4-Dibromphenylimid d. Essigsäure**. Sm. 54—55° (*B.* 27, 98).
 2) **3,4-Dibromphenylimid d. Essigsäure**. Sm. 208° (*B.* 27 [2] 402; *G.* 25 [1] 96).
- $C_{10}H_9O_2NS$ 1) **2-Methylphenylsenfölglykolid**. Sm. 120° (*B.* 13, 1579; 21, 976; *Soc.* 71, 623). — II, 464.
 2) **4-Methylphenylsenfölglykolid**. Sm. 162° (*B.* 13, 1579; 21, 976). — II, 496.
 3) **Lakton d. Merkaptoessig-2-Methylphenylimidooxymethyläthersäure** (α -Tolylthiocarbimidoglykolid) (*C.* 1897 [1] 471).
 4) **Amid d. Naphtalin-1-Sulfonsäure**. Sm. 150°. *Ag* (*A.* 114, 135; *Z.* 1869, 711; *B.* 26, 2945). — II, 201.
 5) **Amid d. Naphtalin-2-Sulfonsäure**. Sm. 217° (212°) (*Bl.* 25, 258; *Z.* 1869, 711; *J. pr.* [2] 58, 188). — II, 202.
 6) β -**Merkaptoäthylimid d. Benzol-1,2-Dicarbonsäure** (Merkapto-phtalimid). Sm. 79—80° (*B.* 22, 1138; 24, 1111). — II, 1801.
- $C_{10}H_9O_2NS_2$ 1) β -[**2-Merkaptothioformylamidophenyl**]akrylsäure (2-Carbonstyrylamidodithioameisensäure). Sm. 185—187° (*B.* 23, 3344). — II, 1418.
 2) **Phenylamid d. Thiophen-2-Sulfonsäure**. Sm. 96° (*B.* 17, 799). — III, 742.
- $C_{10}H_9O_2N_2Cl$ 1) **Dimethyläther d. 4-Chlor-5,6-Dioxy-2,3-Benzdiazin**. Sm. 152° (2 HCl, $PtCl_4$), (HCl, $AuCl_3$) (*B.* 26, 534; 27, 1426). — IV, 900.
- $C_{10}H_9O_2N_2Br$ 1) **p-Brom-2,4-Diketo-3-Phenyl-1-Methyltetrahydroimidazol**. Sm. 204°. — II, 383.
 2) **Anhydrid d. Diisonitrosobromanethol**. Sm. 73—74° (*G.* 23 [2] 188). — II, 853.
 3) **Bromtikonin**. HCl (*B.* 26, 301). — IV, 859.
 4) **p-Brom-1-Aethylisindazol-3-Carbonsäure**. Sm. 210° (*A.* 227, 339). — IV, 890.
- $C_{10}H_9O_2N_3Br_2$ 1) **2,4,6-Tribrom-1,3-Di[Acetylamido]benzol**. Sm. noch nicht bei 330° (*Am.* 18, 473; *B.* 27, 20). — IV, 574.
 2) $\alpha\beta$ -**Diacetyl- α -[2,4,6-Tribromphenyl]hydrazin**. Sm. 144—145° (*B.* 28, 1931). — IV, 666.
- $C_{10}H_9O_2N_3J$ 1) **Jodmethylat d. 5-Nitrochinolin**. Sm. 215° u. Zers. (*J. pr.* [2] 53, 391). — IV, 263.
 2) **Jodmethylat d. 6-Nitrochinolin** (*B.* 16, 670). — IV, 263.
 3) **Jodmethylat d. 7-Nitrochinolin**. Sm. 231—233° u. Zers. (*J. pr.* [2] 48, 172). — IV, 263.
 4) **Jodmethylat d. 5 [oder 8]-Nitroisochinolin**. Sm. 205° u. Zers. (195°) (*M.* 14, 153; *J. pr.* [2] 47, 257). — IV, 302.
- $C_{10}H_9O_2N_3Br_2$ 1) **Nitril d. 3,5-Dibrom-6-Oxy-2-Keto-4-Methyl-4-Aethyl-2,3,4,5-Tetrahydropyridin-3,5-Dicarbonsäure**. Zers. bei 175—185° (*C.* 1898 [2] 545).
- $C_{10}H_9O_2N_3S$ 1) **Methyläther d. p-Nitro-2-Merkapto-1-Phenylimidazol**. Sm. 115 bis 116° (*B.* 22, 574, 1357). — IV, 503.

- $C_{10}H_7O_2NBr$ 1) **Aethylester d. p-Dibrom-2-Amidobenzol-1-Ketocarbonsäure** (Ac. d. Dibromisatinsäure). Sm. 105° (B. 15, 2099). — II, 1607.
- 2) **Phenylmonamid d. Dibrombernsteinsäure**. Sm. 144–145° u. Zers. (A. 292, 233).
- $C_{10}H_7O_2NS$ 1) **1-Amidonaphtalin-2-Sulfonsäure**. NH_4 , Na, K, Mg + 8H₂O, Ca, Ba + H₂O, Zn + 5H₂O, Pb, Mn + H₂O, Ag (A. 275, 226, 263; B. 24, 3472). — II, 625.
- 2) **1-Amidonaphtalin-3-Sulfonsäure**. Na, Ba + H₂O, Pb, Ag + H₂O (B. 21, 3271; 26, 3032; 28, 1951; C. 1896 [1] 650). — II, 625.
- 3) **1-Amidonaphtalin-4-Sulfonsäure** + $\frac{1}{2}$ H₂O. Na + 4H₂O, K, Mg + 8H₂O, Ca + 8H₂O, Ba + 8H₂O, Pb + 2H₂O, Ag + H₂O (A. 78, 31; 275, 225, 263; B. 7, 1368; 13, 1948; 19, 56, 1720; 23, 960; 26, 3032; J. pr. [2] 55, 300). — II, 625.
- 4) **1-Amidonaphtalin-5-Sulfonsäure** + H₂O. Na + H₂O, K + H₂O, Mg + 8H₂O, Ca + 9H₂O, Ba + 6H₂O, Zn + 9H₂O, Pb + 4H₂O, Ag (J. 1850, 508; Bl. 24, 511; B. 7, 1367; 19, 578; 20, 3161, 3491; 26, 3032; A. 247, 317; 275, 193, 264). — II, 626.
- 5) **1-Amidonaphtalin-6-Sulfonsäure** + 2H₂O. Na + H₂O (4 $\frac{1}{2}$ H₂O), K + H₂O, Mg + 12H₂O, Ca + 7H₂O, Ba + H₂O, Zn + 12H₂O, Cd + 4(8)H₂O (Bl. 26, 447; B. 21, 2371; A. 275, 205, 266). — II, 626.
- 6) **1-Amidonaphtalin-7-Sulfonsäure**. Na + $\frac{1}{2}$ H₂O, Ca + 2H₂O, Ba, Zn + 4H₂O (A. 275, 272; B. 21, 3264; 26, 3032). — II, 627.
- 7) **1-Amidonaphtalin-8-Sulfonsäure** + H₂O. Na, K (A. 247, 318; 275, 274; B. 26, 3032). — II, 627.
- 8) **2-Amidonaphtalin-1-Sulfonsäure** (C. 1896 [1] 650).
- 9) **2-Amidonaphtalin-5-Sulfonsäure**. K + H₂O, Mg + 8H₂O, Ca + 11H₂O, Ba + 2 $\frac{1}{2}$ H₂O (J. pr. [2] 39, 315; A. 275, 277; Ph. Ch. 11, 630; B. 20, 2103; 26, 3032). — II, 627.
- 10) **2-Amidonaphtalin-6-Sulfonsäure** + H₂O. Salze meist bekannt (B. 16, 1517, 1932; 20, 76, 2909, 3159; 26, 3032; A. 275, 279). — II, 628.
- 11) **2-Amidonaphtalin-7-Sulfonsäure** + H₂O. Na + 4H₂O, K, Mg + 5H₂O, Ca + 6H₂O, Ba + 4 $\frac{1}{2}$ H₂O (B. 20, 1429, 2908, 3159; 21, 638; 26, 3032; Ph. Ch. 11, 630; D.R.P. 43 740). — II, 628.
- 12) **2-Amidonaphtalin-8-Sulfonsäure**. Na, K + $\frac{1}{2}$ H₂O, Mg + 3 $\frac{1}{2}$ H₂O, Ca + 6H₂O, Ba + 4H₂O, Zn + 6H₂O (B. 20, 2100; 22, 722; 26, 3032; A. 275, 280; Ph. Ch. 11, 631). — II, 628.
- 13) **2-Amidonaphtalin-9-Sulfonsäure**. Ca + 10H₂O (A. 275, 215). — II, 628.
- 14) **1-Naphtylsulfaminsäure** (Thionaphtamsäure). Sm. 272° u. Zers. NH_4 , K, Ba + 3H₂O, Ag (A. 78, 54; B. 28, 3164). — II, 628.
- 15) **2-Naphtylsulfaminsäure**. NH_4 (B. 24, 363). — II, 629.
- 16) **α -Amidoformylmerkapto- β -Phenylakrylsäure**. Na + 1 $\frac{1}{2}$ H₂O (M. 10, 73). — II, 1638.
- 17) **2-Methylchinolin-6-Sulfonsäure** (B. 17, 1703, 1704). — IV, 313.
- 18) **2-Methylchinolin-7-Sulfonsäure**. Na, K (B. 17, 1704; J. 1883, 1288). — IV, 313.
- 19) **2-Methylchinolin-8-Sulfonsäure**. K (B. 17, 1704; J. 1883, 1288). — IV, 313.
- 20) **4-Methylchinolin-6-Sulfonsäure** + H₂O. Ag + H₂O (B. 23, 2680). — IV, 318.
- 21) **4-Methylchinolin-9-Sulfonsäure** + H₂O (M. 5, 652). — IV, 318.
- 22) **6-Methylchinolin-5-Sulfonsäure**. Zers. noch nicht bei 280°. Zn + 4H₂O (B. 24, 2119; J. pr. [2] 55, 526). — IV, 320.
- 23) **6-Methylchinolin-8-Sulfonsäure**. K, Ba (B. 17, 441, 905, 1552; J. pr. [2] 55, 526). — IV, 320.
- 24) **8-Methylchinolin-5-Sulfonsäure**. K, Ba + 5H₂O (B. 17, 904, 905, 1550; 24, 2120). — IV, 323.
- 25) **8-Methylchinolin-6-Sulfonsäure** (B. 17, 903). — IV, 323.
- 26) **8-Methylchinolin-9-Sulfonsäure** + 2H₂O. Ni + 7 $\frac{1}{2}$ H₂O (B. 24, 2117). — IV, 323.
- 27) **1,5-Anhydrid d. 1-Methylchinolinammonium-5-Sulfonsäure** (A. 282, 136). — IV, 292.
- 28) **1,6-Anhydrid d. 1-Methylchinolinammonium-6-Sulfonsäure** (A. 282, 136). — IV, 293.

- $C_{10}H_9O_3NS$ 29) Methylester d. Chinolin-8-Sulfonsäure. Sm. 96° (A. 282, 131). — IV, 293.
 30) Aethylester d. 3-[2-Thiēnyl]isoxazol-5-Carbonsäure. Sm. 48° (G. 21 [1] 448). — III, 761.
 31) Amid d. 1-Oxynaphtalin-2-Sulfonsäure (B. 15, 313).
- $C_{10}H_9O_3N_2Cl$ 1) α -[2-Chlorphenyl]azo- β -Ketopropan- α -Carbonsäure. Sm. 123° (B. 30, 1967).
- $C_{10}H_9O_3N_2Br$ 1) Diisonitrosobromanetholperoxyd. Sm. 109—110° (G. 23 [2] 176). — II, 853.
 2) Methoxydhydrat d. 4-Brom-5-Nitrochinolin. Chlorid, Jodid, diverse Alkoholate (J. pr. [2] 39, 305; [2] 45, 179). — IV, 265.
 3) Dimethyläther d. 5-Brom-7,8-Dioxy-1-Keto-1,2-Dihydro-2,3-Benzdiazin. Sm. 231—232° (B. 31, 925).
- $C_{10}H_9O_3N_2Br_2$ 1) β -[2,4,6-Tribromphenylamidoformyl]amidopropionsäure. Sm. 219 bis 220° u. Zers. (R. 9, 66). — IV, 433.
- $C_{10}H_9O_4NBr_2$ 1) 2,5-Dibrom- β -Nitro-1-Isopropylbenzol-4-Carbonsäure. Sm. 199 bis 200° (G. 21 [1] 35). — II, 1387.
 2) Methylester d. $\alpha\beta$ -Dibrom- β -[2-Nitrophenyl]propionsäure. Sm. 98—99° (B. 13, 2258). — II, 1362.
- $C_{10}H_9O_4NS$ 1) 2-Amido-1-Oxynaphtalin-3-Sulfonsäure. Na (B. 26, 1281; 30, 54). — II, 874.
 2) 2-Amido-1-Oxynaphtalin-4-Sulfonsäure + H_2O (B. 23, 808; 24, 3162; 27, 242). — II, 874.
 3) 2-Amido-1-Oxynaphtalin-5-Sulfonsäure (B. 30, 51).
 4) 2-Amido-1-Oxynaphtalin- β -Sulfonsäure (J. pr. [2] 44, 531). — II, 874.
 5) 3-Amido-1-Oxynaphtalin-4-Sulfonsäure (B. 29, 1609).
 6) 4-Amido-1-Oxynaphtalin-2-Sulfonsäure (B. 25, 424; 27, 239; A. 273, 114). — II, 874.
 7) 7-Amido-1-Oxynaphtalin-3-Sulfonsäure (B. 29, 2267).
 8) 1-Amido-2-Oxynaphtalin-4-Sulfonsäure + $\frac{1}{2}H_2O$. Na (J. pr. [2] 44, 522; B. 24, 3157; 27, 23, 241). — II, 892.
 9) 1-Amido-2-Oxynaphtalin-5-Sulfonsäure (B. 21, 3479). — II, 892.
 10) 1-Amido-2-Oxynaphtalin-7-Sulfonsäure (B. 21, 3477). — II, 892.
 11) 1-Amido-2-Oxynaphtalin-8-Sulfonsäure (B. 21, 3474). — II, 892.
 12) 1-Amido-2-Oxynaphtalin- β -Sulfonsäure (B. 14, 2042; 21, 3475; Soc. 39, 41). — II, 891.
 13) 5-Amido-2-Oxynaphtalin-8-Sulfonsäure. Na (B. 29, 1979).
 14) 2,3-Amidooxynaphtalin-6-Sulfonsäure. NH_4 , Ba (C. 1899 [1] 288).
 15) 4-Oxy-2-Methylchinolin- β -Sulfonsäure + $2H_2O$. Sm. 283° (wasserfrei). Ba + $4H_2O$ (B. 21, 1977). — IV, 313.
 16) 2-Oxychinolinmethyläther- β -Sulfonsäure (B. 18, 2395). — IV, 298.
 17) Succinylamid d. Benzolsulfonsäure. Sm. 160° (J. 1856, 506). — II, 116.
 18) β -Ketopropylimid d. Benzol-1-Carbonsäure-2-Sulfonsäure. Sm. 143° (B. 29, 330).
- $C_{10}H_9O_4N_2Cl$ 1) 6-Chlor-2,5-Di[Acetylamido]-1,4-Benzochinon. Sm. 225—226° (J. pr. [2] 40, 491). — III, 341.
- $C_{10}H_9O_4N_2Br$ 1) Methylenäther d. β -Brom-3,4-Dioxy-1-[$\alpha\beta$ -Dioximidopropyl]-benzol. Sm. 186° (G. 23 [2] 39). — II, 979.
- $C_{10}H_9O_4N_2S_2$ 1) 2-Aximido-4-Methylthiazol-5-Carbonsäure. Sm. 214° u. Zers. (A. 259, 290). — IV, 541.
- $C_{10}H_9O_5NCl_2$ 1) 1-[$\beta\beta$ -Dichlor- β -Nitro- α -Methoxyläthyl]benzol-2-Carbonsäure. Sm. 187°. Ca, Ag (A. 268, 289; 278, 193, 205). — II, 1579.
- $C_{10}H_9O_5NBr_2$ 1) $\alpha\beta$ -Dibrom- β -[3-Nitro-4-Oxyphenylmethyläther]propionsäure. Sm. 178° (A. 243, 376). — II, 1566.
- $C_{10}H_9O_6NS$ 1) 1-Amido-2,7-Dioxynaphtalin-4-Sulfonsäure. Na + $3H_2O$ (B. 27, 3051).
 2) α -Phthalylamidoäthan- β -Sulfonsäure (Phthalimidisäthionsäure). K + $\frac{1}{2}H_2O$ (A. 248, 159). — II, 1810.
 3) 1-Methylester-2,3-Methylimid d. Benzol-1,2-Dicarbonsäure-3-Sulfonsäure. Sm. 180° (Am. 6, 270). — II, 1825.
 4) Methylester d. Benzol-1-Carbonsäure-2-Sulfonsäure-1,2-Imid-N-Methylcarbonsäure. Sm. 118° (B. 30, 1267).

- C₁₀H₆O₅NS** 5) Aethylester d. Benzol-1-Carbonsäure-2-Sulfonsäure-1,2-Imid-N-Carbonsäure. Sm. 136° (B. 30, 1267).
- 6) β -Sulfoäthylimid d. Benzol-1,2-Dicarbonsäure + 1½ H₂O (Phthalyl-
taurin). Sm. bei 100°. K + ½ H₂O (Soc. 54, 1303; B. 24, 1116). —
II, 1801.
- C₁₀H₆O₅NS₂** 7) 4-Sulfophenylimid d. Bernsteinsäure. Na (A. 248, 155). — II, 570.
- 1) 1-Amidonaphtalin-2,7-Disulfonsäure. NH₄ + 2 H₂O, K + 3 H₂O,
Ca + 5 H₂O, Ba + 4 H₂O, Pb + 4 H₂O (B. 25 [2] 700). — II, 630.
- 2) 1-Amidonaphtalin-3,5-Disulfonsäure. K + 2 H₂O, K₂ (C. 1896 [1] 651).
- 3) 1-Amidonaphtalin-3,6-Disulfonsäure. Na + 3 H₂O (C. 1895 [2] 122).
- 4) 1-Amidonaphtalin-3,7-Disulfonsäure. NH₄, K, Ca + 2 H₂O, Ba +
H₂O, Pb. — II, 630.
- 5) 1-Amidonaphtalin-3,8-Disulfonsäure + 3 H₂O. Na + 2 H₂O, Na₂
+ 6 H₂O, Ba + 5 H₂O, BaH + 3 H₂O (B. 22, 3328; 26, 3032). — II, 630.
- 6) 1-Amidonaphtalin-4,6-Disulfonsäure. Ca + 5 H₂O (A. 275, 218).
— II, 630.
- 7) 1-Amidonaphtalin-4,7-Disulfonsäure. K₂ + 2½ H₂O, Ca (A. 275,
220). — II, 631.
- 8) 1-Amidonaphtalin-4,8-Disulfonsäure. Na + H₂O (B. 22, 3327). —
II, 631.
- 9) 2-Amidonaphtalin-1,5-Disulfonsäure (B. 24 [2] 716; C. 1896 [1]
650). — II, 631.
- 10) 2-Amidonaphtalin-1,6-Disulfonsäure. NH₄, (NH₄)₂ + H₂O, Na +
2 H₂O, K + H₂O, K₂ + 2 H₂O (B. 21, 3495). — II, 631.
- 11) 2-Amidonaphtalin-1,7-Disulfonsäure. K₂ + 3 H₂O (B. 27, 1194).
— II, 631.
- 12) 2-Amidonaphtalin-3,6-Disulfonsäure (B. 22, 398; 24 [2] 707). —
II, 631.
- 13) 2-Amidonaphtalin-3,7-Disulfonsäure. Na (B. 27, 1198; D.R.P.
46 711). — II, 631.
- 14) 2-Amidonaphtalin-4,7-Disulfonsäure. Na + H₂O (B. 23, 77; 27,
1196). — II, 631.
- 15) 2-Amidonaphtalin-4,8-Disulfonsäure. Na, Ba (C. 1899 [1] 289).
- 16) 2-Amidonaphtalin-5,7-Disulfonsäure (B. 24 [2] 716; 27, 1197). —
II, 631.
- 17) 2-Amidonaphtalin-6,8-Disulfonsäure (B. 17 [2] 267; 19 [2] 277;
24 [2] 716). — II, 631.
- 18) β -Amidonaphtalin- β -Disulfonsäure. Ca + 5 H₂O (A. 275, 221). —
II, 631.
- 19) 2- oder 7-Amid d. 1-Oxynaphtalin-2,7-Disulfonsäure. Na + 2 H₂O
(B. 23, 3092). — II, 873.
- 20) 3- oder 8-Amid d. 1-Oxynaphtalin-3,8-Disulfonsäure. Na + H₂O,
(NH₄, Na + H₂O), Ba + 5 H₂O (B. 22, 3333). — II, 873.
- C₁₀H₆O₆N₂Cl** 1) Aethylester d. 3-Chlor-2,6-Dinitro-1-Methylbenzol-4-Carbon-
säure. Sm. 71° (A. 265, 350). — II, 1350.
- C₁₀H₆O₆N₂S₂** 1) Amid d. 1-Nitronaphtalin-3,6-Disulfonsäure. Sm. 286—287° (285°)
(B. 16, 570; C. 1895 [2] 121). — II, 214.
- 2) Amid d. 1-Nitronaphtalin-3,7-Disulfonsäure. Sm. über 300°. —
II, 214.
- C₁₀H₆O₇NS₂** 1) 2-Amido-1-Oxynaphtalin-4,6-Disulfonsäure (B. 26, 1282).
- 2) 2-Amido-1-Oxynaphtalin-4,7-Disulfonsäure (B. 26, 1282). — II, 875.
- 3) 4-Amido-1-Oxynaphtalin-2,5-Disulfonsäure (B. 28, 1537).
- 4) 8-Amido-1-Oxynaphtalin-3,6-Disulfonsäure. Na + 1½ H₂O, Ba
+ 4½ H₂O (B. 26 [2] 460; 27, 2150). — II, 875.
- 5) 8-Amido-1-Oxynaphtalin-5,7-Disulfonsäure. Na + H₂O (B. 27,
2141). — II, 875.
- 6) 1-Amido-2-Oxynaphtalin-3,6-Disulfonsäure. Na (B. 14, 2042;
21, 3479).
- 7) 1-Amido-2-Oxynaphtalin-4,6-Disulfonsäure. Na (B. 27, 3051).
- 8) 1-Amido-2-Oxynaphtalin-4,7-Disulfonsäure. Na (B. 27, 3053).
- 9) 1-Amido-2-Oxynaphtalin-6,8-Disulfonsäure. Na (B. 21, 3481).
- C₁₀H₆O₇SP** 1) Phosphat d. 2-Oxynaphtalin-6-Sulfonsäure. Ba₃ (B. 14, 1482).
— II, 890.

- $C_{10}H_9O_9NS_3$ 1) 1-Amidonaphtalin-3,6,8-Trisulfonsäure. $Na + 3H_2O$ (B. 27, 2147).
 2) 2-Amidonaphtalin-1,3,7-Trisulfonsäure. $Na_2 + 4H_2O$ (B. 27, 1199). — II, 631.
 3) 2-Amidonaphtalin-2,5,7-Trisulfonsäure. Na_2 , $Na_3 + 5\frac{1}{2}H_2O$ (B. 27, 1202). — II, 632.
 4) 2-Amidonaphtalin-3,6,7-Trisulfonsäure. $Na_2 + 3H_2O$ (B. 27, 1201). — II, 632.
 5) 2-Amidonaphtalin-3,6,8-Trisulfonsäure. $K_2 + 1\frac{1}{2}H_2O$ (D.R.P. 27 378; B. 27, 2153).
 6) Naphtalin-2-Sulfaminsäure-6,8-Disulfonsäure. $K_2 + H_2O$, $Ba_2 + 10H_2O$ (B. 27, 2152).
- $C_{10}H_9O_{12}NS_4$ 1) 2-Amidonaphtalin-1,3,6,7-Tetrasulfonsäure. $Ba_2 + 6H_2O$ (B. 27, 1203). — II, 632.
- $C_{10}H_9O_{16}Cl_{15}S_5$ 1) Verbindung (aus Chloral). Sm. 70° u. Zers. (B. 6, 1070). — I, 231.
- $C_{10}H_9NClBr$ 1) Chlormethylat d. 2-Bromchinolin. $2 + PtCl_4 + 2H_2O$ (J. pr. [2] 41, 43). — IV, 256.
 2) Chlormethylat d. 3-Bromchinolin. $2 + PtCl_4$ (B. 15, 1901). — IV, 257.
 3) Chlormethylat d. 6-Bromchinolin. Sm. 238° u. Zers. $2 + PtCl_4$ (J. pr. [2] 49, 525). — IV, 258.
 4) Chlormethylat d. ?-Bromisochinolin. Sm. 82° . $2 + PtCl_4$ (J. pr. [2] 43, 193). — IV, 301.
- $C_{10}H_9NClJ$ 1) Jodmethylat d. 3-Chlorchinolin. subl. bei 276° (J. pr. [2] 54, 350). — IV, 254.
 2) Jodmethylat d. 5-Chlorchinolin. Sm. 250° u. Zers. (J. pr. [2] 48, 255). — IV, 254.
 3) Jodmethylat d. 6-Chlorchinolin. Zers. bei 248° (B. 15, 559; J. pr. [2] 49, 356). — IV, 255.
 4) Jodmethylat d. 7-Chlorchinolin. Sm. $231-232^\circ$ (172°) (B. 17, 927; J. pr. [2] 48, 274). — IV, 255.
 5) Jodmethylat d. 8-Chlorchinolin. Sm. 165° (J. pr. [2] 48, 144). — IV, 255.
 6) Chlormethylat d. 3-Jodechinolin + H_2O . $2 + PtCl_4$ (B. 18, 784). IV, 262.
 7) Chloridjodid d. 6-Methylechinolin. HCl (B. 18, 1616). — IV, 318.
- $C_{10}H_9NBrJ$ 1) Jodmethylat d. 2-Bromchinolin. Zers. bei 210° (J. pr. [2] 41, 43). — IV, 256.
 2) Jodmethylat d. 3-Bromchinolin. Sm. $265-270^\circ$ (J. pr. [2] 50, 235; B. 14, 919; 15, 188). — IV, 257.
 3) Jodmethylat d. 5-Bromchinolin. Sm. 205° (J. pr. [2] 38, 388). — IV, 257.
 4) Jodmethylat d. 6-Bromchinolin. Sm. 278° (J. pr. [2] 49, 525). — IV, 258.
 5) Jodmethylat d. 7-Bromchinolin. Sm. 240° (J. pr. [2] 38, 389). — IV, 258.
 6) Jodmethylat d. 8-Bromchinolin. Sm. $280-281^\circ$ u. Zers. (J. pr. [2] 48, 152). — II, 258.
 7) Jodmethylat d. 8-Bromisochinolin. Sm. 274° (J. pr. [2] 47, 262). — IV, 301.
 8) Jodmethylat d. ?-Bromisochinolin. Sm. 233° (J. pr. [2] 43, 193). — IV, 301.
- $C_{10}H_9N_3Cl_2J$ 1) Jodmethylat d. 5,7-Dichlor-8-Amidochinolin. Sm. 154° (J. pr. [2] 51, 421). — IV, 214.
- $C_{10}H_9N_3Br_2J$ 1) Jodmethylat d. 6,8-Dibrom-5-Amidochinolin. Sm. 238° (J. pr. [2] 51, 480).
- $C_{10}H_{10}ONCl$ 1) α -Chlor- γ -Oximido- α -Phenyl- α -Buten. Sm. 133° (B. 28, 1532). — III, 160.
 2) γ -Oximido- α -[2-Chlorphenyl]- α -Buten. Sm. 117° (A. 294, 291).
 3) Chlormethylat d. 6-Oxychinolin + H_2O . Zers. bei $270-275^\circ$. $2 + PtCl_4$ (J. pr. [2] 43, 520). — IV, 270.
 4) Chlormethylat d. 7-Oxychinolin. Sm. 238° (J. pr. [2] 45, 230). — IV, 272.
 5) Chlormethylat d. 8-Oxychinolin + $2H_2O$. $2 + PtCl_4 + 2H_2O$ (M. 10, 665; J. pr. [2] 42, 226). — IV, 273.

- $C_{10}H_{10}ONCl$ 6) Chlormethylat d. 8-Oxyisochinolin + $1\frac{1}{2}H_2O$. Sm. 259° (wasserfrei) (*J. pr.* [2] 52, 12). — IV, 303.
 7) Chlormethylat d. 2-Oxyisochinolin. Sm. 216—218° (*J. pr.* [2] 45, 247). — IV, 304.
 8) Phenylamid d. β -Chlorpropen- α -Carbonsäure (Ph. d. β -Chlorcrotonsäure). Sm. 123—124° (*B.* 29, 1668).
 9) Phenylamid d. isom. β -Chlorpropen- α -Carbonsäure (Ph. d. Chlorisocrotonsäure). Sm. 106° (*B.* 29, 1667).
 10) β -Chlor- α -[2-Acetylamidophenyl]äthen. Sm. 158—159° (*B.* 26, 2970). — II, 585.
- $C_{10}H_{10}ONBr$ 1) Methoxyhydrat d. 3-Bromchinolin. Salze siehe (*B.* 14, 919; 15, 188; *J. pr.* [2] 50, 235). — IV, 257.
 2) β -Bromallylamid d. Benzolcarbonsäure. Sm. 97—98° (*B.* 23, 1067). — II, 1162.
 3) 2-Brom-4-Acetylamidophenyläthen. Sm. 182,5° (*B.* 16, 2043). — II, 585.
 4) Verbindung (aus d. Methyläther d. α -Bromäthyl-3-Brom-4-Oxyphenylketon). Sm. 210—211° (*J. pr.* [2] 51, 430).
- $C_{10}H_{10}ONJ$ 1) Jodmethylat d. 5-Oxychinolin. Sm. 224° (*J. pr.* [2] 47, 433). — IV, 270.
 2) Jodmethylat d. 6-Oxychinolin + H_2O (*J. pr.* [2] 42, 231). — IV, 271.
 3) Jodmethylat d. 7-Oxychinolin. Sm. 251° u. Zers. (*J. pr.* [2] 45, 238). — IV, 272.
 4) Jodmethylat d. 8-Oxychinolin + H_2O . Zers. bei 143° (*M.* 10, 665; *J. pr.* [2] 45, 257). — IV, 273.
 5) Jodmethylat d. 8-Oxyisochinolin. Sm. 239° (*J. pr.* [2] 52, 11). — IV, 303.
 6) Jodmethylat d. 2-Oxyisochinolin + H_2O . Sm. 224° (wasserfrei) (*J. pr.* [2] 45, 247). — IV, 304.
- $C_{10}H_{10}ON_2Br_2$ 1) Dibromkotonin. Sm. 125°. HCl , $(2HCl, PtCl_4)$, (HBr, Br_2) , Pikrat (*B.* 26, 296; 27, 2869; 28, 1934). — IV, 858.
- $C_{10}H_{10}ON_2S$ 1) 2-Thiocarbonyl-5-Keto-4-Methyl-1-Phenyltetrahydroimidazol. Sm. 184° (*B.* 16, 1544; 17, 421; 24, 3280). — II, 404.
 2) 2-Thiocarbonyl-5-Keto-1-[2-Methylphenyl]tetrahydroimidazol. Sm. 136° (*B.* 24, 3281). — II, 463.
 3) 2-Thiocarbonyl-5-Keto-1-[4-Methylphenyl]tetrahydroimidazol. Sm. 210° (*B.* 17, 426; 24, 3280, 3281). — II, 499.
 4) 2-[2-Methylphenyl]imido-4-Ketotetrahydrothiazol. Sm. 144 bis 145°. HCl (*Soc.* 71, 622).
 5) 2-Imido-4-Keto-3-[4-Methylphenyl]tetrahydrothiazol. Sm. 183° (*B.* 10, 1966). — II, 499.
 6) 2-[Methylphenylamido]-4-Keto-4,5-Dihydrothiazol. Sm. 129 bis 130°. HCl (*Soc.* 71, 629).
 7) 2-Thiocarbonyl-4-Keto-1,3-Dimethyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 186° (*J. pr.* [2] 55, 133).
 8) Cinnamoylthioharnstoff. Sm. 215—216° (*Soc.* 67, 1048).
- $C_{10}H_{10}ON_2S_2$ 1) Aethyläther d. 5-Oxy-2-Thiocarbonyl-3-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 87—88°; Sd. 230° (*B.* 29, 2135). — IV, 683.
- $C_{10}H_{10}ON_3Br$ 1) 3,4-Dimethyl-1-[2-Bromphenyl]-2,3-Dihydro-1,2,5-Triazol-2,3-Oxyd. Sm. 109—110° (*J. pr.* [2] 57, 166). — IV, 1108.
- $C_{10}H_{10}OCl_2Br_2$ 1) Verbindung (aus d. Verb. $C_{10}H_{12}OCl_2$ aus Pseudocumenol). Sm. 147° (*B.* 29, 1110).
- $C_{10}H_{10}O_2NCl$ 1) Methyl-2-Chloracetylamidophenylketon. Sm. 81° (*B.* 26, 1396). — III, 124.
 2) Aethylester d. Phenylimidochloroessigsäure. Sm. 91° (*A.* 184, 275). — II, 407.
 3) 4-Chlorphenylimid d. Essigsäure. Sm. 66—67° (*G.* 24 [1] 446).
 4) Verbindung (aus Phenylcarbanilsäuredichlorisopropylester). Sm. 103° (*J. pr.* [2] 44, 20). — II, 372.
- $C_{10}H_{10}O_2NCl_3$ 1) $\delta\delta\delta$ -Trichlor- α -Oximido- γ -Oxy- α -Phenylbutan. Sm. 135—137° (131—132°) (*B.* 26, 556, 911). — III, 148.
 2) Verbindung (aus Chloral und Phenylessigsäureamid). Sm. 145° (*G.* 20, 174). — II, 1312.

- C₁₀H₁₀O₂NBr** 1) Methyl-5-Brom-2-Acetylamidophenylketon. Sm. 160° (B. 17, 965). — III, 128.
 2) 1-Brom-3-Keto-2-Methyl-1-Brommethyl-1,3-Dihydroisoindol. Sm. 125–126° (B. 18, 2455; 29, 2521). — II, 1873.
 3) 5-Brom-8-Oxychinolinmethyloxydhydrat. Sm. 180° (J. pr. [2] 54, 10). — IV, 280.
 4) Phenylamid d. Acetbromessigsäure. Sm. 138° u. Zers. (A. 236, 79). — II, 405.
 5) 4-Bromphenylimid d. Essigsäure. Sm. 74–74,5° (B. 27, 97; G. 24 [1] 62).
- C₁₀H₁₀O₂N₂Cl₂** 1) Dimethyläther d. 4,4-Dichlor-5,6-Dioxy-3,4-Dihydro-2,3-Benzodiazin. Sm. 260° u. Zers. (B. 26, 533; 27, 1425). — II, 1942.
- C₁₀H₁₀O₂N₂Br₂** 1) 2,4-Dibrom-1,3-Di[Acetylamido]benzol. Sm. 259–260° u. Zers. (Am. 18, 480; B. 27, 20). — IV, 574.
 2) 2,6-Dibrom-1,4-Di[Acetylamido]benzol. Sm. 108° u. Zers. (B. 25, 3334). — IV, 589.
- C₁₀H₁₀O₂N₂S** 1) β-[2-Thioharnstoffphenyl]akrylsäure. Sm. 236–239° (B. 23, 3342). — II, 1418.
 2) β-[4-Thioharnstoffphenyl]akrylsäure (B. 23, 3346). — II, 1419.
 3) Benzylidenthiohydantoinsäure (Amidinthiozimmtsäure) (M. 8, 421). — III, 35.
 4) β-[2-Rhodanamidophenyl]akrylsäure. Sm. 152° u. Zers. (B. 23, 3342). — II, 1418.
 5) β-[3-Rhodanamidophenyl]akrylsäure. Sm. 148–149° (B. 23, 3344). — II, 1419.
 6) β-[4-Rhodanamidophenyl]akrylsäure (B. 23, 3345). — II, 1419.
 7) Amid d. 1-Amidonaphtalin-3-Sulfonsäure. Sm. 131°. HCl (B. 21, 3272). — II, 625.
 8) Amid d. 1-Amidonaphtalin-4-Sulfonsäure. Sm. 206°. HCl (B. 23, 961). — II, 626.
 9) Amid d. 1-Amidonaphtalin-5-Sulfonsäure. Sm. 259–260°. HCl, H₂SO₄ (B. 23, 1118). — II, 626.
 10) Amid d. 1-Amidonaphtalin-6-Sulfonsäure. Sm. 218–219° u. Zers. HCl (B. 24, 330). — II, 627.
 11) Amid d. 1-Amidonaphtalin-7-Sulfonsäure + 1½ H₂O. Sm. 180 bis 181°. HCl + H₂O, HJ + H₂O (B. 21, 3266; 25, 2486). — II, 627.
 12) Hydrazid d. Naphtalin-2-Sulfonsäure. Sm. 137–139°. HCl, Na + C₂H₅O (J. pr. [2] 58, 179).
- C₁₀H₁₀O₂N₂Cl** 1) 2-Chlor-3 oder 4-Methyl-1-Phenyl-2,3-Dihydro-1,2,5-Triazol-4 oder 3-Carbonsäure. Sm. 240–242° u. Zers. (J. pr. [2] 57, 170). — IV, 1097.
- C₁₀H₁₀O₂N₂J** 1) Jodmethylat d. 5-Nitro-8-Amidochinolin. Sm. 170° u. Zers. (J. pr. [2] 53, 203). — IV, 914.
 2) Jodmethylat d. 6-Nitro-8-Amidochinolin. Sm. 176° (J. pr. [2] 53, 207). — IV, 915.
- C₁₀H₁₀O₂N₂S** 1) 2-Keto-5-Methyl-3-[4-Thioureïdophenyl]-2,3-Dihydro-1,3,4-Oxdiazol. Sm. 203° (B. 26, 1319). — IV, 1127.
- C₁₀H₁₀O₂ClBr** 1) β-Bromäthyläther d. p-Chlormethyl-4-Brom-1-Oxyphenylketon. Sm. 104° (B. 31, 171).
 2) 6-Chlor-3-Brom-5-Isopropyl-2-Methyl-1,4-Benzochinon. Sm. 78° (B. 20, 1319). — III, 367.
 3) 3-Chlor-6-Brom-5-Isopropyl-2-Methyl-1,4-Benzochinon. Sm. 87° (B. 20, 1318). — III, 367.
- C₁₀H₁₀O₂ClJ** 1) Benzoat d. Chlorjodoxypropan (C. 1898 [1] 857).
 2) Methylester d. β-Chlor-α-Jod-β-Phenylpropionsäure. Sm. 97 bis 98° (B. 289, 272).
- C₁₀H₁₀O₂NCl** 1) Isosafrolnitrosylchlorid. Sm. 150° u. Zers. (G. 22 [2] 464; Soc. 65, 332). — II, 978.
 2) Phenylchloracetylamidoessigsäure. Sm. 132–133° (J. pr. [2] 40, 429; Ph. Ch. 10, 639). — II, 429.
 3) α-Benzenylchloroximpropionsäure. Sm. 102° (B. 27, 3353). — II, 1201.
 4) Acetat d. 2-Chlor-4-Acetylamido-1-Oxybenzol. Sm. 124° (A. 303, 8).

- C₁₀H₁₀O₃NBr** 1) 4,5-Dimethyläther d. 7-Brom-3,4,5-Trioxypseudoisindol. Sm. 203° (B. 31, 933).
 2) Phenylbromacetylamidoessigsäure. Zers. bei 153° (B. 22, 1803; Ph. Ch. 10, 640). — II, 429.
 3) 2-Bromphenylacetylamidoessigsäure. Sm. 176—177° (B. 23, 2596). — II, 430.
 4) 3-Brom-4-Acetylamidophenylessigsäure. Sm. 164—165° (B. 15, 841). — II, 1326.
 5) 4-Bromphenylsuccinaminsäure. Sm. 186—187°. Ag (R. 9, 48). — II, 413.
 6) Äthylester d. 4-Bromphenyloxaminsäure. Sm. 154—156° (A. 184, 266). — II, 408.
- C₁₀H₁₀O₃N₂Br₂** 1) β -[2,4-Dibromphenylamidoformyl]amidopropionsäure. Sm. 201 bis 202° u. Zers. (R. 9, 65). — II, 433.
- C₁₀H₁₀O₃N₂S** 1) 1,2-Diamidonaphtalin-3-Sulfonsäure (B. 30, 55). — IV, 920.
 2) 1,2-Diamidonaphtalin-4-Sulfonsäure (B. 29, 1978). — IV, 920.
 3) 1,2-Diamidonaphtalin-5-Sulfonsäure (B. 30, 53). — IV, 920.
 4) 1,2-Diamidonaphtalin-6-Sulfonsäure (B. 21, 3485). — IV, 920.
 5) 1,2-Diamidonaphtalin-7-Sulfonsäure (B. 21, 3485). — IV, 920.
 6) 1,4-Diamidonaphtalin-2-Sulfonsäure (C. 1899 [1] 287).
 7) 1,5-Diamidonaphtalin-2-Sulfonsäure. Ba (B. 29, 1982). — IV, 924.
 8) 1,6-Diamidonaphtalin-4-Sulfonsäure. (2HCl, PtCl₄) (B. 29, 1979). — IV, 924.
 9) 2,3-Diamidonaphtalin-6-Sulfonsäure. Na, K, Ba (C. 1899 [1] 288).
 10) 1-Hydrazidonaphtalin-2-Sulfonsäure (B. 24, 3474). — IV, 930.
 11) 1-Hydrazidonaphtalin-4-Sulfonsäure. Na + 4H₂O (A. 247, 333). — IV, 930.
 12) 1-Hydrazidonaphtalin-5-Sulfonsäure. Na + 3½ H₂O (A. 247, 334). — IV, 930.
 13) 1-Hydrazidonaphtalin-8-Sulfonsäure. Na, K (A. 247, 335). — IV, 931.
 14) 3-Methyl-1-Phenylpyrazol-1'-Sulfonsäure (A. 278, 301). — IV, 506.
 15) 7-Amido-8-Methylchinolin-5-Sulfonsäure + H₂O. Na, Ca, Ba + 2H₂O, Cu + H₂O, Ag + 2H₂O (A. 274, 352). — IV, 933.
- C₁₀H₁₀O₃Cl₂S** 1) Dichlorid d. 1-norm. Propylbenzol-4-Carbonsäure-2-Sulfonsäure. Sm. 42—43° (B. 22, 2279). — II, 1383.
 2) Dichlorid d. 1-Isopropylbenzol-4-Carbonsäure-2-Sulfonsäure. Sm. 55—56° (B. 22, 2276). — II, 1389.
- C₁₀H₁₀O₄NCl** 1) α -Oxy- γ -Keto- α -[5-Chlor-2-Nitrophenyl]butan. Sm. 106,5—107,5° (A. 262, 145). — III, 149.
 2) 2-Chlor-4-Methyl-3-Aethylpyridin-5,6-Dicarbonsäure (B. 31, 2152).
 3) Äthylester d. 5-Chlor-2-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 60° (A. 265, 342). — II, 1350.
- C₁₀H₁₀O₄NBr** 1) α -Oxy- γ -Keto- α -[5-Brom-2-Nitrophenyl]butan (Nitrobromphenylmilchsäuremethylketon). Sm. 101—102° (A. 284, 145). — III, 150.
 2) β -Acetat d. β -Oximido- $\alpha\alpha$ -Dioxy- α -[4-Bromphenyl]äthan. Sm. 135° u. Zers. (B. 25, 3467). — III, 122.
 3) 3-Brom-4-Methoxybenzoylamidoessigsäure. Sm. 161—162°. Ag (B. 27, 3100). — II, 1537.
 4) 2-Brom-3-Nitro-1-Isopropylbenzol-4-Carbonsäure. Sm. 238—239°. NH₄ (G. 21 [1] 37). — II, 1387.
 5) 6-Brom-3-Nitro-1-Isopropylbenzol-4-Carbonsäure. Sm. 138—139°. NH₄, Mg + 4H₂O (G. 21 [1] 31). — II, 1387.
 6) Äthylester d. 5-Brom-2-Nitro-1-Methylbenzol-4-Carbonsäure. Sm. 61° (A. 265, 366). — II, 1351.
 7) Äthylester d. 4-Brom-3-Nitrophenylessigsäure. Fl. (Soc. 37, 97). — II, 1320.
 8) 1-Aldehyd-2-Amid d. 6-Brom-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure (A. d. Bromopiansäure). Sm. 180° (200°) (B. 25, 1997; 31, 923). — II, 1943.
- C₁₀H₁₀O₄NBr₃** 1) Diäthyläther d. 2,4,6-Tribrom-5-Nitro-1,3-Dioxybenzol. Sm. 101° (Am. 13, 188; 15, 611, 618; 18, 122, 311). — II, 927.

- $C_{10}H_{10}O_4N_2Cl_2$ 1) [p-Dichlor-p-Dinitro-1,4-Diäthylbenzol](#). Sm. 82° (Bl. [48](#), [42](#)). — II, [105](#).
 2) [p-Dichlor-p-Dinitro-1,4-Diäthylbenzol](#). Sm. 150° (Bl. [48](#), [42](#)). — II, [105](#).
- $C_{10}H_{10}O_4N_2Cl_3$ 1) Verbindung (aus Tetrachlordiacetyl u. Aethylendiamin). Sm. 222 bis 223° u. Zers. (A. [254](#), [94](#)). — I, [1015](#).
- $C_{10}H_{10}O_4N_2Br_2$ 1) [4,5-Dibrom-3,6-Dinitro-2-Propyl-1-Methylbenzol](#). Sm. 148° (J. pr. [2] [43](#), [574](#)). — II, [104](#).
 2) [4,6-Dibrom-2,5-Dinitro-3-Propyl-1-Methylbenzol](#). Sm. 140–141° (J. pr. [2] [43](#), [569](#)). — II, [104](#).
 3) [2,5-Dibrom-3,6-Dinitro-4-Propyl-1-Methylbenzol](#). Sm. 156–157° (J. pr. [2] [43](#), [579](#)). — II, [104](#).
 4) [2,5-Dibrom-3,6-Dinitro-4-Isopropyl-1-Methylbenzol](#). Sm. 149° (J. pr. [2] [37](#), [15](#)). — II, [105](#).
- $C_{10}H_{10}O_4N_2S$ 1) [2,4-Diamido-1-Oxynaphtalin-7-Sulfonsäure](#). HCl, (Sn, 2 HCl + 4 SnCl₂) (B. [14](#), 2029; [32](#), [232](#)). — II, [875](#).
 2) [1,6-Diamido-2-Oxynaphtalin-8-Sulfonsäure](#). HCl (B. [22](#), [455](#)). — II, [892](#).
 3) [7-Hydrazido-1-Oxynaphtalin-3-Sulfonsäure](#) (B. [29](#), 2269).
 4) [5-Keto-3-Methyl-1-Phenyl-4,5-Dihydropyrazol-1'-Sulfonsäure](#) + H₂O. Zers. bei 320°. Ca (B. [25](#), 1941). — IV, [736](#).
- $C_{10}H_{10}O_4N_2S_2$ 1) Amid d. [2,6-Naphtalindisulfonsäure](#). Sm. noch nicht bei 305° (B. [9](#), [599](#)). — II, [203](#).
 2) Amid d. [2,7-Naphtalindisulfonsäure](#). Sm. 242–243° (B. [9](#), [599](#)). — II, [203](#).
- $C_{10}H_{10}O_4ClJ$ 1) Diacetat d. [2-Chlor-1-Jodosobenzol](#). Sm. 140° (B. [26](#), 1533). — II, [77](#).
- $C_{10}H_{10}O_5NCl$ 1) [1-\[β-Chlor-β-Nitro-α-Methoxyläthyl\]benzol-2-Carbonsäure](#). Sm. 171° u. Zers. (A. [268](#), [287](#); [278](#), [206](#)). — II, [1579](#).
- $C_{10}H_{10}O_5NBr$ 1) [β-Brom-β-\[6-Nitro-3-Oxyphenylmethyläther\]propionsäure](#). Sm. 162–163° (A. [262](#), [174](#)). — II, [1564](#).
 2) [Aethylester d. 3-Brom-5-Nitro-4-Oxybenzolmethyläther-1-Carbonsäure](#). Sm. 85–86° (G. [14](#), [245](#)). — II, [1539](#).
- $C_{10}H_{10}O_5N_2Br_2$ 1) [Aethyläther d. ββ-Dibrom-β-Nitro-α-Oxy-α-\[3-Nitrophenyl\]äthan](#). Sm. 98–99° (A. [229](#), [237](#)). — II, [1063](#).
- $C_{10}H_{10}O_5N_4S_2$ 1) Verbindung (aus Hydroxylamin u. 2-Oxy-4-Methylthiazol-5-Carbonsäureäthylester). Sm. 215–220° u. Zers. (A. [250](#), [284](#)). — I, [1229](#).
- $C_{10}H_{10}O_6NJ$ 1) [2-Nitro-1-Jodosobenzoldiacetat](#). Zers. bei 145° (B. [26](#), 1810).
 2) [3-Nitro-1-Jodosobenzoldiacetat](#). Sm. 150–155° (B. [26](#), 1312).
- $C_{10}H_{10}O_6N_2S_2$ 1) [1,2-Diamidonaphtalin-3,6-Disulfonsäure](#). Na (B. [21](#), 3487). — IV, [921](#).
 2) [1,2-Diamidonaphtalin-3,8-Disulfonsäure](#). Na + 3 H₂O (B. [23](#), 3095). — IV, [921](#).
 3) [1,6-Diamidonaphtalin-3,8-Disulfonsäure](#). Na₂ (B. [29](#), 1980, 2574). — IV, [924](#).
 4) [1,6-Diamidonaphtalin-4,8-Disulfonsäure](#) (B. [29](#), 1981, 2574). — IV, [924](#).
 5) [1,8-Diamidonaphtalin-3,6-Disulfonsäure](#). K + 3 H₂O, Ba + 6 H₂O. — IV, [925](#).
- $C_{10}H_{10}O_6N_3Cl$ 1) [5-Chlor-2,4,6-Trinitro-3-Isopropyl-1-Methylbenzol](#). Sm. 124 bis 125° (B. [29](#), [170](#)).
- $C_{10}H_{10}N_2ClJ$ 1) [Jodmethylat d. 6-Chlor-8-Amidochinolin](#). Sm. 178° (J. pr. [2] [49](#), [370](#)). — IV, [914](#).
- $C_{10}H_{10}N_2BrJ$ 1) [Jodmethylat d. p-Brom-5- oder 8-Amidoisochinolin](#). Sm. 243° (J. pr. [2] [43](#), [199](#)). — IV, [915](#).
- $C_{10}H_{11}ONCl_2$ 1) [3\[oder 6\]-Chlor-5-Isopropyl-2-Methyl-1,4-Benzochinonchlorimid](#). Fl. (J. pr. [2] [23](#), [169](#)). — III, [366](#).
 2) [Phenylamid d. αα-Dichlorbuttersäure](#). Sm. 199–200° (B. [21](#), [304](#)). — II, [370](#).
 3) [4-Methylphenylamid d. αα-Dichlorpropionsäure](#). Sm. 84–86° (A. [279](#), [93](#)).
- $C_{10}H_{11}ONBr_2$ 1) [αβ-Dibrom-γ-Oximido-α-Phenylbutan](#). Sm. 144–145° u. Zers. (B. [20](#), [923](#)). — III, [160](#).
 2) [Amid d. 2,5-Dibrom-1-Isopropylbenzol-4-Carbonsäure](#). Sm. 191 bis 192° (G. [21](#) [2] [395](#)). — II, [1386](#).

- $C_{10}H_{11}ONBr_2$ 3) $\beta\gamma$ -Dibrompropylamid d. Benzolcarbonsäure. Sm. 135° (B. 26, 2849). — II, 1161.
4) ρ -Dibrom-2,4-Dimethylphenylamid d. Essigsäure (B. 3, 226). — II, 543.
- $C_{10}H_{11}ONS$ 1) 1-Merkapto-3,4,6-Trimethylbenzoxazol. Sm. 252—253° (B. 22, 3238). — II, 764.
2) 2-Keto-3-[2-Methylphenyl]-4,5-Dihydrothiazol (B. 15, 1318).
3) 2-Keto-3-[4-Methylphenyl]-4,5-Dihydrothiazol. Sm. 88° (B. 15, 1316). — II, 496.
4) 4-Methyläther d. 2-[4-Oxyphenyl]-4,5-Dihydrothiazol. Sm. 54,5° (2HCl, PtCl₄), Pikrat (B. 27, 2160). — II, 1541.
5) 3-Keto-2-Aethyl-3,4-Dihydro-1,4-Benzthiazin. Sm. 105—106° (B. 30, 2395).
- $C_{10}H_{11}ONS_2$ 1) Methyläther d. 3-[2-Oxyphenyl]-2-Thiocarbonyltetrahydrothiazol. Sm. 136° (B. 21, 1865). — II, 710.
- $C_{10}H_{11}ON_2Cl$ 1) Chlormethylat d. 4-Keto-3-Methyl-3,4-Dihydro-1,3-Benzdiazin. 2 + PtCl₄ (J. pr. [2] 43, 224). — IV, 896.
- $C_{10}H_{11}ON_2Br$ 1) β -[3-Brombenzoyl]hydrazonpropan. Sm. 88,5° (J. pr. [2] 58, 193).
2) β -[4-Brombenzoyl]hydrazonpropan. Sm. 194,5° (J. pr. [2] 58, 200).
3) 6-Brom-1-Nitroso-8-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 112° (A. 252, 328). — IV, 206.
4) Bromkotonin. Sm. 120° (B. 26, 771). — IV, 858.
- $C_{10}H_{11}ON_2J$ 1) Jodmethylat d. 4-Keto-3-Methyl-3,4-Dihydro-1,3-Benzdiazin (J. pr. [2] 43, 223). — IV, 896.
- $C_{10}H_{11}ON_2S$ 1) Methyläther d. 3-Merkapto-5-Keto-4-Phenyl-1-Methyl-4,5-Dihydro-1,2,4-Triazol. HJ, 2 + HJ (B. 29, 2925).
- $C_{10}H_{11}OClBr$ 1) Methyläther d. 4-Oxy-1-[ρ -Chlor- α -Dibrompropyl]benzol. Sm. 45° (C. 1897 [1] 805).
- $C_{10}H_{11}O_2NCl_2$ 1) 3-Nitro-4-Isopropyl-1-Dichlormethylbenzol. Fl. (B. 15, 167).
2) Aethyläther d. ρ -Dichlor-4-Amido-1-Oxybenzol. Sm. 162° (B. 32, 155).
3) Aethylester d. Phenylamidodichloressigsäure. Sm. 71—72° (A. 184, 273). — II, 407.
4) $\alpha\beta$ -Dichlorpropylester d. Phenylamidoameisensäure. Sm. 73—74° (J. pr. [2] 44, 22). — II, 372.
5) s -Dichlorisopropylester d. Phenylamidoameisensäure. Sm. 73° (J. pr. [2] 44, 20). — II, 372.
- $C_{10}H_{11}O_2NS$ 1) Aethylester d. Benzoylamidothiolameisensäure? Sm. 73—74°. K (J. pr. [2] 10, 238; A. ch. [5] 11, 334). — II, 1181.
2) Acetat d. 2-Acetylamido-1-Merkaptobenzol. Sm. 135° (B. 20, 1902). — II, 797.
3) Methyläther d. 3-[2-Oxyphenyl]-2-Ketotetrahydrothiazol (B. 21, 1867). — II, 709.
- $C_{10}H_{11}O_2N_2Cl$ 1) α -Chloracetyl- β -Acetyl- α -Phenylhydrazin. Sm. 132°. — IV, 666.
2) 2-Chlor-1,4-Di[Acetylamido]benzol. Sm. 196° (A. 303, 12).
3) Phenylamidoformiat d. α -Chlor- β -Oximidopropan. Sm. 112°; Zers. bei 150—160° (B. 31, 2396).
4) Diamid d. β -Chlor- α -Phenyläthan- $\beta\beta$ -Dicarbonsäure (Benzylchlor-malonsäurediamid). Sm. 80°; Zers. bei 210—220° (B. 15, 1113). — II, 1849.
5) Phenylamid d. α -Chlor- β -Oximidobuttersäure. Sm. 112° u. Zers. (B. 30, 1159).
- $C_{10}H_{11}O_2N_2Cl_3$ 1) $\beta\beta\beta$ -Trichlor- α -Oxy- α -[ρ -Aethylnitrosamidophenyl]äthan. Sm. 138° u. Zers. (B. 21, 783). — II, 1064.
- $C_{10}H_{11}O_2N_2Br$ 1) α -[2-Brom-4-Methylphenyl]hydrazonpropionsäure. Sm. 175°. NH₄, K + 3H₂O, Pb (Soc. 73, 179). — IV, 807.
2) Monophenylbromdiamid d. Bernsteinsäure (R. 9, 42). — II, 414.
3) Mono-4-Bromphenyldiamid d. Bernsteinsäure. Sm. 213—215° u. Zers. (R. 10, 43). — II, 414.
- $C_{10}H_{11}O_2N_4Cl$ 1) 2-Chlor- ρ -Nitro-3,4-Dimethyl-1-Phenyl-2,3-Dihydro-1,2,5-Triazol. Sm. 116° (J. pr. [2] 57, 170). — IV, 1097.
- $C_{10}H_{11}O_3NBr_2$ 1) Aethylester d. 3,5-Dibrom-2-Keto-4-Methyl-1,2-Dihydropyridin-6-Methylcarbonsäure. Sm. 168—170° (Soc. 71, 310). — IV, 155.
- $C_{10}H_{11}O_3NS$ 1) Thiodiglykolphenylaminsäure. Sm. 103° (A. 273, 70). — II, 403.

- $C_{10}H_{11}O_3NS$ 2) Aethylester d. 6-Thionylamido-1-Methylbenzol-3-Carbonsäure. Sm. 14—15° (B. 28, 597).
- 3) Aethylimid d. 1-Methylbenzol-4-Carbonsäure-3-Sulfonsäure. Sm. 106° (B. 25, 1738). — II, 1355.
- $C_{10}H_{11}O_3N_2Br$ 1) α -Diisonitrosobromanethol. Sm. 143—144° (G. 23 [2] 189). — II, 853.
- 2) β -Diisonitrosobromanethol. Sm. 190° (G. 23 [2] 189). — II, 853.
- 3) β -[4-Bromphenylamidoformyl]amidopropionsäure. Zers. bei 229°. Ca, Ag (R. 9, 63). — II, 433.
- 4) β -Brompropylamid d. 3-Nitrobenzol-1-Carbonsäure. Sm. 84—85° (B. 24, 3220). — II, 1233.
- 5) γ -Brompropylamid d. 3-Nitrobenzol-1-Carbonsäure. Sm. 89—90° (B. 24, 3220). — II, 1233.
- 6) 2-Nitrophenylamid d. α -Brombuttersäure. Sm. 47° (B. 31, 3238).
- 7) 3-Nitrophenylamid d. α -Brombuttersäure. Sm. 99° (B. 31, 3238).
- 8) 4-Nitrophenylamid d. α -Brombuttersäure. Sm. 140° (B. 31, 3238).
- 9) 2-Nitrophenylamid d. α -Bromisobuttersäure. Sm. 68° (B. 31, 3238).
- 10) 3-Nitrophenylamid d. α -Bromisobuttersäure. Sm. 99° (B. 31, 3238).
- 11) 4-Nitrophenylamid d. α -Bromisobuttersäure. Sm. 123° (B. 31, 3238).
- $C_{10}H_{11}O_3ClS$ 1) Chlorid d. Metanetholsulfonsäure. Sm. 182—183° (A. 187, 75). — II, 851.
- $C_{10}H_{11}O_3Cl_3S$ 1) 2,4,5-Trichlor-3-Isopropyl-1-Methylbenzol-6-Sulfonsäure. Na, Ba (B. 16, 619). — II, 155.
- $C_{10}H_{11}O_3BrS$ 1) 4-Methylphenylsulfon-Bromaceton. Sm. 129—130° (J. pr. [2] 36, 426). — II, 825.
- $C_{10}H_{11}O_4NS$ 1) Aethylester d. 3-Thionylamido-4-Oxybenzylmethyläther-1-Carbonsäure. Sm. 45° (B. 28, 600). — II, 1540.
- $C_{10}H_{11}O_4N_2Cl$ 1) 2-Chlor-*p*-Dinitro-4-Isopropyl-1-Methylbenzol. Fl. (G. 18, 296). — II, 105.
- 2) 2-Chlor-*p*-Dinitro-4-Isopropyl-1-Methylbenzol. Sm. 108—109° (B. 11, 1091; G. 18, 296). — II, 105.
- 3) 3-Chlor-2,6-Dinitro-4-Isopropyl-1-Methylbenzol. Sm. 77—78° (B. 23, 3562). — II, 105.
- 4) 3-Chlor-*p*-Dinitro-4-Isopropyl-1-Methylbenzol. Sm. 100° (G. 18, 293). — II, 105.
- 5) 3-Chlor-*p*-Dinitro-4-Isopropyl-1-Methylbenzol. Sm. 80° (G. 18, 293). — II, 105.
- 6) *p*-Chlor-*p*-Dinitro-4-Isopropyl-1-Methylbenzol. Sm. 100—101° (B. 10, 1221). — II, 105.
- 7) 2-Chlor-3,6-Di[Acetylamido]-1,4-Dioxybenzol. Sm. bei 300° (J. pr. [2] 40, 492). — II, 948.
- 8) γ -Oximido- α -Oxy- α -[5-Chlor-2-Nitrophenyl]butan. Sm. 151° (A. 262, 147). — III, 150.
- $C_{10}H_{11}O_4N_2Br$ 1) 4-Brom-*p*-Dinitro-3-Isopropyl-1-Methylbenzol. Sm. 55° (B. 15, 42). — II, 104.
- 2) 2-Brom-*p*-Dinitro-4-Isopropyl-1-Methylbenzol. Sm. 97—98° (B. 11, 1092; G. 18, 295). — II, 105.
- 3) 2-Brom-*p*-Dinitro-4-Isopropyl-1-Methylbenzol. Fl. (G. 18, 295). — II, 105.
- 4) 3-Brom-*p*-Dinitro-4-Isopropyl-1-Methylbenzol. Sm. 94° (G. 16, 192; 18, 291). — II, 105.
- 5) 3-Brom-*p*-Dinitro-4-Isopropyl-1-Methylbenzol. Sm. 125—126° (G. 18, 291). — II, 105.
- 6) Verbindung (aus 6-Bromopiansäureamid). Sm. 267° u. Zers. (B. 31, 926).
- $C_{10}H_{11}O_4N_4Cl$ 1) 5-Chlor-2-Nitrophenyläther d. β -Semicarbazon- α -Oxypropan. Sm. 195° (B. 31, 758).
- $C_{10}H_{11}O_5NS$ 1) Succinbenzolsulfaminsäure. NH_4 (J. 1856, 506). — II, 116.
- 2) Diacetylbenzolsulphydroxamsäure. Sm. 85° (B. 29, 1562).
- $C_{10}H_{11}O_6NS$ 1) 1,2-Dimethylester d. Benzol-1,2-Dicarbonsäure-3-Sulfonsäureamid. Sm. 135° (Am. 13, 198). — II, 1824.
- 2) Verbindung (aus Asparaginsäure u. Benzolsulfonsäurechlorid). Sm. 170° (B. 23, 3197). — II, 116.

- $C_{10}H_{11}O_6N_2Cl$ 1) Diäthyläther d. 5-Chlor-4,6-Dinitro-1,3-Dioxybenzol. Sm. 160° (*Am.* 18, 669).
- $C_{10}H_{11}O_6N_2Br$ 1) Diäthyläther d. 5-Brom-4,6-Dinitro-1,3-Dioxybenzol. Sm. 184° (*Am.* 13, 167). — II, 927.
- $C_{10}H_{11}O_7NS$ 1) 1-Methylester-2-Aethylester d. 4-Nitrobenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 68° (*Am.* 11, 195). — II, 1305.
2) 2-Methylester-1-Aethylester d. 4-Nitrobenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 80° (*Am.* 11, 194). — II, 1305.
- $C_{10}H_{11}O_7N_2S$ 1) Alloxananilindisulfid + 2H₂O (*A.* 248, 147). — II, 313.
- $C_{10}H_{11}N_2BrS$ 1) Brompropylenphenylthioharnstoff. Sm. 103–104° (*Soc.* 61, 549). — II, 392.
- $C_{10}H_{11}N_2JS_2$ 1) Jodmethylat d. 2-Thiocarbonyl-5-Methyl-4-Phenyl-2,4-Dihydro-1,3,4-Thiodiazol. Sm. 180° (*B.* 28, 2643). — IV, 747.
- $C_{10}H_{11}ONCl$ 1) α -Oximido- α -(6-Chlor-3,4-Dimethylphenyl)äthan. Sm. 134° (*J. pr.* [2] 46, 32). — III, 151.
2) Aethyläther d. 4-Methylphenylchloroximidomethan. Sd. bei 200° (*B.* 22, 2434). — II, 1343.
3) 5-Isopropyl-2-Methyl-1,4-Benzochinonchlorimid (Thymochinonchlorimid). Zers. bei 160–170° (*J. pr.* [2] 23, 169). — III, 366.
4) β -Chlorpropylamid d. Benzolcarbonsäure. Sm. 72–73°; Sd. 172 bis 175°₁₄ (*B.* 23, 2501; 26, 2850). — II, 1161.
5) γ -Chlorpropylamid d. Benzolcarbonsäure. Sm. 56–57° (*B.* 24, 3216). — II, 1161.
6) Phenylamid d. α -Chlorisobuttersäure. Sm. 67–68° (*A.* 279, 114).
7) 2-Methylphenylamid d. α -Chlorpropionsäure. Sm. 111° (*A.* 279, 86).
8) 4-Methylphenylamid d. α -Chlorpropionsäure. Sm. 124° (*A.* 279, 92).
9) 6-Chlor-3,4-Dimethylphenylamid d. Essigsäure. Sm. 154° (*J. pr.* [2] 46, 33). — II, 541.
10) *p*-Chlor-2,5-Dimethylphenylamid d. Essigsäure. Sm. 171° (*B.* 18, 2098). — II, 547.
- $C_{10}H_{11}ONCl_2$ 1) Nitrosylechlorid d. Dicyklopentadien. Sm. 182° (*B.* 29, 558).
2) $\beta\beta\beta$ -Trichlor- α -Oxy- α -(*p*-Aethylamidophenyl)äthan. Sm. 98°. HCl (*B.* 21, 783). — II, 1064.
3) $\beta\beta\beta$ -Trichlor- α -Oxy- α -(*p*-Dimethylamidophenyl)äthan. Sm. 111° u. Zers. HCl (*B.* 18, 1519; 20, 3193). — II, 1063.
4) 2-[$\gamma\gamma\gamma$ -Trichlor- β -Oxypropyl]-5-Aethylpyridin. Sm. 86°. HCl, (2HCl, PtCl₄), HBr, HJ, H₂Cr₂O₇, Pikrat (*B.* 27, 87). — IV, 139.
- $C_{10}H_{11}ONBr$ 1) Amid d. 2-Brom-1-Isopropylbenzol-4-Carbonsäure. Sm. 103–104° (*G.* 21, 30). — II, 1386.
2) β -Bromäthylamid d. Phenylessigsäure. Sm. 84–85° (*B.* 24, 3222). — II, 1311.
3) β -Bromäthylamid d. 1-Methylbenzol-2-Carbonsäure. Sm. 70–71° (*B.* 26, 1322). — II, 1329.
4) β -Bromäthylamid d. 1-Methylbenzol-4-Carbonsäure. Sm. 128–129° (*B.* 26, 1325). — II, 1341.
5) β -Brompropylamid d. Benzolcarbonsäure. Sm. 78° (*B.* 23, 969). — II, 1161.
6) γ -Brompropylamid d. Benzolcarbonsäure. Sm. 62° (*B.* 24, 3214, 3216). — II, 1161.
7) Phenylamid d. α -Brombuttersäure. Sm. 98° (*B.* 25, 2924; 31, 2855). — II, 370.
8) Phenylamid d. α -Bromisobuttersäure. Sm. 83° (85°) (*B.* 24, 1045; 31, 2856, 3244). — II, 370.
9) 4-Bromphenylamid d. Isobuttersäure. Sm. 128° (*Am.* 7, 117). — II, 370.
10) Methylphenylamid d. α -Brompropionsäure. Sm. 46° (*B.* 30, 3177).
11) 2-Methylphenylamid d. α -Brompropionsäure. Sm. 131° (*B.* 25, 2920). — II, 462.
12) 3-Methylphenylamid d. α -Brompropionsäure. Sm. 80° (*B.* 31, 3237).
13) 4-Methylphenylamid d. α -Brompropionsäure. Sm. 125° (*B.* 25, 292). — II, 493.
14) Benzylamid d. α -Brompropionsäure. Sm. 92° (*B.* 31, 3236).
15) 2,5-Dimethylphenylamid d. Bromessigsäure. Sm. 145° (*J. pr.* [2] 40, 436). — II, 547.

- $C_{10}H_{11}ONBr$ 16) [3-Brom-2,4-Dimethylphenylamid](#) d. Essigsäure. Sm. 162° (*J. pr.* [2] [53](#), [552](#)).
 17) [6-Brom-2,4-Dimethylphenylamid](#) d. Essigsäure. Sm. 193° (*J. pr.* [2] [53](#), [552](#)).
- $C_{10}H_{11}ONJ$ 1) [5-Jod-4-Acetylamido-1,3-Dimethylbenzol](#). Sm. 85° (*B.* [28](#), 2800).
 2) [3-Jod-1-Oximido-4-Keto-5-Isopropyl-2-Methyl-1,4-Dihydrobenzol](#). Sm. bei 130° u. Zers. (*J. pr.* [2] [39](#), [395](#)). — III, [367](#).
 3) [γ-Jodpropylamid](#) d. Benzolcarbonsäure. Sm. 68° (*B.* [30](#), 2507).
- $C_{10}H_{11}ON_2Cl_2$ 1) [p-Chlor-4-Oxy-2-Methyl-5-Isopropyl-1-Diazobenzolchlorid](#) (*J. pr.* [2] [23](#), [180](#)). — IV, [1551](#).
- $C_{10}H_{11}ON_2S$ 1) [s-Allyl-2-Oxyphenylthioharnstoff](#). Sm. 99° (*J. pr.* [2] [42](#), [442](#)). — II, [711](#).
 2) [α-Oxy-β-Allyl-α-Phenylthioharnstoff](#). Sm. 98° (*J. pr.* [2] [58](#), [90](#)).
 3) [s-Propionylphenylthioharnstoff](#). Sm. 129—130° (*Soc.* [69](#), [856](#)).
 4) [s-Acetyl-\[2-Methylphenyl\]thioharnstoff](#). Sm. 184° (*Soc.* [55](#), [304](#)). — II, [465](#).
 5) [s-Acetyl-\[4-Methylphenyl\]thioharnstoff](#). Sm. 175—176° (*Bl.* [28](#), [103](#)). — II, [499](#).
 6) [s-Acetylbenzylthioharnstoff](#). Sm. 129—130° (*Soc.* [59](#), [408](#), [562](#)). — II, [529](#).
 7) [α-Aethyl-β-Benzoylthioharnstoff](#). Sm. 134° (*A. ch.* [5] II, [316](#)). — II, [1172](#).
 8) [4-Amidothioformyl-3-Methyl-3,4-Dihydro-1,4-Benzoxazin](#), Sm. 93° (*B.* [30](#), 1637).
- $C_{10}H_{11}O_2NCl$ 1) [5-Chlor-2-Nitro-4-Isopropyl-1-Methylbenzol](#). Fl. (*G.* [18](#), [292](#)). — II, [104](#).
 2) [p-Chlor-p-Nitro-4-Isopropyl-1-Methylbenzol](#). Fl. (*G.* [18](#), [296](#)). — II, [104](#).
 3) [Aethyläther](#) d. [4-Chlor-2-Acetylamido-1-Oxybenzol](#). Sm. 110° (*B.* [32](#), [154](#)).
 4) [Aethyläther](#) d. [4-Chlor-3-Acetylamido-1-Oxybenzol](#). Sm. 106° (*B.* [32](#), [157](#)).
 5) [Aethyläther](#) d. [2-Chlor-4-Acetylamido-1-Oxybenzol](#). Sm. 132° (*B.* [32](#), [156](#)).
 6) [3](#) oder [6-Chlor-4-Oximido-1-Keto-2-Methyl-5-Isopropyl-1,4-Dihydrobenzol](#). Sm. 157—158° (*G.* [27](#) [2] [582](#)).
 7) [3](#) oder [6-Chlor-1-Oximido-4-Keto-2-Methyl-5-Isopropyl-1,4-Dihydrobenzol](#). Sm. 162—163° (*G.* [27](#) [2] [581](#)).
 8) [Anetholnitrosylchlorid](#). Sm. 127° u. Zers. (*B.* [12](#), [169](#); *Soc.* [65](#), [330](#)). — II, [852](#).
 9) [Aethylester](#) d. [6-Chlor-2,4-Dimethylpyridin-3-Carbonsäure](#). Sd. 288—290° (*Soc.* [71](#), [305](#); [73](#), [589](#)). — IV, [149](#).
 10) [4-Aethoxyphenylamid](#) d. Chloressigsäure. Sm. 145—146° (*B.* [31](#), 2790).
- $C_{10}H_{11}O_2NCl_3$ 1) [Butyrylchloralbenzamid](#) (2 Modif.). Sm. 135° u. 146° (*A.* [179](#), [40](#); *B.* [10](#), 1785; *G.* [24](#) [1] [232](#)). — II, [1194](#).
- $C_{10}H_{11}O_2NBr$ 1) [α-Brom-α-Nitroisobutylbenzol](#). Fl. (*B.* [28](#), 1858).
 2) [6-Brom-p-Nitro-3-Isopropyl-1-Methylbenzol](#). Sm. 121° (*B.* [15](#), [40](#)). — II, [104](#).
 3) [5-Brom-2-Nitro-4-Isopropyl-1-Methylbenzol](#). Fl. (*G.* [16](#), [193](#); [18](#), [289](#)). — II, [105](#).
 4) [2-Brom-p-Nitro-4-Isopropyl-1-Methylbenzol](#). Sd. 210—211°₁₀₀ (*G.* [18](#), [294](#)). — II, [105](#).
 5) [p-Brom-p-Nitroso-2-Oxy-4-Isopropyl-1-Methylbenzol](#). Sm. 166 bis 168° (*G.* [19](#), [337](#)). — II, [767](#).
 6) [p-Brom-6-Nitroso-3-Oxy-4-Isopropyl-1-Methylbenzol](#). Sm. 135° u. Zers. (*G.* [16](#), [196](#)). — II, [773](#).
 7) [3-Brom-4\[oder 1\]-Oximido-1\[oder 4\]-Keto-5-Isopropyl-2-Methyl-1,4-Dihydrobenzol](#). Zers. bei 148—152° (*B.* [22](#), 3266). — III, [367](#).
 8) [6-Brom-4\[oder 1\]-Oximido-1\[oder 4\]-Keto-5-Isopropyl-2-Methyl-1,4-Dihydrobenzol](#). Sm. 148° u. Zers. (*B.* [22](#), 3269). — III, [367](#).
 9) [Aethyläther](#) d. [4-Brom-2-Acetylamido-1-Oxybenzol](#). Sm. [133°](#) (*B.* [32](#), [159](#)).

- C₁₀H₁₁O₂NBr** 10) **Aethyläther d. 2-Brom-4-Acetylamido-1-Oxybenzol** (Bromphenacetin). Sm. 106° (107°; 114°) (*J. pr.* [2] 52, 421; [2] 55, 217; *B.* 30, 478; 32, 161).
- 11) **β-Bromäthyläther d. 4-Acetylamido-1-Oxybenzol**. Sm. 130° (*A.* 305, 283).
- 12) **2-Brom-3-Amido-1-Isopropylbenzol-4-Carbonsäure**. Sm. 173—174° (*G.* 21 [1] 38). — II, 1388.
- 13) **6-Brom-3-Amido-1-Isopropylbenzol-4-Carbonsäure**. Sm. 166—167° (*G.* 21 [1] 33). — II, 1388.
- 14) **Aethylester d. 4-Bromphenylamidoessigsäure**. Sm. 95—96° (*B.* 13, 238). — II, 428.
- 15) **β-Bromäthylamid d. 4-Oxybenzylmethyläther-1-Carbonsäure**. Sm. 162° (*B.* 27, 2155). — II, 1529.
- C₁₀H₁₁O₂NJ** 1) **Aethyläther d. 2-Jod-4-Acetylamido-1-Oxybenzol**. Sm. 146° (*B.* 29, 2596).
- C₁₀H₁₁O₂N₂S** 1) **4,4'-Di[3,5-Dimethylisoxazolyl]sulfid**. Sm. 127—128° (*G.* 24 [1] 353).
- 2) **Phenyl-α-Methylthiohydantoinsäure**. *K* (*B.* 17, 421). — II, 404.
- 3) **4-Methylphenylhydantoinsäure**. Sm. 176—182° (*J. pr.* [2] 16, 22). — II, 499.
- 4) **α-Aethylphenylthioharnstoff-3-Carbonsäure**. Sm. 194—195° u. Zers. (*B.* 17, 430). — II, 1263.
- 5) **Isotiosuccinophenylhydrazinsäure**. Sm. bei 120° (*A. ch.* [6] 22, 337). — IV, 704.
- 6) **Aethylester d. α-Phenylthioharnstoff-β-Carbonsäure**. Sm. 130° (*Soc.* 69, 327).
- 7) **Aethylester d. Phenylthioharnstoff-4-Carbonsäure**. Sm. 120 bis 121° (*B.* 30, 1098).
- 8) **Aethylester d. Phenylthioallophansäure** (*J. pr.* [2] 32, 270). — II, 398.
- 9) **Aethylester d. isom. Phenylthioallophansäure**. Sm. 127° (*J. pr.* [2] 32, 274). — II, 398.
- C₁₀H₁₁O₂N₂S₂** 1) **4,4'-Dimerkapto-3,5,3',5'-Tetramethyl-4,4'-Bisoxazol**. Sm. 77 bis 78° (*G.* 23 [2] 417).
- C₁₀H₁₁O₂N₂S₃** 1) **4,4'-Di[3,5-Dimethylisoxazolyl]trisulfid**. Sm. 65—66° (*G.* 24 [1] 362).
- C₁₀H₁₂O₂ClBr** 1) **6-Chlor-3-Brom-2,5-Dioxy-4-Isopropyl-1-Methylbenzol**. Sm. 63° (*B.* 20, 1318). — II, 971.
- 2) **3-Chlor-6-Brom-2,5-Dioxy-4-Isopropyl-1-Methylbenzol**. Sm. 56° (*B.* 20, 1319). — II, 971.
- C₁₀H₁₂O₂Cl₂S** 1) **βγ-Dichlorpropyl-2-Methylphenylsulfon**. *Fl.* (*J. pr.* [2] 55, 205).
- 2) **βγ-Dichlorpropyl-4-Methylphenylsulfon**. *Fl.* (*J. pr.* [2] 55, 204).
- 3) **Chlorid d. 3-Chlor-4-Isopropyl-1-Methylbenzol-p-Sulfonsäure**. Sm. 64° (*G.* 19, 169, 499). — II, 153.
- 4) **Chlorid d. 6-Chlor-4-Isopropyl-1-Methylbenzol-3-Sulfonsäure**. Sm. 68—69° (*B.* 29, 316).
- 5) **Chlorid d. 6-Chlor-1,2,4,5-Tetramethylbenzol-3-Sulfonsäure**. Sm. 53—54° (*B.* 25, 2760). — II, 153.
- C₁₀H₁₂O₂Br₃S** 1) **βγ-Dibrompropyl-2-Methylphenylsulfon**. *Fl.* (*J. pr.* [2] 54, 531; [2] 55, 207).
- 2) **βγ-Dibrompropyl-4-Methylphenylsulfon**. Sm. 81—82° (86—87°) (*A.* 283, 189; *J. pr.* [2] 55, 207).
- C₁₀H₁₂O₃NBr** 1) **6-Brom-2-Nitro-3-Oxy-4-Isopropyl-1-Methylbenzol**. Sm. 107 bis 108°. *K* + ½ H₂O (*G.* 18, 519; 19, 62). — II, 773.
- 2) **2-Brom-6-Nitro-3-Oxy-4-Isopropyl-1-Methylbenzol**. Sm. 100 bis 101° (*G.* 16, 196). — II, 773.
- 3) **Aethylester d. 2 oder 3-Brom-4-Methoxyphenylamidoameisensäure**. Sm. 101,5—102,5° (*B.* 31, 1064).
- 4) **Aethylester d. 3-Brom-2-Keto-4,6-Dimethyl-1,2-Dihydropyridin-5-Carbonsäure**. Sm. 157° (158—159°) (*A.* 274, 281; *B.* 26, 758; *Soc.* 71, 305). — IV, 155.
- 5) **Aethylester d. 5-Brom-4-Keto-2,6-Dimethyl-1,4-Dihydropyridin-3-Carbonsäure?** Sm. 249—250° (*Soc.* 59, 175). — IV, 155.
- C₁₀H₁₂O₃NBr₃** 1) **Acetat d. Tribromoxytropinon**. Sm. 148° (*B.* 30, 2707).

- $C_{10}H_{12}O_3N_2S$ 1) Anhydrid d. β -Methyl-N-Phenyltaurocarbaminsäure. Sm. 192° (B. 22, 2994). — II, 293.
 2) Aethylester d. α -[4-Oxyphenyl]thioharnstoff- β -Carbonsäure. Sm. 198,5—199° (Soc. 69, 329).
 3) Aethylester d. 2-Nitro-4-Methylphenylamidothioameisensäure. Sm. 95,5° (B. 16, 2337). — II, 496.
- $C_{10}H_{12}O_3ClBr$ 1) Anhydrid d. ω -Chlor- n -Bromcamphersäure. Sm. 214—215° (Soc. 75, 135).
- $C_{10}H_{12}O_4NBr$ 1) Diäthyläther d. 2-Brom-4-Nitro-1,3-Dioxybenzol. Sm. 115° (Am. 15, 641). — II, 927.
- $C_{10}H_{12}O_4N_2S$ 1) Isobutyläther d. 2,4-Dinitro-1-Merkaptobenzol. Sm. 71—72° (B. 18, 331). — II, 795.
- $C_{10}H_{12}O_4Br_2S$ 1) Lakton d. Dibromoxycamphersulfonsäure. Sm. 188—189° (C. 1896 [1] 1168; Soc. 71, 21). — III, 499.
- $C_{10}H_{12}O_5N_4J_2$ 1) Verbindung (aus Methyluracil). Zers. bei 180° (A. 229, 21; 253, 67). — I, 1350.
- $C_{10}H_{12}O_5N_2S_2$ 1) Benzol-1,3-Di[Sulfonamidoessigsäure]. Sm. 188° (B. 27 [2] 888).
- $C_{10}H_{12}NClS$ 1) Chlorid d. Propylphenylamidothioameisensäure. Sm. 36° (B. 21, 102). — II, 360.
- $C_{10}H_{13}NJS_2$ 1) Jodmethylat d. 2-Thiocarbonyl-3-Phenyltetrahydrothiazol. Sm. 149° (B. 15, 346). — II, 387.
- $C_{10}H_{13}ONS$ 1) Thioaldolanilin. Sm. 92° (B. 29, 59).
 2) Methyläther d. 2-Acetylamido-1-Merkaptomethylbenzol. Sm. 102° (B. 29, 164).
 3) Aethyläther d. 4-Acetylamido-1-Merkaptobenzol. Sm. 106—110° (B. 27, 1738).
 4) 4-Aethyläther d. α -Oximido- α -[4-Merkaptophenyl]äthan. Sm. 91° (B. 27, 1739). — III, 139.
 5) Methyläthyläther d. Phenylimidomerkaptooxymethan. Sd. 260 bis 265° u. ger. Zers. (A. 207, 148). — II, 384.
 6) O-Aethyläther d. 2-Methylphenylimidomerkaptooxymethan. Fl. Ag (A. 207, 161). — II, 464.
 7) O-Aethyläther d. 3-Methylphenylimidomerkaptooxymethan. Sm. 67—68°. Ag (A. 207, 162). — II, 472.
 8) O-Aethyläther d. 4-Methylphenylimidomerkaptooxymethan. Sm. 87°. Ag (A. 207, 160; B. 13, 1576). — II, 496.
 9) Aethylester d. 2-Methylphenylamidothiolumeisensäure. Sm. 66° (B. 15, 1317). — II, 464.
 10) Aethylester d. 4-Methylphenylamidothiolumeisensäure. Sm. 79° (B. 15, 1313). — II, 496.
 11) Amid d. α -Oxythiobutterphenyläthersäure. Sm. 127° (B. 29, 1423).
 12) Amid d. γ -Oxythiobutterphenyläthersäure (B. 25, 3043). — II, 665.
 13) Amid d. 1-Oxymethylbenzoläthyläther-2-Thiocarbonsäure. Sm. 84° (B. 25, 3020). — II, 1560.
- $C_{10}H_{13}ON_2Cl$ 1) 4-Dimethylamidophenylamid d. Chloressigsäure. Sm. 146—147° (B. 30, 1101; A. 301, 75).
- $C_{10}H_{13}ON_2S$ 1) α -Propionyl- β -Phenylamidothioharnstoff. Sm. 155—156° u. Zers. (Soc. 69, 860). — IV, 681.
- $C_{10}H_{13}OClBr_2$ 1) Chlordibromcampher. Sm. 84° (Soc. 73, 585).
 2) isom. Chlordibromcampher (Soc. 73, 584).
- $C_{10}H_{13}O_2NBr_2$ 1) Diäthyläther d. 2-Dibrom-4-Amido-1,3-Dioxybenzol. Sm. 112° (B. 20, 1126). — II, 930.
- $C_{10}H_{13}O_2NS$ 1) α -Amido- α -Merkaptopropionbenzyläthersäure (Benzylcystein). Sm. 215° u. Zers. (H. 20, 562).
 2) $\alpha\gamma$ -Propylenamid d. 1-Methylbenzol-4-Sulfonsäure. Sm. 120° (B. 31, 3265).
- $C_{10}H_{13}O_2N_2Cl$ 1) Diäthyläther d. 2,4-Dioxy-1-Diazobenzolchlorid (B. 20, 1140). — IV, 1552.
 2) Acetat d. Pyridylacetonylchloridoxim. 2 + $PtCl_4$, + $AuCl_3$ (C. 1899 [1] 117).
- $C_{10}H_{13}O_2N_2Br$ 1) 3-Brom-5-Nitro-4-Amido-1-Isobutylbenzol. Sm. 69,5°; Sd. 270 bis 280° u. Zers. (B. 21, 2954). — II, 557.
- $C_{10}H_{13}O_2N_2J$ 1) Jodmethylat d. 1-[α -Hydrazonäthyl]benzol-2-Carbonsäure. Sm. 201° (B. 30, 3032 Ann.).

- $C_{10}H_{13}O_2N_3S$ 1) Aethylester d. α -Phenylamidothioharnstoff- β -Carbonsäure. Sm. 146.5° (Soc. 69, 333). — IV, 681.
- $C_{10}H_{13}O_3N_4Cl$ 1) 8-Chlor-2,6-Diketo-3-Methyl-1,7-Diäthylpurin. Sm. 136° (C. 1898 [2] 1192).
- 2) Diäthyläther d. 2-Chlor-6,8-Dioxy-7-Methylpurin. Sm. 194—195° (cor.) (B. 30, 1848). — IV, 1253.
- 3) Diäthyläther d. 2-Chlor-6,8-Dioxy-9-Methylpurin? Sm. 147 bis 148° (149—150°) (B. 17, 332; 30, 1855). — I, 1336.
- $C_{10}H_{13}O_3ClS$ 1) Chlorid d. 2-Propyl-1-Methylbenzol- β -Sulfonsäure. Fl. (B. 13, 898). — II, 152.
- 2) Chlorid d. 3-Propyl-1-Methylbenzol- α -Sulfonsäure. Sm. 175° (B. 13, 901). — II, 152.
- 3) Chlorid d. 3-Isopropyl-1-Methylbenzol-6-Sulfonsäure. Fl. (A. 210, 34). — II, 154.
- 4) Chlorid d. 1,2,4,5-Tetramethylbenzol-3-Sulfonsäure. Sm. 99° (B. 18, 2843). — II, 157.
- $C_{10}H_{11}O_2Cl_2P$ 1) Dichlorid d. 3-Methyl-6-Isopropylphenylphosphorsäure. Sd. 246 bis 249°₁₀₀ (U. 15, 278). — II, 770.
- $C_{10}H_{13}O_2BrS$ 1) β -Brompropyl-2-Methylphenylsulfon. Fl. (J. pr. [2] 54, 531).
- 2) β -Brompropyl-4-Methylphenylsulfon. Fl. (J. pr. [2] 55, 209).
- $C_{10}H_{13}O_3NBr_2$ 1) $\alpha\alpha$ -Dibrom- α -Nitrocampher. Sm. 54° (Soc. 69, 308). — III, 495.
- 2) β -Dibromnitrocampher. Sm. 130° (M. 3, 219; 4, 566). — III, 495.
- $C_{10}H_{13}O_3NS$ 1) 6-Methyl-1,2,3,4-Tetrahydrochinolin-2-Sulfonsäure + 2 H₂O (B. 24, 2120). — IV, 205.
- 2) 8-Methyl-1,2,3,4-Tetrahydrochinolin-6-Sulfonsäure (B. 24, 2120). — IV, 206.
- 3) 8-Methyl-1,2,3,4-Tetrahydrochinolin-2-Sulfonsäure (B. 24, 2118). — IV, 206.
- 4) Acetoximester d. 1-Methylbenzol-4-Sulfonsäure. Sm. 89° (B. 24, 3538). — II, 132.
- $C_{10}H_{13}O_3N_2Cl$ 1) Aethyläther d. 5-Chlor-3,6-Di[Methylamido]-2-Oxy-1,4-Benzochinon. Sm. 210° u. Zers. (J. pr. [2] 43, 264). — III, 348.
- $C_{10}H_{13}O_3ClS$ 1) 6-Chlor-4-Isopropyl-1-Methylbenzol-2-Sulfonsäure. Ba + 3 H₂O, Pb + 3 H₂O (G. 19, 539; 21, 70). — II, 153.
- 2) 2-Chlor-4-Isopropyl-1-Methylbenzol-3-Sulfonsäure. Sm. 135—136°. Ba + 6 H₂O (B. 29, 315; Soc. 73, 855).
- 3) 3-Chlor-4-Isopropyl-1-Methylbenzol-2-Sulfonsäure + 3 H₂O. Sm. 24° (79° wasserfrei). Ba + 3(4) H₂O, Pb + 3 H₂O, Ag + 1/2 H₂O (G. 19, 169, 499; B. 29, 316). — II, 153.
- 4) 6-Chlor-1,2,4,5-Tetramethylbenzol-3-Sulfonsäure. Sm. 136°. Na, K + H₂O, Ba + H₂O (B. 25, 2760). — II, 157.
- 5) Chlorid d. 4-Oxy-1,3-Dimethylbenzolmonäthyläther-5-Sulfonsäure. Sm. 169—170° (B. 25 [2] 751). — II, 846.
- $C_{10}H_{13}O_3BrS$ 1) 4-Brom-3-Isopropyl-1-Methylbenzol-6-Sulfonsäure. Sm. 108 bis 109°. K + H₂O, Ba, Pb + 3 H₂O, Cu + 4 H₂O (A. 210, 37; 235, 272). — II, 155.
- 2) 6-Brom-3-Isopropyl-1-Methylbenzol-4-Sulfonsäure + 3 H₂O. Na + 2 H₂O, K + H₂O, Ba + 7 H₂O, Cu + 7 H₂O (A. 235, 277). — II, 156.
- 3) 5-Brom-4-Isopropyl-1-Methylbenzol-2-Sulfonsäure. K + H₂O, Ba + 1 1/2 (2 1/2) H₂O, Cu + 12 H₂O (B. 19, 248, 1730). — II, 154.
- 4) 6-Brom-4-Isopropyl-1-Methylbenzol-2-Sulfonsäure. Ba + H₂O (G. 10, 540). — II, 154.
- 5) 6-Brom-4-Isopropyl-1-Methylbenzol-3-Sulfonsäure + 3 H₂O. Sm. 130—132° (wasserfrei). K + 3 H₂O, Ca + 8 H₂O, Ba + 5 H₂O, Pb + 4 H₂O, Cu + 8 H₂O (G. 11, 126; Am. 5, 151; B. 19, 1732, 2163). — II, 154.
- 6) 2-Brom-5-Aethyl-1,3-Dimethylbenzol-6-Sulfonsäure. Ba + 4 H₂O, Cd + 3 H₂O (B. 25, 1536). — II, 156.
- 7) 6-Brom-5-Aethyl-1,3-Dimethylbenzol-2-Sulfonsäure. Ca + 6 H₂O (B. 25, 1538). — II, 156.
- $C_{10}H_{13}O_4NS$ 1) γ -Benzoylamidopropan- α -Sulfonsäure. Ag (B. 26, 1079). — II, 1180.

- C₁₀H₁₃O₄NS** 2) 2-Acetylmethylamido-1-Methylbenzol-4-Sulfonsäure. Ba + 3H₂O (A. 304, 110).
 3) Aethylester d. Phenylsulfonamidoessigsäure. Sm. 66° (B. 22 [2] 692). — II, 115.
 4) 2-Amid d. 1-norm.-Propylbenzol-4-Carbonsäure-2-Sulfonsäure. Sm. 216–218° (213°). Ca + 6H₂O, Ba + xH₂O, CuH + 2H₂O, Ag (Am. 5, 158; B. 22, 2279). — II, 1383.
 5) 2-Amid d. 1-Isopropylbenzol-4-Carbonsäure-2-Sulfonsäure. Sm. 246°. Ba + 3H₂O (Am. 5, 158; B. 22, 2277). — II, 1389.
 6) 3-[oder 5]-Amid d. 1,2,4-Trimethylbenzol-6-Carbonsäure-3-[oder 5]-Sulfonsäure. K (B. 15, 1856). — II, 1391.
 7) 4-Amid d. 1,3,5-Trimethylbenzol-2-Carbonsäure-4-Sulfonsäure. K (B. 15, 1856). — II, 1392.
 8) 3-Amid d. 1-Methylbenzol-3-Sulfonsäure-4-Carbonsäureäthylester. Sm. 95° (B. 25, 1740). — II, 1355.
- C₁₀H₁₃O₄ClBr** 1) Verbindung (aus Xanthogallol). Sm. 77° (A. 245, 341). — II, 1014.
- C₁₀H₁₃O₄BrS** 1) 6-Brom-3-Oxy-4-Isopropyl-1-Methylbenzol-2-Sulfonsäure. K, Ba (J. pr. [2] 43, 351). — II, 848.
 2) 2-Brom-3-Oxy-4-Isopropyl-1-Methylbenzol-6-Sulfonsäure. Sm. 55°. Na + 2H₂O, K + 1½H₂O, Ba, Pb + 3H₂O, Ag (Z. 1871, 261; J. pr. [2] 43, 345). — II, 848.
 3) Lakton d. α-Bromoxycamphersulfonsäure. Sm. 290° (C. 1897 [1] 385).
- C₁₀H₁₃O₄Br₂S** 1) Bromid d. Dibromoxycamphersulfonsäure. Sm. 190–191° (Soc. 71, 24).
- C₁₀H₁₃O₄JS** 1) 2-Jod-3-Oxy-4-Isopropyl-1-Methylbenzol-6-Sulfonsäure + xH₂O. K + 2H₂O, Ba, Ag (J. pr. [2] 39, 392). — II, 848.
- C₁₀H₁₃O₅NS** 1) Aethyläther d. β-Oxyäthyl-3-Nitrophenylsulfon. Sm. 93° (A. 294, 248).
 2) 2-Nitro-4-Isopropyl-1-Methylbenzol-6-Sulfonsäure. Mg + 5H₂O, Ca + H₂O, Ba + H₂O, Zn + 6H₂O, Pb + H₂O (G. 19, 534; 21, 66). — II, 154.
 3) 2-Nitro-4-Isopropyl-1-Methylbenzol-2-Sulfonsäure. Mg + 6H₂O, Ca + 9H₂O, Ba + 5H₂O, Zn + 6H₂O, Pb + 5H₂O (G. 19, 544; 21, 70). — II, 154.
 4) 4-Acetylamido-1-Oxybenzoläthyläther-2 oder 3-Sulfonsäure. Na (C. 1898 [2] 1189).
 5) Phenyläthersulfonsäure d. γ-Oxy-norm. Buttersäureamid. Sm. 211°. Ba (B. 24, 2640). — II, 832.
 6) Acetylamid d. 1,2-Dioxybenzoldimethyläther-4-Sulfonsäure. Sm. 140–141° (G. 26 [2] 236).
- C₁₀H₁₃O₅N₂S** 1) α-Nitro-α-Phenylhydrazon-β-Methylpropan-4-Sulfonsäure. K + H₂O (B. 12, 2288). — IV, 1375.
- C₁₀H₁₃O₅ClS** 1) Chlorid d. d-Sulfocamphersäureanhydrid. Sm. 184–185° u. Zers. (Soc. 71, 13).
- C₁₀H₁₃O₅BrS** 1) Bromid d. d-Sulfocamphersäureanhydrid. Sm. 169–171° u. Zers. (Soc. 71, 11).
- C₁₀H₁₃O₆NS** 1) 2 [oder 5]-Nitro-4-Oxy-1,3-Dimethylbenzoläthyläther-6-Sulfonsäure. K + H₂O, Ba + ½H₂O (A. 230, 342). — II, 846.
 2) Ratanhinsulfonsäure + H₂O. Ba + 2½H₂O (J. 1862, 495). — III, 927.
- C₁₀H₁₃O₆NS₂** 1) 2-Nitro-4-Isopropyl-1-Methylbenzol-2-Disulfonsäure. Ba + 3½H₂O, Pb + 4½H₂O (G. 11, 512). — II, 154.
- C₁₀H₁₃O₆N₂P** 1) Inosinsäure. K₂ + 7H₂O, Ca + 6½H₂O, Ba + 7½H₂O, Ba₃ + 2H₂O (A. 62, 317; 64, 106; 66, 82; 133, 301; M. 16, 190). — II, 2110.
- C₁₀H₁₄ONCl** 1) 2-Chlor-6-Amido-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 102 bis 103° (100,5°); HCl (J. pr. [2] 23, 175, 180; B. 19, 2315). — II, 774.
 2) Oxyäthylechloräthylphenylamin (B. 22, 2094). — II, 426.
- C₁₀H₁₄ONBr** 1) 2-Brom-2-Amido-2-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 60–61° (G. 19, 337).
 2) 2-Brom-2-Amido-2-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 136 bis 137° (G. 19, 337; 21 [2] 379). — II, 768.
 3) 6-Brom-2-Amido-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 94–95°; HBr (J. pr. [2] 23, 183; G. 16, 196; 19, 64; B. 22, 3267). — II, 774.

- $C_{10}H_{14}ONJ$ 1) Jodmethylat d. 2-Butyrylpyridin. Sm. 79° (B. 24, 2537). — IV, 184.
 2) Jodäthylat d. 2-Propionylpyridin. Sm. 160° (B. 24, 2530). — IV, 184.
 3) Jodmethylat d. 4-Methyl-3,4-Dihydro-1,4-Benzoxazin (J. d. Methylphenmorpholin). Zers. bei 200° (B. 32, 734).
- $C_{10}H_{14}ONAs$ 1) 4-Diäthylamidophenylarsinoxid. Sm. 58° (A. 270, 146). — IV, 1686.
- $C_{10}H_{14}ON_2S$ 1) β -Thionyl- α -Isobutyl- α -Phenylhydrazin. Fl. (A. 270, 121). — IV, 662.
 2) 4-Thionylamido-1-Diäthylamidobenzol. Sm. 36° . HCl (B. 31, 2181).
- $C_{10}H_{14}ON_2S_2$ 1) β -[2-Methoxyphenyl]amidoäthylamidodithioameisensäure. Aminsalz (Sm. 123°) (B. 27, 930).
- $C_{10}H_{14}OClBr$ 1) α -Chlorbromcampher. Sm. 98° (Bl. 44, 116, 164; Soc. 73, 587). — III, 491.
 2) α -Chlor- α -Bromcampher. Sm. 61° (C. 1897 [2] 550; Soc. 73, 578).
 3) isom. α -Chlor- α -Bromcampher. Sm. 55° ($51,5^{\circ}$) (C. 1897 [2] 550; Soc. 73, 577; Bl. 44, 118). — III, 491.
 4) α - π -Chlorbromcampher. Sm. 138 – $138,5^{\circ}$ (Soc. 67, 393). — III, 491.
 5) isom. α - π -Chlorbromcampher. Sm. 132 – 133° (Soc. 67, 394). — III, 491.
- $C_{10}H_{14}O_2NCl$ 1) 2-[β -Chlor- β^1 -Oxyisopropyl]amido-1-Oxymethylbenzol. Sm. 95° (B. 27, 1087). — II, 1061.
 2) 3-Methyläther d. 5-Amido-3,4-Dioxy-1-Chlorpropylbenzol. Sm. 97° ; HCl + H_2O (M. 3, 389). — II, 969.
 3) 3-Chlortrimethylamidobenzol-1-Carbonsäure. ($2 + PtCl_4$) (B. 6, 586). — II, 1258.
 4) Äthylester d. 1-Chlor-3-Methyl-1,1-Dihydropyridin-1-Methylcarbonsäure. $2 + PtCl_4$ (J. pr. [2] 43, 370). — IV, 125.
 5) Chloräthylat d. Pyridin-3-Carbonsäureäthylester. $2 + PtCl_4$, + $AuCl_3$ (M. 16, 50). — IV, 144.
 6) Chlorimid d. Camphersäure. Sm. $115,5^{\circ}$ (Bl. 49, 300). — I, 1392.
- $C_{10}H_{14}O_2NJ$ 1) 2-Jodtrimethylamidobenzol-1-Carbonsäure. Sm. 175° . Na (Bl. [3] 9, 975). — II, 1248.
 2) 3-Jodtrimethylamidobenzol-1-Carbonsäure (B. 6, 586). — II, 1258.
 3) Jodäthylat d. Pyridin-2-Carbonsäureäthylester. Sm. 104 – 105° (M. 15, 186). — IV, 142.
 4) Jodäthylat d. Pyridin-3-Carbonsäureäthylester (M. 16, 49). — IV, 144.
- $C_{10}H_{14}O_2N_2Cl_4$ 1) Hexachlorpyrokolloktochlorid. Sm. 146 – $147,5^{\circ}$ (G. 12, 34; B. 16, 2389). — IV, 81.
- $C_{10}H_{14}O_2N_2Br_2$ 1) Dibrompernitrosocampher. Sm. 67° (G. 26 [2] 48). — IV, 78.
- $C_{10}H_{14}O_2ClP$ 1) Trimethylphenylphosphoniumchlorid-4-Carbonsäure. $2 + PtCl_4$ (B. 15, 2619). — IV, 1673.
- $C_{10}H_{14}O_2Cl_2S$ 1) Chlorid d. α -Chlorcamphensulfonsäure. α -Modif. Sm. 83 – 84° ; β -Modif. Sm. 86 – 87° (C. 1895 [1] 1063; Soc. 69, 1551). — III, 536.
 2) Chlorid d. β -Chlorcamphensulfonsäure. Sm. 77 – 78° (83 – 84°) (Soc. 69, 1560; C. 1895 [1] 1063). — III, 536.
- $C_{10}H_{14}O_2NCl$ 1) α -Chlor- α' -Nitrocampher. Sm. 95° (B. 16, 888, 972; Bl. 39, 504; 44, 164; 47, 926; Soc. 69, 322; 73, 989). — III, 494.
 2) α' -Chlor- α -Nitrocampher. Sm. 132° (Soc. 73, 990).
 3) β -Chlornitrocampher. Sm. 110° ; Zers. bei 200° (Bl. 41, 286; 49, 427; B. 16, 889). — III, 494.
- $C_{10}H_{14}O_2NBr$ 1) α -Brom- α' -Nitrocampher. Sm. 104 – 105° (107°) (B. 13, 1402; Bl. 42, 69; 44, 165; G. 11, 21; Soc. 69, 322; 73, 988). — III, 494.
 2) α' -Brom- α -Nitrocampher. Sm. 106° (Soc. 73, 990).
 3) π -Brom- α -Nitrocampher. Sm. 142° (126°). K + $2H_2O$, Ba + $4H_2O$ (Soc. 69, 309; 75, 223; C. 1895 [1] 749). — III, 494.
 4) π -Brom- α -Isonitrocampher. Sm. 137 – 138° (109 – 112° wasserhaltig). K, Ba + $2H_2O$ (Soc. 69, 318; 75, 223). — III, 495.
 5) Amid d. β -Bromcamphersulfonsäure. Sm. 161 – 162° (Soc. 75, 142).
- $C_{10}H_{14}O_2N_2S$ 1) Diamid d. 1-Isopropylbenzol-4-Carbonsäure-2-Sulfonsäure. Sm. 225° (B. 22, 2277). — II, 1389.
- $C_{10}H_{14}O_2Cl_2S$ 1) Chlorid d. β -Chlorcamphersulfonsäure. Sm. 123 – 124° (Soc. 63, 596). — III, 498.

- $C_{10}H_{14}O_3Br_2S$ 1) Bromid d. o-Bromcamphersulfonsäure. Sm. bei 145° (Soc. 67, 367). — III, 499.
- $C_{10}H_{14}O_4NBr$ 1) Brommesitencarbaminäthyläthersäure. NH_4 , Pb (A. 274, 282).
- $C_{10}H_{14}O_4N_2S$ 1) Amid d. 2-Nitro-4-Isopropyl-1-Methylbenzol-6-Sulfonsäure. Sm. $138-139^\circ$ (G. 19, 534; 21, 66). — II, 154.
- 2) Isobutylnitramid d. Benzolsulfonsäure. Sm. 62° (C. 1897 [2] 848).
- $C_{10}H_{14}O_4ClBr$ 1) ω -Chlor- π -Bromcamphersäure. Sm. 197° (Soc. 75, 138).
- $C_{10}H_{14}O_4Cl_2Cr_2$ 1) Phenyläthylidendichlorochromsäure (A. ch. [5] 22, 254). — II, 30.
- 2) Verbindung (aus 4-Isopropyl-1-Methylbenzol) (A. ch. [5] 22, 258). — II, 32.
- $C_{10}H_{14}O_4Br_2S$ 1) $\alpha\alpha'$ -Dibromcamphersulfonsäure + H_2O . Sm. $128-133^\circ$ ($245-252^\circ$ u. Zers.) (C. 1896 [1] 1168; 1899 [1] 110; Soc. 71, 19). — III, 499.
- $C_{10}H_{14}NClHg$ 1) Quecksilber-4-Diäthylamidophenylchlorid. Sm. 164° (G. 24 [2] 466). — IV, 1705.
- $C_{10}H_{14}NCl_2P$ 1) 4-Diäthylamidophenyldichlorphosphin. Fl. (A. 260, 34). — IV, 1647.
- $C_{10}H_{14}NCl_2As$ 1) 4-Diäthylamidophenyldichlorarsin. HCl (A. 270, 147). — IV, 1686.
- $C_{10}H_{14}NBrHg$ 1) Quecksilber-4-Diäthylamidophenylbromid. Sm. $154,5^\circ$ (G. 24 [2] 465). — IV, 1705.
- $C_{10}H_{14}NJHg$ 1) Quecksilber-4-Diäthylamidophenyljodid. Sm. 120° (G. 24 [2] 465). — IV, 1705.
- $C_{10}H_{14}NSAs$ 1) 4-Diäthylamidophenylarsinsulfid. Sm. 155° (A. 270, 147). — IV, 1686.
- $C_{10}H_{14}N_3S_4J$ 1) Jodmethylat d. Methyldi-4-Methyl-2-Thiazolylamin. Zers. bei 260° (B. 20, 3131). — IV, 519.
- $C_{10}H_{15}ONBr_2$ 1) Methyläther d. $\alpha\beta$ -Phenylimido- α -[β -Dibrom-4-Oxyphenyl]propan? Sm. 82° (J. pr. [2] 52, 205).
- 2) Dibromid d. 1-Carvoxim (J. 1877, 428). — III, 113.
- 3) Oximidopinendibromid (J. 1875, 391) — III, 522.
- $C_{10}H_{15}ONS$ 1) 3-[α -Oximidoäthyl]-2,5-Diäthylthiophen. Fl. (B. 19, 635). — III, 766.
- $C_{10}H_{15}ON_2Cl$ 1) Chlorid d. Dimethylphenylammoniumessigsäureamid (B. 17, 2662). — II, 431.
- $C_{10}H_{15}ON_4Cl$ 1) Verbindung (aus Diacetonitril u. Acetylchlorid) (J. pr. [2] 39, 236). — I, 1454.
- $C_{10}H_{15}O_2NS$ 1) Phenylsulfondiäthylamin. HCl (J. pr. [2] 30, 337). — II, 781.
- 2) Amid d. 1-Isobutylbenzol-2-Sulfonsäure. Sm. 137° (B. 19, 1729). — II, 151.
- 3) Amid d. 2-Propyl-1-Methylbenzol-2-Sulfonsäure (B. 13, 898). — II, 152.
- 4) Amid d. 4-Propyl-1-Methylbenzol-2-Sulfonsäure. Sm. $101-102^\circ$ (B. 24, 446). — II, 152.
- 5) Amid d. 4-Propyl-1-Methylbenzol-3-Sulfonsäure. Sm. $112-113^\circ$ (B. 24, 448). — II, 153.
- 6) Amid d. 3-Isopropyl-1-Methylbenzol-4-Sulfonsäure. Sm. 162° (B. 17, 1747). — II, 155.
- 7) Amid d. 3-Isopropyl-1-Methylbenzol-6-Sulfonsäure. Sm. 73° (A. 210, 34; G. 16, 552). — II, 155.
- 8) Amid d. 4-Isopropyl-1-Methylbenzol-2-Sulfonsäure. Sm. $115,5^\circ$. Ag (B. 10, 976; 19, 1969). — II, 153.
- 9) Amid d. 4-Isopropyl-1-Methylbenzol-3-Sulfonsäure. Sm. 148° (145°) (B. 19, 1733; Am. 5, 154). — II, 153.
- 10) Amid d. 1,2-Diäthylbenzol-2-Sulfonsäure. Sm. 119° (B. 21, 3500). — II, 152.
- 11) Amid d. 1,3-Diäthylbenzol-2-Sulfonsäure. Sm. $101-102^\circ$ (B. 21, 2830). — II, 152.
- 12) Amid d. 1,4-Diäthylbenzol-2-Sulfonsäure. Sm. $97,5^\circ$ (85°) (B. 22, 316; Am. 4, 200). — II, 152.
- 13) Amid d. 4-Aethyl-1,2-Dimethylbenzol- α -Sulfonsäure. Sm. 126° (B. 19, 2516). — II, 156.
- 14) Amid d. 4-Aethyl-1,3-Dimethylbenzol-2-Sulfonsäure. Sm. 148° (B. 19, 2516). — II, 156.
- 15) Amid d. 5-Aethyl-1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 116 bis 117° (B. 25, 1537). — II, 156.

- C₁₀H₁₅O₂NS** 16) Amid d. 2-Aethyl-1,4-Dimethylbenzol-*p*-Sulfonsäure. Sm. 117° (B. 19, 2516). — II, 156.
 17) Amid d. 1,2,3,4-Tetramethylbenzol-5-Sulfonsäure. Sm. 187° (177°) (B. 19, 1214, 1552). — II, 157.
 18) Amid d. 1,2,3,5-Tetramethylbenzol-4-Sulfonsäure. Sm. 142 bis 143° (118°) (B. 15, 1854; 19, 1553). — II, 157.
 19) Amid d. 1,2,4,5-Tetramethylbenzol-3-Sulfonsäure. Sm. 155° (B. 18, 2843). — II, 157.
 20) Amid d. Sulfonsäure d. Kohlenw. C₁₀H₁₄ (aus Steinkohlentheer). Sm. 122–123° (B. 19, 2514). — II, 34.
 21) Methylamid d. 1,2,4-Trimethylbenzol-5-Sulfonsäure. Sm. 90 bis 91° (R. 16, 418).
 22) Methylamid d. 1,3,5-Trimethylbenzol-2-Sulfonsäure. Sm. 89 bis 90° (R. 16, 415).
 23) Dimethylamid d. 1,3-Dimethylbenzol-4-Sulfonsäure. Sm. 35° (R. 16, 421).
 24) Diäthylamid d. Benzolsulfonsäure. Sm. 42° (R. 3, 11). — II, 115.
 25) Isobutylamid d. Benzolsulfonsäure. Sm. 53° (C. 1897 [2] 848).
- C₁₀H₁₅O₂N₂Br** 1) α -Brompernitrosocampher. Sm. 114° (G. 26 [2] 45). — IV, 77.
 2) β -Brompernitrosocampher. Sm. 67° (G. 26 [2] 46). — IV, 78.
- C₁₀H₁₅O₂N₄Cl** 1) Chloräthylat d. Kaffein. 2 + PtCl₄ (Z. 1865, 456). — III, 959.
 2) Chlormethylat d. Aethyltheobromin. 2 + PtCl₄ + AuCl₃ (C. 1897 [1] 284).
- C₁₀H₁₅O₂N₄J** 1) Jodäthylat d. Kaffein. + J₂ (Z. 1865, 456). — III, 959.
 2) Jodmethylat d. Aethyltheobromin (C. 1897 [1] 284). — III, 955.
- C₁₀H₁₅O₂SP** 1) Diäthylester d. Phenylthiophosphinsäure. Fl. (B. 9, 1054). — IV, 1653.
- C₁₀H₁₅O₃NS** 1) Benzaldehydpropylthionaminsäure. Sm. 96°. Anilinsalz (A. 274, 194). — III, 6.
 2) 4-Amido-3-Isopropyl-1-Methylbenzol-2-Sulfonsäure. Ba (A. 221, 177). — II, 584.
 3) 2-Amido-4-Isopropyl-1-Methylbenzol-6-Sulfonsäure. Pb + 4H₂O (G. 19, 537; 21, 68). — II, 584.
 4) 3-Amido-4-Isopropyl-1-Methylbenzol-6-Sulfonsäure. Ba (B. 19, 246). — II, 584.
 5) 4-Isopropylamido-1-Methylbenzol-2-Sulfonsäure (J. pr. [2] 48, 67). — II, 581.
 6) 1-Diäthylamidobenzol-*p*-Sulfonsäure. Sm. 270° u. Zers. Ba + 2H₂O (B. 7, 1243; 23, 557). — II, 576.
 7) Aethylester d. 1-Dimethylamidobenzol-*p*-Sulfonsäure. Sm. 85° (J. pr. [2] 20, 263). — II, 576.
 8) Amid d. 4-Oxy-1-Methylbenzolpropyläther-3-Sulfonsäure. Sm. 126,5–128° (Am. 15, 317). — II, 544.
- C₁₀H₁₅O₃ClS** 1) α -Chlorcamphersulfonsäure. Sm. 264–265°. Na, K (Soc. 69, 1557). — III, 536.
 2) γ -Chlorcamphersulfonsäure. Sm. 78–79°. Na, K, Ba (Soc. 69, 1563). — III, 536.
 3) Lakton d. β -Chloroxycamphersulfonsäure. Sm. 183,5 – 184,5° (Soc. 69, 1564).
 4) Chlorid d. Camphersulfonsäure. d-Modif. Sm. 137,5° (Soc. 63, 564; 67, 357, 358). — III, 498.
 5) Chlorid d. kryst. Camphersulfonsäure. Sm. 67–68° (Bl. [3] 19, 124).
- C₁₀H₁₅O₃BrS** 1) Bromid d. Camphersulfonsäure. d-Modif. Sm. 144–145° (Soc. 67, 359, 364). — III, 498.
- C₁₀H₁₅O₄NS** 1) *p*-Amido-3-Oxy-4-Isopropyl-1-Methylbenzol-2-Sulfonsäure (J. pr. [2] 23, 193). — II, 774.
- C₁₀H₁₅O₄ClS** 1) β -Chlorcamphersulfonsäure. NH₄, Na + 5H₂O, K + 4H₂O, Ba + 5½H₂O (Soc. 63, 593). — III, 498.
- C₁₀H₁₅O₄BrS** 1) *o*-Bromcamphersulfonsäure. Sm. 195 – 196°. NH₄, Li + 2H₂O, Na + 5H₂O, K + 1½H₂O, Ba + 5½H₂O (Soc. 63, 577; 67, 356; C. 1898 [1] 1168; Ph. Ch. 15, 199). — III, 498.
- C₁₀H₁₅O₅N₂S₂** 1) Taurodiammelin. Zers. bei 270° (B. 21, 876). — I, 1449.
- C₁₀H₁₅NClBr** 1) Trimethyl-2-Brom-4-Methylphenylammoniumchlorid. 2 + PtCl₄ (G. 28 [2] 109).

- $C_{10}H_{15}ClBrP$ 1) Dimethyl- β -Bromäthylphenylphosphoniumchlorid. $2 + PtCl_4$ (B. 15, 199). — IV, 1654.
- $C_{10}H_{15}ClJP$ 1) Jodtrimethyl-4-Methylphenylphosphoniumchlorid. $2 + PtCl_4$ (J. 1883, 1307). — IV, 1671.
- $C_{10}H_{16}ONCl$ 1) 1-Oxy-2-Methyl-5-Aethyl-1-[β -Chloräthyl]-1,1-Dihydropyridin. ($2 + PtCl_4$) (Bl. 37, 194; 39, 535). — IV, 135.
 2) 1-Oxy-3-Methyl-2-Aethyl-1-[β -Chloräthyl]-1,1-Dihydropyridin. $2 + PtCl_4 + AuCl_3$ (Bl. 39, 536). — IV, 136.
 3) i-Hydrochlorcarvoxim. Sm. 124–126° (B. 29, 20). — III, 529.
 4) act. Hydrochlorcarvoxim. Sm. 135° (A. 270, 178; B. 29, 19). — III, 524.
 5) Dipentinnitrosylchlorid. Sm. 103–104° (A. 245, 268; 252, 124; 270, 175). — III, 528.
 6) Limonennitrosylchlorid (Isonitrosylchloridterpen). α -Derivat Sm. 103–104°; β -Derivat Sm. 105–106° (100°). HCl (J. 1877, 428; A. 245, 255; 252, 109; 270, 174). — III, 524.
 7) Pinennitrosylchlorid. Sm. 102–103° (Z. 1869, 579, 580; J. 1875, 390; 1877, 427; A. 245, 252; 253, 251; 258, 343). — III, 522.
 8) Sylvestrennitrosylchlorid. Sm. 106–107° (A. 245, 272). — III, 531.
- $C_{10}H_{16}ONCl_3$
 $C_{10}H_{16}ONBr$ 1) Terpendichloridnitrosylchlorid. Sm. 111° (A. 270, 202). — III, 527.
 1) π -Brom- α -Amidocampher. Sm. 159°. HCl, (2HCl, $PtCl_4$), Oxalat (Soc. 69, 316). — III, 496.
 2) π -Brom- α -Isoamidocampher. HCl, (2HCl, $PtCl_4$) (Soc. 69, 321). — III, 496.
 3) d-Hydrobromcarvoxim. Sm. 116° (B. 20, 2072; 29, 20). — III, 525.
 4) i-Hydrobromcarvoxim. Sm. 127–128° u. Zers. (B. 29, 21). — III, 529.
 5) Limonennitrosylbromid. Sm. 90,5° u. Zers. (A. 245, 258). — III, 525.
 6) Pinennitrosylbromid. Sm. 91–92° u. Zers. (A. 245, 253). — III, 522.
- $C_{10}H_{16}ONJ$ 1) Jodmethylat-4-Aethyläther d. 4-Oxy-2,6-Dimethylpyridin. Sm. 196° (B. 22, 82). — IV, 130.
 2) Verbindung (aus Methyljodid u. Methylphenyl- β -Amidoäthylalkohol) (B. 17, 676). — II, 426.
- $C_{10}H_{16}ONJ_5$ 1) Jodderivat d. Verbindung $C_{10}H_{16}ONJ$. Sm. 87° u. Zers. (B. 17, 677). — II, 426.
- $C_{10}H_{16}ONP$ 1) Dimethyl-4-Dimethylamidophenylphosphinoxid + H_2O . Sm. 62° (A. 260, 22). — IV, 1654.
- $C_{10}H_{16}OF_3B$ 1) Fluorborcampher. Sm. bei 70° (J. 1878, 640). — III, 487.
- $C_{10}H_{16}O_2NCl$ 1) Isocamphernitrosylchlorid. Sm. 120–121° u. Zers. (G. 26 [2] 38; B. 29, 2817). — III, 502.
- $C_{10}H_{16}O_2NAs$ 1) Phenylamid d. Diäthylarsensäure. Sd. 178–181° u. Zers. (A. 261, 290). — II, 357.
- $C_{10}H_{16}O_2N_2S$ 1) 4-Diäthylamidophenyl-1-Thionaminsäure. Sm. 122–124° (B. 31, 2182).
- $C_{10}H_{16}O_2N_2S_2$ 1) Verbindung (aus Dithioacetylaceton). Sm. 160° u. Zers. (Bl. [3] 19, 248).
- $C_{10}H_{16}O_2N_4S$ 1) 1,2-Diacetyl-5-Aethylimido-3-Thiocarbonyl-4-Aethyltetrahydro-1,2,4-Triazol. Sm. 165° (B. 28, 955). — IV, 1235.
- $C_{10}H_{16}O_3NP$ 1) Phenylamid d. Phosphorsäurediäthylester. Sm. 93° (B. 27, 2572).
- $C_{10}H_{16}O_3N_2S$ 1) Benzaldehyd-Trimethylenthionaminsäure. Sm. 102° (B. 30, 1014).
- $C_{10}H_{16}O_3N_2S_2$ 1) 2-Amido-5-Diäthylamidobenzol-1-Thiosulfonsäure. Sm. 228 bis 230° (A. 251, 54). — II, 801.
 2) 2,5-Di[Dimethylamido]benzol-1-Thiosulfonsäure. Sm. bei 179° (A. 251, 60). — II, 801.
- $C_{10}H_{16}O_3ClP$ 1) Chlorfenchophosphonsäure. Sm. 196°. Pb (Soc. 71, 1157; 73, 707).
- $C_{10}H_{16}O_4N_2S$ 1) 2-Oxybenzaldehyd-Trimethylenthionaminsäure. Sm. 104° (B. 30, 1014).
 2) 2-Methoxylbenzaldehyd-Aethylenthionaminsäure. Sm. 166° (B. 30, 1012).
 3) Inn. Anhydrid d. β -Sulfondi[amidovaleriansäure] (Sulfopiperidon). Sm. 141° (B. 27, 2016).
 4) Verbindung (aus Diazocampher). $K + 2H_2O$ (G. 26 [2] 291). — III, 496.
- $C_{10}H_{16}O_4N_2S_2$ 1) Diäthylester d. Succinyldi[amidothioameisensäure]. Sm. 166 bis 167° (Soc. 67, 571).

- $C_{10}H_{16}O_4N_2S_2$ 2) Amid d. 1,2,4,5-Tetramethylbenzol-3,6-Disulfonsäure. Sm. oberh. 310° (B. 19, 1217). — II, 157.
- $C_{10}H_{16}NSP$ 1) Dimethyl-*p*-Dimethylamidophenylphosphinsulfid. Sm. 155° (A. 260, 23). — IV, 1654.
- $C_{10}H_{17}ONCl_2$ 1) Hydrochlorlimonennitrosylchlorid. Sm. 109° (A. 245, 261). — III, 525.
- $C_{10}H_{17}O_3N_2Br$ 1) Nitrosoderivat d. Verb. $C_{10}H_{16}ONBr$. Sm. $138-139^\circ$ (B. 28, 2295). — III, 481.
- 2) Verbindung (aus $\alpha\beta$ -Dibrom- γ -Oximido- β -Methylbutan). Sm. 87° (A. 262, 350). — II, 1032.
- $C_{10}H_{17}O_3NS$ 1) Amid d. Camphersulfonsäure. act. Modif. Sm. $135-137,5^\circ$; i-Modif. Sm. $133,5-136,5^\circ$ (Soc. 63, 567). — III, 498.
- 2) Amid d. kryst. Camphersulfonsäure. α -Modif. Sm. 220° ; β -Modif. Sm. $125-126^\circ$ (Bl. 3 19, 124).
- $C_{10}H_{17}O_3N_2Br$ 1) Bromtetrahydrocarvonbisnitrosylsäure. Sm. 130° u. Zers. (B. 29, 17). — III, 503.
- $C_{10}H_{17}O_4NS$ 1) Oximidocamphersulfonsäure. Sm. $177-178^\circ$ (Bl. 3 19, 125).
- $C_{10}H_{17}O_4N_2Cl$ 1) Hydrochlorlimonennitrosat. Sm. $114-115^\circ$ ($109-111^\circ$) (G. 13, 100; A. 241, 326; 245, 260). — III, 525.
- 2) Verbindung (aus Citronenölterpen). Sm. $114-115^\circ$ (B. 16, 1241).
- $C_{10}H_{17}O_5NS_2$ 1) Myronsäure. $K + H_2O$, Ba (C. 1896 2 922; J. 1860, 563; A. 125, 257; J. pr. 2 24, 273; B. 16, 434; 30, 2322). — III, 598.
- $C_{10}H_{18}ONCl$ 1) Menthennitrosochlorid. Sm. 113° (Am. 14, 292; 18, 765). — II, 19.
- 2) Oxim d. Chlormenthon. Sm. $63-66^\circ$ (B. 28, 1588). — III, 480.
- 3) Tropinneurinchlorid. $2 + PtCl_4 + AuCl_3$ (C. 1898 1 740; 1899 1 119).
- $C_{10}H_{18}ONBr$ 1) Tropinneurinbromid (C. 1898 1 740).
- 2) Oxim d. i-Bromtetrahydrocarvon. Sm. 109° u. Zers. (A. 279, 382). — III, 484.
- 3) Piperidid d. α -Bromisovaleriansäure. Sm. 65° (B. 31, 2847).
- 4) Verbindung (aus d. Verb. $C_{10}H_{19}ONBr_2$). Sm. $100-102^\circ$ (B. 28, 2294). — III, 481.
- $C_{10}H_{18}ONBr_2$ 1) Tropinneurintribromid (C. 1898 1 741; 1899 1 119).
- $C_{10}H_{18}ONJ$ 1) Jodmethylat d. n-Methylgranatonin. Sm. noch nicht bei 280° (G. 22 1 514). — IV, 54.
- $C_{10}H_{18}O_2NCl$ 1) Terpeneolnitrosochlorid (A. 277, 121). — III, 482.
- 2) Chlormethylat d. Hydroecgonidin. $+ AuCl_3 + 4 H_2O$ (B. 30, 716).
- $C_{10}H_{18}O_2NBr$ 1) *p*-Brom-*p*-Nitro-5-Aethyl-1,3-Dimethylhexahydrobenzol. Fl. (C. 1899 1 176).
- 2) Oxim d. Bromoxymenthon. Sm. $136-137^\circ$ (B. 29, 419). — III, 480.
- $C_{10}H_{18}O_2NJ$ 1) Jodmethylat d. Methylscopolin (C. 1896 1 1200; 1898 1 1197).
- $C_{10}H_{18}O_2N_2Br_2$ 1) polym. $\alpha\beta$ -Dibrom- γ -Oximido- β -Methylbutan. Sm. 102° (A. 262, 349). — I, 1031.
- $C_{10}H_{18}O_3NCl$ 1) Chlormethylat d. α -Ecgonin. $+ AuCl_3$ (B. 29, 2223). — III, 872.
- 2) Chlormethylat d. l-Ecgonin. $2 + PtCl_4$ (M. 8, 79). — III, 864.
- 3) Hydrochlor- α -Thujaketoximsäure. Sm. $128-129^\circ$ (B. 30, 423).
- 4) Tropinbetainchlorid. Fl. $2 + PtCl_4 + 2 H_2O$, $+ AuCl_3 + H_2O$ (C. 1898 1 740; 1898 2 889).
- $C_{10}H_{18}O_3NBr$ 1) Hydrobrom- α -Thujaketoximsäure. Sm. $176-177^\circ$ (B. 30, 423).
- $C_{10}H_{18}O_3NJ$ 1) Jodmethylat d. α -Ecgonin. Sm. 225° u. Zers. (B. 29, 2222). — III, 872.
- 2) Jodmethylat d. l-Ecgonin (M. 8, 79). — III, 864.
- $C_{10}H_{18}O_4NCl$ 1) Chlormethylat d. d-Tropinsäuremonomethylester. $+ AuCl_3$ (B. 28, 3281). — III, 793.
- 2) Chlormethylat d. i-Tropinsäuremonomethylester. $+ AuCl_3$ (B. 28, 3281). — III, 793.
- $C_{10}H_{18}O_4NS$ 1) Nitrooxyamylen-Nitroxy-sulfid (A. 121, 118). — I, 118.
- $C_{10}H_{19}ONBr_2$ 1) Tropinäthylenbromid. Sm. $205-206^\circ$ (C. 1898 1 740; 1898 2 890).
- 2) Verbindung (aus Brom- $d^{(9)}$ -Terpennitrosobromid). HCl , Br (B. 28, 2292). — III, 481.
- $C_{10}H_{19}O_2N_2J$ 1) Jodmethylat d. d-Ecgoninamid $+ H_2O$. Sm. 220° (B. 28, 970). — III, 865.
- 2) Jodmethylat d. l-Ecgoninamid. Sm. 203° (B. 26, 965). — III, 865.
- $C_{10}H_{19}O_4N_2Cl$ 1) Diäthylester d. β -Chlorisobutylidendiamidoameisensäure. Sm. 122° (Bl. 3 11, 690).

- $C_{10}H_{19}O_5N_2Br$ 1) Verbindung (aus Bromisodehydracetsäureäthylester). Sm. 100° u. Zers. (B. 26, 758).
- $C_{10}H_{19}O_4BrS_3$ 1) Trimethyldiäthylbromtrimethylentrisulfon. Sm. 221° u. Zers. (B. 27, 1674).
- $C_{10}H_{19}N_2JS$ 1) Jodmethylat d. 5-Methyl-2-[1-Hexahydropyridyl]-4,5-Dihydrothiazol. Sm. 67° (B. 24, 265). — IV, 14.
- $C_{10}H_{20}ONCl$ 1) Chlormethylat d. Methyltropin. 2 + $PtCl_4$ (B. 14, 1832; A. 216, 335). — III, 787.
- $C_{10}H_{20}ONJ$ 1) Jodmethylat d. Methyltropin (B. 14, 1832, 2128; A. 216, 334; 217, 132). — III, 787.
- $C_{10}H_{20}ON_2S$ 2) Jodmethylat d. n-Methylgranatolin. Sm. 307° (B. 26, 2742). — IV, 53.
- $C_{10}H_{20}ON_2S$ 1) 1,1'-Dipiperidylsulfoxyd (n-Thionylpiperidin). Sm. 46° (B. 28, 1014). — IV, 11.
- $C_{10}H_{20}O_2NCl$ 1) β -Oxychloräthylat d. Tropin. Fl. 2 + $PtCl_4$, + $AuCl_3$ (C. 1898 [1] 740; 1898 [2] 889).
- $C_{10}H_{20}O_2NCl$ 2) Chlormethylat d. 1-Methylhexahydropyridin-2-Carbonsäureäthylester. + $AuCl_3$ (Sm. 78°) (B. 29, 392). — IV, 45.
- $C_{10}H_{20}O_2NJ$ 1) Jodmethylat d. 1-Methylhexahydropyridin-2-Carbonsäureäthylester. Sm. 127—128° u. Zers. (B. 29, 391). — IV, 45.
- $C_{10}H_{20}O_2N_2S$ 1) 1,1'-Dipiperidylsulfon (Sulfopiperidid). Sm. 93°; Sd. 230° (B. 27, 2012). — IV, 21.
- $C_{10}H_{20}O_3Cl_2S$ 1) Dichlordiisoamylsulfon. Fl. (B. 17, 538). — I, 362.
- $C_{10}H_{20}O_4N_2S_3$ 1) Verbindung (aus Dithioacetylaceton u. NH_3) (Bl. [3] 19, 247).
- $C_{10}H_{20}O_6N_2S$ 1) δ -Sulfondi[amidovaleriansäure] (Sulfo- δ -Amidovaleriansäure). Sm. 165°. Ba + $\frac{1}{2}H_2O$, Pb + $\frac{1}{2}H_2O$, Cu + $\frac{1}{2}H_2O$ (B. 27, 2014).
- $C_{10}H_{20}NSP$ 1) Triäthylallylphosphorthioharnstoff. Sm. 68°. (2HCl, $PtCl_4$) (A. Spl. 1, 48; B. 3, 766). — I, 1507.
- $C_{10}H_{21}O_3ClS$ 1) Chlordiisoamylsulfon. Sd. 330° (B. 17, 538). — I, 362.
- $C_{10}H_{21}O_3BrS$ 1) Diisobutylthetinbromid (J. 1878, 684). — I, 877.
- $C_{10}H_{21}O_3N_4J$ 1) Methyltri[β -Oximidopropyl]ammoniumjodid. Sm. 231° u. Zers. (B. 31, 2397).
- $C_{10}H_{21}NClJ$ 1) Dimethyleoniinchlorojodid. 2 + $PtCl_4$ (A. 279, 362).
- $C_{10}H_{21}ONJ$ 1) Jodmethylat d. α -Dipropylamido- α -Ketopropan. Sm. 234° (B. 29, 868).
- $C_{10}H_{21}ONJ$ 2) Jodmethylat d. stab. 4-Oxy-1,2,2,6-Tetramethylhexahydropyridin (Dimethylvinylacetonal-kammoniumjodid). Zers. bei 270° (A. 296, 334).
- $C_{10}H_{21}O_2NCl$ 1) Triäthylamidoessigsäureäthylesterchlorid. 2 + $PtCl_4$, + $AuCl_3$ (J. 1862, 333). — I, 1187.
- $C_{10}H_{21}O_2NJ$ 1) Triäthylamidoessigsäureäthylesterjodid (A. 182, 174). — I, 1188.
- $C_{10}H_{21}O_2ClP$ 1) Chlorid d. Triäthylphosphidoessigsäureäthylester. 2 + $PtCl_4$ (J. 1862, 334). — I, 1508.
- $C_{10}H_{23}O_4S_2P$ 1) Diisoamylidithiophosphorsäure. Fl. Pb (A. 119, 311). — I, 342.
- $C_{10}H_{23}O_5NS$ 1) Diamylsulfaminsäure. Sm. 98° (B. 24, 363). — I, 1182.
- $C_{10}H_{23}O_4NP$ 1) Amylonitrophosphorige Säure (A. 111, 85).
- $C_{10}H_{23}N_2JS$ 1) Diäthylisoamylthioharnstoffhydrojodid (B. 23, 2197). — I, 1320.
- $C_{10}H_{24}O_5SP$ 1) Isoamylthiophosphorsäure (Z. 1869, 413).
- $C_{10}H_{25}NCl_2P$ 1) Tetraäthyläthylenphosphammoniumchlorid. 2 + $PtCl_4$ (A. Spl. 1, 296). — I, 1507.
- $C_{10}H_{25}NBr_2P$ 1) Tetraäthyläthylenphosphammoniumbromid (A. Spl. 1, 296). — I, 1507.
- $C_{10}H_{25}NJ_2P$ 1) Tetraäthyläthylenphosphammoniumjodid (A. Spl. 1, 301).
- $C_{10}H_{27}O_6NSi_2$ 1) Amid d. Dikieselsäurepentamethylester (A. ch. [5] 7, 472). — I, 346.
- $C_{10}H_{30}N_2J_2Hg$ 1) Dijodmethylat d. Quecksilberdi[4-Methyläthylamidophenyl]. Sm. 202° (G. 23 [2] 547). — IV, 1707.

C_{10} -Gruppe mit fünf Elementen.

- $C_{10}H_4O_6N_2Cl_2S$ 1) Chlorid d. 1-Chlor-2-Dinitronaphtalin-2-Sulfonsäure. Sm. 235°. — II, 217.
- $C_{10}H_4O_6N_2Cl_2S_2$ 1) Chlorid d. 1,8-Dinitronaphtalin-3,6-Disulfonsäure. Sm. 218,5 bis 219,5° (B. 16, 570). — II, 215.
- $C_{10}H_5O_2NClBr$ 1) 1-Chlor-4-Brom-2-Nitronaphtalin. Sm. 117° (Soc. 61, 768). — II, 199.

- $C_{10}H_5O_2NBrJ$ 1) 4-Brom-1-Jod-2-Nitronaphtalin. Sm. 117—118° (Soc. 61, 767). — II, 200.
- $C_{10}H_5O_2ClBr_2S$ 1) Chlorid d. 1,3-Dibromnaphtalin- α -Sulfonsäure. Sm. 157° (B. 25 [2] 749). — II, 211.
 2) Chlorid d. 1,3-Dibromnaphtalin- β -Sulfonsäure. Sm. 128° (B. 25 [2] 749). — II, 211.
 3) Chlorid d. 1,4-Dibromnaphtalin-6-Sulfonsäure. Sm. 120° (108 bis 109°) (Bl. 28, 517; B. 26, 2828). — II, 211.
 4) Chlorid d. 1,5-Dibromnaphtalin-?-Sulfonsäure. Sm. 175° (B. 25 [2] 749). — II, 211.
 5) Chlorid d. 1,6-Dibromnaphtalin-?-Sulfonsäure. Sm. 145° (B. 25 [2] 749). — II, 211.
 6) Chlorid d. 1,7-Dibromnaphtalin-?-Sulfonsäure. Sm. 113° (B. 25 [2] 749). — II, 211.
- $C_{10}H_5O_3N_2ClS$ 1) 2-Chlor-1-Diazonaphtalin-6-Sulfonsäure. — IV, 1542.
 2) 8-Chlor-1-Diazonaphtalin-5-Sulfonsäure. — IV, 1542.
 3) 1-Chlor-2-Diazonaphtalin-5-Sulfonsäure. — IV, 1542.
- $C_{10}H_5O_4NCl_2S$ 1) Chlorid d. 2-Chlor-1-Nitronaphtalin-5-Sulfonsäure. Sm. 112°. — II, 215.
 2) Chlorid d. 2-Chlor-1-Nitronaphtalin-6-Sulfonsäure. Sm. 161°. — II, 215.
 3) Chlorid d. 2-Chlor-1-Nitronaphtalin-7-Sulfonsäure. Sm. 219° (B. 25, 2486). — II, 215.
 4) Chlorid d. 2-Chlor-1-Nitronaphtalin-8-Sulfonsäure. Sm. 190°. — II, 216.
 5) Chlorid d. 4-Chlor-1-Nitronaphtalin-6-Sulfonsäure. Sm. 116°. — II, 216.
 6) Chlorid d. 4-Chlor-1-Nitronaphtalin-7-Sulfonsäure. Sm. 161°. — II, 216.
 7) Chlorid d. 5-Chlor-1-Nitronaphtalin-6-Sulfonsäure. Sm. 151°. — II, 216.
 8) Chlorid d. 5-Chlor-1-Nitronaphtalin-8-Sulfonsäure. Sm. 150°. — II, 216.
 9) Chlorid d. 8-Chlor-1-Nitronaphtalin-2-Sulfonsäure. Sm. 129°. — II, 216.
 10) Chlorid d. 8-Chlor-1-Nitronaphtalin-5-Sulfonsäure. Sm. 127°. — II, 216.
 11) Chlorid d. 8-Chlor-2-Nitronaphtalin-7-Sulfonsäure. Sm. 182°. — II, 216.
- $C_{10}H_6O_6NCl_2S_2$ 1) Chlorid d. 1-Nitronaphtalin-3,6-Disulfonsäure. Sm. 140—141° (B. 16, 570; C. 1895 [2] 121). — II, 214.
 2) Chlorid d. 1-Nitronaphtalin-3,7-Disulfonsäure. Sm. 190—192° (185—187°) (B. 16, 570). — II, 214.
- $C_{10}H_5O_6N_2ClS$ 1) Chlorid d. 1,8-Dinitronaphtalin-3-Sulfonsäure. Sm. 145°. — II, 215.
 2) Chlorid d. ?-Dinitronaphtalin-?-Sulfonsäure. Zers. bei 117° (A. 275, 249). — II, 215.
- $C_{10}H_6ONBrS$ 1) 1-Brom-2-Thionylamidonaphtalin. Sm. 118° (A. 274, 257). — II, 615.
- $C_{10}H_6O_2NCl_2Br$ 1) 3,4-Dichlor-3-Brom-1-Oximido-2-Keto-1,2,3,4-Tetrahydro-naphtalin. Sm. 157—158° u. Zers. (A. 257, 152). — II, 882.
- $C_{10}H_6O_2NCl_3S$ 1) Amid d. 1,2,3-Trichlornaphtalin-?-Sulfonsäure. Sm. 296° (B. 24 [2] 710). — II, 209.
 2) Amid d. 1,2,4-Trichlornaphtalin-?-Sulfonsäure. Sm. 235° (B. 24 [2] 710). — II, 209.
- $C_{10}H_5O_2ClBrS$ 1) Chlorid d. 1-Bromnaphtalin-4-Sulfonsäure. Sm. 86—87° (Bl. 28, 516; A. 147, 185). — II, 210.
 2) Chlorid d. 1-Bromnaphtalin-5-Sulfonsäure. Sm. 95° (90°) (Bl. 28, 517; B. 20, 3405). — II, 210.
 3) Chlorid d. 2-Bromnaphtalin-5-Sulfonsäure. Sm. 77° (B. 24 [2] 706). — II, 211.
 4) Chlorid d. 2-Bromnaphtalin-6-Sulfonsäure. Sm. 122° (B. 22, 1400). — II, 210.

- C₁₀H₆O₂ClBrS**
- 5) Chlorid d. 2-Bromnaphtalin-7-Sulfonsäure. Sm. 100° (B. 24 [2] 706). — II, 211.
 - 6) Chlorid d. 2-Bromnaphtalin-8-Sulfonsäure. Sm. 147° (B. 24 [2] 706). — II, 211.
 - 7) Bromid d. 1-Chlornaphtalin-4-Sulfonsäure. Sm. 120°. — II, 205.
 - 8) Bromid d. 1-Chlornaphtalin-5-Sulfonsäure. Sm. 110°. — II, 205.
 - 9) Bromid d. 2-Chlornaphtalin-6-Sulfonsäure. Sm. 126°. — II, 206.
 - 10) Bromid d. 2-Chlornaphtalin-8-Sulfonsäure. Sm. 139° (B. 21, 2803). — II, 206.
- C₁₀H₆O₂ClJS**
- 1) Chlorid d. 1-Jodnaphtalin-5-Sulfonsäure. Sm. 114° (B. 22, 2822). — II, 211.
 - 2) Chlorid d. 2-Jodnaphtalin-5-Sulfonsäure. Sm. 92,5° (B. 24 [2] 707). — II, 212.
 - 3) Chlorid d. 2-Jodnaphtalin-6-Sulfonsäure. Sm. 140° (B. 24 [2] 706). — II, 212.
 - 4) Chlorid d. 2-Jodnaphtalin-7-Sulfonsäure. Sm. 100° (B. 24 [2] 707). — II, 212.
 - 5) Chlorid d. 2-Jodnaphtalin-8-Sulfonsäure. Sm. 164—165° (92,5°) (B. 24 [2] 706, 707). — II, 212.
- C₁₀H₆O₂ClFS**
- 1) Chlorid d. 1-Fluornaphtalin-4-Sulfonsäure. Sm. 86°. — II, 204.
 - 2) Chlorid d. 1-Fluornaphtalin-5-Sulfonsäure. Sm. 122—123° (B. 22, 1844). — II, 204.
- C₁₀H₆O₂BrJS**
- 1) Bromid d. 1-Jodnaphtalin-5-Sulfonsäure. Sm. 153° (B. 22, 2822). — II, 211.
- C₁₀H₆O₂BrFS**
- 1) Bromid d. 1-Fluornaphtalin-5-Sulfonsäure. Sm. 145° (B. 22, 1844). — II, 204.
- C₁₀H₆O₄NCIS**
- 1) Chlorid d. 1-Nitronaphtalin-3-Sulfonsäure. Sm. 139,5—140° (B. 21, 2181). — II, 212.
 - 2) Chlorid d. 1-Nitronaphtalin-4-Sulfonsäure. Sm. 99° (B. 23, 960). — II, 212.
 - 3) Chlorid d. 1-Nitronaphtalin-5-Sulfonsäure. Sm. 113° (Bl. 24, 510; A. 275, 248). — II, 213.
 - 4) Chlorid d. 1-Nitronaphtalin-6-Sulfonsäure. Sm. 125,5° (Bl. 26, 446; B. 21, 3263). — II, 213.
 - 5) Chlorid d. 1-Nitronaphtalin-7-Sulfonsäure. Sm. 167° (Bl. 29, 414; B. 21, 3261; A. 275, 252). — II, 213.
 - 6) Chlorid d. 1-Nitronaphtalin-8-Sulfonsäure. Sm. 161° u. Zers. (A. 275, 242). — II, 214.
- C₁₀H₆O₅NCIS**
- 1) 2-Chlor-1-Nitronaphtalin-5-Sulfonsäure. Ba + 4H₂O. — II, 215.
 - 2) 2-Chlor-1-Nitronaphtalin-6-Sulfonsäure. Ba + 3H₂O, Ag + H₂O. — II, 215.
 - 3) 2-Chlor-1-Nitronaphtalin-7-Sulfonsäure. K, Ca + 5H₂O, Ba + 3H₂O. — II, 215.
 - 4) 2-Chlor-1-Nitronaphtalin-8-Sulfonsäure. Ba + 4H₂O. — II, 216.
 - 5) 4-Chlor-1-Nitronaphtalin-6-Sulfonsäure. Na + H₂O, K + $\frac{1}{2}$ H₂O, Mg + 3H₂O, Ca + 2H₂O, Ba, Ag. — II, 216.
 - 6) 4-Chlor-1-Nitronaphtalin-7-Sulfonsäure. Na + 3H₂O, Mg + 6H₂O, Ba + 4H₂O. — II, 216.
 - 7) 5-Chlor-1-Nitronaphtalin-6-Sulfonsäure + H₂O. NH₄, Na + H₂O, K, Ca + H₂O. — II, 216.
 - 8) 5-Chlor-1-Nitronaphtalin-8-Sulfonsäure. — II, 216.
 - 9) 8-Chlor-1-Nitronaphtalin-2-Sulfonsäure. Ba + 4H₂O. — II, 216.
 - 10) 8-Chlor-1-Nitronaphtalin-5-Sulfonsäure. — II, 216.
 - 11) 8-Chlor-2-Nitronaphtalin-7-Sulfonsäure. — II, 216.
- C₁₀H₇O₂NCl₂S**
- 1) Amid d. 1,2-Dichlornaphtalin-5-Sulfonsäure. Sm. 223°. — II, 207.
 - 2) Amid d. 1,2-Dichlornaphtalin-6-Sulfonsäure. Sm. 192°. — II, 207.
 - 3) Amid d. 1,2-Dichlornaphtalin-7-Sulfonsäure. Sm. 227° (B. 25, 2489). — II, 208.
 - 4) Amid d. 1,2-Dichlornaphtalin-8-Sulfonsäure. Sm. 221°. — II, 208.
 - 5) Amid d. 1,3-Dichlornaphtalin-5-Sulfonsäure. Sm. 272° (250°) u. Zers. (B. 12, 2233; 24 [2] 712). — II, 208.
 - 6) Amid d. 1,3-Dichlornaphtalin-7-Sulfonsäure. Sm. 228° (B. 24 [2] 712). — II, 208.

- $C_{10}H_7O_2NCl_2S$ 7) Amid d. 1,4-Dichlornaphtalin-6-Sulfonsäure. Sm. 245° (B. 12, 966). — II, 208.
 8) Amid d. 1,5-Dichlornaphtalin-2-Sulfonsäure. Sm. 282°. — II, 209.
 9) Amid d. 1,5-Dichlornaphtalin-3-Sulfonsäure. Sm. 204° (B. 24 [2] 711). — II, 209.
 10) Amid d. 1,6-Dichlornaphtalin-3-Sulfonsäure. Sm. 196° (C. 1897 [2] 552).
 11) Amid d. 1,6-Dichlornaphtalin-4-Sulfonsäure. Sm. 217° (B. 24, 3477). — II, 209.
 12) Amid d. 1,7-Dichlornaphtalin-3-Sulfonsäure. Sm. 218° (C. 1897 [2] 552).
 13) Amid d. 1,7-Dichlornaphtalin-4-Sulfonsäure. Sm. 226° (B. 24 [2] 712). — II, 209.
 14) Amid d. 1,8-Dichlornaphtalin-3-Sulfonsäure. Sm. 197° (C. 1897 [2] 553).
 15) Amid d. 1,8-Dichlornaphtalin-4-Sulfonsäure. Sm. 229°. — II, 209.
 16) Amid d. 2,3-Dichlornaphtalin-6-Sulfonsäure. Sm. 268° (B. 24 [2] 712). — II, 209.
 17) Amid d. 2,6-Dichlornaphtalin-8-Sulfonsäure. Sm. 269° (B. 24 [2] 712). — II, 209.
 18) Amid d. 2,7-Dichlornaphtalin-3-Sulfonsäure. Sm. 218° (B. 24 [2] 712). — II, 209.
- $C_{10}H_7O_2NBr_2S$ 1) Amid d. 1,4-Dibromnaphtalin-6-Sulfonsäure. Sm. 237—238° (B. 28, 517). — II, 211.
- $C_{10}H_7O_2N_2Br_2J$ 1) Jodmethyolat d. 6,7-Dibrom-5-Nitrochinolin. Sm. 250—252° (J. pr. [2] 53, 36). — IV, 267.
- $C_{10}H_7O_3N_2Cl_2S$ 1) Chlorid d. 4,4-Dichlor-5-Keto-3-Methyl-1-Phenyl-4,5-Dihydro-pyrazol-1'-Sulfonsäure. Sm. 130,5° (B. 25, 1946). — IV, 736.
- $C_{10}H_7O_4N_3ClS$ 1) Amid d. 2-Chlor-1-Nitronaphtalin-5-Sulfonsäure. Sm. 214°. — II, 216.
 2) Amid d. 2-Chlor-1-Nitronaphtalin-6-Sulfonsäure. Sm. 203°. — II, 216.
 3) Amid d. 2-Chlor-1-Nitronaphtalin-7-Sulfonsäure. Sm. 247° (B. 25, 2486). — II, 216.
 4) Amid d. 2-Chlor-1-Nitronaphtalin-8-Sulfonsäure. Sm. 226°. — II, 216.
 5) Amid d. 4-Chlor-1-Nitronaphtalin-6-Sulfonsäure. Sm. 208°. — II, 216.
 6) Amid d. 4-Chlor-1-Nitronaphtalin-7-Sulfonsäure. Sm. 188°. — II, 216.
 7) Amid d. 5-Chlor-1-Nitronaphtalin-6-Sulfonsäure. Sm. 220°. — II, 216.
 8) Amid d. 5-Chlor-1-Nitronaphtalin-8-Sulfonsäure. Sm. 233°. — II, 216.
 9) Amid d. 8-Chlor-1-Nitronaphtalin-2-Sulfonsäure. Sm. 245°. — II, 216.
 10) Amid d. 8-Chlor-1-Nitronaphtalin-5-Sulfonsäure. Sm. 181°. — II, 216.
 11) Amid d. 8-Chlor-2-Nitronaphtalin-7-Sulfonsäure. Sm. 231°. — II, 216.
- $C_{10}H_8O_3NClS$ 1) Amid d. 1-Chlornaphtalin-2-Sulfonsäure (B. 24, 3575). — II, 204.
 2) Amid d. 1-Chlornaphtalin-3-Sulfonsäure. Sm. 168° (B. 21, 3274). — II, 205.
 3) Amid d. 1-Chlornaphtalin-4-Sulfonsäure. Sm. 187° (B. 20, 74). — II, 205.
 4) Amid d. 1-Chlornaphtalin-5-Sulfonsäure. Sm. 226° (B. 20, 72). — II, 205.
 5) Amid d. 1-Chlornaphtalin-6-Sulfonsäure. Sm. 216° (B. 20, 75). — II, 205.
 6) Amid d. 1-Chlornaphtalin-7-Sulfonsäure. Sm. 185—186° (181°) (B. 24 [2] 658; 25, 2481). — II, 205.
 7) Amid d. 1-Chlornaphtalin-8-Sulfonsäure. Sm. 196—197° (B. 23, 963). — II, 206.

- C₁₀H₇O₂NCIS**
- 8) Amid d. 2-Chlornaphtalin-1-Sulfonsäure. Sm. 153° (C. 1896 [1] 650).
 - 9) Amid d. 2-Chlornaphtalin-5-Sulfonsäure. Sm. 214° (B. 25, 2482). — II, 206.
 - 10) Amid d. 2-Chlornaphtalin-6-Sulfonsäure. Sm. 183—184° (B. 20, 80). — II, 206.
 - 11) Amid d. 2-Chlornaphtalin-7-Sulfonsäure. Sm. 176° (B. 25, 2484). — II, 206.
 - 12) Amid d. 2-Chlornaphtalin-8-Sulfonsäure. Sm. 235° (B. 21, 2803). — II, 206.
- C₁₀H₇O₂NBrS**
- 1) Amid d. 1-Bromnaphtalin-4-Sulfonsäure. Sm. 190° (195°) (Bl. 28, 516; A. 147, 186). — II, 210.
 - 2) Amid d. 1-Bromnaphtalin-5-Sulfonsäure. Sm. 232—233° (B. 20, 3406; Bl. 28, 516). — II, 210.
 - 3) Amid d. 2-Bromnaphtalin-5-Sulfonsäure. Sm. 217° (B. 24 [2] 706). — II, 211.
 - 4) Amid d. 2-Bromnaphtalin-6-Sulfonsäure. Sm. 207° (B. 22, 1401). — II, 210.
 - 5) Amid d. 2-Bromnaphtalin-7-Sulfonsäure. Sm. 218° (B. 24 [2] 706). — II, 211.
 - 6) Amid d. 2-Bromnaphtalin-8-Sulfonsäure. Sm. 209° (B. 24 [2] 706). — II, 211.
- C₁₀H₇O₂NJS**
- 1) Amid d. 1-Jodnaphtalin-5-Sulfonsäure. Sm. 239° (B. 22, 2823). — II, 211.
 - 2) Amid d. 2-Jodnaphtalin-5-Sulfonsäure. Sm. 213° (B. 24 [2] 707). — II, 212.
 - 3) Amid d. 2-Jodnaphtalin-6-Sulfonsäure. Sm. 220° (B. 24 [2] 706). — II, 212.
 - 4) Amid d. 2-Jodnaphtalin-7-Sulfonsäure. Sm. 210° (B. 24 [2] 707). — II, 212.
 - 5) Amid d. 2-Jodnaphtalin-8-Sulfonsäure. Sm. 240° (211°) (B. 24 [2] 706, 707). — II, 212.
- C₁₀H₇O₂NFS**
- 1) Amid d. 1-Fluornaphtalin-4-Sulfonsäure. Sm. 204—205°. — II, 204.
 - 2) Amid d. 1-Fluornaphtalin-5-Sulfonsäure. Sm. 196—197° (B. 22, 1844). — II, 204.
- C₁₀H₇O₂N₂ClBr**
- 1) Chlormethylat d. 4-Brom-5-Nitrochinolin. Zers. bei 204°. (2HCl, PtCl₄) (J. pr. [2] 39, 305). — IV, 265.
 - 2) Chlormethylat d. 6-Brom-5-Nitrochinolin. Sm. 203° u. Zers. 2 + PtCl₄ (J. pr. [2] 49, 527). — IV, 266.
 - 3) Chlormethylat d. p-Brom-5 [oder 8] -Nitroisochinolin. Sm. 183°. (2 + PtCl₄) (J. pr. [2] 43, 196). — IV, 302.
- C₁₀H₇O₂N₂ClJ**
- 1) Jodmethylat d. 6-Chlor-5-Nitrochinolin. Sm. 243°. 2 + PtCl₄ (J. pr. [2] 49, 361). — IV, 264.
- C₁₀H₇O₂N₂BrJ**
- 1) Jodmethylat d. 4-Brom-5-Nitrochinolin. Sm. 205—210° (J. pr. [2] 39, 305). — IV, 265.
 - 2) Jodmethylat d. 6-Brom-5-Nitrochinolin. Sm. 265° u. Zers. (J. pr. [2] 40, 463). — IV, 266.
 - 3) Jodmethylat d. 3-Brom-6-Nitrochinolin. Sm. 235° (J. pr. [2] 53, 110). — IV, 265.
 - 4) Jodmethylat d. p-Brom-5 [oder 8] -Nitroisochinolin. Sm. 262° (J. pr. [2] 43, 196). — IV, 302.
- C₁₀H₇O₂NCIS**
- 1) 2-Chlor-1-Amidonaphtalin-5-Sulfonsäure + 1½ H₂O. Na + 1½ H₂O, K + 1½ H₂O, Ca + 3 H₂O, Ba + 2 H₂O. — II, 629.
 - 2) 2-Chlor-1-Amidonaphtalin-6-Sulfonsäure + H₂O. Na + ½ H₂O, K, Ba + H₂O. — II, 629.
 - 3) 2-Chlor-1-Amidonaphtalin-7-Sulfonsäure (B. 25, 2487). — II, 629.
 - 4) 2-Chlor-1-Amidonaphtalin-8-Sulfonsäure. — II, 629.
 - 5) 4-Chlor-1-Amidonaphtalin-7-Sulfonsäure. — II, 629.
 - 6) 8-Chlor-1-Amidonaphtalin-5-Sulfonsäure + H₂O. Na + H₂O. — II, 629.
 - 7) 1-Chlor-2-Amidonaphtalin-5-Sulfonsäure + H₂O. NH₄ + H₂O, Na + 3 H₂O, K + H₂O, Ca + 2 (3½) H₂O, Ba + 2 H₂O, Zn + 7 H₂O, Pb (B. 24 [2] 656). — II, 629.

- $C_{10}H_8O_3NCIS$ 8) 1-Chlor-2-Amidonaphtalin-6-Sulfonsäure. $Na + 4\frac{1}{2}H_2O$ (B. [24](#) [2] 655). — II, [629](#).
- 9) 1-Chlor-2-Amidonaphtalin-7-Sulfonsäure (B. [24](#) [2] 657; C. 1895 [2] 121). — II, [630](#).
- $C_{10}H_8O_3NBrS$ 1) Methylester d. 2-Bromchinolin-2-Sulfonsäure. Sm. 190° (J. pr. [2] [41](#), [47](#)). — IV, [296](#).
- $C_{10}H_8O_4NBrS$ 1) 1,5-Betaind. 8-Oxy-1-Methyloxydhydratchinolin-5-Sulfonsäure. Zers. bei 250° (J. pr. [2] [41](#), [35](#)). — IV, [297](#).
- 2) β -Ketopropylimid d. 2-Brombenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 168° (B. [29](#), [330](#)).
- $C_{10}H_8O_4NJS$ 1) 7-Jod-8-Oxy-6-Methylchinolin-5-Sulfonsäure + H_2O (Methylloretin). Zers. bei 185°. NH_3 , Na, Na_2 , K + $\frac{1}{2}H_2O$, K_2 + $\frac{1}{2}H_2O$, Ca, bas. Ca, Sr + H_2O , bas. Sr, Ba + H_2O , bas. Ba (J. pr. [2] [55](#), [526](#)). — IV, [320](#).
- $C_{10}H_8NClBrJ$ 1) Jodmethylat d. 6-Chlor-4-Bromchinolin. Sm. 286—287° u. Zers. (J. pr. [2] [49](#), [358](#)). — IV, [262](#).
- $C_{10}H_9ONClJ$ 1) Jodmethylat d. 6-Chlor-5-Oxychinolin. Sm. 199—201° u. Zers. (J. pr. [2] [45](#), [250](#); [2] [49](#), [366](#)). — IV, [276](#).
- $C_{10}H_9ONBrJ$ 1) Jodmethylat d. 5-Brom-8-Oxychinolin + H_2O . Sm. 157° (J. pr. [2] [54](#), [9](#)). — IV, [280](#).
- $C_{10}H_9O_3NClBr$ 1) β -Acetat d. α -Chlor- β -Oximido- α -Oxy- α -[4-Bromphenyl]äthan. Sm. 120—150° (B. [25](#), 3466). — III, [122](#).
- $C_{10}H_{11}ON_2SP$ 1) Diamid d. Thiophosphorsäuremono-2-Naphtylester. Sm. 176° (B. [31](#), 1110).
- $C_{10}H_{11}O_2NJS$ 1) Uramidosäure (aus 4-Jodphenyleystein). Sm. 195—196° (H. [20](#), [591](#)).
- $C_{10}H_{11}O_5N_2ClS$ 1) α -Uramido- α -[4-Chlorphenyl]sulfonpropionsäure. Sm. 173—174° u. Zers. (H. [16](#), [542](#)). — II, [792](#).
- $C_{10}H_{12}O_2ClBrS$ 1) Chlorid d. 6-Brom-4-Isopropyl-1-Methylbenzol-3-Sulfonsäure. Sm. 80—81° (G. [11](#), [126](#)). — II, [154](#).
- $C_{10}H_{12}O_4N_2Cl_2S$ 1) Tetrachlorsulfopiperidon. Sm. 158° (B. [27](#), 2014). — IV, [21](#).
- $C_{10}H_{12}O_5NCIS$ 1) 2-Chlor-2-Nitro-4-Isopropyl-1-Methylbenzol-2-Sulfonsäure. Ag + H_2O (G. [19](#), [174](#)). — II, [155](#).
- $C_{10}H_{14}O_2NCIS$ 1) Amid d. 6-Chlor-4-Isopropyl-1-Methylbenzol-3-Sulfonsäure. Sm. 191—192° (B. [29](#), [316](#)).
- 2) Amid d. 3-Chlor-4-Isopropyl-1-Methylbenzol-2-Sulfonsäure. Sm. 168° (B. [29](#), [316](#)).
- 3) Amid d. 6-Chlor-1,2,4,5-Tetramethylbenzol-3-Sulfonsäure. Sm. 180—181° (B. [25](#), 2761). — II, [157](#).
- $C_{10}H_{14}O_2NBrS$ 1) Amid d. 6-Brom-3-Isopropyl-1-Methylbenzol-4-Sulfonsäure. Sm. 170,5° (A. [235](#), [280](#)). — II, [156](#).
- 2) Amid d. 4-Brom-3-Isopropyl-1-Methylbenzol-6-Sulfonsäure. Sm. 162° (A. [235](#), [276](#)). — II, [156](#).
- 3) Amid d. 5-Brom-4-Isopropyl-1-Methylbenzol-2-Sulfonsäure. Sm. 152° (B. [19](#), 1731). — II, [154](#).
- 4) Amid d. 6-Brom-4-Isopropyl-1-Methylbenzol-3-Sulfonsäure. Sm. 187,5° (191°) (G. [11](#), [124](#); B. [19](#), 1733, 2164; Am. [5](#), [151](#)). — II, [154](#).
- 5) Amid d. 6-Brom-5-Aethyl-1,3-Dimethylbenzol-2-Sulfonsäure. Sm. 156° (B. [25](#), 1538). — II, [156](#).
- $C_{10}H_{14}O_3ClBrS$ 1) Chlorid d. o-Bromcamphersulfonsäure. Sm. 136—137° (Soc. [63](#), [579](#)). — III, [499](#).
- 2) Bromid d. β -Chloreampfersulfonsäure. Sm. bei 145° (Soc. [67](#), [369](#)). — III, [498](#).
- $C_{10}H_{15}O_3NClP$ 1) 4-Chlorphenylmonamid d. Phosphorsäurediäthylester. Sm. 76° (B. [28](#), [617](#)).
- $C_{10}H_{16}ONClBr_2$ 1) Verbindung (aus Isonitrosylchloridterpen). Sm. 130—131° (B. [18](#), 2223). — III, [522](#).
- $C_{10}H_{16}O_2NCIS$ 1) Amid d. α -Chloreampfersulfonsäure. Sm. 161—162° (C. 1895 [1] [1063](#); Soc. [69](#), 1555). — III, [536](#).
- 2) Amid d. β -Chloreampfersulfonsäure. Sm. 156—157° (C. 1895 [1] [1063](#); Soc. [69](#), 1561). — III, [536](#).
- $C_{10}H_{16}O_4N_2Br_2S$ 1) Di[2-Dibrompiperidyl]sulfon (Tetrabromsulfopiperidid). Sm. 203 bis 204° u. Zers. (B. [27](#), 2013). — IV, [21](#).

- $C_{10}H_{16}O_3NCIS$ 1) Amid d. β -Chlorcamphersulfonsäure. Sm. 149,5—150,5° (Soc. 63, 599). — III, 498.
- $C_{10}H_{16}O_3NBrS$ 1) Amid d. Bromcamphersulfonsäure. Sm. 145° (Soc. 63, 583). — III, 499.
- $C_{10}H_{19}ONClBr$ 1) Tropinäthylenchlorobromid. 2 + $PtCl_4$, + $AuCl_3$ (C. 1898 [1] 740; 1898 [2] 890).
- $C_{10}H_{19}ONCl_2P$ 1) Diamylamid d. Phosphorsäuredichlorid. Sd. 150°₁₂ (B. 29, 713).
- $C_{10}H_{19}NCl_2SP$ 1) Diamylamid d. Thiophosphorsäuredichlorid. Sd. 160—163°₁₀ (B. 29, 714).
- $C_{10}H_{12}N_{18}Br_4S_8Si$ 1) Verbindung (aus Thioharnstoff) (Soc. 51, 205). — I, 1318.

C_{10} -Gruppe mit sieben Elementen.

- $C_{10}H_{13}O_5NClBr_2SP$ 1) Monochlorid d. 2,6-Dibrom-4-Sulfo-1-Phenyl-Amidophosphinsäurediäthylester. Sm. bei 170° (J. pr. [2] 20, 258). — II, 573.

C_{11} -Gruppe mit einem Element.

- $C_{11}H_{10}$ C 92,9 — H 7,1 — M. G. 142.
- 1) 1-Methylnaphtalin. Sd. 240—242°. Pikrat (Sm. 116—117°) (A. 155, 114; B. 11, 272; 16, 1547; 17, 844, 1528; 24, 3919; M. 1, 196; 2, 20; J. pr. [2] 46, 319; A. ch. [6] 12, 302). — II, 217.
- 2) 2-Methylnaphtalin. Sm. 32,5 (41—42°); Sd. 241—242°. (Pikrat. Sm. 115°) (A. 206, 375; 255, 273; B. 17, 843, 1179; 24, 3920; 27, 1247; J. pr. [2] 46, 319; A. ch. [6] 12, 295; C. 1895 [2] 591). — II, 217.
- 3) Colophtalin. Sm. 70°; Sd. 400° (J. 1874, 921). — III, 562.
- $C_{11}H_{12}$ C 91,7 — H 8,3 — M. G. 144.
- 1) Kohlenwasserstoff (aus Petroleum). Sd. 245—255° (A. 234, 113). — II, 175.
- $C_{11}H_{14}$ C 90,4 — H 9,6 — M. G. 146.
- 1) γ -Phenyl- α -Penten. Sd. 173° (M. 4, 621). — II, 172.
- 2) β -Phenylpenten (Amenylbenzol). Sd. 210—215° (A. 218, 392). — II, 171.
- 3) β -Phenylpenten (Isoamenylbenzol). Sd. 200,5—201,5°₇₃₇ (A. 218, 393). — II, 172.
- 4) α -Phenyl- γ -Methyl- α -Buten. Sd. 201—202° (C. 1897 [2] 349).
- 5) δ -[4-Methylphenyl]- α -Buten. Sd. 195° (B. 9, 1790). — II, 171.
- 6) 4-Isopropylphenyläthen (p-Vinylisopropylbenzol). Sd. 203—204° (J. 1877, 379, 791). — II, 172.
- 7) polym. 4-Isopropylphenyläthen = $(C_{11}H_{14})_x$ (J. 1877, 380). — II, 172.
- 8) 2,4,5-Trimethylphenyläthen. Sd. 212—214° (B. 31, 1007).
- 9) polym. 2,4,5-Trimethylphenyläthen = $(C_{11}H_{14})_x$. Sm. 118° (B. 31, 1007).
- 10) polym. 2,4,5-Trimethylphenyläthen = $(C_{11}H_{14})_x$. Sm. 163° (B. 31, 1008).
- 11) 2,4,6-Trimethylphenyläthen. Sd. 208—210° (B. 31, 1010).
- 12) polym. 2,4,6-Trimethylphenyläthen = $(C_{11}H_{14})_x$. Sm. 62—64°; Sd. 178—180°₁₈ (B. 31, 1009).
- 13) Kohlenwasserstoff (aus Petroleum). Sd. 240° (J. r. 15, 323; B. 15, 733). — II, 172.
- $C_{11}H_{16}$ C 89,2 — H 10,8 — M. G. 148.
- 1) norm. Amylbenzol. Sd. 200,5—201,5°₇₄₁ (A. 218, 388). — II, 34.
- 2) Isoamylbenzol (δ -Phenyl- β -Methylbutan). Sd. 193° (A. 131, 313; J. pr. [2] 46, 490; M. 9, 622; C. 1899 [1] 776). — II, 34.
- 3) Pseudoamylbenzol? Sd. 187,5—188,5°₇₃₇ (B. 13, 346; A. ch. [6] 1, 454; M. 9, 622). — II, 34.
- 4) γ -Phenylpentan. Sd. 178° (Z. 1867, 674; M. 4, 153, 617). — II, 34.
- 5) β -Phenyl- β -Methylbutan. Sd. 188,5—189,5°₇₃₅ (189—191°) (Bl. 36, 212; M. 9, 623; C. 1899 [1] 776). — II, 34.

$C_{11}H_{18}$

- 6) 4-Butyl-1-Methylbenzol. *Sd.* 176—178° (*B.* 16, 2562). — *II*, 34.
- 7) 2-Isobutyl-1-Methylbenzol. *Sd.* 190—195° (*B.* 15, 1067). — *II*, 35.
- 8) 3-Pseudobutyl-1-Methylbenzol. *Sd.* 186—188° (*B.* 14, 1240; 16, 620, 2560; 17, 2329, 2341; 19, 1724; 24, 2833; *A. ch.* [6] 1, 250; *C.* 1899 [1] 777). — *II*, 34.
- 9) 4-Pseudobutyl-1-Methylbenzol. *Sd.* 189—190°₇₅₈ (*B.* 19, 1724; 30, 1773; *Bl.* [3] 19, 67; *C.* 1899 [1] 777). — *II*, 34.
- 10) 4-norm. Propyl-1-Aethylbenzol. *Sd.* 202—205°₇₆₅ (*B.* 23, 3081, 3195). — *II*, 35.
- 11) 3-Isopropyl-1-Aethylbenzol. *Sd.* 190—192° (*B.* 23, 3191). — *II*, 35.
- 12) 4-Isopropyl-1-Aethylbenzol. *Sd.* 197—198° (*B.* 23, 3191). — *II*, 35.
- 13) 4-norm. Propyl-1,2-Dimethylbenzol. *Sd.* 209° (*B.* 23, 2349). — *II*, 35.
- 14) 4-norm. Propyl-1,3-Dimethylbenzol. *Sd.* 208—208,5° (*B.* 23, 2350). — *II*, 35.
- 15) 5-norm. Propyl-1,3-Dimethylbenzol. *Sd.* 206—210° (*B.* 8, 1259). — *II*, 35.
- 16) 2-norm. Propyl-1,4-Dimethylbenzol. *Sd.* 206—207° (*B.* 23, 2350). — *II*, 35.
- 17) 4-Isopropyl-1,3-Dimethylbenzol. *Sd.* 194—195° (*B.* 23, 2351). — *II*, 35.
- 18) 3,5-Diäthyl-1-Methylbenzol. *Sd.* 199—200° (*B.* 7, 1434). — *II*, 35.
- 19) 5-Aethyl-1,2,4-Trimethylbenzol. *Sd.* 206—208° (*B.* 25, 1530). — *II*, 35.
- 20) 2-Aethyl-1,3,5-Trimethylbenzol. *Sd.* 212—214° (207—209°) (*B.* 28, 2027, 2462).
- 21) Pentamethylbenzol. *Sm.* 53°; *Sd.* 230° (*A. ch.* [6] 1, 472; *Bl.* 32, 147; *B.* 12, 332; 18, 340; 20, 896, 3287; *J. pr.* [2] 40, 83). — *II*, 35.
- 22) α -Lauro. *Sd.* 188° (190—191°) (*A.* 145, 149; *A. ch.* [5] 14, 91; *B.* 16, 627).
- 23) β -Lauro. *Sd.* 184—186° (*B.* 16, 628).
- 24) Kohlenwasserstoff (aus Alantolsäurelaktol). *Sd.* 93—94°₁₀ (*A.* 285, 380).
- 25) Kohlenwasserstoff (aus Betulin). *Sd.* 245—250° (*B.* 11, 153).
- 26) Kohlenwasserstoff (aus Petroleum). *Sd.* 180—190° (*B.* 15, 733).
- 27) Kohlenwasserstoff (aus Petroleum) (*A.* 234, 99). — *II*, 36.

 $C_{11}H_{18}$

- C* 88,0 — *H* 12,0 — *M. G.* 150.
- 1) β -Paracoten. *Sd.* 170—172° (*A.* 199, 78). — *I*, 139.
- 2) Kohlenwasserstoff (aus thierischem Oel). *Sd.* 182° (*B.* 13, 80). — *I*, 139.
- 3) Kohlenwasserstoff (aus thierischem Oel). *Sd.* 202—203° (*B.* 13, 81). — *I*, 139.
- 4) Kohlenwasserstoff (aus Homolinalool). *Sd.* 182—185° (*B.* 29, 694).

 $C_{11}H_{20}$

- C* 86,8 — *H* 13,2 — *M. G.* 152.
- 1) 1-Methyl-3-Isobutyl-1,2,3,4-Tetrahydrobenzol. *Sd.* 185° (*A.* 289, 163).
- 2) Rutylden. *Sd.* 198—202° (210—215°) (*Z.* 1870, 431; *B.* 8, 413). — *I*, 137.
- 3) Kohlenwasserstoff (aus Brasilin). *Sd.* 180—185° (*B.* 27, 529).
- 4) Kohlenwasserstoff (aus Chlorundeken). *Sd.* 198—220° (*Z.* 1870, 431). — *I*, 157.
- 5) Kohlenwasserstoff (aus Chlorhendekanaphten). *Sd.* 160—180° (*J. r.* 15, 337). — *I*, 163.

 $C_{11}H_{22}$

- C* 85,7 — *H* 14,3 — *M. G.* 154.
- 1) Hendekanaphten. *Sd.* 179—181° (*J. r.* 15, 335). — *II*, 16.
- 2) Undeken (aus Petroleum). *Sd.* 196—197°₇₆₀ (*Am.* 19, 467, 484; *Z.* 1868, 231). — *I*, 123.
- 3) Undeken (aus Fischthran). *Sd.* 195,4° (*Z.* 1868, 230). — *I*, 123.
- 4) Undeken (aus Hendekatylobromid). *Sd.* 192—193° (*Z.* 1870, 431). — *I*, 124.

 $C_{11}H_{24}$

- 5) Undeken (aus Paraffin). *Sd.* 193—195° (*A.* 165, 23). — *I*, 123.
- C* 84,6 — *H* 15,4 — *M. G.* 156.
- 1) norm. Undekan. *Sd.* 194,5° (*B.* 15, 1697, 1698; 25, 1489; *Am.* 21, 216). — *I*, 105.
- 2) Undekan (aus Petroleum). *Sd.* 196—197° (*Am.* 19, 433, 454, 484).

C₁₁-Gruppe mit zwei Elementen.

- C₁₁H₈O₂** C 66,7 — H 1,0 — O 32,3 — M. G. 198.
 1) Mellogen + $\frac{1}{17}$ H₂O. Ba (G. 11, 468; 12, 117; 13, 37; 15, 464). — II, 2106.
- C₁₁H₈O₃** C 61,1 — H 1,8 — O 37,0 — M. G. 216.
 1) Graphitsäure (oder C₁₁H₈O₃). Ba (A. 144, 13; B. 16, 1210; 31, 1481; G. 12, 115; Z. 1865, 652). — II, 2021.
- C₁₁H₈O₆** C 56,9 — H 1,7 — O 41,4 — M. G. 232.
 1) Graphitsäure (siehe C₁₁H₈O₃) (Z. 1865, 652). — II, 2021.
- C₁₁H₈O₈** C 50,0 — H 1,5 — O 48,5 — M. G. 264.
 1) Säure (aus Malonsäure) (B. 19, 2031).
- C₁₁H₈N₂** C 73,7 — H 2,8 — N 23,5 — M. G. 179.
 1) Nitril d. Chinolin-?-Dicarbonsäure. Sm. 220—222° (B. 20, 99). — IV, 370.
- C₁₁H₈O₂** C 77,6 — H 3,5 — O 18,8 — M. G. 170.
 1) Lakton d. 8-Oxynaphtalin-1-Carbonsäure. Sm. 108° (J. pr. [2] 38, 280). — II, 1689.
- C₁₁H₈O₄** C 65,3 — H 3,0 — O 31,7 — M. G. 202.
 1) 1,2-Naphtochinon-3-Carbonsäure. Sm. 154° u. Zers. (B. 28, 3094).
- C₁₁H₈O₇** C 52,8 — H 2,4 — O 44,8 — M. G. 250.
 1) Säure (aus Mellogen) + $2\frac{1}{2}$ H₂O. Ba₃, Ag₃ (G. 15, 468). — II, 2107.
- C₁₁H₈O₁₀** C 44,3 — H 2,0 — O 53,7 — M. G. 298.
 1) Benzolpentacarbonsäure + 6 H₂O. Ca₃, Ag₃ (A. ch. [6] 1, 473; Bl. 3 11, 123). — II, 2097.
- C₁₁H₈Cl₄** 1) p-Tetrachlor-2-Methylnaphtalin. Sm. 140—146° (B. 24, 3924). — II, 218.
 2) l-Chlor-2-Trichlormethylnaphtalin. Sm. 73° (B. 21, 1190). — II, 1455.
- C₁₁H₇O₆** 1) Chekenitin + H₂O = (C₁₁H₇O₆)_x. Sm. noch nicht bei 300° (B. 21 [2] 841). — III, 627.
- C₁₁H₇N** C 86,3 — H 4,6 — N 9,1 — M. G. 153.
 1) Nitril d. Naphtalin-1-Carbonsäure. Sm. 33,5° (37,5°); Sd. 296,5° (297 bis 298°). 2 + Cu₂Cl₂ (Z. 1869, 71; B. 1, 39; 16, 639, 2887; 20, 1708; C. 1896 [2] 382; Bl. [3] 19, 787). — II, 1446.
 2) Nitril d. Naphtalin-2-Carbonsäure. Sm. 66,5°; Sd. 304—305°. 2 + Cu₂Cl₂ (B. 2, 407; 16, 2887; 20, 1711; Z. 1869, 70; Bl. [3] 19, 787). — II, 1454.
 3) l-Naphtylisocyanid (B. 16, 1640). — II, 1446.
 4) 2-Naphtylisocyanid. Sm. 54° (B. 16, 1640). — II, 1454.
- C₁₁H₇N₃** C 72,9 — H 3,9 — N 23,2 — M. G. 181.
 1) anti-1-Diazonaphtalinecyanid. Sm. 116° (B. 30, 2545). — IV, 1540.
 2) syn-1-Diazonaphtalinecyanid. Sm. 57—58° (B. 30, 2545). — IV, 1540.
 3) anti-2-Diazonaphtalinecyanid. Sm. 131° (B. 30, 2546). — IV, 1540.
 4) syn-2-Diazonaphtalinecyanid. Sm. 51—52° (B. 30, 2546). — IV, 1540.
 5) Nitril d. α-Phenyläthan-βββ-Tricarbonsäure. Sm. 138° (B. 32, 648).
- C₁₁H₇Cl₃** 1) p-Trichlor-1-Methylnaphtalin. Sm. 145—146° (B. 24, 3927). — II, 217.
 2) p-Trichlor-2-Methylnaphtalin. Sm. 182° (B. 24, 3924). — II, 218.
- C₁₁H₈O** C 84,6 — H 5,1 — O 10,3 — M. G. 156.
 1) Aldehyd d. Naphtalin-1-Carbonsäure. Sd. 291,6°. + NaHSO₃, Pikrat (B. 21, 259; Bl. [3] 17, 303). — III, 62.
 2) Aldehyd d. Naphtalin-2-Carbonsäure. Sm. 60,5—61° (B. 17, 1530; 20, 1118; A. 168, 116; Bl. [3] 17, 305). — III, 64.
 3) Oxycolophtalin (J. 1874, 922).
- C₁₁H₈O₂** C 76,8 — H 4,6 — O 18,6 — M. G. 172.
 1) 6-Phenyl-1,2-Pyron (6-Phenylcumalin). Sm. 68° (61—62°). Pikrat (B. 27, 841; 28, 1549, 1555; 29, 1673, 2322, 2659; G. 26 [2] 327). — II, 1679.
 2) polym. 6-Phenyl-1,2-Pyron = (C₁₁H₈O₂)_n (polym. Phenylcumalin). Sm. 214° (219°) (B. 27, 845; 29, 1674; G. 26 [2] 338). — II, 1680.
 3) p-Phenyl-1,2-Pyron (β-Phenylcumalin). Sm. 221° (B. 27, 1186; A. 282, 205). — II, 1680.
 4) Naphtalin-1-Carbonsäure (α-Naphtoessäure). Sm. 160°. Ca + 2 H₂O, Ba + 4 H₂O, Ag. Lit. bedeutend. — II, 1444.

$C_{11}H_8O_2$

5) Naphtalin-2-Carbonsäure (β -Naphtoesäure). Sm. 184° (182°); Sd. oberh. 300°. Na + $\frac{1}{2}H_2O$, K + $\frac{1}{2}H_2O$, Mg + 5H₂O, Ca + 3H₂O, Ba + 4H₂O, Ag (Z. 1869, 70; A. 180, 305; 266, 188; B. 11, 272; 16, 1777; 17, 1530; 18, 1008; J. pr. [2] 38, 145; Ph. Ch. 5, 399; 6, 311). — II, 1453.

6) Aldehyd d. 2-Oxynaphtalin-1-Carbonsäure. Sm. 76° (81°). Na (B. 15, 804; 32, 285). — III, 96.

7) Aldehyd d. 4-Oxynaphtalin-1-Carbonsäure. Sm. 181° (B. 31, 1768; 32, 284).

 $C_{11}H_8O_3$

8) Verbindung (aus Dicotoin). Sm. 60–61° (A. 282, 197).

C 70,2 — H 4,2 — O 25,5 — M. G. 188.

1) ?-Oxyphenyl-1,2-Pyron (Oxyphenylcumalin). Sm. 61° (B. 27, 1186; A. 282, 201). — II, 1680.

2) 2-Acetyl-1,3-Diketo-2,3-Dihydroinden. Sm. 110° (B. 27, 104). — III, 315.

3) 3-Acetyl-1,2-Benzpyron (α -Acetylcumarin). Sm. 123–124° (120°) (A. 27 [2] 498; B. 31, 732).

4) 2-Oxynaphtalin-1-Carbonsäure. Sm. 156–157°. NH₄, Ca, Ba, Ag (B. 15, 806; 20, 2701; 28, 1263; A. 152, 292; 286, 270). — II, 1690.

5) 5-Oxynaphtalin-1-Carbonsäure. Sm. 219° (C. 1899 [1] 289).

6) 8-Oxynaphtalin-1-Carbonsäure. Sm. 169°. Ca + $3\frac{1}{2}H_2O$ (J. pr. [2] 38, 278). — II, 1689.

7) 1-Oxynaphtalin-2-Carbonsäure. Sm. 185–186°. NH₄, Na + 3H₂O, Ca, Ba (A. 152, 277, 291; B. 20, 1275, 2699). — II, 1687.

8) 3-Oxynaphtalin-2-Carbonsäure. Sm. 216° (B. 20, 2702; 26, 1114, 1123, 2621; 28, 1263, 3089, 3100; 29, 265; C. 1896 [1] 926). — II, 1691.

9) 7-Oxynaphtalin-2-Carbonsäure. Sm. 245° (C. 1899 [1] 289).

10) isom. Oxynaphtalincarbonsäure. Sm. 210–211° (A. 168, 125; 188, 11). — II, 1690.

11) isom. Oxynaphtalincarbonsäure. Sm. 187° (A. 188, 8). — II, 1692.

12) isom. Oxynaphtalincarbonsäure. Sm. 234–237° (A. 168, 121; 188, 4). — II, 1690.

13) isom. Oxynaphtalincarbonsäure. Sm. 245–247° u. Zers. (A. 188, 6). — II, 1692.

14) Anhydrid d. α -Phenylpropen- $\beta\gamma$ -Dicarbonsäure (A. d. Phenylitakonsäure). Sm. bei 164–166° (A. 305, 21).

15) Anhydrid d. γ -Phenylpropen- $\alpha\beta$ -Dicarbonsäure (A. d. Phenylcitrakonsäure). Sm. 60–61° (A. 305, 23).

16) Anhydrid d. Phenylitakonsäure. Sm. 138–140° (A. 305, 38).

17) Anhydrid d. 1-Phenyl-R-Trimethylen-2,3-Dicarbonsäure. Sm. 134° (B. 25, 1153). — II, 1868.

18) Gemischtes Anhydrid d. Essigsäure u. Phenylpropionsäure. Fl. (Am. 20, 97).

 $C_{11}H_8O_4$

C 64,7 — H 3,9 — O 31,4 — M. G. 204.

1) Chinon (aus Agaricus atrotomentosus). Sm. oberh. 360°. NH₄, Ba (B. 11, 534; 12, 1630). — III, 616.

2) 1,3-Dioxynaphtalin-2-Carbonsäure. Sm. 145°. Ag (A. 298, 386).

3) 1,7-Dioxynaphtalin-2-Carbonsäure. Sm. 217° u. Zers. Ba + 4H₂O (B. 29, 39).

4) 3,4-Dioxynaphtalin-2-Carbonsäure. Sm. 220,5° u. Zers. (B. 28, 3092).

5) 3,5-Dioxynaphtalin-2-Carbonsäure. Sm. 265° (B. 26, 672, 1117). — II, 1875.

6) 3,7-Dioxynaphtalin-2-Carbonsäure. Sm. 225–228° u. Zers. (B. 26, 1117). — II, 1875.

7) β -Phtalylpropionsäure. Sm. 245–248°. Ag (B. 11, 1013). — II, 1875.

8) Benzoyltetroneinsäure. Sm. 120° (A. 291, 237).

9) Carminsäure, siehe C₁₇H₁₆O₁₀.

10) Anhydrid d. o-Cumaroxycessigsäure. Sm. 176° (B. 17, 3001). — II, 1629.

11) Anhydroverbindung d. α -Keto- α -Phenylpropan- γ ,2-Carbonsäure. Sm. 120° (B. 17, 2770). — II, 1964.

12) Methylester d. 1,2-Isobenzpyron-3-Carbonsäure (M. d. Isocumarincarbonsäure). Sm. 172–173° (B. 25, 1496). — II, 1962.

13) Acetat d. 7-Oxy-1,2-Benzpyron. Sm. 140° (B. 5, 551; 10, 2216; 12, 995; 14, 2745). — II, 1774.

- $C_{11}H_8O_4$ 14) Verbindung (aus *Drosera Whittakeri*). Sm. 174—175° (Soc. 51, 372; 63, 1087). — III, 661.
- $C_{11}H_8O_5$ C 60,0 — H 3,6 — O 36,4 — M. G. 220.
- 1) 6-Methoxyl-1,2-Benzpyron-4-Carbonsäure (Methoxycumarin- β -Carbonsäure). Sm. 246—247° (G. 24 [2] 497). — II, 2012.
 - 2) Umbelliferonessigsäure + H_2O . Sm. 201—202°. Ag (A. 261, 167). — II, 2014.
 - 3) γ -Keto- α -[3,4-Dioxyphenyl]propen-3,4-Methylenäther- γ -Carbonsäure (Piperonylvinylketocarbonsäure). Sm. 148—150° (B. 28, 1192). — II, 1963.
- $C_{10}H_8O_6$ 4) Verbindung (aus *Drosera Whittakeri*). Sm. 192—193°. $Na + 2H_2O$, $Na_2 + H_2O$, $Ca + 3H_2O$ (Soc. 51, 372; 63, 1084). — III, 661.
- C 55,9 — H 3,4 — O 40,7 — M. G. 236.
- 1) α -[3,4-Dioxyphenyl]äthen-3,4-Methylenäther- $\beta\beta$ -Dicarbonsäure. Sm. 190—195° u. Zers. (B. 31, 2608).
 - 2) Limettsäure. Ag₂ (J. 1853, 516). — II, 2018.
 - 3) Oxysacculminsäure = $(C_{11}H_8O_6)_n$. Cu (G. 12, 296; B. 16, 244). — I, 1109.
- $C_{11}H_8N_2$ C 78,5 — H 4,8 — N 16,7 — M. G. 168.
- 1) β -Naphtimidazol. Sm. 174°. HCl, H_2SO_4 (B. 25, 2714). — IV, 991.
 - 2) Nitril d. 4-Amidonaphtalin-1-Carbonsäure. Sm. 174° (B. 28, 1840).
 - 3) Nitril d. 5-Amidonaphtalin-1-Carbonsäure. Sm. 137° (C. 1899 [1] 288).
 - 4) Nitril d. 8-Amidonaphtalin-1-Carbonsäure. HCl (B. 2, 408). — II, 1450.
 - 5) Nitril d. 7-Amidonaphtalin-2-Carbonsäure. Sm. 170—171° (C. 1899 [1] 289).
 - 6) Nitril d. 8-Amidonaphtalin-2-Carbonsäure. Sm. 117° (C. 1899 [1] 289).
 - 7) Nitril d. 1-Naphtylamidoameisensäure (1-Naphtylcyanamid). Sm. 135° (B. 24, 383). — II, 624.
 - 8) Nitril d. 2-Methylechinolin-7-Carbonsäure + $2H_2O$. Sm. 104° (wasserfrei) (B. 23, 3486, 3489). — IV, 354.
- $C_{11}H_8N_4$ C 67,3 — H 4,1 — N 28,6 — M. G. 196.
- 1) 5-[2-Naphtyl]-1,2,3,4-Tetrazol. Sm. 203° u. Zers. NH_4 , Pb, Ag (B. 30, 1881; A. 298, 38). — IV, 1278.
 - 2) Base (aus d. Base $C_{11}H_{10}N_4$). Sm. 201°. HCl, HNO_3 (A. 302, 328). — IV, 1222.
- $C_{11}H_8Cl_2$ 1) Dichloreolophtalin (J. 1874, 922).
- $C_{11}H_8N$ 2) β -Dichlor-2-Methylnaphtalin. Sd. 189°₃₀ (B. 24, 3921). — II, 218.
- C 85,2 — H 5,8 — N 9,0 — M. G. 155.
- 1) 2-Phenylpyridin. Sd. 268,5—270,5°₇₄₀. ($2HCl$, $PtCl_4$ + $2H_2O$), Pikrat (B. 26, 2003; 28, 1729; 29, 1678; M. 4, 472; G. 26 [2] 348). — IV, 376.
 - 2) 3-Phenylpyridin. Sd. 269—270°₇₄₀. ($2HCl$, $PtCl_4$ + $3H_2O$), Pikrat (M. 4, 456; B. 20, 192). — IV, 376.
 - 3) 4-Phenylpyridin. Sm. 77—78°; Sd. 274—275°. ($2HCl$, $PtCl_4$), $H_2Cr_2O_7$, Pikrat (B. 17, 1518; 26, 2003). — IV, 377.
 - 4) 2-Aethenylechinolin (Vinylechinolin). Fl. HCl, ($2HCl$, $HgCl_2$), ($2HCl$, $PtCl_4$), (HCl , $AuCl_3$) (B. 27, 2691; A. 246, 172). — IV, 377.
 - 5) Nitril d. α -Phenyl- $\alpha\gamma$ -Butadien- δ -Carbonsäure. Sd. 285° (A. ch. [6] 29, 497). — II, 1442.
- $C_{11}H_8N_7$ C 55,2 — H 3,8 — N 41,0 — M. G. 239.
- 1) 5-[2-Amido-1-Naphtyl]azo-1,2,3,4-Tetrazol. Zers. bei 184° (A. 270, 61). — IV, 1493.
- $C_{11}H_8Cl$ 1) 1-Chlormethylnaphtalin. Sd. 167—169°₃₅ (B. 24, 3930). — II, 217.
- 2) 2-Chlormethylnaphtalin. Sm. 47°; Sd. 166°₃₀ (B. 17, 1529). — II, 217.
 - 3) β -Chlor-1-Methylnaphtalin. Sd. 167—169°₃₀ (B. 24, 3930). — II, 217.
 - 4) β -Chlor-2-Methylnaphtalin. Sd. 159—161°₃₅. Pikrat (B. 24, 3931). — II, 218.
- $C_{11}H_8Cl_3$ 1) β -Chlor-2-Methylnaphtalintetrachlorid. Sm. 148° (B. 24, 3922). — II, 218.
- $C_{11}H_8Br$ 1) β -Brom-1-Methylnaphtalin. Sd. 178—179°₃₀. Pikrat (B. 17, 1528; 24, 3930). — II, 217.
- 2) β -Brom-2-Methylnaphtalin. Sd. 296°. Pikrat (B. 17, 1529). — II, 218.
 - 3) 2-Brommethylnaphtalin. Sm. 56°; Sd. 213°₁₀₀ (B. 17, 1529). — II, 218.

$C_{11}H_{10}O$

C 83,6 — H 6,3 — O 10,1 — M. G. 158.

- 1) 1-Oxymethylnaphtalin. Sm. 59,5°; Sd. 301°₇₁₅ (B. 21, 258). — II, 1077.
- 2) 2-Oxymethylnaphtalin. Sm. 80–80,5° (B. 20, 1118). — II, 1077.
- 3) 1-Oxy-2-Methylnaphtalin. Sm. 89° (A. 255, 263). — II, 893.
- 4) 4-Oxy-2-Methylnaphtalin. Sm. 92° (A. 255, 272). — II, 893.
- 5) Methyläther d. 1-Oxynaphtalin. Sd. 269°₇₃₃ (263°) (B. 13, 1347; 14, 899; 30, 373; G. 15, 84; J. 1879, 543; A. 217, 42; 244, 72; M. 15, 737). — II, 857.
- 6) Methyläther d. 2-Oxynaphtalin (Nerolin). Sm. 72°; Sd. 274° (J. 1879, 543; A. 217, 43; B. 14, 899; 29, 962; 30, 373). — II, 876.
- 7) 5-Phenyl-2-Methylfuran. Sm. 41–42°; Sd. 241° (B. 17, 915, 2760, 2762; A. 250, 220). — III, 272.

 $C_{11}H_{10}O_2$

C 75,8 — H 5,7 — O 18,4 — M. G. 174.

- 1) 4,6-Dimethyl-1,2-Benzpyron (4,6-Dimethylcumarin). Sm. 148° (B. 16, 2127; 17, 2187). — II, 1663.
- 2) 1,3-Diketo-2,2-Dimethyl-2,3-Dihydroinden. Sm. 107–108°; Sd. 258° (A. 252, 86; B. 26, 954). — III, 278.
- 3) Diketon (aus Isobuttersäure u. Phtalsäureanhydrid). Sm. 96° (B. 11, 1683). — III, 278.
- 4) α -Phenyl- $\alpha\gamma$ -Butadien- δ -Carbonsäure (Cinnamenylakrylsäure). Sm. 165–166°. Na, Ag (J. 1877, 791; Soc. 49, 366; B. 23, 2374; 28, 1441, 1446; 29, 2907; 31, 2617). — II, 1441.
- 5) isom. α -Phenyl- $\alpha\gamma$ -Butadien- δ -Carbonsäure (Allocinnamenylakrylsäure). Sm. 138° (B. 28, 1441, 1446; 29, 2907).
- 6) 1,2-Dihydronaphtalin-1-Carbonsäure. Sm. 91°. Ag (B. 24, 2355; A. 266, 176). — II, 1443.
- 7) 1,2-Dihydronaphtalin-2-Carbonsäure. Sm. 104–105°. Ag (B. 24, 2360; A. 266, 188). — II, 1443.
- 8) 1,2-Dihydronaphtalin-3-Carbonsäure. Sm. 161°. Ag (B. 24, 2361; A. 266, 192). — II, 1443.
- 9) 1,2-Dihydronaphtalin-4-Carbonsäure. Sm. 125°. Ag (B. 24, 2357; 31, 1899; A. 266, 180). — II, 1443.
- 10) 3-Methylinden-2-Carbonsäure. Sm. 200° (B. 16, 516; A. 247, 157). — II, 1443.
- 11) Lakton d. ρ -Oxy- δ -Phenylangelikasäure. Fl. (A. 268, 88). — II, 1664.
- 12) Lakton d. α -Oxy- α -Phenyl- α -Buten-2-Carbonsäure (Propylidenphtalid). Sd. 169–170°₁₁ (B. 29, 1436).
- 13) Lakton d. γ [oder δ]-Oxy- δ -Phenyl- α -Buten- α -Carbonsäure. Sm. 60° (A. 283, 332). — II, 1663.
- 14) Lakton d. γ -Oxy- α -Phenyl- β -Buten- α -Carbonsäure? Sm. 53°; Sd. 205–210° u. Zers. (A. 254, 219). — II, 1664.
- 15) Lakton d. α -[2-Oxyphenyl]- α -Buten- β -Carbonsäure (Butyrcumarin). Sm. 70–71°; Sd. 299° u. ger. Zers. (A. 147, 233; 150, 84; Soc. 39, 439, 447). — II, 1662.
- 16) Inn. Anhydrid d. 2-Isobutyrylbenzol-1-Carbonsäure. Sm. 96° (B. 17, 2776). — II, 1665.
- 17) Aethylester d. Phenylpropionalsäure. Sd. 260–270° (Soc. 45, 174). — II, 1439.

 $C_{11}H_{10}O_3$

C 69,5 — H 5,2 — O 25,3 — M. G. 190.

- 1) Methyläther d. 6-Oxy-1,3-Diketo-1,2,3,4-Tetrahydronaphtalin (Dehydroacetylphäenol). Sm. 113° (B. 25, 1287). — III, 136.
- 2) 3,4-Methylenäther d. γ -Keto- α -[3,4-Dioxyphenyl]- α -Buten (Methylpiperonylakrylsäureketon). Sm. 107° (96,5°) (B. 24, 618; Bl. [3] 13, 348). — III, 162.
- 3) Isomethylpiperonylakrylsäureketon. Sm. 111° (B. 24, 619). — III, 162.
- 4) 7-Oxy-3,4-Dimethyl-1,2-Benzpyron (Dimethylumbelliferon). Sm. 256° (B. 16, 2127). — II, 1784.
- 5) 7-Oxy-4,5-Dimethyl-1,2-Benzpyron (Dimethylumbelliferon). Sm. 248 bis 250° (J. pr. [2] 26, 69; B. 17, 2188). — II, 1784.
- 6) Methyläther d. 7-Oxy-4-Methyl-1,2-Benzpyron (Methylumbelliferon-methyläther). Sm. 158–159° (B. 16, 2125; 28, 859; Am. 5, 434). — II, 1780.

$C_{11}H_{10}O_8$

- 7) 7-Aethyläther d. 7-Oxy-1,2-Benzpyron (Ac. d. Umbelliferon). Sm. 88° (B. 19, 1179). — II, 1774.
 - 8) β -Phenylcumalinsäure. Sm. 207°. K (A. 282, 203). — II, 1680.
 - 9) γ -Keto- γ -Phenyl- β -Methylpropen- α -Carbonsäure (β -Benzoylerotonsäure). Sm. 113° (B. 15, 891). — II, 1681.
 - 10) α -[2-Aethoxylphenyl]äthin- β -Carbonsäure (o-Cumariläthyläthersäure). Sm. 112–112,5°. Ca + 2H₂O, Ba + 4H₂O (A. 269, 6). — II, 1675.
 - 11) β -[4-Methylbenzoyl]akrylsäure. Sm. 138° (B. 15, 888). — II, 1682.
 - 12) 1-Benzoyl-R-Trimethylen-1-Carbonsäure. Sm. 148–149° u. Zers. Ag (Soc. 47, 836; J. 1883, 1219). — II, 1681.
 - 13) 2,4-Dimethylbenzofuran-1-Carbonsäure (Dimethylcumaronsäure). Sm. 224–225° (B. 19, 1299). — II, 1679.
 - 14) Phenyltetrinsäure (B. 21, 2609). — II, 1682.
 - 15) Anhydrid d. α -Phenylpropan- $\alpha\beta$ -Dicarbonsäure. Sd. 310–320° (B. 24, 1879). — II, 1855.
 - 16) Anhydrid d. α -Phenylpropan- $\beta\gamma$ -Dicarbonsäure. Sm. 102° (A. 256, 90, 96). — II, 1854.
 - 17) Anhydrid d. γ -Phenylpropan- $\alpha\gamma$ -Dicarbonsäure. Sm. 105°; Sd. 217 bis 219°₁₅ (Am. 20, 513; C. 1899 [1] 730).
 - 18) Anhydrid d. Benzol-1-Carbonsäure-2-[Isopropyl- α -Carbonsäure]. Sm. 82,5–83°; Sd. 311–312° (B. 19, 2366; 20, 1199). — II, 1856.
 - 19) Gem. Anhydrid d. Essigsäure u. β -Phenylakrylsäure (A. 87, 83). — II, 1407.
 - 20) Lakton d. α -Oxy- γ -Keto- α -Phenylbutan-2-Carbonsäure (Phtalid-dimethylketon). Sm. 68° (M. 19, 428).
 - 21) Aethylester d. α -[2-Oxyphenyl]äthin- β -Carbonsäure (Ac. d. o-Cumarilsäure). Sm. 27°; Sd. 274°₇₃₀ (B. 19, 2401). — II, 1675.
- C 64,1 — H 4,8 — O 31,1 — M. G. 206.

 $C_{11}H_{10}O_4$

- 1) Dimethyläther d. 4,5-Dioxy-1,3-Diketo-2,3-Dihydroinden. Sm. 113 bis 115° (B. 31, 2092).
- 2) Cotarnon. Sm. 78° (A. 249, 163). — III, 918.
- 3) Limettin. Sm. 147,5°; Sd. 200° (Soc. 57, 323; 61, 345). — III, 636.
- 4) Dimethyläther d. Aeskuletin. Sm. 144° (B. 15, 2076). — III, 568.
- 5) Dimethyläther d. Verb. C₉H₆O₄ (aus Brasilin). Sm. 169–170° (B. 25, 19). — III, 656.
- 6) Aethyläther d. Aeskuletin. Sm. 143° (B. 16, 2107). — III, 568.
- 7) α -[3,4-Dioxyphenyl]propen-3,4-Methylenäther- β -Carbonsäure (α -Homokaffeemethylenäthersäure). Sm. 192–194° (198–199°). Pb, Zn, Ag (B. 13, 759; Bl. [3] 15, 657). — II, 1781.
- 8) β -[2-Acetoxyphenyl]akrylsäure (o-Acetecumarsäure). Sm. 146° (B. 10, 284). — II, 1629.
- 9) β -[3-Acetoxyphenyl]akrylsäure. Sm. 151° (B. 15, 2048). — II, 1634.
- 10) β -[4-Acetoxyphenyl]akrylsäure. Sm. 195° (B. 10, 65). — II, 1636.
- 11) isom. β -[4-Acetoxyphenyl]akrylsäure (β -Acetoxy- α -Truxillsäure). Sm. 244° (B. 24, 2592). — II, 1437.
- 12) 5-Aethoxybenzofuran-1-Carbonsäure (Oxycumariläthyläthersäure). Sm. 162–163° (B. 19, 1785). — II, 1862.
- 13) 4[oder 5]-Oxy-1,6[oder 1,3]-Dimethylbenzofuran-2-Carbonsäure (Oxydimethylisocumarilsäure). Zers. bei 250–280° (A. 283, 254). — III, 731.
- 14) Dimethylphtalidcarbonsäure? Sm. 205–206° (G. 23 [1] 291). — II, 1869.
- 15) 1-[$\alpha\gamma$ -Diketobutyl]benzol-2-Carbonsäure. Na₂, Ba (B. 27, 104). — II, 1868.
- 16) α -Phenylpropen- $\beta\gamma$ -Dicarbonsäure (Phenylitakonsäure). Sm. 192° u. Zers. Ca, Ba + 2½H₂O, Ag₂ (A. 256, 65; 305, 19, 49; B. 27, 2407). — II, 1866.
- 17) β -Phenylpropen- $\alpha\gamma$ -Dicarbonsäure (Phenylglutakonsäure). Sm. 154 bis 155°. Ag₂ (J. pr. [2] 49, 23). — II, 1868.
- 18) γ -Phenylpropen- $\alpha\beta$ -Dicarbonsäure (Phenylcitrakonsäure). Sm. 105 bis 108°. Na, Ca, Ba + H₂O, Ag₂ (A. 305, 27).
- 19) γ -Phenylpropen- $\alpha\beta$ -Dicarbonsäure (Phenylmesakonsäure). Sm. 212°. Ca + 2½H₂O, Ba + 2H₂O, Ag₂ (A. 305, 31).

- C₁₁H₁₀O₄**
- 20) Phenylatikonsäure. Sm. 149—151°. $\text{Ca} + 2\text{H}_2\text{O}$, $\text{Ba} + 2\text{H}_2\text{O}$, Ag_2 (A. 305, 35, 52).
 - 21) 1-Phenyl- β -Trimethylen-2,3-Dicarbonsäure. Sm. 175°. Na , Ag_2 (B. 21, 2645; 25, 1147; 26, 259). — II, 1868.
 - 22) 2,3-Dihydroinden-2,2-Dicarbonsäure. Sm. 199°. Ag_2 (Soc. 53, 7; 65, 232). — II, 1868.
 - 23) o-Akrylaldehydphenoxyessigsäure. Sm. 153° (B. 19, 3048). — III, 94.
 - 24) m-Akrylaldehydphenoxyessigsäure + H_2O . Sm. 100° (B. 19, 3048). — III, 94.
 - 25) p-Akrylaldehydphenoxyessigsäure. Sm. 182° (B. 19, 3049). — III, 94.
 - 26) Cannabinolaktonsäure. Sm. 203°. K , Ag (Soc. 75, 34).
 - 27) Sacculminsäure = $(\text{C}_{11}\text{H}_{10}\text{O})_x$. $\text{Ba} + \text{H}_2\text{O}$, Ag (G. 10, 121, 240, 355). — I, 1109.
 - 28) $\alpha\gamma$ -Lakton d. α -Oxy- α -Phenylpropan- $\beta\gamma$ -Dicarbonsäure + $\frac{1}{4}\text{H}_2\text{O}$ (Phenylparakonsäure). Sm. 99° (115° u. 121° wasserfrei). $\text{Ca} + 2\text{H}_2\text{O}$, $\text{Ba} + 3\text{H}_2\text{O}$, Ag (A. 216, 108; 228, 177; 255, 143; 288, 207; Ph. Ch. 10, 420). — II, 1955.
 - 29) 2, α -Lakton d. α -Oxy- α -Phenylpropan-2, γ -Dicarbonsäure. Sm. 140° (121°). Ba , Ag (B. 11, 1681; 17, 2773). — II, 1957.
 - 30) Lakton d. α -[2,3,4-Trioxypheylmonäthyläther]äthen- β -Carbon-säure (Daphnetinäthyläther). Sm. 155° (B. 17, 1083). — II, 1949.
 - 31) Gem. Anhydrid d. Essigsäure u. 2-Acetylbenzol-1-Carbonsäure. Sm. 70,5—71° (B. 14, 920). — II, 1647.
 - 32) Verbindung (aus Physiol). Sm. 80—82° (J. pr. [2] 57, 286).
- C₁₁H₁₀O₅**
- C 59,5 — H 4,5 — O 36,0 — M. G. 222.
- 1) Phenylen-1-Oxyessigsäure-2-Akrylsäure (o-Cumaroxyessigsäure). Sm. 190°. Ag_2 (B. 17, 2997). — II, 1629.
 - 2) Phenylen-1-Oxyessigsäure-3-Akrylsäure (m-Cumaroxyessigsäure). Sm. 219°. Ag_2 (B. 19, 3047). — II, 1634.
 - 3) Phenylen-1-Oxyessigsäure-4-Akrylsäure (p-Cumaroxyessigsäure) (B. 19, 3046). — II, 1636.
 - 4) α -Keto- α -Phenylpropan- $\gamma\gamma$ -Dicarbonsäure (β -Benzoylisobbernsteinsäure). Sm. 178—179° u. Zers. Ag_2 (B. 16, 1045; 18, 3324). — II, 1963.
 - 5) α -Keto- α -Phenylpropan- γ ,2-Dicarbonsäure (Benzoyl-o-Propioncarbon-säure). Sm. 137°. Ca , Ba , Ag_2 (B. 11, 1680; 17, 2770). — II, 1963.
 - 6) α -[2-Oxyphenyl]äthen-2-Methyläther- $\beta\beta$ -Dicarbonsäure [o-Methoxylbenzalmalonsäure). Sm. 178° u. Zers. (Soc. 53, 142). — II, 1962.
 - 7) α ,2-Lakton d. $\alpha\beta$ -Dioxy- α -Phenyläthan- β ,2-Dicarbonsäure- β -Methyl-ester. Sm. 131° (B. 25, 407). — II, 2006.
 - 8) α ,2-Lakton d. α -Oxy-4-Aethoxylphenylmethan- α ,2-Dicarbonsäure (5-Aethoxylphtalidcarbonsäure). Sm. 128° (A. 296, 354).
 - 9) α ,2-Lakton d. α -Oxy-4-Methoxylphenylmethan- α ,2-Dicarbonsäure- α -Methylester. Sm. 95° (A. 296, 354).
 - 10) Hydroderivat d. Verb. C₁₁H₈O₅. Sm. 215—217° (Soc. 51, 372). — III, 661.
- C₁₁H₁₀O₆**
- C 55,4 — H 4,2 — O 40,3 — M. G. 238.
- 1) 3,4-Diacetoxylbenzol-1-Carbonsäure. Sm. 151—153° (M. 6, 872). — II, 1744.
 - 2) α -Phenyläthan- $\alpha\beta\beta$ -Tricarbonsäure. Sm. 170—171° u. Zers. $\text{Ca}_2 + \text{H}_2\text{O}$, Ag_2 (B. 14, 873; A. 219, 31; 258, 71). — II, 2013.
 - 3) α -Phenyläthan- $\beta\beta$,2-Tricarbonsäure (Benzylmalonorthocarbonsäure). Sm. 170°. Ag_2 (A. 242, 32). — II, 2013.
 - 4) β -Methylumbelliferoncarbonsäure. Sm. 191—191,5° u. Zers. (J. pr. [2] 37, 469). — II, 2014.
 - 5) Lakton d. Cotarnlaktonsäure. Sm. 154° (A. 254, 341). — II, 2040.
 - 6) α ,2-Lakton d. α -Oxy-4,6-Dimethoxylphenylmethan- α ,2-Dicarbon-säure (3,5-Dimethoxylphtalidcarbonsäure). Sm. 183° (A. 296, 354).
 - 7) α ,2-Lakton d. α -Oxy- α -[3,4-Dimethoxylphenyl]essigsäure-2-Carbonsäure. $\text{Ba} + 4\text{H}_2\text{O}$ (A. 301, 358).
 - 8) Dimethylester d. 4,5-Dioxybenzylmethylenäther-1,2-Dicarbonsäure (D. d. Hydrastsäure). Sm. 88—89° (A. 271, 380). — II, 2000.
 - 9) 1,3-Dimethylester d. Benzol-1,2,3-Tricarbonsäure. Sm. 145° (A. 290, 226).

$C_{11}H_{10}O_7$ C 52,0 — H 3,9 — O 44,1 — M. G. 254.

- 1) Monobenzoylweinsäure. Ag₂ (J. 1857, 307; A. Spl. 5, 276). — II, 1154.
- 2) Diacetyl-3,4,5-Trioxybenzol-1-Carbonsäure + $\frac{1}{2}H_2O$. Sm. 162° (wasserfrei) (Bl. [3] 11, 566). — II, 1922.
- 3) 2,3,4,5-Tetraoxybenzol-2-Dimethyläther-2-Methylenäther-1-Keto-carbonsäure (Apionylglyoxylsäure). Zers. 160—172°. Ag (G. 22 [2] 30; B. 23, 2284). — II, 2044.

 $C_{11}H_{10}N_2$

- 4) isom. Apionylglyoxylsäure. Sm. 175° (B. 29, 1805, 1806).

C 77,6 — H 5,9 — N 16,5 — M. G. 170.

- 1) 2-Amidoimidomethylnaphtalin (2-Naphtenylamidin). Sm. 145°. HCl, (2HCl, PtCl₄), HNO₃, HNO₂ (A. 297, 380; B. 11, 1486). — IV, 956.
- 2) 2-[4-Amidophenyl]pyridin. Sm. 101—102°. 2HCl, Pikrat (B. 29, 167). — IV, 958.
- 3) 4-Methyl-2-Phenyl-1,3-Diazin. Sm. 74—78°. (2HCl, PtCl₄ + 5H₂O) (B. 18, 2849). — IV, 956.
- 4) Nitril d. 1,3,5-Trimethylbenzol-2,4-Dicarbonsäure. Sm. 142° (A. 278, 219). — II, 1857.
- 5) Nitril d. Benzol-1-Carbonsäure-2-[Propyl-α-Carbonsäure]. Sm. 39 bis 40°; Sd. 293—295° (B. 20, 2505). — II, 1855.

 $C_{11}H_{10}N_4$ C 66,7 — H 5,0 — N 28,3 — M. G. 198.

- 1) Base (aus d. Verb. C₁₁H₈ON₄). HCl (A. 302, 327). — IV, 1222.
- 2) Nitril d. 5-Aethyl-1-Phenyl-1,2,4-Triazol-3-Carbonsäure. Sm. 37,5 bis 38° (B. 18, 1548). — IV, 1117.

 $C_{11}H_{10}S$

- 1) Benzylthiophen. Sd. 265° (B. 17, 1346). — III, 748.
- 2) 2-Methyl-4-Phenylthiophen. Sm. 72—73° (B. 20, 2559). — III, 748.
- 3) 2-Methyl-5-Phenylthiophen. Sm. 49—51°; Sd. 270—272° (B. 18, 369). — III, 748.

 $C_{11}H_{11}N$ C 84,1 — H 7,0 — N 8,9 — M. G. 157.

- 1) 1-Amidomethylnaphtalin. Sd. 290—293°. HCl, (2HCl, PtCl₄), HNO₃ (B. 1, 100; 21, 257). — II, 632.
- 2) 2-Amidomethylnaphtalin. Sm. 59—60°. HCl, (2HCl, PtCl₄) (B. 20, 1117). — II, 632.
- 3) 1-Methylamidonaphtalin (Methyl-1-Naphtylamin). Sd. 293°. (2HCl, PtCl₄ + 2H₂O) (B. 11, 642). — II, 598.
- 4) 2-Methylamidonaphtalin. Sd. 296°₇₁₈ (B. 28, 2370 Aum.; 30, 1785).
- 5) 1-Benzylpyrrol. Sd. 247°₇₀₈ (B. 20, 1369). — IV, 67.
- 6) 1-[4-Methylphenyl]pyrrol. 2 + HgCl₂ (B. 14, 933, 2093). — IV, 67.
- 7) 5-Methyl-2-Phenylpyrrol. Sm. 101°. Pikrat (B. 18, 370). — IV, 332.
- 8) 1-Allylindol. Sd. 252° (B. 26, 2176). — IV, 218.
- 9) 2-Aethylchinolin. Sd. 256,6—258,6°. (HCl, HgCl₂), (2HCl, SnCl₂ + 2H₂O), (2HCl, PtCl₄), (HCl, 2AuCl₃), Pikrat (B. 19, 2996; A. 242, 273). — IV, 325.
- 10) 3-Aethylchinolin. Sd. 265°₇₁₈. (2HCl, PtCl₄), Pikrat (B. 13, 121; 18, 3370). — IV, 326.
- 11) 4-Aethylchinolin. Sd. 271—274°. (HCl, HgCl₂), (2HCl, PtCl₄), HNO₃, Pikrat (B. 19, 2999; 20, 2734). — IV, 326.
- 12) 3-Aethylisochinolin. Sd. 255—256°₇₂₂. (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 27, 2237). — IV, 331.
- 13) 4-Aethylisochinolin. Sm. 63,5—65°; Sd. 274—275°. (2HCl, PtCl₄ + 2H₂O), H₂Cr₂O₇ (B. 20, 1207). — IV, 332.
- 14) 2,3-Dimethylchinolin. Sm. 67,5° (68—69°); Sd. 261°₇₂₂. HCl + 2H₂O, (2HCl, PtCl₄ + 2H₂O), HNO₃, H₂SO₄ + H₂O, H₂Cr₂O₇, Pikrat (B. 20, 1912; 22, 269; 25, 1754; J. pr. [2] 56, 315; [2] 57, 475). — IV, 327.
- 15) 2,4-Dimethylchinolin. Sd. 264—265°. HCl, (2HCl, ZnCl₂ + 1½H₂O), (2HCl, PtCl₄), H₂SO₄, H₂Cr₂O₇, Pikrat (B. 19, 1037; 29, 2466; A. 238, 4; J. pr. [2] 33, 401; G. 23 [2] 117; Bl. 49, 90). — IV, 327.
- 16) 2,6-Dimethylchinolin. Sm. 55° (57°); Sd. 259—261°. (2HCl, PtCl₄), H₂Cr₂O₇ (B. 16, 2470, 2603; J. pr. [2] 56, 320). — IV, 329.
- 17) 2,7-Dimethylchinolin. Sm. 61°; Sd. 264—265°. (2HCl, PtCl₄), H₂Cr₂O₇ (B. 16, 2471). — IV, 329.
- 18) 2,8-Dimethylchinolin. Sd. 252°. (2HCl, PtCl₄), HNO₃, H₂Cr₂O₇ (B. 16, 2469; 23, 2259). — IV, 329.
- 19) 3,4-Dimethylchinolin. Sm. 65°; Sd. 290°₇₂₇. (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃), H₂Cr₂O₇, Pikrat (A. 245, 362). — IV, 330.

$C_{11}H_{11}N$

- 20) 4,6-Dimethylchinolin. *Sd.* 280°₇₅₄ (273—274°). (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃), H₂Cr₂O₇, Pikrat (*B.* 23, 2265; *A.* 245, 366). — IV, 330.
 21) 4,6 [oder 5,6] -Dimethylchinolin. *Sd.* 273—274°. (2HCl, PtCl₄ + H₂O), H₂SO₄ + xH₂O (*B.* 17, 1489). — IV, 331.
 22) 4,7-Dimethylchinolin. *Sd.* 283°₇₈₀. (2HCl, PtCl₄ + 2H₂O) (*A.* 245, 371). — IV, 330.
 23) 4,8-Dimethylchinolin. *Sd.* 273—274°₇₅₁. (2HCl, PtCl₄ + 2H₂O) (*A.* 245, 369). — IV, 331.
 24) 5,8-Dimethylchinolin. *Sm.* 4—5°; *Sd.* 265°₇₈₆. (2HCl, PtCl₄), H₂Cr₂O₇ (*B.* 18, 3165; *A.* 237, 308). — IV, 331.
 25) 6,8-Dimethylchinolin. *Sd.* 268—269°. (2HCl, PtCl₄), H₂SO₄ (*B.* 16, 289; 17, 2716). — IV, 331.
 26) 2-Bismethylenisochinolin. *Fl.* (*J. pr.* [2] 49, 306).
 27) Dispolin. *Fl.* (2HCl, PtCl₄) (*Z.* 1867, 428). — IV, 333.
 28) Kryptidin. *Sd.* 274° (*J.* 1856, 537). — IV, 333.
 29) Base (aus Isobuttersäurealdehyd, Methylal u. Anilin). *Sm.* 64—65°; *Sd.* 267°₇₁₃. (2HCl, PtCl₄ + 2H₂O), Pikrat (*B.* 20, 1935). — IV, 332.
 30) Nitril d. δ-Phenyl-α-Buten-δ-Carbonsäure (N. d. Allylphenylessigsäure). *Sd.* 260—270° (*B.* 23, 2068). — II, 1431.
 31) Nitril d. 5,6,7,8-Tetrahydronaphtalin-1-Carbonsäure. *Sd.* 277 bis 279° (*B.* 22, 628). — II, 1432.

 $C_{11}H_{11}N_2$

- C* 71,3 — *H* 5,9 — *N* 22,7 — *M. G.* 185.
 1) α-Amido-α-Hydrason-α-[2-Naphtyl]methan (2-Naphtenylhydrazidin). *Sm.* 230° u. Zers. Pikrat (*B.* 30, 1879; *A.* 298, 34). — IV, 1168.
 2) 2-[4-Methylphenyl]azopyrrol. *Sm.* 82° (*B.* 19, 2254). — IV, 1483.
 3) 6-Amido-4-Methyl-2-Phenyl-1,3-Diazin. *Sm.* 129—130°. HCl, (2HCl, PtCl₄) (PINNER, Imidoäther 247). — IV, 1167.
 4) Benzoylacetone-Guanidin (2-Amido-4-Phenyl-6-Methyl-1,3-Diazin). *Sm.* 173°. (2HCl, PtCl₄), H₂SO₄ (*J. pr.* [2] 48, 513). — III, 270.
 5) Nitril d. 6-Amido-1,3,5-Trimethylbenzol-2,4-Dicarbonsäure. *Sm.* 261° (*A.* 278, 222). — II, 1857.

 $C_{11}H_{11}Br$

- 1) Bromderivat d. Kohlenw. C₁₁H₁₂ (aus Petroleum). *Sd.* 250—255° (*A.* 234, 114). — II, 175.

 $C_{11}H_{11}O$

- C* 82,5 — *H* 7,5 — *O* 10,0 — *M. G.* 160.
 1) 2-Acetyl-2,3-Dihydroinden. *Sd.* 175—177°₈₀ (*Soc.* 65, 240). — III, 166.
 2) δ-Keto-δ-Phenyl-α-Penten (Allylacetophenon). *Sd.* 235—238°₁₁₀ (*B.* 16, 2132; *Soc.* 45, 187). — III, 165.
 3) γ-Keto-γ-[2,5-Dimethylphenyl]propen (Vinyl-p-Xylylketon). *Sm.* 77 bis 78° (*A. ch.* [7] 2, 203). — III, 166.
 4) Benzoyl-R-Tetramethylen. *Sd.* 258—259°₇₄₀ (*Soc.* 61, 59). — III, 166.
 5) 2-Benzoyl-1-Methyl-R-Trimethylen. *Sd.* 240—245° (*Soc.* 61, 86). — III, 166.
 6) 6-Phenyldehydrohexon. *Sd.* 249—251°₇₃₁ (*Soc.* 51, 731). — III, 166.
 7) 3,4,6-Trimethylbenzofuran. *Sm.* unterh. 18°; *Sd.* 236° Pikrat (*B.* 30, 1710).
 8) Aldehyd d. δ-Phenyl-α-Buten-α-Carbonsäure. *Sd.* 138—139°₁₂ (cor.) (*B.* 31, 1993).

 $C_{11}H_{11}O_2$

- C* 75,0 — *H* 6,8 — *O* 18,2 — *M. G.* 176.
 1) α-Oxy-β-Benzoyl-α-Buten (α-Oxymethylenpropylphenylketon). *Sm.* 87 bis 89°; *Sd.* 260—262° (*B.* 22, 3278; *A.* 281, 397). — III, 165.
 2) Methyläther d. γ-Keto-α-[4-Oxyphenyl]-α-Buten. *Sm.* 73° (*A.* 243, 363). — III, 162.
 3) αγ-Diketo-α-Phenylpentan (Propionylacetophenon). *Sd.* 276—277° (*B.* 20, 2181). — III, 272.
 4) αδ-Diketo-α-Phenylpentan (Acetophenonaceton). *Fl.* (*B.* 16, 2869; 17, 914). — III, 272.
 5) βδ-Diketo-α-Phenylpentan (Phenylacetylaceton). *Sd.* 266—269°₇₁₈. Ag (*B.* 18, 2137). — III, 273.
 6) 1-Keto-5-Methyl-3-[2-Furanyl]-1,2,3,4-Tetrahydrobenzol. *Sd.* 153 bis 154°₁₀ (*A.* 303, 246).
 7) α-Phenyl-α-Buten-β-Carbonsäure (Phenylangelikasäure). *Sm.* 104° Mg + H₂O, Ca, Ba, Ag (*A.* 153, 364; 193, 319; 227, 53; *J.* 1877, 789; *B.* 23, 978; *Bl.* [3] 5, 171). — II, 1431.

$C_{11}H_{13}O_2$

- 8) α -Phenyl- α -Buten- γ -Carbonsäure. Sm. 110,5°. Ba + H₂O (A. 255, 262). — II, 1431.
- 9) α -Phenyl- α -Buten- δ -Carbonsäure. Sm. 90—91°. Ca + 2H₂O, Ba + H₂O, Ag (B. 31, 2002).
- 10) δ -Phenyl- α -Buten- α -Carbonsäure. Sm. 104°. Ca + 3H₂O, Ba + 4H₂O, Ag (A. 283, 311, 325; B. 31, 1994). — II, 1431.
- 11) δ -Phenyl- α -Buten- δ -Carbonsäure (Phenylallylessigsäure). Sm. 34°; Sd. 260°. Na, Ag (B. 29, 2601).
- 12) α -Phenyl- β -Buten- δ -Carbonsäure (Hydrocinnamenylakrylsäure). Sm. 31°. Ca + 1½ H₂O, Ba, Ag (J. 1877, 792; B. 13, 122; A. 268, 51; 283, 306, 312). — II, 1430.
- 13) β -Methyl- α -Phenylpropen- γ -Carbonsäure. Sm. 112—113°. Ba (A. 255, 270). — II, 1431.
- 14) 3-Methyl-2,3-Dihydroinden-2-Carbonsäure. Sm. 80°; Sd. 300—330°. Ba + 4H₂O, Ag (A. 247, 165). — II, 1432.
- 15) 1,2,3,4-Tetrahydronaphtalin-1-Carbonsäure. Sm. 85°. Ag (B. 24, 2358; A. 266, 184). — II, 1432.
- 16) 1,2,3,4-Tetrahydronaphtalin-2-Carbonsäure. Sm. 94°. Ag (A. 266, 198; B. 24, 2361). — II, 1433.
- 17) 1,2,3,4-Tetrahydronaphtalin-5-Carbonsäure. Sm. 128°. Ag (B. 22, 630; Ph. Ch. 5, 400). — II, 1432.
- 18) Lakton d. γ -Oxy- α -Phenylvaleriansäure. Fl. (B. 17, 73). — II, 1590.
- 19) Lakton d. γ -Oxy- δ -Phenylvaleriansäure. Sm. 33° (A. 268, 93). — II, 1590.
- 20) Lakton d. 1-[α -Oxybutyl]benzol-2-Carbonsäure (Propylphtalid). Sd. 293—297°₇₈₆ u. Zers. (G. 28 [1] 298).
- 21) Lakton d. 1-[α -Oxyisobutyl]benzol-2-Carbonsäure (Isopropylphtalid). Sd. 225—229°₁₄₀ (G. 28 [2] 506).
- 22) Thymotid (Lakton d. 3-Oxy-4-Isopropyl-1-Methylbenzol-2-Carbonsäure). Sm. 187° (Bl. 4, 92). — II, 1589.
- 23) Cannabinolakton. Sd. 126°₉₀ (Soc. 75, 33).
- 24) Methylester d. α -Phenylpropen- β -Carbonsäure. Sm. 39°; Sd. 254° (B. 20, 620). — II, 1426.
- 25) Methylester d. β -Phenylpropen-4-Carbonsäure. Sm. 53°; Sd. 254° (A. 219, 275; B. 11, 1792). — II, 1428.
- 26) Methylester d. 1-Isopropenylbenzol-4-Carbonsäure. Sm. 83° (B. 12, 1076; A. 219, 284). — II, 1429.
- 27) Methylester d. 2,3-Dihydroinden-2-Carbonsäure. Sd. 170°₆₀ (Soc. 65, 234). — II, 1430.
- 28) Aethylester d. β -Phenylakrylsäure. Sm. 12°, Sd. 271° (A. 95, 318; 188, 203; 221, 75; 235, 19; B. 11, 1220; 29, 2907; 30, 959; G. 24 [2] 164). — II, 1406.

 $C_{11}H_{13}O_3$

C 68,8 — H 6,2 — O 25,0 — M. G. 192.

- 1) 5-Oxy-2,4-Diacetyl-1-Methylbenzol? (Diacetyl-m-Kresol). Sm. 112°; 310° (A. 297, 72).
- 2) 3-Methyläther d. γ -Keto- α -[3,4-Dioxyphenyl] α -Buten. Sm. 130° (B. 18, 3492). — III, 162.
- 3) Methyläther d. $\alpha\gamma$ -Diketo- α -[3-Oxyphenyl]butan (M. d. m-Oxybenzoyl-aceton). Fl. (B. 27, 3042). — III, 271.
- 4) Methyläther d. $\alpha\gamma$ -Diketo- α -[4-Oxyphenyl]butan. Sm. 54,5° (B. 27, 910). — III, 271.
- 5) Acetat d. β -Oxy- α -Keto- α -Phenylpropan. Sd. 158—160°₉₀ (Bl. [3] 17, 957).
- 6) Acetat d. Aethyl-4-Oxyphenylketon. Sm. 62° (Bl. [3] 6, 160). — III, 141.
- 7) Acetat d. Oxymethyl-4-Methylphenylketon. Sm. 82—83,5° (Bl. [3] 17, 508).
- 8) Usneol. Sm. 175—176° (G. 12, 243; B. 8, 1462). — II, 2058.
- 9) γ -[oder δ -]Oxy- δ -Phenyl- α -Buten- α -Carbonsäure. Ca, Ba, Ag (A. 283, 333). — II, 1663.
- 10) δ -Oxy- δ -Phenyl- α -Buten- γ -Carbonsäure (β -Oxy- β -Phenyl- α -Aethylen-propionsäure). Sm. 94—96°. Ag (Soc. 59, 884). — II, 1666.
- 11) α -[2-Oxyphenyl]- α -Buten- β -Carbonsäure (o-Butyrcumarsäure). Sm. 174° u. Zers. Ag (A. 150, 84). — II, 1662.

- C₁₁H₁₁O₂** 12) β -Methyl- α -[2-Oxyphenyl]propen- γ -Carbonsäure? (o-Oxyphenyl-methylisocrotonsäure). Sm. 73°. Ca, Ba + 4H₂O, Ag (A. 255, 290). — II, 1663.
- 13) α -[2-Methoxyphenyl]propen- β -Carbonsäure. Sm. 118° (107—108°). Ba (Soc. 39, 429, 449; Bl. [3] 15, 914, 1025). — II, 1653.
- 14) isom. α -[2-Methoxyphenyl]propen- β -Carbonsäure. Sm. 107°. Ca, Ba, Ag (J. 1877, 793; Soc. 39, 429; Bl. [3] 15, 914, 1024). — II, 1654.
- 15) α -[3-Methoxyphenyl]propen- β -Carbonsäure. Sm. 92—93,5° (Bl. [3] 15, 914, 1025).
- 16) α -[4-Methoxyphenyl]propen- β -Carbonsäure (Propion-p-Cumarmethyläthersäure). Sm. 154°. Ag (J. 1877, 792). — II, 1656.
- 17) α -[4-Methoxyphenyl]propen- γ -Carbonsäure (p-Anisylisocrotonsäure). Sm. 106,5°. Ca + 2H₂O, Ba + 3H₂O, Ag (A. 255, 293). — II, 1656.
- 18) β -[2-Aethoxyphenyl]akrylsäure (o-Cumaräthyläthersäure; α -Modif.). Sm. 103—104° (101—102°). Ca + 2H₂O, Ba + 2H₂O (Soc. 39, 412; A. 216, 142). — II, 1629.
- 19) isom. β -[2-Aethoxyphenyl]akrylsäure (β -Modif.). Sm. 135° (132 bis 133°). Ca + 2H₂O, Ba + 4H₂O (Soc. 39, 412; A. 216, 145). — II, 1629.
- 20) β -[3-Aethoxyphenyl]akrylsäure. Sm. 122° (B. 28, 2001).
- 21) β -Oxy- β -Phenylakrylathyläthersäure. Sm. 164—165° u. Zers. Ca + 8H₂O, Ag (Am. 20, 137).
- 22) β -Oxypropenbenzyläther- α -Carbonsäure (β -Benzoxycrotonsäure). Sm. 121,5—122° (B. 29, 1646).
- 23) α -Keto- α -Phenylbutan- γ -Carbonsäure. Sm. 136° (Bl. [3] 17, 409).
- 24) α -Keto- α -Phenylbutan- δ -Carbonsäure (γ -Benzoylbuttersäure). Sm. 125 bis 126° (127,5°). Ag (A. ch. [6] 22, 360; A. 302, 219). — II, 1663.
- 25) β -Keto- α -Phenylbutan- δ -Carbonsäure (δ -Phenyllävulinsäure). Sm. 55 bis 56°. Ca + 6H₂O, Ba + 1½H₂O, Ag (A. 268, 89). — II, 1664.
- 26) γ -Keto- α -Phenylbutan- α -Carbonsäure (α -Phenyllävulinsäure). Sm. 126°. Zn (B. 17, 72). — II, 1664.
- 27) γ -Keto- α -Phenylbutan- β -Carbonsäure (Benzylacetessigsäure). Fl. Ba (A. 187, 12; 204, 179; B. 15, 1875). — II, 1664.
- 28) α -Benzoylbuttersäure. Sm. 112—115° u. ger. Zers. (B. 16, 2130; Soc. 45, 179). — II, 1664.
- 29) β -[4-Methylbenzoyl]propionsäure. Sm. 127° (120°; 117°). Ba + 4H₂O, Ag (B. 20, 1378; 28, 3216; Bl. 49, 449). — II, 1665.
- 30) 2,5-Dimethylbenzoylessigsäure. Sm. 132°. Na + H₂O, Ca + 2½H₂O, Ba + 4H₂O, Ag (B. 19, 3183). — II, 1665.
- 31) 1-[α -Ketobutyl]benzol-2-Carbonsäure (1-Butyrylbenzol-2-Carbonsäure). Sm. 89° (B. 29, 1437).
- 32) 1-[γ -Ketobutyl]benzol-2-Carbonsäure (Benzylaceton-2-Carbonsäure). Sm. 114° (A. 236, 192). — II, 1665.
- 33) 1-[α -Ketoisobutyl]benzol-2-Carbonsäure (o-Isobutyrylbenzolcarbonsäure). Sm. 120—121° (121,5—122°) (B. 17, 2777; G. 28 [2] 505). — II, 1665.
- 34) 1-Isopropylbenzol-4-Ketocarbonsäure. Sm. 106—107°. Ca + 2H₂O (G. 21 [1] 49). — II, 1665.
- 35) 1,2,4-Trimethylbenzol-5-Ketocarbonsäure (Pseudocumylglyoxylsäure). Sm. 75°. Na + 1½H₂O, K + H₂O, Ca + 3H₂O, Ba + 4H₂O, Ag (J. pr. [2] 41, 510; A. 264, 147; Bl. [3] 17, 370). — II, 1666.
- 36) 1,3,5-Trimethylbenzol-2-Ketocarbonsäure (Mesitylglyoxylsäure). Sm. 118°. Ba + 2½(3)H₂O, Zn + 4H₂O (J. pr. [2] 41, 505; A. 264, 139; B. 24, 3543; 30, 1274; Bl. [3] 17, 371). — II, 1666.
- 37) Säure (aus Benzoylacetondicyanhydrin). Sm. 124—125°. K, Ag (B. 27, 1571). — II, 1666.
- 38) Säure (aus Benzoylacetondicyanhydrin). Sm. 101—102° (B. 27, 1572). — II, 1666.
- 39) Lakton d. $\beta\gamma$ -Dioxy- δ -Phenylvaleriansäure. Sm. 61,5° (A. 268, 51). — II, 1769.
- 40) Lakton d. γ -Oxy- γ -[4-Methoxyphenyl]buttersäure (p-Anisylbutyrolakton). Sm. 53,5° (A. 255, 297). — II, 1767.
- 41) Aldehyd d. β -Benzoxylbuttersäure (Benzoat d. Aldol). Fl. (A. 293, 337).
- 42) Aldehyd d. 2-Butyroxylbenzol-1-Carbonsäure. Sm. 260—270° (A. 150, 82). — III, 67.

- C₁₁H₁₁O₂**
- 43) Methylester d. 2-Oxybenzolallyläther-1-Carbonsäure. *Sd.* 245° (*B.* 16, 796; *G.* 12, 449). — II, 1494.
 - 44) Methylester d. β -[2-Methoxylphenyl]akrylsäure (*M.* d. α -o-Cumar-methyläthersäure). *Sd.* 275—276° (*Soc.* 39, 411). — II, 1628.
 - 45) Methylester d. isom. β -[2-Methoxylphenyl]akrylsäure. *Sd.* 293° (*Soc.* 39, 411; *A.* 226, 354). — II, 1628.
 - 46) Methylester d. β -[4-Methoxylphenyl]akrylsäure. *Sm.* 89°; *Sd.* 303° (*Soc.* 39, 439). — II, 1636.
 - 47) Methylester d. α -Phenyl- α -Ketopropan- γ -Carbonsäure (Methylester d. β -Benzoylpropionsäure). *Sm.* 18—20,5°; *Sd.* 290° (184°₃₃) (*B.* 17, 2115; *J. pr.* [2] 50, 529; *A.* 299, 62). — II, 1658.
 - 48) Aethylester d. β -Oxy- α -Phenylakrylsäure (α -Ac. d. Formyllessigsäure). *Sd.* 146°₃₅. *Na*, *Cu* + 2C₂H₅O (*B.* 20, 2931; 25, 1054; 28, 771; 29, 1715; 30, 953; *A.* 291, 147, 165, 217). — II, 1640.
 - 49) Aethylester d. Phenylmalonsäuremonoaldehyd (β -Ac. d. Formylphenyllessigsäure). *Sm.* 70°. *Na*, *Cu* (*B.* 20, 2933; 28, 772; 29, 1715; 30, 953; *A.* 291, 147, 167, 217). — II, 1640.
 - 50) Aethylester d. Benzoylessigsäure. *Sd.* 147—149°₁₀₋₁₂. *Na*, *Cu* + NH₃ (*B.* 15, 2705; 20, 653; 23, 3737; 28, 813; 29, 105; 30, 952; 31, 3157; *A.* 231, 68; 282, 155; *Soc.* 47, 254, 280; 59, 191; 61, 862). — II, 1643.
 - 51) Aethylester d. 2-Acetylbenzol-1-Carbonsäure. *Sd.* 279° (*B.* 29, 2521 *Ann.*).
 - 52) Aethylester d. α -Phenyläthanoxyd- β -Carbonsäure. *Sd.* 273° u. Zers. (*A.* 147, 104). — II, 1639.
 - 53) Aethylester d. 1-Methylbenzol-4-Ketocarbonsäure. *Sd.* 260—270° (148—149°₁₀) (*B.* 20, 2050; *Bl.* [3] 17, 367). — II, 1653.
 - 54) Aethylester d. 1,2-Dihydrobenzofuran-1-Carbonsäure (Ac. d. Hydrocumarilsäure). *Sm.* 23°; *Sd.* 273° (*A.* 216, 168). — II, 1641.
 - 55) norm. Propylester d. Benzolketocarbonsäure. *Sd.* 174°₃₀ (*B.* 12, 629). — II, 1597.
 - 56) Mono-1,2,3,4-Tetrahydro-2-Naphtylester d. Kohlensäure. *Na* (*B.* 23, 207). — II, 855.
 - 57) 4-Formiat-3-Methyläther d. 3,4-Dioxy-1-Propenylbenzol. *Sd.* 155 bis 160°₃₀ (*A.* 301, 114).
 - 58) 4-Formiat-3-Methyläther d. 3,4-Dioxy-1-Allylbenzol. *Sd.* 150°₃₀ (*A.* 301, 113).
- C₁₁H₁₂O₄** C 63,5 — H 5,8 — O 30,7 — M. G. 208.
- 1) 3,5-Diacetyl-2,6-Dimethyl-1,4-Pyron. *Sm.* 123—124° (*Bl.* 50, 193; [3] 13, 1094).
 - 2) Hydroxyacetylpaöonol. *Sm.* 68° (*B.* 25, 1285). — III, 136.
 - 3) 2-Acetoxyphenyläther d. α -Oxy- β -Ketopropan. *Sd.* 176—180°₁₁ (*Bl.* [3] 21, 292).
 - 4) $\alpha\beta$ -[1,2-Phenylen]äther- γ -Acetat d. $\alpha\beta\gamma$ -Trioxypropan. *Sd.* 185 bis 188°₃₀ (*Bl.* [3] 19, 509).
 - 5) 4-Methyläther-2-Acetat d. Methyl-2,4-Dioxyphenylketon. *Sm.* 46,5° (*B.* 24, 2851; 30, 300). — III, 135.
 - 6) 3-Methyläther-4-Acetat d. Methyl-3,4-Dioxyphenylketon. *Sm.* 58° (*B.* 24, 2865). — III, 138.
 - 7) Acetylalorcinsäure + H₂O. *Sm.* 125° u. Zers. (*A.* 167, 72). — II, 1581.
 - 8) β -Acetoxy- β -Phenylpropionsäure. *Sm.* 100,5°. *Ag* (*A.* 225, 59). — II, 1572.
 - 9) 6-Acetoxy-1,2-Dimethylbenzol-4-Carbonsäure. *Sm.* 141—142° (*Soc.* 75, 189).
 - 10) α -[4-Oxyphenyl]äthan-2, β -Oxyd-4-Aethyläther- β -Carbonsäure (Oxyhydrocumariläthyläthersäure). *Sm.* 119° (*B.* 19, 1785). — II, 1779.
 - 11) α -[3,4-Dioxyphenyl]propan-3,4-Methylenäther- β -Carbonsäure. *Sm.* 77°. *Ag* (*B.* 13, 760). — II, 1768.
 - 12) β -[2,4-Dioxyphenyl]propen-4-Methyläther- α -Carbonsäure. *Sm.* 140° u. Zers. (*B.* 16, 2125). — II, 1780.
 - 13) α -[3,4-Dioxyphenyl]propen-3-Methyläther- β -Carbonsäure (Homoferulasäure). *Sm.* 167—168°. *Ba* (*B.* 15, 2064). — II, 1781.
 - 14) β -[2,4-Dioxyphenyl]akryldimethyläthersäure. *Sm.* 138°. *Ca* + 2H₂O, *Ba* + 2H₂O (*B.* 16, 2116; 19, 1778). — II, 1774.

$C_{11}H_{13}O_4$

- 15) isom. β -[2,4-Dioxyphenyl]akryldimethyläthersäure (Umbelldimethyläthersäure). Sm. 184° (B. 15, 2080; 16, 2116). — II, 1774.
- 16) β -[2,5-Dioxyphenyl]akryl-2,5-Dimethyläthersäure. Sm. 143° (B. 17, 1387). — II, 1775.
- 17) β -[3,4-Dioxyphenyl]akryl-3,4-Dimethyläthersäure. Sm. 180—181°. NH_4 , Ag (B. 11, 653; 14, 960). — II, 1777.
- 18) 4,5-Dioxy-1-Allylbenzol-5-Methyläther-3-Carbonsäure (Eugetinsäure). Sm. 124° (A. 125, 14). — II, 1782.
- 19) mal. α -Phenylpropan- $\alpha\beta$ -Dicarbonsäure (s-Methylphenylbernsteinsäure). Sm. 170—171°. Ag_2 (B. 24, 1878). — II, 1855.
- 20) fum. α -Phenylpropan- $\alpha\beta$ -Dicarbonsäure (s-Methylphenylbernsteinsäure). Sm. 192—193° (B. 24, 1878). — II, 1855.
- 21) α -Phenylpropan- $\beta\beta$ -Dicarbonsäure (Methylbenzylmalonsäure). Sm. 135° (A. 204, 178). — II, 1854.
- 22) α -Phenylpropan- $\beta\gamma$ -Dicarbonsäure (Benzylbernsteinsäure). Sm. 161°. Ca, Ba + $\frac{1}{2}H_2O$, Ag_2 (A. 256, 88; 288, 208; 305, 40; B. 17, 449; Ph. Ch. 8, 459). — II, 1854.
- 23) α -Phenylpropan- β ,2-Dicarbonsäure. Sm. 142°. Ag (B. 31, 2887).
- 24) α -Phenylpropan- γ ,2-Dicarbonsäure. Sm. 138—139°. Ba (B. 18, 3118). — II, 1855.
- 25) α -Phenylpropan- γ ,3-Dicarbonsäure? Sm. bei 210° (Soc. 75, 36).
- 26) β -Phenylpropan- $\alpha\gamma$ -Dicarbonsäure (Phenylglutarsäure). Sm. 137,5 bis 138,5° (140°). $(NH_4)_2$, Ba + $2H_2O$, Cu + $2H_2O$, Ag_2 (J. pr. [2] 35, 352; B. 31, 1828; Am. 20, 511; C. 1899 [1] 730). — II, 1855.
- 27) β -Phenylpropan- β ,2-Dicarbonsäure. Sm. 123°. K_2 + H_2O , Ag_2 (B. 20, 1200). — II, 1856.
- 28) α -Phenyläthan- β -Carbonsäure-2-Methylcarbonsäure (Phenylenessigpropionsäure). Sm. 139°. Ca, Ba, Cu, Ag_2 (A. 286, 269, 273). — II, 1856.
- 29) α -[3-Methylphenyl]äthan- $\beta\beta$ -Carbonsäure (m-Xylylmalonsäure). Sm. 133° u. Zers. (B. 23, 109). — II, 1855.
- 30) 1-Isopropylbenzol-3,5-Dicarbonsäure. Sm. 285°. Ca + $2\frac{1}{2}H_2O$, Ba + $2\frac{1}{2}H_2O$, Ag_2 + H_2O (B. 23, 2380; 24, 1749). — II, 1857.
- 31) p-Trimethylbenzol-p-Dicarbonsäure. Sm. 210°. $(NH_4)_2$, Ba + H_2O (J. 1879, 562). — II, 1857.
- 32) Aldehyd d. 2-Acetoxy-5-Oxybenzol-5-Aethyläther-1-Carbonsäure. Sm. 69°; Sd. 285° u. Zers. (J. pr. [2] 22, 468). — III, 92.
- 33) Methylester d. β -[3,4-Dioxyphenyl]akryl-4-Methyläthersäure. Sm. 79° (B. 14, 967). — II, 1777.
- 34) Methylester d. d- α -Benzoxylpropionsäure. Sd. 154—155,5°₁₅ (C. 1895 [1] 1054).
- 35) Monomethylester d. 1,3-Dimethylbenzol-2,5-Dicarbonsäure. Sm. 189—190° (Am. 20, 811).
- 36) Dimethylester d. 1-Methylbenzol-2,4-Dicarbonsäure. Sm. 79—80° (Soc. 71, 176).
- 37) Dimethylester d. 1-Methylbenzol-2,5-Dicarbonsäure. Sm. 73—74° (Soc. 71, 177).
- 38) Aethylester d. 3,4-Dioxyphenylessigmethylenäthersäure. Sd. 291° (B. 24, 2885). — II, 1749.
- 39) Aethylester d. 3,4-Dioxybenzol-3,4-Aethylenäther-1-Carbonsäure. Sm. 27—28° (A. 168, 104). — II, 1743.
- 40) Aethylester d. Benzoyloxyessigsäure. Sd. 277—279° (A. 80, 32; 133, 284; 208, 272; J. pr. [2] 38, 427; [2] 51, 358). — II, 1153.
- 41) Aethylester d. 2-Acetoxybenzol-1-Carbonsäure. Sd. 272° (J. pr. [2] 47, 246). — II, 1496.
- 42) Aethylester d. 4-Oxybenzylmethyläther-1-Ketocarbonsäure. Sd. 183°₃₀ (C. 1896 [2] 92; Bl. [3] 17, 943).
- 43) Aethylester d. Oxyessigphenyläthersäure-2-Carbonsäurealdehyd. Sm. 114° (B. 17, 2992). — III, 67.
- 44) Aethylester d. Oxyessigphenyläthersäure-3-Carbonsäurealdehyd. Sm. 120° (B. 19, 3043). — III, 79.
- 45) Aethylester d. Oxyessigphenyläthersäure-4-Carbonsäurealdehyd. Sm. 100—155° u. Zers. (B. 19, 3042). — III, 82.
- 46) Aethylester d. γ -Keto- α -[2-Furanyl]- α -Buten- β -Carbonsäure (Ac. d.

- Furalacetessigsäure). Sm. 62—62,5°; Sd. 188—189°₃₀ (A. 216, 175; B. 31, 734). — III, 713.
- C₁₁H₁₂O₄** 47) Monäthylester d. Benzol-1-Carbonsäure-2-Methylcarbonsäure (M. d. o-Homophtalsäure). Sm. 107—108° (A. 233, 105). — II, 1842.
- 48) Diacetat d. Dioxymethylbenzol (Benzylidendiacetat). Sm. 45—46°; Sd. 220° (A. 102, 368; 106, 251; 139, 321; 146, 323; 298, 277; Z. 1867, 277; 1868, 172). — III, 11.
- 49) Diacetat d. 3-Oxy-1-Oxymethylbenzol. Sd. bei 290° (J. pr. [2] 15, 170). — II, 1110.
- 50) Diacetat d. 4-Oxy-1-Oxymethylbenzol. Sm. 75° (B. 19, 2376). — II, 1110.
- 51) Diacetat d. 2,5-Dioxy-1-Methylbenzol. Sm. 52° (B. 11, 1279; A. 215, 160). — II, 955.
- 52) Diacetat d. 3,4-Dioxy-1-Methylbenzol. Sd. 263—264° u. ger. Zers. (Bl. [3] 9, 158; C. 1898 [1] 1025). — II, 958.
- 53) Diacetat d. 3,5-Dioxy-1-Methylbenzol. Sm. 25° (A. ch. [4] 6, 195). — II, 961.
- 54) Acetat d. Gallacetonin (J. pr. [2] 26, 77). — II, 1012.
- 55) Benzoat d. αβγ-Trioxypentanmethylenäther. Sm. 72° (B. 27, 1894; A. 289, 30). — II, 1153.
- 56) isom. Benzoat d. αβγ-Trioxymethylenäther. Sd. 270—280° (B. 289, 33).
- C₁₁H₁₂O₅** C 58,9 — H 5,3 — O 35,7 — M. G. 224.
- 1) Primulacampher. Sm. 49°; Sd. oberh. 200° (A. 185, 222). — III, 645.
- 2) Cotarninsäure. Ag₂ (A. 86, 192; A. Spl. 1, 335; B. 13, 1638). — II, 1958.
- 3) β-4-Oxy-3,5-Dimethoxyphenylakrylsäure (Sinapinsäure). Sm. 191 bis 192°. Ba (A. 84, 19; Am. 6, 53; C. 1896 [2] 922; 1897 [1] 822; B. 30, 2330, 2332). — II, 1958.
- 4) α-Oxy-α-Phenylpropan-βγ-Dicarbonsäure (Phenylitamsäure). Ba, Ag₂ (A. 216, 108, 112). — II, 1955.
- 5) α-Oxy-α-Phenylpropan-2,γ-Dicarbonsäure. Ba, Ag₂ (B. 11, 1681; 17, 2773). — II, 1957.
- 6) β-Oxy-α-(3-Methylphenyl)äthan-ββ-Dicarbonsäure (m-Xylyltartronsäure). Ca (B. 23, 112). — II, 1957.
- 7) γ-Oxypropanphenyläther-αα-Dicarbonsäure. Sm. 142° (Soc. 69, 167).
- 8) α-Methoxyl-α-Phenyläthan-ββ-Dicarbonsäure (β-Methoxylbenzylmalonsäure). Sm. 115° u. Zers. Ba + 2H₂O (B. 27, 290). — II, 1951.
- 9) 5-Oxy-1-Isopropylbenzol-2,4-Dicarbonsäure? Sm. 295° u. Zers. (G. 16, 128). — II, 1957.
- 10) meso-α-Acetoxy-β-Oxy-β-Phenylpropionsäure? Sm. 93,5° (B. 30, 1605).
- 11) isom. α-Acetoxy-β-Oxy-β-Phenylpropionsäure? Sm. 158° (B. 30, 1603).
- 12) 3-Oxy-4-Acetoxyphenylessig-3-Methyläthersäure. Sm. 140° (B. 10, 202). — II, 1749.
- 13) 1,2-Lakton d. 3,4-Dioxy-1-Dioxymethylbenzol-1,3,4-Trimethyläther-2-Carbonsäure (Pseudomethylester d. Opiansäure). Sm. 103 bis 103,5°; Sd. 238—239°₃₂ (M. 13, 257; 17, 111; B. 20, 882). — II, 1940.
- 14) 1,2-Lakton d. 3,4-Dioxy-1-Dioxymethylbenzol-3 [oder 4]-Methyläther-1-Aethyläther-2-Carbonsäure (Pseudoäthylester d. Methylnoropiansäure). Sm. 104—106° (B. 30, 692).
- 15) 1-Aldehyd d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure-2-Methylester (Methylester d. Opiansäure). Sm. 82—84°; Sd. 232—234°₃₂ (M. 3, 358; 13, 254, 711; 17, 111). — II, 1940.
- 16) 1-Aldehyd d. 3,4-Dioxybenzol-3 [oder 4]-Methyläther-1,2-Dicarbonsäure-2-Monäthylester (Aethyläther d. Methylnoropiansäure). Sm. 102 bis 103° (B. 30, 693).
- 17) Monomethylester d. Anemonsäure. Sm. 174—176° (M. 17, 289).
- 18) Methylester d. Isopiansäure. Sm. 98—99° (B. 10, 397). — II, 1946.
- 19) Methylester d. d-Monobenzoylglycerinsäure. Fl. (Soc. 69, 112).
- 20) Methylester d. i-Monobenzoylglycerinsäure. Sm. 92,5—93° (Soc. 69, 113).

$C_{11}H_{11}O_6$

- 21) Dimethylester d. 5-Oxy-1-Methylbenzol-2,4-Dicarbonsäure. Sm. 108° (B. 8, 885). — II, 1948.
- 22) Dimethylester d. 2-Oxy-1-Methylbenzol-3,5-Dicarbonsäure. Sm. 120—130° (128°) (A. 206, 192). — II, 1949.
- 23) Dimethylester d. 4-Oxy-1-Methylbenzol-3,5-Dicarbonsäure. Sm. 79° (A. 195, 289). — II, 1949.
- 24) Dimethylester d. 2-Oxybenzoldimethyläther-1,4-Dicarbonsäure. Sm. 65° (B. 22, 2187). — II, 1938.
- 25) Aethylester d. 2-Oxybenzoxylelessigsäure. Fl. (A. 208, 272). — II, 1496.
- 26) 2-Aethylester d. 5-Oxy-1-Methylbenzol-2,4-Dicarbonsäure. Sm. 176—177° (185—186°). Na + 3H₂O, Ba + 4H₂O, Ag (B. 26, 356; A. 297, 41). — II, 1948.
- 27) Monäthylester d. 2-Oxy-1-Methylbenzol-3,5-Dicarbonsäure + H₂O. Ca (A. 206, 193). — II, 1949.
- 28) Aethylester d. Hämatommsäure. Sm. 113—114° (111—112°) (A. 288, 44; 295, 224; B. 30, 360, 1985; J. pr. [2] 57, 291). — II, 2083.
- 29) 1,1-Diacetat d. 2-Oxy-1-Dioxymethylbenzol. Sm. 103—104° (A. 146, 371). — III, 67.

 $C_{11}H_{12}O_6$

C 55,0 — H 5,0 — O 40,0 — M. G. 240.

- 1) Arabinose-Phloroglucid (B. 28, 27).
- 2) 2-Keto-3-Propionyl-6-Aethyl-2,3-Dihydropyron-5-Carbonsäure (Dehydropropionylelessigcarbonsäure). Sm. 114—115° (A. 273, 201).
- 3) Oxyessig-[1-Methyl-3,5-Phenylen]äthersäure. Sm. 216—217°. Na₂ + 3H₂O, K₂ + 3H₂O, Ca + 2H₂O (J. pr. [2] 21, 162). — II, 961.
- 4) $\alpha\gamma$ -Dioxy- α -Phenylpropan- $\beta\gamma$ -Dicarbonsäure (Phenylxyitamalsäure). Ag₂ (B. 26, 2147). — II, 2007.
- 5) Methylester d. 2,3,4,5-Tetraoxybenzol-2,5-Dimethyläther-3,4-Methylenäther-1-Carbonsäure (M. d. Apiolsäure). Sm. 71—72° (B. 21, 1625). — II, 1991.
- 6) 1-Methylester d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure (β -M. d. Hemipinsäure). Sm. 137—138° (121—122°) (M. 3, 306; 16, 102; 18, 420, 463, 589, 641; Ph. Ch. 3, 269; B. 28, 3127). — II, 1995.
- 7) 2-Methylester d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure + H₂O (α -M. d. Hemipinsäure). Sm. 96—98° (121—122° wassertfrei). Na, Ag (M. 3, 362; 16, 85, 18, 420, 463, 597, 647; Ph. Ch. 3, 269; B. 28, 3129; R. 15, 338). — II, 1995.
- 8) Monomethylester d. 4,5-Dioxybenzoldimethyläther-1,3-Dicarbonsäure. Sm. 167° (B. 10, 398). — II, 2000.
- 9) Dimethylester d. 3,5-Dioxy-1-Methylbenzol-3,5-Dikohlensäure. Sm. 55° (B. 28, 1875).
- 10) Diäthylester d. 1,4-Pyron-2,6-Dicarbonsäure (D. d. Chelidonsäure). Sm. 62,7° (B. 24, 118; M. 5, 343, 371; 6, 284). — I, 848.

 $C_{11}H_{12}O_7$

C 51,5 — H 4,7 — O 43,7 — M. G. 256.

- 1) Carminroth (A. 141, 333).
- 2) α -Oxy- α -[3,4-Dimethoxyphenyl]essigsäure-2-Carbonsäure + 2H₂O (A. 301, 357).
- 3) Cotarnlaktonsäure. Ba + 5H₂O (A. 254, 343). — II, 2040.
- 4) Diäthylester d. Mekonsäure. Sm. 111,5°. NH₄, Ba, Ag (A. 83, 359; J. pr. [2] 23, 439; [2] 26, 453). — II, 2042.
- 5) Diäthylester d. 1,2,4-Triketo-R-Pentamethylen-3,5-Dicarbonsäure. Zers. bei 140° (G. 26 [2] 375).
- 6) Verbindung (aus d. Dimethylester d. Fumarsäure) (Soc. 59, 472).
- 7) Verbindung (aus Komensäureäthylester). Sm. 87° (J. pr. [2] 17, 164).

 $C_{11}H_{12}N_2$

C 76,7 — H 7,0 — N 16,3 — M. G. 172.

- 1) 5-Aethyl-1-Phenylpyrazol. Sd. 273—275° (B. 21, 1148). — IV, 521.
- 2) 3,4-Dimethyl-1-Phenylpyrazol. Sd. 277—279° (B. 25 [2] 944; G. 24 [1] 278). — IV, 521.
- 3) 3,5-Dimethyl-1-Phenylpyrazol. Sd. 273°₇₅₄. (2HCl, PtCl₄ + 4H₂O) (B. 20, 1103; 26, 808; Ph. Ch. 16, 216; G. 22 [2] 351; Bl. 50, 145). — IV, 523, 781.
- 4) 4,5-Dimethyl-1-Phenylpyrazol. Sd. 277—278° (G. 23 [1] 313). — IV, 524.

- 9) 1,2-Dimethyl-2-Phenylimidazol. Sm. 230—234°. + C₆H₆, (2HCl, PtCl₄) (B. 25, 2369). — IV, 941.
- 10) 1,2,4-Dimethylphenylimidazol. Sm. 32°; Sd. 279°. (2HCl, PtCl₄) Pikrat (B. 25, 2369). — IV, 502.
- 11) 6-Methyl-1-Phenyl-1,4-Dihydro-1,2-Diazin. Sm. 197° (B. 31, 45).
- 12) 6-Dimethylamidochinolin. Sm. 54—56°; Sd. 335°. Pikrat (B. 16, 672; 29, 706). — IV, 913.
- 13) 7-Dimethylamidochinolin. Sd. 310° (B. 29, 707). — IV, 913.
- 14) 5- oder 7-Amido-2,4-Dimethylchinolin + 2H₂O. Fl. (+ 2H₂O, Nadeln); Sd. oberh. 300°. HCl, (2HCl, PtCl₄), HNO₃, H₂Cr₂O₇, Pikrat (A. 274, 369). — IV, 938.
- 15) 7-Amido-2,8-Dimethylchinolin. Sm. 104°. (2HCl, PtCl₄), H₂Cr₂O₇ (A. 274, 363). — IV, 939.
- 16) 6-Amido-5,8-Dimethylchinolin. Sm. 175°. 2HCl, (2HCl, PtCl₄) Pikrat (B. 23, 1021). — IV, 939.
- 17) 5-Amido-6,8-Dimethylchinolin. Sm. 91° (B. 23, 3682). — IV, 939.
- 18) 2-Propyl-1,3-Benzdiazin. Sd. 257—259°₇₃₂. HCl + H₂O (B. 28, 285). — IV, 939.
- 19) 2-Isopropyl-1,3-Benzdiazin. Sd. 253—255°₇₃₂ (B. 28, 286). — IV, 940.
- 20) 4-Methyl-2-Aethyl-1,3-Benzdiazin. Sd. 259—260°. HCl, Pikrat (B. 28, 1386). — IV, 940.
- 21) 6-Methyl-2-Aethyl-1,3-Benzdiazin. Sm. 38°; Sd. 265—266°₇₃₀. (2HCl, PtCl₄) (B. 28, 734). — IV, 940.
- 22) 3-Allyl-3,4-Dihydro-1,3-Benzdiazin. Sd. 280—290° u. ger. Zers. HCl, (2HCl, PtCl₄), HBr, HI, Bioxalat, Pikrat (J. pr. [2] 48, 571). — IV, 871.
- 23) 2,3,7-Trimethyl-1,4-Benzdiazin. Sm. 91°; Sd. 270—271° (B. 21, 1414). — IV, 940.
- 24) Nitril d. α-Imido-α-[4-Methylphenyl]propan-β-Carbonsäure. Sm. 38 bis 99° (J. pr. [2] 52, 113).
C 66,0 — H 6,0 — N 28,0 — M. G. 200.
- 25) 1-Naphtylamidoguanidin. HCl, (2HCl, PtCl₄) (G. 24 [1] 460). — IV, 926.
- 26) 2-Naphtylamidoguanidin. HCl, (2HCl, PtCl₄), HNO₃, Pikrat (G. 24 [1] 461). — IV, 928.
- 27) Methyldiäthylenyl-1,2,4,5-Tetraamidobenzol + H₂O. Sm. noch nicht bei 260°. (2HCl, 2HgCl₂) (B. 29, 1057). — IV, 1274.
- 28) αα-Dithienylpropan. Sd. 290° (B. 30, 2039).
C 83,0 — H 8,2 — N 8,8 — M. G. 159.
- 29) 6-Amido-2,3-Dimethylinden. Sm. 62—63° (B. 23, 1885). — II, 591.
- 30) 6-Amido-2-Aethylinden. Sm. 89° (B. 22, 1839). — II, 591.
- 31) 1-Benzyl-2-Dihydropyrrol. Sd. 150°. (HCl, AuCl₃) (B. 22, 2514). — IV, 48.
- 32) 1-Propylindol. Sd. 259°. Pikrat (B. 30, 2816).
- 33) 1-Isopropylindol. Sd. 250° (B. 30, 2818).
- 34) 3-Isopropylindol. Sd. 287—288°₇₃₂. Pikrat (A. 248, 106). — IV, 227.
- 35) 5-Methyl-1-Aethylindol. Sd. 253—255° (A. 232, 218). — IV, 222.
- 36) 3-Methyl-2-Aethylindol. Sm. 66°. Pikrat (G. 28 [2] 388).
- 37) 2-Methyl-3-Aethylindol. Sd. 291—293°₇₅₀. Pikrat (A. 236, 132; 242, 362; B. 29, 2476; G. 28 [2] 347). — IV, 221, 228.
- 38) 1,2,3-Trimethylindol. Sm. 18°; Sd. 283—284°₇₅₀. Pikrat (M. 17, 265; A. 236, 160; B. 29, 2470, 2472; G. 24 [2] 302). — IV, 224.
- 39) 2,3,5-Trimethylindol. Sm. 121,5°; Sd. 297°. Pikrat (B. 21, 3361). — IV, 228.
- 40) 2,3,7-Trimethylindol. Sm. 79°; Sd. 282—283°. Pikrat (B. 21, 3362). — IV, 228.
- 41) 2,3,3-Trimethylpseudoindol. Sd. 227—229°. Pikrat, 2 + ZnCl₂ (B. 31, 1496; G. 28 [2] 372, 426).
- 42) Base (aus γ-Phenylhydrazon-β-Methylbutan). Sd. 125—130°₇₇. HCl, (2HCl, ZnCl₂), Pikrat (C. 1898 [1] 464).
- 43) Nitril d. α-Phenylvaleriansäure. Sd. 260—261° (B. 22, 1235). — II, 1394.
- 44) Nitril d. 1-Isobutylbenzol-4-Carbonsäure. Sd. 248—249° (238°) (B. 17, 1236; 18, 1010). — II, 1394.

C₁₁H₁₃N₄

C₁₁H₁₂S₂
C₁₁H₁₀N

- C₁₁H₁₃N** 17) Nitril d. 4-Isopropyl-1-Methylbenzol-2-Carbonsäure. *Sd.* 244—246° (*B.* 18, 1714). — II, 1396.
 18) Nitril d. 1,2,4,5-Tetramethylbenzol-3-Carbonsäure. *Sm.* 76—77° (*B.* 22, 1224). — II, 1397.
 19) Nitril d. ?-Tetramethylbenzolcarbonsäure. *Sm.* 68—69° (*B.* 17, 1914). — II, 1397.
 20) 4-Methyl-2-Isopropylphenylisocyanid. *Sd.* 152—162° u. Zers. (*A.* 221, 170). — II, 559.
- C₁₁H₁₃N₃** 21) ?-Tetramethylphenylisocyanid. *Sm.* 51° (*B.* 17, 1914). — II, 563.
 C 70,6 — H 6,9 — N 22,5 — M. G. 187.
 1) 5-Amido-3,4-Dimethyl-1-Phenylpyrazol. *Sd.* 310° (*Bl.* [3] 6, 815). — IV, 1110.
 2) 5-Propyl-1-Phenyl-1,2,4-Triazol. *Sd.* 285—286° u. Zers. (2 HCl, PtCl₄ + 4 H₂O), Pikrat, + 2 HgCl₂ (*B.* 29, 2676; 30, 2434). — IV, 1110.
 3) 5-Isopropyl-1-Phenyl-1,2,4-Triazol. *Sm.* 58° HCl, (2 HCl, PtCl₄), HJ (*B.* 29, 2675). — IV, 1110.
 4) 3-Methyl-4-Aethyl-1-Phenyl-1,2,5-Triazol. *Sd.* 270° (*A.* 262, 312). — IV, 1109.
- C₁₁H₁₃Br₃** 1) ?-Tribrom-1-Isoamylbenzol. *Sm.* 140° (*A.* 141, 161). — II, 71.
 2) 3,5,6-Tribrom-4-Propyl-1,2-Dimethylbenzol. *Sm.* 48° (*B.* 23, 2350). — II, 71.
 3) 2,5,6-Tribrom-4-Propyl-1,3-Dimethylbenzol. *Sm.* 39° (*B.* 23, 2350). — II, 71.
 4) 3,5,6-Tribrom-2-Propyl-1,4-Dimethylbenzol. *Sm.* 49° (*B.* 23, 2350). — II, 71.
 5) 2,5,6-Tribrom-4-Isopropyl-1,3-Dimethylbenzol. *Sm.* 261° (*B.* 23, 2351). — II, 71.
 6) ?-Tribromlaurol (?-Tribrom-?-Propyl-?-Dimethylbenzol). *Sm.* 125° (*A.* 145, 149). — II, 71.
 7) 2,4,6-Tribrom-3,5-Diäthyl-1-Methylbenzol. *Sm.* 206° (*B.* 7, 1435). — II, 71.
 C 81,5 — H 8,6 — O 9,9 — M. G. 162.
- C₁₁H₁₄O** 1) 5-Phenyl-2-Methyltetrahydrofuran. *Sd.* 230° (*B.* 17, 2760). — III, 272.
 2) 2-[α -Oxyäthyl]-2,3-Dihydroinden. *Sm.* 45°; *Sd.* 185—190°₈₀ (*Soc.* 65, 242). — II, 1071.
 3) R-Tetramethylenphenylcarbinol (R-Tetramethylen-Phenyl-Oxymethan). *Sd.* 257—259°₇₅₀ (*Soc.* 61, 64). — II, 1071.
 4) Methyläther d. 2-Oxy-1-Butenylbenzol. *Sd.* 232—234° (*B.* 11, 515). — II, 854.
 5) Methyläther d. 4-Oxy-1-Butenylbenzol. *Sm.* 17°; *Sd.* 242—245° (244—247°) (*J.* 1877, 383; *Bl.* [3] 17, 413). — II, 854.
 6) Methyläther d. 4-Oxy-1-Isobutenylbenzol. *Sm.* 8,5—9°; *Sd.* 236 bis 237° (*Soc.* 35, 145). — II, 854.
 7) Aethyläther d. β -Oxy- α -Phenylpropen. *Sd.* 225° (*G.* 16, 327). — II, 1070.
 8) Aethyläther d. γ -Oxy- α -Phenylpropen. *Fl.* (*J.* 1858, 448). — II, 1070.
 9) Aethyläther d. 4-Oxy-1-Allylbenzol. *Sd.* 232° (*B.* 22, 2742; 23, 862). — II, 850.
 10) Phenyläther d. ϵ -Oxy- γ -Penten. *Sd.* 226—227° (*C.* 1899 [1] 248).
 11) α -Keto- α -Phenylpentan (Butylphenylketon). *Sd.* 236—238°₇₃₀ (*Soc.* 49, 161). — III, 152.
 12) γ -Keto- α -Phenyl- β -Methylbutan (Methylbenzylaceton). *Sd.* 238—239° (*B.* 23, 1884). — III, 153.
 13) γ -Keto- δ -Phenyl- β -Methylbutan (Isopropylbenzylketon). *Sd.* 236—240° (*B.* 28, 699).
 14) δ -Keto- δ -Phenyl- β -Methylbutan (Isobutylphenylketon). *Sd.* 225—226° (227—228°₇₂₀) (*A.* 162, 153; *J. pr.* [2] 46, 489; *Soc.* 49, 165). — III, 153.
 15) Isopropyl-4-Methylphenylketon. *Sd.* 235—236° (*J. pr.* [2] 46, 480). — III, 153.
 16) Methyl-4-Propylphenylketon. *Sd.* 259°₇₃₅ (*B.* 21, 2224). — III, 153.
 17) Methyl-4-Isopropylphenylketon. *Sd.* 252—254°₇₅₆ (*B.* 21, 2225). — III, 154.
 18) Aethyl-2,4-Dimethylphenylketon. *Sd.* 238—239° (*J. pr.* [2] 43, 140). — III, 154.

$C_{11}H_{14}O$

- 19) Aethyl-2,5-Dimethylphenylketon. Sd. 237—238° (B. 19, 3183). — III, 154.
 20) Methyl-2,4,5-Trimethylphenylketon. Sm. 10°; Sd. 246—247° (J. pr. [2] 41, 509; B. 31, 1005). — III, 154.
 21) Methyl-2,4,6-Trimethylphenylketon. Sd. 235° (J. pr. [2] 41, 504; Bl. [3] 9, 703; B. 30, 1271). — III, 154.
 22) Aldehyd d. 1-Pseudobutylbenzol-4-Carbonsäure. Sd. 125°₂₅ (Bl. [3] 19, 70).
 23) Aldehyd d. 4-Isopropyl-1-Methylbenzol-2-Carbonsäure. Sd. 238°₇₆₆ (Bl. [3] 17, 913).
 24) Aldehyd d. 4-Isopropyl-1-Methylbenzol-2[oder 3]-Carbonsäure. Sd. 120°₁₀ (C. 1896 [2] 378; Bl. [3] 17, 942).
 C 74,2 — H 7,8 — O 18,0 — M. G. 178.

 $C_{11}H_{14}O_2$

- 1) Oxymethylenearvon. Sd. 132°₁₃ (B. 28, 32).
 2) Dimethyläther d. 3,4-Dioxy-1-Allylbenzol. Sd. 248—249° (244—245°) (A. 158, 282; 271, 304; B. 11, 123 Anm.; 21, 1060; 22 [2] 505; Bl. 32, 2; [3] 15, 652; J. pr. [2] 39, 353; Ph. Ch. 10, 415; C. 1896 [1] 39). — II, 973.
 3) isom. 2-Dimethyläther d. 3,4-Dioxy-1-Allylbenzol. Sd. 237° (B. 7, 1551). — II, 973.
 4) Dimethyläther d. 3,4-Dioxy-1-Propenylbenzol. Sd. 263° (B. 23, 1165; 28, 2089; Ph. Ch. 10, 415; C. 1897 [1] 915). — II, 976.
 5) Dimethyläther d. $\gamma\gamma$ -Dioxy- α -Phenylpropen. Sd. 125—127°₁₁ (127 bis 129°₁₄) (B. 31, 1017, 1990).
 6) δ -Oxybutylphenylketon. Sm. 40—41° (Soc. 51, 733; 57, 309). — III, 153.
 7) Aethyläther d. Aethyl-4-Oxyphenylketon. Sm. 30° (B. 23, 1205). — III, 141.
 8) Acetat d. γ -Oxy- α -Phenylpropan. Sd. 244—245° (A. 172, 128). — II, 1065.
 9) Acetat d. α -Oxy- α -Phenylpropan. Sd. 227—228° (G. 16, 323). — II, 1065.
 10) Acetat d. α -Oxy-2,4-Dimethylphenylmethan. Sd. 230—234° u. ger. Zers. (B. 22, 123). — II, 1065.
 11) Acetat d. α -Oxy-3,5-Dimethylphenylmethan. Sd. 228—231°₇₄₈ (B. 16, 1577). — II, 1065.
 12) Acetat d. 4-Oxy-1-norm. Propylbenzol. Sd. 243—244° (B. 12, 295). — II, 761.
 13) Acetat d. 4-Oxy-1-Isopropylbenzol. Sd. 244°₇₅₆ (B. 10, 84). — II, 762.
 14) Acetat d. 2-Oxy-1,3,5-Trimethylbenzol. Sd. 242° (B. 16, 965).
 15) α -Phenylvaleriansäure. Sm. 51—52°. Ag (B. 22, 1235). — II, 1393.
 16) δ -Phenylvaleriansäure. Sm. 58—59°. Ba; Ag (B. 13, 122; 26, 1675; 31, 2003; A. 283, 314; G. 26 [2] 339). — II, 1392.
 17) isom. δ -[2]Phenylvaleriansäure. Sd. 176,5°₁₃. Ag (A. 184, 173; 261, 302). — II, 1393.
 18) α -Benzylbuttersäure (α -Aethyl- β -Phenylpropionsäure). Sd. 272° (172 bis 174°₁₃). Ba, Ag (B. 13, 118; A. 261, 306). — II, 1394.
 19) α -[3-Methylbenzyl]propionsäure. Sm. 91—92°. Ag (B. 16, 620). — II, 1395.
 20) β -[2,4-Dimethylphenyl]propionsäure. Sm. 105°. Na, K, Ca + 4H₂O, Ag (J. pr. [2] 46, 477). — II, 1396.
 21) 4-Isopropylphenylessigsäure (p-Homocuminsäure). Sm. 52°. Mg + 4H₂O, Ca + 3H₂O, Ba + 4H₂O, Ag (A. Spl. 1, 139; G. 13, 536; 21 [1] 52). — II, 1395.
 22) 2,4,5-Trimethylphenylessigsäure. Sm. 118°. Ba + 2H₂O (J. pr. [2] 41, 512). — II, 1396.
 23) 2,4,6-Trimethylphenylessigsäure. Sm. 164° (166—168°). Ba + 3H₂O, Ag (J. pr. [2] 41, 508; A. 264, 140; B. 27, 1587; 30, 1275). — II, 1396.
 24) 1-Isobutylbenzol-4-Carbonsäure. Sm. 161°. Ca, Ba, Ag (B. 17, 1236; 18, 1010, 1707). — II, 1394.
 25) 1-Pseudobutylbenzol-3-Carbonsäure. Sm. 127°. Ag (B. 19, 1726). — II, 1394.
 26) 1-Pseudobutylbenzol-4-Carbonsäure. Sm. 164°. Ag (B. 19, 1725; 30, 1775).

- C₁₁H₁₄O₂**
- 27) 2-Propyl-1-Methylbenzol-4-Carbonsäure. Sm. 89—92°. Ca + 2H₂O, Ba + 2H₂O, Ag (*J. pr.* [2] 47, 421). — II, 1395.
 - 28) 3-Propyl-1-Methylbenzol-4-Carbonsäure. Sm. 75—76°. Ca + 2H₂O, Ba + 1½H₂O (*J. pr.* [2] 46, 495). — II, 1395.
 - 29) 4-Isopropyl-1-Methylbenzol-2-Carbonsäure. Sm. 75° (69°). Ag (*B.* 18, 1714; *J. pr.* [2] 43, 139). — II, 1396.
 - 30) 4-Isopropyl-1-Methylbenzol-2-[²]Carbonsäure. Sm. 63° (*B.* 8, 442; *J.* 1879, 725). — II, 1396.
 - 31) 1,2,3,4-Tetramethylbenzol-5-Carbonsäure. Sm. 165° (168—169°). Na + 3H₂O, Ca + 3H₂O, Ba + 2(6)H₂O, Ag (*J. pr.* [2] 38, 234; *B.* 20, 3287; 29, 2572; 30, 1279). — II, 1396.
 - 32) 1,2,3,5-Tetramethylbenzol-4-Carbonsäure. Sm. 164° (*B.* 20, 3103; 29, 835, 2569). — II, 1397.
 - 33) 1,2,4,5-Tetramethylbenzol-3-Carbonsäure. Sm. 179° (176,5°). Ca, Ba + 4H₂O (*B.* 20, 3103; 22, 1223; 29, 831, 2570; *A.* 244, 55; *J. pr.* [2] 52, 529). — II, 1397.
 - 34) Aldehyd d. 4-Oxy-1-tert. Butylbenzol-3-Carbonsäure. Sd. 251 bis 252°₇₈₉ u. ger. Zers. (*Am.* 16, 636). — III, 91.
 - 35) Aldehyd d. 2-Oxybenzolisobutyläther-1-Carbonsäure. Sd. 265° (*B.* 24, 1448). — III, 67.
 - 36) Aldehyd d. 5-Oxy-4-Isopropyl-1-Methylbenzol-2-Carbonsäure. Sm. 133° (*B.* 16, 2097; 31, 1767). — III, 90.
 - 37) Aldehyd d. 6-Oxy-4-Isopropyl-1-Methylbenzol-3-Carbonsäure. Fl. (*B.* 17, 2632; 19, 14). — III, 90.
 - 38) polym. Aldehyd d. 6-Oxy-4-Isopropyl-1-Methylbenzol-3-Carbonsäure. Sm. 96° (*B.* 17, 2633). — III, 91.
 - 39) Methylester d. α-Phenylbuttersäure. Sd. 228° (*A.* 250, 155). — II, 1382.
 - 40) Methylester d. α-Benzylpropionsäure. Sd. 232° (*Soc.* 53, 559). — II, 1382.
 - 41) Methylester d. 2,5-Dimethylphenylelessigsäure. Sd. 253—254° (*C.* 1897 [2] 411).
 - 42) Methylester d. 1,3,5-Trimethylbenzol-2-Carbonsäure. Sd. 242 bis 244° (241—242°₇₁₈) (*B.* 25, 503; 27, 510; 31, 501). — II, 1391.
 - 43) Aethylester d. α-Phenylpropionsäure. Sd. 230° (*A.* 250, 152). — II, 1370.
 - 44) Aethylester d. β-Phenylpropionsäure. Sd. 247—249° (*A.* 137, 334; 200, 192; 221, 78; *B.* 30, 116). — II, 1357.
 - 45) Aethylester d. 3-Methylphenylelessigsäure. Sd. 237—238° (*M.* 9, 855). — II, 1373.
 - 46) Aethylester d. 4-Methylphenylelessigsäure. Sd. 240° (*B.* 20, 2051). — II, 1374.
 - 47) Aethylester d. 1-Aethylbenzol-2-Carbonsäure. Sd. 231°₇₆₃ (*B.* 29, 2534).
 - 48) Aethylester d. 1,3-Dimethylbenzol-5-Carbonsäure. Sd. 241° (*A.* 147, 46). — II, 1378.
 - 49) Aethylester d. Pseudotolylessigsäure (aus Diazocessigsäureäthylester). Sd. 238—239°_{735,5} (*B.* 18, 2378; 29, 106). — II, 1380.
 - 50) norm. Propylester d. Phenylelessigsäure. Sd. 238° (*Soc.* 37, 483). — II, 1310.
 - 51) norm. Butylester d. Benzolcarbonsäure. Sd. 247,3° (*A.* 161, 192). — II, 1140.
 - 52) Isobutylester d. Benzolcarbonsäure. Sd. 234°₇₅₅ (*J. pr.* [2] 36, 6). — II, 1140.
 - 53) Benzylester d. norm. Buttersäure. Sd. 238—240° (*A.* 193, 317). — II, 1051.
 - 54) Benzylester d. Isobuttersäure. Sd. 228° (229—231°) (*A.* 201, 168; *Bl.* [3] 21, 289). — II, 1051.
- C₁₁H₁₄O₃**
- 1) 3-Methyläther d. 3,4-Dioxy-²-Oxymethyl-1-Allylbenzol. Sm. 37° (*J. pr.* [2] 50, 226).
 - 2) β-Aethyläther-αβ-[1,2-Phenylen]äther d. αββ-Trioxypropan. Sd. 233 bis 237° u. Zers. (*Bl.* [3] 21, 294).
 - 3) Isobutyl-2,5-Dioxyphenylketon. Sm. 115° (*B.* 24, 1345). — III, 153.

$C_{11}H_{14}O_3$

- 4) 3-Methyläther-4-Aethyläther d. Methyl-3,4-Dioxyphenylketon. Sm. 78° (B. 24, 2865). — III, 138.
- 5) Dimethyläther d. Aethyl-3,4-Dioxyphenylketon. Sm. 58—59° (B. 28, 2092, 2721). — III, 143.
- 6) γ -Oxy- α -Phenylvaleriansäure. Ca + H_2O (B. 17, 73). — II, 1590.
- 7) β -Oxy- δ -Phenylvaleriansäure. Sm. 131°. Ca, Ba + H_2O , Ag (A. 283, 315, 325). — II, 1590.
- 8) γ -Oxy- δ -Phenylvaleriansäure. Sm. 101—102° u. Zers. Ca, Ba, Ag (A. 268, 92, 94). — II, 1590.
- 9) β -Oxy- α -Benzylbuttersäure. Sm. 152—154°. Ba + 2 H_2O , ZnOH, CuOH (A. 187, 26). — II, 1591.
- 10) γ -Oxy- γ -Phenyl- β -Methylbuttersäure. Ba (A. 255, 271). — II, 1591.
- 11) β -Oxy- β -Phenyl- α -Aethylpropionsäure. Sm. 110—112°. Ag (Soc. 59, 1009). — II, 1590.
- 12) β -Oxy- β -Phenyl- $\alpha\alpha$ -Dimethylpropionsäure (Phenylloxypivalinsäure). Sm. 134°. Ca + 4 H_2O , Ba + 4 H_2O (A. 216, 115; 227, 62; C. 1898 [1] 889). — II, 1591.
- 13) inakt. α -Oxy- α -[4-Isopropylphenyl]essigsäure. Sm. 158°. Mg + 4 H_2O , Ca + 1½ H_2O , Ba + 4 H_2O , Pb, Ag (B. 8, 1149; 14, 1316; G. 21, 42; 22 [2] 403). — II, 1591.
- 14) d- α -Oxy- α -[4-Isopropylphenyl]essigsäure. Sm. 153—154°. Chininsalz, Cinchoninsalz (G. 22 [2] 397, 402). — II, 1592.
- 15) l- α -Oxy- α -[4-Isopropylphenyl]essigsäure. Sm. 153—154°. Chininsalz, Cinchoninsalz (G. 22 [2] 397). — II, 1592.
- 16) α -Oxy- α -[2,4,6-Trimethylphenyl]essigsäure. Sm. 147°. Ag (B. 24, 3545; 29, 846; 30, 1273). — II, 1592.
- 17) 4-Oxy-1-Isobutylbenzol-3-Carbonsäure. Ca + 6 H_2O , Ba + 2 H_2O (J. pr. [2] 36, 392). — II, 1588.
- 18) 6-Oxy-3-Isopropyl-1-Methylbenzol-5-Carbonsäure (Cymenotinsäure). Sm. 147°. Ba + 4 H_2O , Ag (B. 19, 1414). — II, 1590.
- 19) 3-Oxy-4-Isopropyl-1-Methylbenzol-2-Carbonsäure (o-Thymotinsäure). Sm. 123°. Ba (A. 115, 205; B. 16, 2101; 27, 1582; 28, 1257; Bl. 4, 92; J. pr. [2] 27, 503). — II, 1589.
- 20) 5-Oxy-4-Isopropyl-1-Methylbenzol-2-Carbonsäure (p-Thymotinsäure). Sm. 157° (B. 16, 2102). — II, 1589.
- 21) 2-Oxy-4-Isopropyl-1-Methylbenzol-3-Carbonsäure (Carvakrotinsäure). Sm. 136° (133—134°) (B. 6, 1089; 19, 18; C. r. 94, 132). — II, 1589.
- 22) 5-Oxy-4-Isopropyl-1-Methylbenzol-3-Carbonsäure (Carvakrotinsäure). Sm. 80° (B. 19, 16). — II, 1589.
- 23) isom. p-Carvakrotinsäure. Sm. 149—150° (B. 12, 384). — II, 1589.
- 24) δ -Oxyvalerianphenyläthersäure. Sm. 65—66°; Sd. 315—320° u. Zers. Ag (B. 25, 418). — II, 665.
- 25) δ -Oxybutanphenyläther- β -Carbonsäure. Sm. 80°; Sd. 207°. Ag (Soc. 69, 172; C. 1895 [1] 825).
- 26) α -Oxy- α -Phenylpropionäthyläthersäure. Sm. 59,5—62° (B. 13, 2042; 14, 447; A. 217, 104). — II, 1578.
- 27) γ -[2-Oxyphenylmethyläther]buttersäure. Sm. 55—56°. Ba (Soc. 39, 432). — II, 1581.
- 28) α -[4-Oxyphenyläthyläther]propionsäure. Sm. 106,5° (B. 7, 1734). — II, 1570.
- 29) β -[2-Oxyphenyläthyläther]propionsäure. Sm. 80—81°. Ca + 2 H_2O , Ba (A. 216, 154; 269, 12). — II, 1562.
- 30) Oxyessig-[2-Isopropylphenyl]äthersäure. Sm. 130—131°. Ag (G. 16, 129). — II, 761.
- 31) Oxyessig-[4-Isopropylphenyl]äthersäure. Sm. 81°. Ba + 2 H_2O , Pb + 2 H_2O (J. 1880, 663). — II, 763.
- 32) 6-Oxy-1,2-Dimethylbenzoläthyläther-4-Carbonsäure. Sm. 173—174° (Soc. 75, 194).
- 33) 6-Oxy-1,3-Dimethylbenzoläthyläther-4-Carbonsäure. Sm. 174° (B. 27 [2] 595).
- 34) Aldehyd d. 2,4-Dioxybenzoldiäthyläther-1-Carbonsäure. Sm. 71—72° (B. 10, 2215). — III, 98.
- 35) Aldehyd d. 2,5-Dioxybenzoldiäthyläther-1-Carbonsäure. Sm. 60°; Sd. 280—285° (J. pr. [2] 22, 469). — III, 92.

- C₁₁H₁₄O₃**
- 36) Methylester d. α -[4-Oxyphenylmethyläther]propionsäure. Sm. 38°; Sd. 278° (B. 7, 1733). — II, 1570.
 - 37) Methylester d. β -[4-Oxyphenylmethyläther]propionsäure. Sm. 38°; Sd. 265–270° (B. 20, 2533). — II, 1565.
 - 38) Methylester d. Oxybenzolisopropyläther-1-Carbonsäure. Sd. 250° (A. 150, 8). — II, 1494.
 - 39) Methylester d. 6-Oxy-1,3-Dimethylbenzolmethyläther-4-Carbonsäure. Fl. (B. 27 [2] 595).
 - 40) Äthylester d. β -Oxy- α -Phenylpropionsäure. Fl. (B. 12, 948). — II, 1579.
 - 41) Äthylester d. α -[4-Oxyphenyl]propionsäure. Sd. oberh. 265° (A. 102, 151). — II, 1570.
 - 42) Äthylester d. β -[2-Oxyphenyl]propionsäure. Sm. 34°; Sd. 273° (A. Spl. 5, 115). — II, 1562.
 - 43) Äthylester d. α -Oxypropionphenyläthersäure. Sd. 243–244° (J. pr. [2] 21, 152). — II, 665.
 - 44) Äthylester d. Oxyessigbenzyläthersäure. Sd. 153–154°₁₂ (J. pr. [2] 51, 357).
 - 45) Äthylester d. α -Oxy- α -[4-Methylphenyl]essigsäure. Sm. 77° (B. 20, 2051). — II, 1580.
 - 46) Äthylester d. 6-Oxy-1,2-Dimethylbenzol-4-Carbonsäure. Sm. 134 bis 135° (Soc. 75, 189).
 - 47) Äthylester d. 5-Oxy-1,3-Dimethylbenzol-2-Carbonsäure. Sm. 98° (Am. 20, 796).
 - 48) Äthylester d. 6-Oxy-1,3-Dimethylbenzol-4-Carbonsäure. Sm. 135° (B. 27 [2] 595).
 - 49) Äthylester d. 2-Oxy-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 113° (B. 12, 608). — II, 1571.
 - 50) Äthylester d. 2-Oxybenzoläthyläther-1-Carbonsäure. Sd. 251° (B. 9, 1475; 17, 486; 30, 958; A. 197, 18). — II, 1494.
 - 51) Äthylester d. 3-Oxybenzoläthyläther-1-Carbonsäure. Sd. 263° (172 bis 173°₅₀) (A. 153, 331; 206, 351). — II, 1517.
 - 52) Äthylester d. 4-Oxybenzoläthyläther-1-Carbonsäure. Sd. 275° (A. 141, 253). — II, 1526.
 - 53) Isobutylester d. 2-Oxybenzol-1-Carbonsäure (J. pr. [2] 36, 365). — II, 1492.
 - 54) Isobutylphenylester d. Kohlensäure. Sd. 220–225°₇₅₀ (Bl. [3] 19, 770).
 - 55) Acetat d. Dioxymethylbenzolmonoäthyläther. Sd. 243–245° (B. 31, 1019).
 - 56) Verbindung (aus Isosafrol). Sd. 173°₁₈ (B. 24, 3657; 25, 1472). — II, 977.
- C₁₁H₁₄O₄**
- C 62,8 — H 6,7 — O 30,5 — M. G. 210.
- 1) Syringenin (J. 1862, 486; 1863, 592). — II, 1117.
 - 2) 2-Dimethyläther d. 2,3,4,5-Tetraoxy-1-Allylbenzol. Sd. 232–233°₅₀ (G. 22 [1] 559; B. 29, 1802). — II, 1034.
 - 3) Trimethyläther d. Oxymethyl-3,4-Dioxyphenylketon. Sm. 62–63° (M. 14, 41). — III, 139.
 - 4) Trimethyläther d. Methyl-2,4,6-Trioxyphenylketon. Sm. 97–98° (B. 30, 2152).
 - 5) $\alpha\alpha\gamma\gamma$ -Tetracetylpropen (Methenylbisacetylaceton). Sm. 117–118° (A. 297, 69; B. 26, 2733).
 - 6) $\alpha\beta$ -Dioxy- δ -Phenylvaleriansäure. Sm. 156,5°. Ca + H₂O, Ba, Ag (A. 283, 339). — II, 1769.
 - 7) $\beta\gamma$ -Dioxy- δ -Phenylvaleriansäure. Sm. 110° u. Zers. Ca + 2H₂O, Ba, Ag (A. 268, 53, 283; 283, 338). — II, 1769.
 - 8) α -[3,4-Dioxyphenyl]propan-3-Methyläther- β -Carbonsäure (Hydrohomofeulasäure). Sm. 114–115° (B. 15, 2070). — II, 1768.
 - 9) β -[2,4-Dioxyphenyl]propiondimethyläthersäure. Sm. 105° (B. 16, 2116). — II, 1762.
 - 10) β -[3,4-Dioxyphenyl]propiondimethyläthersäure + xH₂O (Dimethylätherhydrokaffeesäure). Sm. 96–97° (wasserfrei). Ag (B. 11, 653; 14, 966). — II, 1762.
 - 11) 2,4-Dioxybenzoldiäthyläther-1-Carbonsäure. Sm. 99°. Ca, Ba, Pb, Ag (B. 10, 2215; 12, 999; M. 16, 627). — II, 1736.

- C₁₁H₇O₄**
- 12) 3,4-Dioxybenzoldiäthyläther-1-Carbonsäure. Sm. 165—166°. Na, K + $\frac{1}{2}$ H₂O, Ca, Ba + 3 H₂O, Ag (A. 159, 245; M. 5, 78; 15, 237; Ph. Ch. 3, 267). — II, 1742.
 - 13) 3,5-Dioxybenzoldiäthyläther-1-Carbonsäure. Sm. 87—88°. Ba + H₂O (A. 164, 121; B. 11, 1569). — II, 1747.
 - 14) 3,4-Dioxybenzol-3-Methyläther-4-Propyläther-1-Carbonsäure (Bl. 28, 314). — II, 1742.
 - 15) Pannasäure (Pannol). Sm. 192° (C. 1890 [2] 276; 1895 [1] 280; 1897 [1] 660).
 - 16) isom. Pannasäure. Sm. 136—137° (C. 1895 [1] 280).
 - 17) Methylester d. 2,5-Dioxyphenylessigdimethyläthersäure. Sm. 45° (H. 15, 249). — II, 1748.
 - 18) Methylester d. 3,4-Dioxyphenylessigdimethyläthersäure. Fl. (B. 11, 144). — II, 1749.
 - 19) Methylester d. Cantharsäure. Sd. 210—220°₉₀ (B. 19, 1087). — III, 624.
 - 20) Aethylester d. 4,5-Dioxy-1-Methylbenzol-5-Methyläther-3-Carbonsäure. Sm. 77° (B. 19, 2327). — II, 1751.
 - 21) Aethylester d. 3,5-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 26—27°; Sd. 199—200°₉₀ (A. 296, 351).
 - 22) Aethylester d. 3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 43—44°; Sd. 295—296° (B. 9, 942). — II, 1742.
 - 23) Aethylester d. 2,4-Dioxybenzol-4-Aethyläther-1-Carbonsäure. Sm. 53° (45°) (Soc. 67, 995; M. 17, 226).
 - 24) Aethylester d. Oxyessig-[2-Methoxyphenyläther]säure. Sd. 175 bis 179°₉₇ (B. 27, 2804).
 - 25) Aethylester d. Everninsäure. Sm. 56° (72°) (A. 68, 90; J. pr. [2] 57, 253). — II, 1766.
 - 26) Propylester d. 2-Methoxyphenylkohlsäure. Sd. 201—202°₉₀ (Bl. [3] 19, 892).
- C₁₁H₁₄O₆**
- C 58,4 — H 6,2 — O 35,4 — M. G. 226.
- 1) ϵ -Keto- $\alpha\beta$ -Nonadien- $\delta\zeta$ -Dicarbonsäure (Diallylaceton-dicarbonsäure). Sm. 96° u. Zers. (A. 267, 87). — I, 781.
 - 2) 3,4,5-Trioxybenzoltrimethyläther-1-Methylcarbonsäure. Sm. 120°. Ag (B. 26, 2018). — II, 1927.
 - 3) Methylester d. 2,3,4-Trioxybenzoltrimethyläther-1-Carbonsäure. Sd. 281° (B. 21, 2024). — II, 1918.
 - 4) Methylester d. 3,4,5-Trioxybenzoltrimethyläther-1-Carbonsäure. Sm. 81° (84°); Sd. 274—275° (B. 21, 2022; A. 293, 192; M. 19, 595). — II, 1921.
 - 5) Methylester d. 3,4,5-Trioxybenzol-4,5-Dimethyläther-1-Methylcarbonsäure. Sd. oberh. 360° (B. 26, 2017). — II, 1927.
 - 6) 3 [oder 5]-Aethylester d. 2,4-Dimethylfuran-3-Carbonsäure-5-Methylcarbonsäure (M. d. Methylmethronsäure). Fl. Ca + 2 H₂O, Ba + H₂O, Ag (A. 250, 202). — III, 718.
 - 7) Methyläthylester d. 2,5-Dimethylfuran-3,4-Dicarbonsäure. Sd. 276,5°₉₆ (B. 22, 156). — III, 716.
 - 8) Diäthylester d. δ -Keto- $\alpha\beta$ -Pentadien- $\alpha\gamma$ -Dicarbonsäure (D. d. Acetoallylendicarbonsäure). Sm. 132° (Soc. 69, 1387; 71, 325).
 - 9) Monobenzoat d. Erythrit (BERTHELOT, Chim. org. synth. 2, 224). — II, 1142.
 - 10) Aethylcarbonat d. 1,2,3-Trioxybenzoldimethyläther. Sm. 63—65° (M. 19, 560).
- C₁₁H₁₄O₆**
- C 54,5 — H 5,8 — O 69,7 — M. G. 242.
- 1) Methylester d. 2,3,4,5-Tetraoxybenzol-3,4,5-Trimethyläther-1-Carbonsäure. Sm. 85° (M. 19, 603).
 - 2) Diäthylester d. 1,2-Diketo-R-Pentamethylen-3,5-Dicarbonsäure. Sm. 118° (B. 27, 966; 30, 1471).
 - 3) Verbindung (aus Arabinose und 1,3-Dioxybenzol). Zers. bei 275° (B. 27, 1356). — II, 919.
- C₁₁H₁₄O₇**
- C 51,2 — H 5,4 — O 43,3 — M. G. 258.
- 1) Diäthylester d. $\alpha\gamma\epsilon$ -Triketopentan- $\alpha\epsilon$ -Dicarbonsäure (D. d. Acetondioxalsäure). Sm. 103—104° (B. 24, 111). — I, 846.
 - 2) Verbindung (aus Arabinose und 1,2,3-Trioxybenzol). Zers. bei 240° (B. 27, 1361). — II, 1012.

- $C_{11}H_{14}O_8$ C 48,2 — H 5,1 — O 46,7 — M. G. 274.
 1) Tetramethylester d. R-Trimethylen-1,1,2,2-Tetracarbonsäure. Sm. 71,5—72° (*J. pr.* [2] 45, 476, 484). — I, 865.
 2) Tetramethylester d. R-Trimethylen-cis-1,2-trans-1,3-Tetracarbonsäure. Sm. 85°; Sd. 205—215°₅₀ (*B.* 23, 2584; *A.* 284, 224). — I, 865.
- $C_{11}H_{14}O_{12}$ C 39,0 — H 4,1 — O 56,8 — M. G. 338.
 1) Epiglycerindiweinsäure (*J.* 1859, 501). — I, 795.
- $C_{11}H_{14}N_2$ C 75,8 — H 8,0 — N 16,1 — M. G. 174.
 1) 3,5-Dimethyl-1-Phenyl-4,5-Dihydropyrazol. Sd. 290° u. ger. Zers. (*B.* 20, 1105). — IV, 490.
 2) 2,5-Dimethyl-1-Phenyl-4,5-Dihydroimidazol. Sd. 133—134°₁₃. HCl, (2HCl, PtCl₄) (*B.* 28, 1666, 1669). — IV, 490.
 3) 6-Methyl-2-Phenyl-2,3,4,5-Tetrahydro-1,2-Diazin. Fl. (*B.* 22, 1203). — IV, 762.
 4) 5-Methyl-2-Isopropylbenzimidazol. Sm. 157—158°. Tartrat + 2H₂O (*B.* 20, 1589). — IV, 887.
 5) 2,5-Dimethyl-1-Aethylbenzimidazol. Sm. 165—166° (*B.* 26, 200). — IV, 882.
 6) 2,6-Dimethyl-1-Aethylbenzimidazol + 3H₂O. Sm. unterh. 30° (93° wasserfrei). HJ + H₂O, HNO₃ + H₂O, Pikrat (*A.* 210, 351; *B.* 20, 1588, 1884). — IV, 882.
 7) 3-Allyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sd. 270—272°. Bioxalat (*J. pr.* [2] 48, 576). — IV, 636.
 8) Nitril d. β -Phenylamidovaleriansäure. Sm. 51° (*B.* 25, 2039). — II, 435.
 9) Nitril d. α -Phenylisovaleriansäure. Sm. 54° (*B.* 25, 2040). — II, 435.
 10) Nitril d. 2-Diäthylamidobenzol-1-Carbonsäure. Sd. 165—175°₂₅ (*M.* 19, 638).
 C 65,3 — H 6,9 — N 27,7 — M. G. 202.
 1) ?-[4-Methylphenyl]azo-5-Methyl-4,5-Dihydropyrazol (*J. pr.* [2] 58, 329).
 2) 1-Methyl-5-[4-Isopropylphenyl]-1,2,3,4-Tetrazol. Sm. 120—122° (*B.* 30, 2011). — IV, 1273.
- $C_{11}H_{14}N_6$ C 57,4 — H 6,1 — N 36,5 — M. G. 230.
 1) 5-[4-Dimethylamidophenyl]azo-3-Methyl-1,2,4-Triazol. Sm. 238° u. Zers. (*A.* 303, 41). — IV, 1491.
- $C_{11}H_{14}Br_2$ 1) $\alpha\beta$ -Dibrom-norm. Amylbenzol. Sm. 53—54° (*A.* 218, 392). — II, 171.
 2) $\alpha\epsilon$ -Dibrom-norm. Amylbenzol. Fl. (*Soe.* 57, 314). — II, 71.
 3) η -Dibromisoamylbenzol. Sm. 128—129° (*A.* 218, 393). — II, 172.
 4) 4-Isopropyl-1-[$\alpha\beta$ -Dibromäthyl]benzol. Sm. 71° (*J.* 1877, 380). — II, 172.
 5) 3-[$\gamma\delta$ -Dibrombutyl]-1-Methylbenzol. Fl. (*B.* 9, 1791). — II, 172.
 6) 5-[$\alpha\beta$ -Dibromäthyl]-1,2,4-Trimethylbenzol. Sm. 65—66° (*B.* 31, 1008).
 7) 3,6-Dibrom-5-Aethyl-1,2,4-Trimethylbenzol. Sm. 218° (*B.* 25, 1531). — II, 71.
 8) 4,6-Dibrom-2-Aethyl-1,3,5-Trimethylbenzol. Sm. 219° (*B.* 28, 2462).
- $C_{11}H_{14}S_2$ 1) Verbindung (aus Diäthylendisulfidbenzylbromid) (*B.* 19, 2668). — II, 1054.
 $C_{11}H_{16}N$ C 82,0 — H 9,3 — N 8,7 — M. G. 161.
 1) 1-Amidomethyl-1,2,3,4-Tetrahydronaphtalin. Sd. 269—270°₇₂₂. HCl, (2HCl, PtCl₄) (*B.* 20, 1707; 22, 1917). — II, 582.
 2) 2-Amidomethyl-1,2,3,4-Tetrahydronaphtalin. Sd. 270,2°₇₂₂. HCl, (2HCl, PtCl₄), H₂SO₄ (*B.* 20, 1711; 22, 1915). — II, 590.
 3) Amenylamidobenzol. Sd. 79° u. Zers. HCl, (2HCl, PtCl₄) (*B.* 12, 74; *A. Spl.* 3, 350).
 4) Aethylallylamidobenzol. Sd. 220—225°. Oxalat (*A. Spl.* 3, 365). — II, 337.
 5) Isobutylimidomethylbenzol (Isobutylbenzylidenamin). Sd. 217—218°₇₅₃ (*A.* 245, 283). — III, 28.
 6) 2-Aethenyl-1-Dimethylamidomethylbenzol (*G.* 22 [2] 425; 23 [2] 412). — II, 585.
 7) 1-Phenylhexahydropyridin. Sd. 248—250°. (2HCl, PtCl₄) (*B.* 21, 2279). — IV, 8.
 8) 4-Phenylhexahydropyridin. Sm. 57,5—58°; Sd. 255—257°₇₃₇. (2HCl, PtCl₄) (*B.* 20, 2590). — IV, 207.
 9) 3-Isopropyl-2,3-Dihydroindol. Sd. bei 260° (*A.* 248, 106). — IV, 209.

- C₁₁H₁₅N**
- 10) 1,3,3-Dimethyl-2,3-Dihydroindol. *Sd.* 224–227°. HCl, HJ (*B.* 29, 2470; *G.* 27 [1] 479). — IV, 206.
 - 11) 1-Propyl-1,3-Dihydroisoindol. *Fl.* HCl (*B.* 29, 1439). — IV, 209.
 - 12) 1-Aethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 254–258°. HCl, (2HCl, CdCl₂), (2HCl, PtCl₄) (*B.* 13, 2400; 17, 1329; 32, 73). — IV, 192.
 - 13) 1,2-Dimethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 247–248° (2HCl, PtCl₄) (*A.* 242, 316). — IV, 204.
 - 14) 1,4-Dimethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 255°₇₅₇ (*B.* 19, 3302). — IV, 205.
 - 15) 2,3-Dimethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 254–255° (*G.* 23 [2] 112). — IV, 207.
 - 16) 2,4-Dimethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 254–256°. HCl, (2HCl, PtCl₄) (*G.* 23 [2] 122; *B.* 29, 2466). — IV, 207.
 - 17) 2,6-Dimethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 267° (*B.* 16, 2471). — IV, 208.
 - 18) 2,8-Dimethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 260–262°. (2HCl, PtCl₄) (*B.* 16, 2469). — IV, 208.
 - 19) 4,4-Dimethyl-1,2,3,4-Tetrahydrochinolin? *Sd.* 234–235°. HCl (*G.* 23 [2] 115; 28 [2] 60; *B.* 29, 2466). — IV, 207.
 - 20) 5,8-Dimethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 271°. HCl (*B.* 18, 3165). — IV, 208.
 - 21) 6,8-Dimethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 272–273°₇₃₀. HCl (*B.* 24, 2074). — IV, 208.
- C₁₁H₁₅N₃**
- 1) 1-Phenylazohexahydropyridin. *Sm.* 43° (*B.* 8, 893; 20, 3016; *A.* 235, 242; 260, 239). — IV, 1580.
 - 2) 6-Amido-2,4,5,7-Tetramethylbenzimidazol + 2H₂O. *Sm.* 215–218°. HCl + 2H₂O, 2HCl + H₂O, (2HCl, PtCl₄ + H₂O) (*B.* 18, 2663). — IV, 1152.
- C₁₁H₁₅Cl**
- 1) 5-Chlor-3-Isobutyl-1-Methylbenzol. *Sd.* 234–235° (*B.* 29, 171).
 - 2) 5-[α-Chloräthyl]-1,2,4-Trimethylbenzol. *Sd.* 129°₁₈ (*B.* 31, 1006).
 - 3) 2-[α-Chloräthyl]-1,3,5-Trimethylbenzol. *Sd.* 126–127°₁₆ (*B.* 31, 1009).
 - 4) 6-Chlor-1,2,3,4,5-Pentamethylbenzol. *Sm.* 155° (*B.* 25, 1524, 1527; 26, 2944). — II, 55.
- C₁₁H₁₅Br**
- 1) β-Brom-γ-Phenylpentan? *Sd.* 77–80°₄₀ (*M.* 4, 620). — II, 71.
 - 2) 4-Brom-1-Isoamylbenzol. *Sd.* 253–255°₇₃₆ (*M.* 9, 850). — II, 71.
 - 3) 6-Brom-3-Pseudobutyl-1-Methylbenzol. *Sd.* 240–242° (*B.* 27, 1620).
 - 4) 4-Pseudobutyl-1-Brommethylbenzol (*Bl.* [3] 19, 68).
 - 5) 6-Brom-1,2,3,4,5-Pentamethylbenzol. *Sm.* 160,5°; *Sd.* 288–290° (*A. ch.* [6] 1, 473). — II, 71.
- C₁₁H₁₅J**
- 1) 6-Jod-3-Isobutyl-1-Methylbenzol. *Sm.* 34–35°; *Sd.* 264–265° (*B.* 17, 2325). — II, 77.
- C₁₁H₁₆O**
- C* 80,4 — *H* 9,8 — *O* 9,8 — *M. G.* 164.
- 1) p-Oxy-1-Isoamylbenzol (*B.* 15, 1646). — II, 775.
 - 2) 4-Oxy-1-[sec.] Amylbenzol. *Sm.* 79,5–80°; *Sd.* 253°_{772,5} (*J. r.* 23, 537). — II, 776.
 - 3) 4-Oxy-1-[tert.] Amylbenzol. *Sm.* 93°; *Sd.* 265–267° (248–250°). Na (*B.* 14, 1844; 15, 151; 18, 1701; 23, 3145; 26, 1646; 28, 407). — II, 775.
 - 4) 5-Oxy-3-Isobutyl-1-Methylbenzol. *Sm.* 142–144°₃₀ (*A.* 288, 339).
 - 5) 6-Oxy-3-Pseudobutyl-1-Methylbenzol. *Sd.* 235–237° (*B.* 17, 2324; 27, 1614). — II, 776.
 - 6) 4-Pseudobutyl-1-Oxymethylbenzol (4-Pseudobutylbenzylalkohol). *Sd.* 140°₃₀ (*Bl.* [3] 19, 68).
 - 7) 2-Oxymethyl-4-Isopropyl-1-Methylbenzol. *Sd.* 128°₁₀ (*Bl.* [3] 17, 943).
 - 8) 5-[α-Oxyäthyl]-1,2,4-Trimethylbenzol. *Sm.* 41°; *Sd.* 252–253° u. ger. Zers. (*B.* 31, 1005).
 - 9) 2-[α-Oxyäthyl]-1,3,5-Trimethylbenzol. *Sm.* 71°; *Sd.* 248° (*B.* 31, 1008).
 - 10) 6-Oxy-1,2,3,4,5-Pentamethylbenzol. *Sm.* 125°; *Sd.* 267° (*B.* 18, 1826). — II, 776.
 - 11) Methyläther d. 4-Oxy-1-tert. Butylbenzol. *Sd.* 215,5° (*A.* 211, 245; *B.* 14, 2187; 23, 2419; 27, 1618). — II, 765.
 - 12) Methyläther d. 3-Oxy-p-norm. Propyl-1-Methylbenzol. *Sd.* 226°₇₄₀ (*G.* 12, 332). — II, 765.
 - 13) Methyläther d. 6-Oxy-3-Isopropyl-1-Methylbenzol. *Sd.* 217° (*B.* 19, 1413). — II, 766.

$C_{11}H_{16}O$

- 14) Methyläther d. 2-Oxy-4-Isopropyl-1-Methylbenzol. Sd. 216,8° (B. 8, 71). — II, 767.
- 15) Methyläther d. 3-Oxy-4-Isopropyl-1-Methylbenzol. Sd. 216,2° (Bl. 25, 32; Z. 1869, 43; B. 8, 71; J. pr. [2] 35, 26; A. 243, 47). — II, 770.
- 16) Methyläther d. 3-Oxy- β -Isopropyl-1-Methylbenzol. Sd. 215 — 220° (G. 12, 505). — II, 766.
- 17) Aethyläther d. γ -Oxy- α -Phenylpropan. Sd. 224° (220—222°) (Am. 19, 777; G. 16, 314). — II, 1065.
- 18) Aethyläther d. 2-Oxy-1-Isopropylbenzol. Sd. 208,6—209,6°₇₆₂ (G. 16, 114). — II, 761.
- 19) Aethyläther d. 4-Oxy-1-Isopropylbenzol. Sd. 244—245° (J. 1876, 455; 1879, 760). — II, 762.
- 20) Aethyläther d. 5-Oxy-1,2,4-Trimethylbenzol. Sd. 223—224° (212 bis 213°) (B. 17, 1887, 1918). — II, 763.
- 21) norm. Butyläther d. 2-Oxy-1-Methylbenzol. Sd. 223° (A. 243, 39). — II, 737.
- 22) norm. Butyläther d. 3-Oxy-1-Methylbenzol. Sd. 229,2° (A. 243, 42). — II, 744.
- 23) norm. Butyläther d. 4-Oxy-1-Methylbenzol. Sd. 229,5° (A. 243, 45). — II, 748.
- 24) Isobutyläther d. Oxymethylbenzol. Sd. 211,5—212,5°₁₄₃ (B. 19, 3006; G. 17, 196). — II, 1048.
- 25) Isoamyläther d. Oxybenzol. Sd. 215—220° (224—225°) (A. 78, 227; R. 12, 182; Am. 15, 521). — II, 654.
- 26) Verbindung (aus Drachenblut). Sd. 214—215° (M. 1, 613). — III, 556.
C 73,3 — H 8,9 — O 17,8 — M. G. 180.

$C_{11}H_{16}O_2$

- 1) $\alpha\epsilon$ -Dioxy-norm. Amylbenzol. Sm. 54° (Soc. 57, 311). — II, 1099.
- 2) 5-Oxy-2-Propyl- β -Oxymethyl-1-Methylbenzol. Sd. 86° (J. pr. [2] 50, 226).
- 3) 5-Oxy-4-Isopropyl-2-Oxymethyl-1-Methylbenzol. Sm. 120—121° (B. 16, 2098; 27, 2412). — II, 1111.
- 4) $\alpha\gamma$ -Dioxy- α -Phenyl- $\beta\beta$ -Dimethylpropan. Sm. 81—82°; Sd. 286—287° (M. 11, 390; 18, 599). — II, 1099.
- 5) Dimethyläther d. $\gamma\gamma$ -Dioxy- α -Phenylpropan. Sd. 240—241°₇₀₀ (cor.) (B. 31, 1992).
- 6) Dimethyläther d. 3,4-Dioxy-1-Propylbenzol. Sd. 246° (B. 23, 1166). — II, 969.
- 7) Dimethyläther d. 3,5-Dioxy-1,2,4-Trimethylbenzol. Sd. 141—144° (M. 12, 203). — II, 970.
- 8) Dimethyläther d. 5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol. Sm. 88°; Sd. 129°_{16,5} (A. 302, 117).
- 9) Diäthyläther d. Dioxymethylbenzol (Benzylidendiäthyläther). Sd. 222° (A. 102, 364; B. 30, 3057; 31, 548, 1013). — III, 8.
- 10) Diäthyläther d. 2,5-Dioxy-1-Methylbenzol. Sm. 8—9°; Sd. 247 bis 249° (B. 23, 3247). — II, 955.
- 11) Diäthyläther d. 3,4-Dioxy-1-Methylbenzol. Sd. 228° u. Zers. (Bl. [3] 9, 158; C. 1898 [1] 1025). — II, 958.
- 12) Diäthyläther d. 3,5-Dioxy-1-Methylbenzol. Sm. 16—16,5°; Sd. 251 bis 252°_{147,5} (Z. 1867, 561; M. 11, 316). — II, 961.
- 13) Aethylpropyläther d. 1,4-Dioxybenzol. Sm. 36° (M. 6, 910). — II, 910.
- 14) Methylisobutyläther d. 1,3-Dioxybenzol. Sd. 234° (M. 5, 490). — II, 917.
- 15) Methylisobutyläther d. 1,4-Dioxybenzol. Sd. 227—230° (M. 5, 235). — II, 910.
- 16) Aethylphenyläther d. $\alpha\gamma$ -Dioxypropan. Sd. 328—330° (B. 24, 2639). — II, 655.
- 17) Methyl-2,4-Dimethylphenyläther d. $\alpha\beta$ -Dioxyäthan. Sd. 245—247°₇₀₀ (B. 29, 2403).
- 18) Aethyl-[4-Methylphenyl]äther d. $\alpha\beta$ -Dioxyäthan. Sd. 243—244° (B. 24, 195). — II, 719.
- 19) Oxymethylencampher. Sm. 80—81°; Sd. 251° Fe, Cu (A. 281, 328; B. 30, 954). — III, 111.
- 20) Oxymethylendihydrocarvon. Sd. 115°₁₅ (B. 28, 33).

- C₁₁H₁₆O₂**
- 21) Oxymethylenthujon (Oxymethylentanaceton). Sm. 40°; Sd. 115—118°₁₆ (B. 28, 33). — III, 512.
 - 22) Oxycarbofenchonon. Sm. 96°; Sd. 273—274° (A. 300, 300).
 - 23) Anhydrofenchocarbonsäure. Sm. 175°; Sd. 275—277°. Pb, Ag (A. 284, 330; 300, 298).
 - 24) Aethylester d. α -Camphylsäure. Sd. 132°₇₀ (C. 1897 [1] 101).
 - 25) Aethylester d. β -Camphylsäure. Sd. 140°₆₀ (C. 1897 [1] 102).
- C₁₁H₁₆O₃**
- C 67,3 — H 8,1 — O 24,5 — M. G. 196.
- 1) 2,4-Diketo-6-Oxy-1,1,3,3,5-Pentamethyl-1,2,3,4-Tetrahydrobenzol. Sm. 114°; Sd. 254—256°. Na (M. 9, 1046; II, 109). — II, 1025.
 - 2) 2,3 [oder 2,5]-Dimethyläther d. 2,3,5-Trioxy-1-Propylbenzol. Sd. 277—278° (B. 23, 2285). — II, 1023.
 - 3) Dimethyläther d. 3,4,5-Trioxy-1-Propylbenzol. Sd. 285°. K (B. 8, 67; II, 331; A. 8, 224; M. 4, 487). — II, 1024.
 - 4) β -[2,4,5-Trimethylphenyl]äther d. $\alpha\alpha\beta$ -Trioxyäthan. Sm. 81° (B. 30, 1710).
 - 5) 1-Keto-5-Methyl-2-Isopropyl-1,2,3,4-Tetrahydrobenzol-2-Carbonsäure. Sm. 119—120°. Ag (B. 30, 644).
 - 6) Camphocarbonsäure. Sm. 128—129° (118—119°; 123—124°). Na, Ca, Ba, Pb (Z. 1868, 482; J. 1879, 565; 1886, 540; M. 2, 239; B. 13, 1412; 24, 3385; Ph. Ch. 3, 404; G. 23 [1] 71, 85). — I, 627.
 - 7) Säure (aus Camphersäureanhydrid). Sm. 255—257° (C. 1898 [2] 109).
 - 8) Methylester d. Ketopinsäure. Sm. 28° (Soc. 69, 1401).
 - 9) Aethylester d. 1-Keto-3,5-Dimethyl-1,2,3,4-Tetrahydrobenzol-2-Carbonsäure. Sd. 276—278° u. ger. Zers. (A. 281, 110). — II, 1485.
 - 10) Aethylester d. 1-Keto-3,5-Dimethyl-1,2,3,4-Tetrahydrobenzol-4-Carbonsäure. Sd. 276—278° u. ger. Zers. (A. 281, 110). — II, 1485.
- C₁₁H₁₆O₄**
- C 62,3 — H 7,5 — O 30,2 — M. G. 212.
- 1) $\gamma\gamma$ -Dimethyläther d. $\alpha\beta\gamma\gamma$ -Tetraoxy- α -Phenylpropan. Sm. 79—80° (B. 31, 1995).
 - 2) 3,4-Dimethyläther d. i-3,4-Dioxy-1-[$\alpha\beta$ -Dioxypropyl]benzol (α -Methylisoeugenolglykol). Sm. 123° (C. 1897 [1] 915).
 - 3) 3,4-Dimethyläther d. isom. i-3,4-Dioxy-1-[$\alpha\beta$ -Dioxypropyl]benzol (β -Methylisoeugenolglykol). Sm. 88—88,25° (C. 1897 [1] 915).
 - 4) 3,4-Dimethyläther d. 3,4-Dioxy-1-[$\beta\gamma$ -Dioxypropyl]benzol. Sm. 68 bis 69° (B. 24, 3490). — II, 1117.
 - 5) 5-Methyläther d. 2,4-Diketo-5,6-Dioxy-1,1,3,3-Tetramethyl-1,2,3,4-Tetrahydrobenzol + H₂O. Sm. 97° (104° wasserfrei). Na + 3H₂O (B. 26, 2030). — II, 1031.
 - 6) Tanacetin (J. 1882, 1175). — III, 649.
 - 7) Hexylisakonsäure. Sm. 57,5—58,5°. Ca + 3H₂O, Ag (A. 305, 10).
 - 8) Anhydrid d. Phoronsäure. Sm. 138° (132°) (B. 14, 1079; 26, 828). — I, 772.
 - 9) Dilakton (aus Bromhexylisoparakonsäure). Sm. 66—67° (A. 305, 16).
 - 10) Methylester d. cis- π -Camphansäure. Sm. 74,5—75,5° (Soc. 69, 946).
 - 11) Dimethylester d. 1-Methyl- β -Tetrahydrobenzol-2,5-Dicarbonsäure. Sd. 165—170°₂₀ (Soc. 71, 179).
 - 12) Aethylester d. 6-Oxy-4-Keto-2,2-Dimethyl-1,2,3,4-Tetrahydrobenzol-3-Carbonsäure. Sm. 75°. Na (A. 294, 300).
 - 13) Aethylester d. α -Oxy- α -[2-Furanyl]- β -Methylpropan- β -Carbonsäure. subl. bei 293—296° (C. 1897 [2] 348; 1898 [1] 884).
- C₁₁H₁₆O₅**
- C 57,9 — H 7,0 — O 35,1 — M. G. 228.
- 1) Pyrocholesterinsäure. Sm. 108°. Ag₂ (A. 194, 221; B. 12, 1629). — I, 778.
 - 2) Anhydrid d. γ -Acetoxyl- $\beta\delta$ -Dimethylpentan- $\beta\delta$ -Dicarbonsäure. Sm. 90° (C. 1898 [2] 416, 885).
 - 3) Monäthylester d. Camphoronsäureanhydrid. Feste Modif. Sm. 67°; fl. Modif. Sd. 302° (B. 13, 797; 28, 2689; A. 226, 257; 292, 102). — I, 814.
 - 4) Diäthylester d. 1-Keto-R-Pentamethylen-3,4-Dicarbonsäure. Fl. (B. 26, 375).
 - 5) Diäthylester d. Acetyl-R-Trimethylenedicarbonsäure. Sd. 223—224°₁₀₀ (Soc. 51, 845). — I, 775.

$C_{11}H_{16}O_8$

C 54,1 — H 6,5 — O 39,3 — M. G. 244.

- 1) 1,2-Diacetoxylhexahydrobenzol-1-Carbonsäure + H₂O. Sm. 72—73° (A. 271, 282). — II, 1731.
- 2) $\alpha\delta$ -Lakton d. δ -Oxybutan- $\alpha\beta\gamma$ -Tricarbonsäure- $\beta\gamma$ -Diäthylester. Fl. (M. 13, 588). — I, 843.
- 3) $\alpha\gamma$ -Lakton d. α -Oxy- α -Acetoxyl- $\beta\beta$ -Dimethylbutan- $\alpha\gamma$ -Dicarbonsäure- α -Monomethylester. Sd. 165—166°₂₂ (B. 27, 2135; 28, 2162).
- 4) $\alpha\delta$ -Lakton d. α -Oxybutan- $\alpha\beta\delta$ -Tricarbonsäure- $\alpha\beta$ -Diäthylester. Fl. (M. 13, 842). — I, 842.
- 5) Dimethylester d. Camphoronsäure (D. d. α -Oxycamphoronsäure). Sm. 111° (B. 28, 321; A. 299, 153).
- 6) Äthylester d. Anhydro- α -Oxycamphoronsäure. Sm. 158°. + NH₃ (Sm. 168—170° u. Zers.) (M. 9, 718). — I, 843.
- 7) Äthylester d. Anhydro- β -Oxycamphoronsäure. Sm. 158,5—159,5°. + NH₃ (Sm. 165° u. Zers.) (M. 9, 724). — I, 844.
- 8) Diäthylester d. $\alpha\gamma$ -Diketopentan- $\alpha\epsilon$ -Dicarbonsäure. Sm. 19°; Sd. 198°₂₇. K, Cu (B. 21, 2583; 31, 622). — I, 819.
- 9) Diäthylester d. $\beta\delta$ -Diketopentan- $\gamma\gamma$ -Dicarbonsäure (D. d. Diacetylmalonsäure). Sd. 156°₁₇ (J. pr. [2] 37, 475; Am. 14, 497). — I, 819.
- 10) Triäthylester d. Äthen- $\alpha\alpha\beta$ -Tricarbonsäure (Tr. d. Äthenyltricarbonsäure). Sd. 203—205°₁₀ (B. 25 [2] 746; Soc. 73, 1013). — I, 815.

 $C_{11}H_{16}O_7$

C 50,7 — H 6,1 — O 43,1 — M. G. 260.

- 1) Triäthylester d. β -Ketoäthan- $\alpha\alpha\beta$ -Tricarbonsäure. Sd. 220°₁₀ (Bl. [3] 19, 78).

 $C_{11}H_{16}O_6$

C 47,8 — H 5,8 — O 46,4 — M. G. 276.

- 1) Furfuroglykose (A. 241, 23). — I, 1049.
- 2) Heptan- $\alpha\beta\gamma\eta$ -Tetracarbonsäure. Sm. 159—160°. Ba₂ (Bl. [3] 21, 177).
- 3) Heptan- $\beta\beta\zeta$ -Tetracarbonsäure. Sm. 210—211° u. Zers. (Soc. 59, 829; 61, 704; Am. 20, 794). — I, 862.
- 4) Heptan- $\gamma\gamma\epsilon\epsilon$ -Tetracarbonsäure. Zers. bei 163° (A. 256, 185). — I, 862.
- 5) Trimethylester d. β -Acetoxylpropan- $\alpha\beta\gamma$ -Tricarbonsäure (Tr. d. Acetylcitronensäure). Sd. 280—282° (B. 9, 1750; 18, 1954). — I, 840.
- 6) Tetramethylester d. Propan- $\alpha\beta\beta\gamma$ -Tetracarbonsäure. Sd. 187° (B. 29, 968).
- 7) Tetramethylester d. Propan- $\alpha\alpha\gamma\gamma$ -Tetracarbonsäure. Sm. 48—48,5° (J. pr. [2] 45, 476). — I, 859.
- 8) Diäthylester d. Diacetoxylmethandicarbonsäure (Diäthylester d. Diacetylmesoxalsäure). Sm. 145° u. Zers. (J. r. 10, 72). — I, 788.

 $C_{11}H_{16}O_{13}$

C 37,1 — H 4,5 — O 58,4 — M. G. 356.

- 1) Glycerindiweinsäure (J. 1859, 500). — I, 795.

 $C_{11}H_{16}N_3$

C 75,0 — H 9,1 — N 15,9 — M. G. 176.

- 1) α -Äthylimido- α -Äthylamido- α -Phenylmethan (Diäthylbenzenylamidin). HJ (A. 265, 163). — IV, 840.
- 2) Ämenylphenylamidin. Fl. Oxalat (B. 24, 2155). — II, 448.
- 3) Diäthylphenylformamidin. Sd. 273—275° u. Zers. (HCl, AuCl₃) (Am. 13, 519). — II, 346.
- 4) α -Methyl- β -Isobutyliden- α -Phenylhydrazin. Sd. 160—163°₄₈ (M. 17, 255). — IV, 747.
- 5) β -Phenylhydrazonpentan. Sd. 205—208°₁₀₀ (A. 236, 132). — IV, 769.
- 6) β -Methylphenylhydrazonbutan. Sd. 176—177°₁₃₅ (A. 236, 162). — IV, 768.
- 7) γ -Phenylhydrazon- β -Methylbutan. Sd. 175—176°₄₇ (B. 31, 1496). — IV, 769.
- 8) 3,5-Dimethyl-1-[2,3,4,5-Tetrahydrophenyl]pyrazol. Sd. 259—260,5°. (2HCl, PtCl₄), HNO₃ (G. 22 [2] 352). — IV, 524.
- 9) 1-[2-Amidophenyl]hexahydropyridin. Sm. 45,5°. (2HCl, SnCl₄) (B. 24, 2103). — IV, 557.
- 10) 1-[4-Amidophenyl]hexahydropyridin. Sm. 40°. 2HCl + H₂O (B. 21, 2284). — IV, 587.

 $C_{11}H_{16}N_4$

C 64,7 — H 7,8 — N 27,4 — M. G. 204.

- 1) 1-[4-Amidophenyl]azohexahydropyridin (A. 243, 229). — IV, 1580.

 $C_{11}H_{16}S$

- 1) Methyläther d. 2-Merkapto-4-Isopropyl-1-Methylbenzol. Sd. 244° (J. pr. [2] 8, 179). — II, 828.

- $C_{11}H_{16}S_2$ 1) Diäthyläther d. Dimerkaptomethylbenzol (Benzylidendithiodiäthyläther). Fl. (B. 18, 885). — III, 8.
- $C_{11}H_{17}O$ 1) α -Dammarrensen = $(C_{11}H_{17}O)_x$. Sm. 65° (C. 1897 [I] 166).
 $C_{11}H_{17}N$ C 81,0 — H 10,4 — N 8,6 — M. G. 163.
- 1) β -Amido-1-Isoamylbenzol. Sd. 259–262° (256–258°). (2HCl, PtCl₄), H₂SO₄ (B. 7, 529; 14, 2346; 15, 1642; 20, 1257). — II, 563.
- 2) 2-Amido-3-Isobutyl-1-Methylbenzol. Sd. 243–244°. HCl, H₂SO₄, Oxalat (B. 17, 419, 2340). — II, 563.
- 3) 6-Amido-3-Pseudobutyl-1-Methylbenzol. Sd. 243°. HCl, HBr, H₂SO₄, Oxalat (B. 17, 2320). — II, 564.
- 4) β -Amido-4-Isopropyl-1-Aethylbenzol. HCl (B. 23, 3194). — II, 564.
- 5) 6-Amido-1,2,3,4,5-Pentamethylbenzol. Sm. 151–152°; Sd. 277–278°. HCl, (2HCl, PtCl₄) (B. 15, 2897; 18, 1822; 21, 645). — II, 564.
- 6) Isoamylamidobenzol. Sd. 254,5° (242–244°). HCl, Pikrat (A. 74, 153; B. 18, 3376; 21, 1111; 25, 2043). — II, 336.
- 7) Methylisobutylamidobenzol. Sd. 234–236° (J. 1883, 702). — II, 336.
- 8) 2-Isobutylamido-1-Methylbenzol. Sd. 230–235°₇₅₅ (B. 30, 2466).
- 9) γ -Dimethylamidopropylbenzol. Sd. 225°₇₅₄. (2HCl, PtCl₄), Pikrat (B. 27, 2311).
- 10) Aethylpropylamidobenzol. Sd. 216°. HCl (B. 19, 2787). — II, 335.
- 11) Aethylisopropylamidobenzol. Sd. 220°. HCl + 4HgCl₂ (B. 31, 2293).
- 12) 4-Dimethylamido-1-norm. Propylbenzol. Sd. 230° (B. 17, 1327). — II, 548.
- 13) 5-Dimethylamido-1,2,4-Trimethylbenzol. Sd. 222°. (2HCl, PtCl₄) (B. 15, 2897). — II, 552.
- 14) 6-Dimethylamido-1,3,5-Trimethylbenzol. Sd. 213–214°. (2HCl, PtCl₄) (B. 4, 747; 5, 718). — II, 544.
- 15) 5-Aethylamido-1,2,4-Trimethylbenzol. Sd. 220–230° (B. 19, 2383). — II, 552.
- 16) 2-Diäthylamido-1-Methylbenzol. Sd. 208–210°. HJ + H₂O, (HJ, J₂) (B. 16, 31; 31, 1145; Am. 7, 119; R. 3, 402). — II, 458.
- 17) 3-Diäthylamido-1-Methylbenzol. Sd. 227–228° (B. 16, 31). — II, 477.
- 18) 4-Diäthylamido-1-Methylbenzol. Sd. 229°. HCl, (HCl, HgCl₂ + $\frac{1}{2}$ H₂O), (2HCl, PtCl₄), HBr, HJ, HNO₃ (A. 93, 315; J. pr. [2] 48, 49; J. 1884, 463). — II, 485.
- 19) Diäthylamidomethylbenzol (Diäthylbenzylamin). Sd. 211–212° (cor.) (B. 10, 47, 310). — II, 515.
- 20) Isobutylamidomethylbenzol (Isobutylbenzylamin). Sd. 217–220°₇₅₅ (A. 245, 283). — II, 516.
- 21) γ -Amido- γ -Phenyl- β -Methylbutan. Sd. 226–227°₇₅₉ (C. 1899 [I] 776).
- 22) δ -Amido- δ -Phenyl- β -Methylbutan. Sd. 232–235°₇₅₆ (C. 1899 [I] 776).
- 23) 2,6-Dimethyl-4-Isobutylpyridin. Sd. 210–213°. (2HCl, PtCl₄), H₂CrO₄, Pikrat (A. 231, 65). — IV, 140.
- 24) Rubidin. Sd. 230°. (2HCl, PtCl₄) (J. 1861, 502). — IV, 140.
 C 69,1 — H 8,9 — N 22,0 — M. G. 191.
- $C_{11}H_{17}N_3$ 1) ϵ -Amido- α -Phenylhydrazonpentan. Acetat (B. 26, 2991). — IV, 747.
 2) α -Dimethylamido- β -Phenylhydrazonpropan. Fl. (B. 28, 2225). — IV, 767.
- $C_{11}H_{17}Cl$ 1) 5-Chlor-3-Methyl-1-Isobutyl-1,2-Dihydrobenzol. Sd. 113–115°₁₅ (B. 29, 171).
- $C_{11}H_{17}P$ 1) Diäthylbenzylphosphin. Sd. 250–255°. HCl (Soc. 53, 723). — IV, 1662.
 2) Diäthyl-2-Methylphenylphosphin. Sd. 263° (A. 293, 302). — IV, 1671.
 3) Diäthyl-4-Methylphenylphosphin. Sd. 240° (B. 15, 2016). — IV, 1671.
 C 79,5 — H 10,8 — O 9,6 — M. G. 166.
- $C_{11}H_{15}O$ 1) 1-Keto-3-Isobutyl-5-Methyl-1,2,3,4-Tetrahydrobenzol. Sd. 146 bis 148°₇₅ (A. 288, 336, 358).
 2) Methyleampher. Sm. 38°. — III, 512.
 3) Methyläther d. Carveol. Sd. 210–212° (A. 281, 131, 141). — III, 504.
 4) Verbindung (aus Dipenten u. Formaldehyd). Sd. 242–248° (B. 32, 59).
 5) Verbindung (aus Limonen u. Formaldehyd). Sd. 246–250° (B. 32, 60).
 6) Verbindung (aus Pinen u. Formaldehyd). Sd. 232–236° (B. 32, 57).
 7) Verbindung (aus Polyporus officinalis) (J. 1886, 1823). — III, 645.

$C_{11}H_{18}O_2$

C 72,5 — H 9,9 — O 17,6 — M. G. 182.

- 1) Oxymethylenmenthon. Sd. 250—252° (A. 281, 394). — III, 512.
- 2) α -Dekin- α -Carbonsäure (Dehydroundekylensäure). Sm. 42,5 — 43°; Sd. 174—175°₁₅ (B. 29, 2235).
- 3) β -Dekin- α -Carbonsäure (Undekolsäure). Sm. 59,5°; Sd. 177°₁₅. Ca + H₂O, Ba, Ag (B. 11, 1414; 28, 1448; 29, 2235). — I, 534.
- 4) Diäthylenyldiäthylisopropyleessigsäure? Sd. 270—280° (A. 202, 324). — I, 534.
- 5) Methylester d. Camphorensäure. Sd. 215°₇₆₇ (C. 1896 [1] 306; Soc. 69, 53).
- 6) Methylester d. Fencholensäure. Sd. 97—98°₁₃ (A. 300, 307).
- 7) Methylester d. Pulegensäure. Sd. 89—90°₁₀ (A. 300, 260).
- 8) Äthylester d. 1,2-Dimethyl- β -Tetrahydrobenzol-4-Carbonsäure. Sd. 155°₆₀ (Soc. 71, 172).
- 9) Äthylester d. 1,3-Dimethyl- β -Tetrahydrobenzol-4-Carbonsäure. Sd. 228°₁₀₂ (Soc. 71, 175).
- 10) Äthylester d. Campholytischen Säure. Sd. 212—213° (Soc. 63, 498).
- 11) Äthylester d. Allocampholytischen Säure. Sd. 204° (Soc. 67, 340).
- 12) Äthylester d. Isolaureonsäure. Sd. 214° (140°₁₆) (Bl. [3] 15, 1196; C. 1897 [1] 102; Soc. 73, 833).
- 13) Formiat d. d-Borneol. Sd. 225 — 230° (98 — 99°₁₅) (B. 11, 455 — 456; J. pr. [2] 49, 7). — III, 470.
- 14) Formiat d. l-Borneol. Sd. 135—138°₄₀ (A. ch. [6] 15, 185; B. 31, 1775). — III, 472.
- 15) Formiat d. Isoborneol. Sd. 100°₁₄ (J. pr. [2] 49, 7). — III, 473.
- 16) Formiat d. Camphenol. Sd. 220° u. ger. Zers. (Bl. [6] 15, 167). — III, 473.
- 17) Formiat d. Terpeneol. Sd. 135—138°₄₀ (Bl. 49, 325). — III, 483.

 $C_{11}H_{18}O_3$

C 66,7 — H 9,1 — O 24,2 — M. G. 198.

- 1) β -Keto- β -Deken- β -Carbonsäure (Acetyloktenylecarbonsäure). Sm. 95° (68—69°). Ba, Ag (A. 257, 311). — I, 625.
- 2) Borneolkohlensäure. Na (Z. 1868, 299; M. 2, 236). — III, 470.
- 3) α -Fenchocarbonsäure. Sm. 141—142°; Sd. 175°₁₁. Pb, Ag (A. 300, 297).
- 4) β -Fenchocarbonsäure. Sm. 76—77°. Pb, Ag (A. 284, 327; 300, 303).
- 5) Menthoncarbonsäure. Ag (Z. 27 [2] 106).
- 6) Rangiformsäure oder C₂₁H₃₆O₆. Sm. 106° (Z. 12, 259). — I, 625.
- 7) Äthylester d. δ -Oxy- α - ζ -Heptadienmethyläther- δ -Carbonsäure (Ac. d. α -Oxydiallylessigmethyläthersäure). Sd. 217—219° (J. pr. [2] 35, 2; J. r. 17, 84). — I, 624.
- 8) Äthylester d. ζ -Keto- β -Methyl- δ -Hepten- ϵ -Carbonsäure (Ac. d. Isoamylidenacetessigsäure). Sd. 237—241° u. ger. Zers. (A. 218, 174; B. 31, 737). — I, 624.
- 9) Äthylester d. 2-Acetyl-1-Methyl-R-Pentamethylen-2-Carbonsäure. Sd. 237—238° (Soc. 53, 197). — I, 624.

 $C_{11}H_{18}O_4$

C 61,7 — H 8,4 — O 29,9 — M. G. 214.

- 1) 5-Methyläther d. 2,6-Diketo-4-Oxy-1,1,3,3-Tetramethylhexahydrobenzol + H₂O. Sm. 107° (139° wasserfrei) (B. 26, 2033). — II, 1031.
- 2) α -Nonen- $\alpha\beta$ -Dicarbonsäure (Hexylcitakonsäure). Sm. 86°. Ca + H₂O, Ba, Ag₂ (A. 304, 329).
- 3) α -Nonen- $\alpha\beta$ -Dicarbonsäure (Hexylmesakonsäure). Sm. 153—154°. Ca + H₂O, Ba, Ag₂ (A. 304, 332).
- 4) β -Nonen- $\alpha\beta$ -Dicarbonsäure (Hexylitakonsäure). Sm. 129—130°. Ca + 2H₂O, Ba, Ag₂ (A. 304, 326).
- 5) Hexylatikonensäure. Sm. 78 — 78,5°. Ca + $\frac{1}{2}$ H₂O, Ba + $\frac{1}{2}$ H₂O, Ag₂ (A. 304, 336; 305, 1).
- 6) Hexylisoparakonsäure. Sm. 83—84°. Ca, Ag (A. 305, 8).
- 7) Oxycamphocarbonsäure (Homocamphersäure). Sm. 234° (160°). Na₂, K₂, Ca + 6(7)H₂O, Ba + 6H₂O, Zn, Pb, Cu, Ag₂ (Bl. 32, 421; B. 22 [2] 576; 23 [2] 280; A. 289, 4; C. 1895 [2] 217; 1896 [1] 750). — I, 728.
- 8) Säure (aus Natriumacetat u. Natriumisoamylat). Sm. 139° (A. 218, 83). — I, 625.
- 9) Säure (aus d. Säure C₁₁H₁₈O₃). Sm. 72—72,5° (A. 305, 15).

C₁₁H₁₈O₅

- 10) $\alpha\gamma$ -Lakton d. γ -Oxy- α -Acetoxyl- $\beta\beta$ -Trimethylpentan- α -Carbonsäure. Sm. 59° (M. 19, 521).
- 11) $\alpha\gamma$ -Lakton d. γ -Oxynonan- $\alpha\beta$ -Dicarbonsäure (L. d. Hexylitamsäure; Hexylparakonsäure). Sm. 89°. Ca + 2H₂O, Ag (A. 227, 85; 304, 334). — I, 759.
- 12) $\delta\epsilon$ -Lakton d. δ -Oxy- β -Methylhexan- $\epsilon\epsilon$ -Dicarbonsäure- ϵ -Monäthylester (Aethylester d. Isobutylparakonsäure). Sm. 16—17°; Sd. 293° (A. 256, 97). — I, 758.
- 13) $\gamma\epsilon$ -Lakton d. γ -Oxy- $\beta\gamma$ -Dimethylpentan- $\beta\epsilon$ -Dicarbonsäure- β -Aethylester. Sd. 187—188°₁₀ (C. 1896 [2] 728).
- 14) Ortho-Monomethylester d. d-Campfersäure. Sm. 77—78°; Sd. 198,5°₁₅ (A. ch. [3] 38, 483; B. 25, 1806, 1808; 25 [2] 665; 26, 285, 289 Anm.; 26 [2] 87, 614). — I, 724.
- 15) Allo-Monomethylester d. d-Campfersäure. Sm. 86—87°; Sd. 193°₁₅ (B. 25, 1806; 25 [2] 665; 26, 288; 26 [2] 614). — I, 724.
- 16) Aethylester d. $\beta\eta$ -Diketooktan- γ -Carbonsäure (Ae. d. $\alpha\delta$ -Diacetylvaleriansäure). Sd. 195—200°₁₂₀ (Soc. 57, 227). — I, 694.
- 17) Diäthylester d. R-Pentamethylen-1,2-Dicarbonsäure. Sd. 249—252° (Soc. 51, 245). — I, 720.
- 18) Diäthylester d. trans-1,1-Dimethyl-R-Trimethylen-2,3-Dicarbonsäure (D. d. trans-Caronsäure). Sd. 241° (Soc. 75, 58).
- 19) Diäthylester d. α -Penten- $\alpha\gamma$ -Dicarbonsäure (Diäthylester d. Aethylglutakonsäure). Sd. 130—132°₁₂ (Soc. 63, 882).
- 20) Diäthylester d. γ -Methyl- α -Buten- $\alpha\beta$ -Dicarbonsäure (D. d. Dimethylmesakonsäure). Sd. 239—240° (C. 1899 [1] 780).
- 21) Diäthylester d. γ -Methyl- α -Buten- $\alpha\alpha$ -Dicarbonsäure (Diäthylester d. Isobutylidenmalonsäure). Sd. 128—132°₂₃ (Soc. 63, 1344).
- 22) Diäthylester d. β -Methyl- β -Buten- $\gamma\delta$ -Dicarbonsäure (D. d. Terakonsäure). Sd. 254—255° (A. 226, 365). — I, 720.
- 23) Monacetat d. $\alpha\beta\gamma$ -Trioxypropandiallyläther. Sd. 240—244° (J. r. 24, 35). — I, 415.
- 24) Diacetat d. $\beta\gamma$ -Dioxy- γ -Hepten? Sm. 68,5° (Soc. 41, 178). — I, 415.
- 25) Metakroleinalkoholat (J. 1876, 480).

C₁₁H₁₈O₅

C 57,4 — H 7,8 — O 34,8 — M. G. 230.

- 1) Arabinosediaceon. Sm. 41,5—43° (B. 28, 1163).
- 2) Phoronsäure. Sm. 184° u. Zers. K + 1½H₂O, Ca + 3H₂O, Ag₂ + H₂O (B. 14, 1078; 15, 585; 26, 827).
- 3) Säure (aus Bromhexylisoparakonsäure). Sm. 99—99,5°. Ca, Ba + H₂O (A. 305, 13).
- 4) Diäthylester d. α -Oxypropenäthyläther- $\alpha\beta$ -Dicarbonsäure (D. d. Aethoxycitrakonsäure). Sd. 140°₁₅ (Am. 20, 142).
- 5) Diäthylester d. Acetäthylelessigkohlsäure. Sd. 146°₃₀ (Am. 14, 507).
- 6) Diäthylester d. β -Ketopentan- $\alpha\alpha$ -Dicarbonsäure (D. d. Butyrylmalonsäure). Sd. 247—252° (B. 20, 1326). — I, 767.
- 7) Diäthylester d. β -Ketopentan- $\alpha\gamma$ -Dicarbonsäure (D. d. Aethylaceton-dicarbonsäure). Sd. 207°₁₂₀₋₁₃₀ (A. 261, 177). — I, 767.
- 8) Diäthylester d. β -Ketopentan- $\gamma\gamma$ -Dicarbonsäure (D. d. Acetäthylmalonsäure). Sd. 137—137,5°₂₀ (Am. 14, 503; J. pr. [2] 50, 142).
- 9) Diäthylester d. β -Ketopentan- $\gamma\delta$ -Dicarbonsäure (D. d. β -Methylacetylbernsteinsäure). Sd. 257—259° (A. 188, 227; 192, 142; 206, 311; 216, 31). — I, 768.
- 10) Diäthylester d. β -Ketopentan- $\gamma\epsilon$ -Dicarbonsäure (D. d. α -Acetylglutarsäure). Sd. 271—272° (A. 192, 128; 206, 311; 294, 317; B. 24, 285; J. pr. [2] 49, 197; Soc. 69, 1511). — I, 767.
- 11) Diäthylester d. γ -Ketopentan- $\alpha\epsilon$ -Dicarbonsäure (D. d. Hydrocheli-donsäure). Sd. 286° (B. 20, 2813; A. 253, 221). — I, 767.
- 12) Diäthylester d. γ -Ketopentan- $\beta\delta$ -Dicarbonsäure. Sd. 199—200°₁₂₀ (A. 261, 182). — I, 767.
- 13) Diäthylester d. γ -Keto- β -Methylbutan- $\alpha\beta$ -Dicarbonsäure (D. d. α -Methylacetbernsteinsäure). Sd. 263° (A. 192, 135; 206, 311, 329; 216, 35). — I, 768.
- 14) Diäthylester d. γ -Keto- β -Methylbutan- $\delta\delta$ -Dicarbonsäure. Sd. 133 bis 134°₁₄ (B. 31, 2770).

- $C_{11}H_{19}O_5$ 15) Diäthylester d. β -Acetylpropan- $\alpha\gamma$ -Dicarbonsäure. *Sd.* 154°₁₁₋₁₂ (*A.* 295, 106).
 $C_{11}H_{18}O_5$ C 53,7 — H 7,3 — O 39,0 — M. G. 246.
 1) α -Dimethylenäther d. Anhydroenneaheptit. *Sm.* 165° (*A.* 290, 153).
 2) β -Dimethylenäther d. Anhydroenneaheptit. *Sm.* 206° (*A.* 290, 153).
 3) γ -Acetoxy- $\beta\delta$ -Dimethylpentan- $\beta\delta$ -Dicarbonsäure. *Sm.* 158—159°.
K₂, Ba, Ag, (C. 1898 [2] 885).
 4) Dimethylester d. Camphoronsäure. *Fl. (B. 28, 318; A. 292, 94).*
 5) Monoäthylester d. Camphoronsäure. *Sm.* 128—129° (*A. 292, 104; C. 1895 [2] 591).*
 6) Methyläthylester d. Propan- $\alpha\alpha\beta$ -Tricarbonsäure. *Sd.* 267—268° (*B. 15, 1107; A. 214, 56).* — I, 809.
 7) Diäthylester d. Milchsäurebernsteinsäure. *Sd.* 280° (*J. 1861, 378).* — I, 656.
 8) Diäthylester d. α -Acetoxypropan- $\alpha\alpha$ -Dicarbonsäure (D. d. Äthylacetatironsäure). *Sd.* 151—153°₃₀ (*B. 24, 2999).* — I, 747.
 9) Diäthylester d. α oder γ -Oxy- γ oder α -Ketopentan- $\alpha\alpha$ -Dicarbonsäure. *Sd.* 210°₁₆ (*B. 31, 626).*
 10) Triäthylester d. Äthan- $\alpha\alpha\beta$ -Tricarbonsäure. *Sd.* 268° (278°) (*B. 12, 752; 23, 634; 27, 797; 29, 968. 1868; A. 214, 38).* — I, 807.
 11) Isobutylester d. $\alpha\beta$ -Di[Acetoxy]propionsäure. *Sd.* 262—264°_{763,4} (*Soc. 63, 1425, 1430).*
 12) Triacetat d. $\alpha\beta\gamma$ -Trioxypentan. *Sd.* 264—265° (*B. 21, 3349).* — I, 278.
 13) Triacetat d. $\beta\gamma\delta$ -Trioxypentan. *Sd.* 269—270°_{740,4} (*B. 21, 3351).* — I, 278.
 14) Triacetat d. $\alpha\beta\gamma$ -Trioxy- β -Methylbutan. *Sd.* 148,5—149,5°₁₈ (*M. 7, 68).* — I, 416.
 15) Triacetat d. $\alpha\gamma$ -Dioxy- β -Oxymethyl- β -Methylpropan. *Sd.* 165° (*A. 276, 77).*
 $C_{11}H_{18}O_7$ C 50,4 — H 6,9 — O 42,6 — M. G. 262.
 1) Diäthylester d. d-Monopropionylweinsäure (*Bl. [3] 13, 205).*
 2) Monoisoamylester d. β -Oxypropan- $\alpha\beta\gamma$ -Tricarbonsäure (M. d. Citronensäure). (*NH₄, Na, K, Ca + xH₂O, Pb, (A. 91, 318).* — I, 840.
 $C_{11}H_{18}O_8$ C 47,5 — H 6,5 — O 46,0 — M. G. 278.
 1) Triäthylester d. $\alpha\beta$ -Dioxyäthan- $\alpha\alpha\beta$ -Tricarbonsäure (Tr. d. Desoxal-säure). *Sm.* 85° (78°); *Sd.* 156—157°₂ (*J. 1861, 605; 1884, 1140; B. 12, 547; M. 17, 613).* — I, 857.
 $C_{11}H_{16}N_2$ C 74,2 — H 10,1 — N 15,7 — M. G. 178.
 1) γ -Amido- α -Phenylamido- β -Methylbutan. 2 + CS₂ (*G. 23 [1] 427).* — II, 345.
 2) 4-Amido-1-Diäthylamidomethylbenzol. *Sd.* 212—214°₄₀ (*B. 28, 1141).* — IV, 639.
 3) 5-Amido-2-Diäthylamido-1-Methylbenzol. *Sm.* 24°; *Sd.* 266—267°.
HCl, H₂SO₄ + xH₂O (B. 25, 1612, 3138, 3367; 26, 308). — IV, 609.
 4) 3,4-Di[Äthylamido]-1-Methylbenzol. *Sd.* 265° (*A. 265, 191).* — IV, 611.
 5) 2,5-Di[Dimethylamido]-1-Methylbenzol. *Sd.* 260° (*B. 12, 1802).* — IV, 609.
 6) 3,4-Di[Dimethylamido]-1-Methylbenzol. *Sd.* 224,5—225,5°₇₁₇ (*B. 20, 1888).* — IV, 611.
 7) uns-Isoamylphenylhydrazin. *Sd.* 262° (*A. 252, 285; B. 30, 2821).* — IV, 659.
 8) Äthylkyanconiin. (2HCl, PtCl₄) (*J. pr. [2] 26, 339).* — IV, 828.
 9) Base (aus α -Brom- α -[2-Methylpyridyl(5)]propionsäure) (Trimethylamido-collidin). *Fl. + 2AuCl₃, (2HCl, 2AuCl₃) (B. 28, 1770).* — IV, 826.
 $C_{11}H_{19}N$ C 80,0 — H 11,5 — N 8,5 — M. G. 165.
 1) Methylcampherimin. *Sd.* 203°. *HCl, (2HCl, PtCl₄), HJ, Pikrat, + Br₂ (B. 28, 1080; 29, 2809; Soc. 71, 193).* — IV, 77.
 $C_{11}H_{20}O$ C 78,5 — H 11,9 — O 9,5 — M. G. 168.
 1) Homolinalool. *Sd.* 102—104°₁₄ (*B. 29, 693).*
 2) Methylmenthon? *Sd.* 213—215° (*A. 281, 396).*
 3) Methyläther d. d-Borneol. *Sd.* 194,5°₇₃₅ (*Z. 1868, 299; B. 24, 3714).* — III, 469.
 4) Methyläther d. Isoborneol. *Sd.* 192—193° (*J. pr. [2] 49, 9).* — III, 473.
 5) Methyläther d. l-Linalol. *Sd.* 189—192° (*Bl. [3] 9, 806).* — III, 478.

$C_{11}H_{20}O_2$

C 71,7 — H 10,9 — O 17,4 — M. G. 184.

- 1) Undekan- $\gamma\zeta$ - $\zeta\epsilon$ -Dioxyd? (Diäthyloxeton). Sd. 209° (A. [256](#), [141](#)). — [I](#), [1020](#).
- 2) $\beta\beta$ -Dimethylnonan- $\beta\epsilon\epsilon\beta$ -Dioxyd (Tetramethyloxeton). Sm. [178,5°](#) (J. pr. [\[2\]](#) [48](#), [216](#)).
- 3) $\beta\gamma$ -Diketoundekan (Methyloktöldiketon). Sd. 120°₁₇ (J. pr. [\[2\]](#) [50](#), [372](#)).
- 4) $\beta\delta$ -Diketo- γ -Methyldekan. Sd. 143—144°₂₃ (R. [16](#), [121](#)).
- 5) $\beta\beta$ -Diketo- $\gamma\eta$ -Dimethylnonan ($\alpha\epsilon$ -Diacetyl- $\alpha\epsilon$ -Dimethylpentan). Sd. [202](#) bis [204°](#)₁₅₀ (Soc. [59](#), [587](#); [63](#), [113](#)). — [I](#), [1020](#).
- 6) α -Deken- α -Carbonsäure (Undekylensäure). Sm. [24,5°](#); Sd. 275° u. Zers. Ba (B. [10](#), [2035](#); [11](#), [1412](#); [19](#), [2224](#), [2228](#); [29](#), [2232](#); Soc. [49](#), [206](#)). — [I](#), [523](#).
- 7) Petroleumsäure. Sd. 258—261°₇₄₁. NH₄, Na, K, Ba, Pb, Ag (B. [7](#), [1217](#); [10](#), [451](#); [19](#), [156](#); J. r. [15](#), [345](#)). — [I](#), [522](#).
- 8) Polyundekylensäure = (C₁₁H₂₀O₂)_x (B. [16](#), [291](#); [17](#), [2985](#); J. [1854](#), [464](#)). — [I](#), [523](#).
- 9) Säure (aus Petroleum) (B. [24](#), [1810](#)). — [I](#), [523](#).
- 10) Methylester d. 1-Isopropylhexahydrobenzol-4-Carbonsäure. Sd. [234](#) bis [235°](#) (J. pr. [\[2\]](#) [57](#), [100](#)).
- 11) Methylester d. Campholsäure. Sd. 208° (Bl. [\[3\]](#) [11](#), [494](#)).
- 12) Methylester d. Isocampholsäure. Sd. 216—218° (B. [27](#) [\[2\]](#) [668](#); Bl. [\[3\]](#) [11](#), [907](#); [\[3\]](#) [13](#), [772](#)).
- 13) Methylester d. Dekanaphtensäure. Sd. 220—225° (J. r. [19](#), [156](#)). — [I](#), [522](#).
- 14) Aethylester d. 1,2-Dimethylhexahydrobenzol-4-Carbonsäure. Sd. [224°](#)₇₅₈ (Soc. [71](#), [171](#)).
- 15) Nononaphtylester d. Essigsäure (Acetat d. Nononaphtylalkohol). Sd. [208,5°](#) (J. r. [22](#), [124](#)). — [I](#), [412](#).
- 16) Formiat d. d-Citronellol. Sd. 97—100°₁₀ (B. [29](#), [907](#)). — [III](#), [465](#).
- 17) Acetat d. ζ -Oxy- $\beta\zeta$ -Dimethyl- β -Hepten. Sd. 84—86°₁₁ (Bl. [\[3\]](#) [19](#), [827](#)).
- 18) Acetat d. 2-[α -Oxyäthyl]-1-Methylhexahydrobenzol. Sd. 204—208° (Soc. [57](#), [22](#)). — [I](#), [412](#).
- 19) Acetat d. 5-Oxy-1,1,3-Trimethylhexahydrobenzol. Sd. 209—210° (A. [297](#), [197](#)).
- 20) Acetat d. 5-[α -Oxyäthyl]-1,3-Dimethyl-R-Pentamethylen. Sd. [200](#) bis [202°](#) (Soc. [61](#), [79](#)).
- 21) Acetat d. Alkohols C₉H₁₈O (aus Chlorhexahydrocymol). Sd. 200—203° (J. r. [16](#) [\[2\]](#) [296](#)). — [II](#), [15](#).
- 22) Propionat d. δ -Oxy- ζ -Methyl- α -Hepten. Sd. 195—197° (Bl. [\[3\]](#) [15](#), [887](#)).
- 23) Isovalerat d. δ -Oxy- α -Hexen. Sd. 196—198° (Bl. [\[3\]](#) [15](#), [885](#)).

 $C_{11}H_{20}O_3$

C 66,0 — H 10,0 — O 24,0 — M. G. 200.

- 1) ι -Ketodekan- α -Carbonsäure? (Undekanonsäure). Sm. 49°. Ag (B. [28](#), [1449](#)).
- 2) Aldehyd d. Brassylsäure (A. [134](#), [47](#)). — [I](#), [968](#).
- 3) Methylester d. ϵ -Keto- $\beta\delta$ -Dimethylheptan- δ -Carbonsäure (Methylester d. Isobutylpropionylpropionsäure). Sd. 230—231° (A. [245](#), [94](#)). — [I](#), [611](#).
- 4) Methylester d. ϵ -Keto- $\beta\zeta$ -Dimethylheptan- α -Carbonsäure (M. d. Oxymenthylsäure). Sd. 136—137°₁₇ (A. ch. [\[6\]](#) [7](#), [450](#); B. [29](#), [27](#)). — [I](#), [611](#).
- 5) Aethylester d. β -Ketooktan- γ -Carbonsäure. Sd. 242—244°_{738,4} (G. [28](#) [\[2\]](#) [280](#); J. pr. [\[2\]](#) [58](#), [401](#)).
- 6) Aethylester d. ζ -Keto- β -Methylheptan- δ -Carbonsäure. Sd. [150](#) bis [160°](#)₂₈ (Soc. [73](#), [59](#)).
- 7) Aethylester d. ζ -Keto- β -Methylheptan- ϵ -Carbonsäure (Aethylester d. Isoamylacetessigsäure). Sd. 234—235°₇₈₇ (227—228°) (B. [20](#), [3322](#); [28](#), [2627](#)). — [I](#), [610](#).
- 8) Aethylester d. δ -Keto- β -Isopropylpentan- α -Carbonsäure. Sd. 170° (Bl. [\[3\]](#) [19](#), [199](#)).
- 9) Propylester d. β -Oxypropenisobutyläther- α -Carbonsäure. Sd. [251,4°](#) (A. [256](#), [215](#)). — [I](#), [590](#).
- 10) Isobutylester d. β -Oxypropenpropyläther- α -Carbonsäure. Sd. [228,5°](#) (A. [256](#), [217](#)). — [I](#), [589](#).
- 11) Isoamylester d. β -Ketopentan- γ -Carbonsäure (Isoamylester d. Aethylacetessigsäure). Sd. 233—236° (226—[230°](#)) (A. [186](#), [231](#); [257](#), [358](#)). — [I](#), [604](#).

$C_{11}H_{20}O_4$

C 61,1 — H 9,2 — O 29,6 — M. G. 216.

- 1) **Nonan- $\alpha\beta$ -Dicarbonsäure.** Sm. 90—91°. Ca + H₂O, Ba, Ag₂ (A. 304, 337).
- 2) **Nonan- $\delta\zeta$ -Dicarbonsäure** (Dipropylglutarsäure). Sd. 89° (A. 256, 190). — I, 688.
- 3) **Nonan- $\gamma\eta$ -Dicarbonsäure** (Diäthylpimelinsäure). Sm. 96—97° (Soc. 59, 838; 61, 701). — I, 688.
- 4) **$\beta\zeta$ -Dimethylheptan- $\delta\delta$ -Dicarbonsäure** (Diisobutylmalonsäure). Sm. 145 bis 150° u. Zers. (Soc. 73, 61).
- 5) **Brassylsäure**, siehe C₁₃H₂₄O₄. — I, 688.
- 6) **Dimethylester d. Heptan- $\alpha\eta$ -Dicarbonsäure** (Dimethylester d. Azelainsäure). Sd. 260° u. Zers. (Z. 1865, 298).
- 7) **Aethylester d. α -Oxy- β -Keto- γ -Aethylpentanmethyläther- γ -Carbon-säure?** (Ac. d. Diäthylacetyloxyessigmethyläthersäure). Sd. 185—190° (A. 231, 240).
- 8) **Diäthylester d. Pentan- $\alpha\epsilon$ -Dicarbonsäure** (D. d. norm. Pimelinsäure). Sd. 192—194°₁₀₀ (Soc. 59, 825). — I, 676.
- 9) **Diäthylester d. Pentan- $\beta\beta$ -Dicarbonsäure** (D. d. Methylpropylmalonsäure). Sd. 220—223° (M. 12, 593). — I, 677.
- 10) **Diäthylester d. Pentan- $\gamma\gamma$ -Dicarbonsäure** (D. d. Diäthylmalonsäure). Sd. 223° (A. 204, 138; Soc. 45, 513; C. 1897 [1] 282). — I, 679.
- 11) **Diäthylester d. β -Methylbutan- $\alpha\alpha$ -Dicarbonsäure** (Diäthylester d. sec. Butylmalonsäure). Sd. 224—225° (233—234°₇₇₄) (R. 6, 152; M. 14, 562; Soc. 67, 266). — I, 678.
- 12) **Diäthylester d. β -Methylbutan- $\alpha\delta$ -Dicarbonsäure** (Diäthylester d. β -Methyladipinsäure). Sd. 126,5°₁₀ (B. 25, 3517; Bl. [3] 13, 8).
- 13) **Diäthylester d. β -Methylbutan- $\gamma\gamma$ -Dicarbonsäure** (D. d. Methylisopropylmalonsäure). Sd. 221°₁₅₂ (217—222°) (R. 5, 234; Soc. 69, 1477). — I, 679.
- 14) **Diäthylester d. β -Methylbutan- $\gamma\delta$ -Dicarbonsäure** (D. d. Isopropylbernsteinsäure). Sd. 236—240° (A. 169, 172). — I, 677.
- 15) **Diäthylester d. β -Methylbutan- $\delta\delta$ -Dicarbonsäure** (D. d. Isobutylmalonsäure). Sd. 225° (A. 209, 236; B. 13, 600; 28, 2622; 29, 1864). — I, 679.
- 16) **Diäthylester d. $\beta\beta$ -Dimethylpropan- $\alpha\alpha$ -Dicarbonsäure** (D. d. Pseudobutylmalonsäure). Sd. 215—225° (B. 28, 2624).
- 17) **Diäthylester d. $\beta\beta$ -Dimethylpropan- $\alpha\gamma$ -Dicarbonsäure.** Sd. 241 bis 243°₇₆₅ (Soc. 69, 1475).
- 18) **Isobutylester d. d- α -Propionoxylbuttersäure.** Sd. 234° (Bl. [3] 15, 490).
- 19) **norm. Propyl-norm. Butylester d. Bernsteinsäure.** Sd. 258,7° (A. 253, 301). — I, 656.
- 20) **norm. Dibutylester d. Malonsäure.** Sd. 251,5° (A. 253, 299). — I, 651.
- 21) **Diisobutylester d. Malonsäure.** Sd. 225—226° (M. 15, 19).
- 22) **Aethyl-norm. Heptylester d. Oxalsäure.** Sd. 263,7° (A. 253, 296). — I, 648.

 $C_{11}H_{20}O_5$

C 56,9 — H 8,6 — O 34,5 — M. G. 232.

- 1) **Diacetonadonit.** Sd. 150—155°₁₇ (B. 28, 2532).
- 2) **Diacetonarabit.** Sd. 145—152°₂₃ (B. 28, 2532).
- 3) **γ -Oxynonan- $\alpha\beta$ -Dicarbonsäure** (Hexylitaminsäure). Ca, Ba, Ag₂ (A. 227, 85; B. 25, 3173). — I, 759.
- 4) **Säure** (aus Hexylisoparakonsäure). Ca, Ba (A. 305, 9).
- 5) **Dimethylester d. ζ -Oxyhexanmethyläther- $\gamma\gamma$ -Dicarbonsäure.** Sd. 180°₄₉ (Soc. 65, 992).
- 6) **Diäthylester d. γ -Oxypentan- $\beta\delta$ -Dicarbonsäure.** Sd. 270—271° (B. 28, 3263; C. 1898 [2] 886).
- 7) **Diäthylester d. β -Oxy- β -Methylbutan- $\gamma\delta$ -Dicarbonsäure** (D. d. Diaterebinsäure). Fl. (J. 1855, 650; A. 180, 69). — I, 754.
- 8) **Diäthylester d. γ -Oxy- β -Methylbutan- $\beta\gamma$ -Dicarbonsäure.** Sd. 122 bis 123°₉ (C. 1898 [2] 1168).
- 9) **Diäthylester einer isom. Oxypentandicarbonsäure.** Sd. gegen 250° (J. pr. [2] 32, 150). — I, 755.

- C₁₁H₂₀O₅** 10) Diäthylester d. δ -Oxybutanmethyläther- $\alpha\alpha$ -Dicarbonsäure. Sd. 254 bis 258° (B. 30, 1059).
 11) Dipropylester d. 1- α -Oxyäthanmethyläther- $\alpha\beta$ -Dicarbonsäure. Sd. 173—173,5° (Soc. 67, 971).
 12) Dibutyrat d. $\alpha\beta\gamma$ -Trioxypentan (Glycerindibutyryn) (A. ch. [3] 41, 264). — I, 424.
- C₁₁H₂₀O₆** C 53,2 — H 8,0 — O 38,7 — M. G. 248.
 1) Oxyisobutterisopropylidenäthersäure (Acetonaloxyisobuttersäure). Sd. 197°. Ca + 1½ H₂O, Ba + ½ H₂O, Zn + 2 H₂O, Pb (B. 15, 2311; 20, 2445; Bl. 47, 499). — I, 979.
 2) Diäthylester d. Dioxymethandiäthylätherdicarbonsäure. Sm. 43 bis 44°; Sd. 228°₇₆₃ (B. 30, 490; Am. 19, 696).
 3) Diäthylester d. $\alpha\gamma$ -Dioxypropandimethyläther- $\beta\beta$ -Dicarbonsäure (D. d. Dimethoxyldimethylmalonsäure). Sd. 238—243° (A. 246, 102). — I, 802.
- C₁₁H₂₀O₇** C 50,0 — H 7,6 — O 42,4 — M. G. 264.
 1) Dimethyläthylcarbinolglykuronsäure. K (H. 9, 515). — I, 834.
- C₁₁H₂₀O₈** C 47,1 — H 7,1 — O 45,7 — M. G. 280.
 1) Monoisoamylester d. Schleimsäure (J. 1855, 470—471). — I, 856.
- C₁₁H₂₀O₉** C 44,6 — H 6,7 — O 48,6 — M. G. 296.
 1) Diäthylester einer Pentaoxypimelinsäure. Sm. 166° (A. 272, 196). — I, 869.
- C₁₁H₂₀O₁₁** C 40,2 — H 6,1 — O 53,7 — M. G. 328.
 1) Arabinosidoglykonsäure (B. 27, 2485).
- C₁₁H₂₀N₂** C 73,3 — H 11,1 — N 15,6 — M. G. 180.
 1) 1-Aethyl-2-Hexylimidazol. Sd. 270—272°₇₄₈. (2 HCl, PtCl₄) (M. 8, 222). — IV, 531.
 2) 2-Propyl-1-Isoamylimidazol. Sd. 250—252°₇₂₄. (2 HCl, PtCl₄) (M. 9, 609). — IV, 527.
 3) 2-Isopropyl-1-Isoamylimidazol. Sd. 246—248°₇₃₈ (M. 9, 612). — IV, 528.
 4) 1,2-Diisobutylimidazol. Sd. 238—242°. (2 HCl, PtCl₄) (B. 17, 1295). — IV, 530.
 5) Base (aus 1-Formylhexahydropyridin). (2 HCl, PtCl₄) (A. 237, 254). — IV, 12.
- C₁₁H₂₀S** 1) Verbindung (aus Asa foetida) (B. 24, 80). — III, 545.
C₁₁H₂₀S₂ 1) Verbindung (aus Asa foetida). Sd. 120—130° (B. 24, 80). — III, 545.
C₁₁H₂₁N C 79,0 — H 12,6 — N 8,4 — M. G. 167.
 1) Methyl-1-Fenchylamin. Sd. 201—202°. HCl, (2 HCl, PtCl₄) (A. 269, 367). — IV, 58.
- C₁₁H₂₁Cl** 1) Chlorundeken (Chlorundekatylen). Sd. 221—223° (Z. 1870, 431). — I, 157.
 2) Chlorundeken (aus Petroleum). Sd. 220—228° (Am. 19, 470, 485).
 3) Chlorhendekanaphten (Gemisch). Sd. 210—225° (J. r. 15, 337). — I, 163.
- C₁₁H₂₂O** C 77,6 — H 12,9 — O 9,4 — M. G. 170.
 1) δ -Oxy- δ -Methyl- α -Deken (Methylallylhexylcarbinol). Sd. 215—216° (J. pr. [2] 49, 52).
 2) Alkohol (aus Wollfett). Sm. 82—87° (B. 28, 3134).
 3) trans-5-Oxy-3-Isobutyl-1-Methylhexahydrobenzol. Sd. 127—129°₂₀ (A. 289, 149).
 4) Methyläther d. trans-5-Oxy-3-Isopropyl-1-Methylhexahydrobenzol. Sd. 122°₄₀ (A. 289, 148).
 5) β -Ketoundekan (Methylnonylketon). Sd. 224°. + NH₄, HSO₃ + H₂O (A. 107, 375; 113, 109; 123, 293; 157, 275; 204, 4; Z. 1870, 429; B. 15, 1709). — I, 1004.
 6) γ -Ketoundekan (Capron). Sm. 14,6°; Sd. 226,3° (A. 186, 263; 187, 134; B. 5, 602; Soc. 63, 460). — I, 1004.
 7) ϵ -Keto- $\beta\beta$ -Dimethylnonan (Diisoamylketon). Sd. 226° (J. pr. [2] 39, 250). — I, 1004.
 8) δ -Keto- $\gamma\epsilon$ -Diäthylheptan (Tetraäthylacetone). Sd. 200—205° (M. 13, 247). — I, 1004.
 9) Butylbutyron (Keton unb. C.). Sd. 222° (A. 108, 185). — I, 1004.
 10) Capron (Keton). Sd. 165° (A. 75, 257).
 11) Verbindung (aus Weinöl). Sd. 218—219° (J. pr. [2] 23, 457).

$C_{11}H_{22}O_2$

C 70,9 — H 11,8 — O 17,2 — M. G. 186.

- 1) Digitalkrin (*J.* 1858, 529). — III, 580.
- 2) 2,3-Dioxy-1,2,3,4-Tetramethyl-R-Heptamethylen. Sd. 179—180°₆₀ (*Soc.* 63, 117).
- 3) Dekan- β -Carbonsäure. Sm. 28,5°; Sd. 228°. Ba, Ag (*B.* 11, 2219; 12, 1668). — I, 439.
- 4) $\beta\beta\gamma\delta\delta$ -Pentamethylpentan- γ -Carbonsäure (Methyldibutylelessigsäure). Sm. 66—70°; Sd. 266°. Na + $\frac{1}{2}$ H₂O, Mg (*J. r.* 11, 203). — I, 439.
- 5) Umbellulsäure. Sm. 21—23°; Sd. 208—211°₁₀₀ (*Am.* 4, 206). — I, 440.
- 6) Methylester d. Caprinsäure. Sd. 223—224° (*A.* 157, 268). — I, 439.
- 7) Aethylester d. Pelargonsäure. Sd. 227—228° (216—219°) (*J. r.* 6, 119; *A.* 164, 338; *B.* 26, 642). — I, 438.
- 8) Aethylester d. Isononylsäure. Sd. 213—215° (*A.* 173, 328). — I, 439.
- 9) Propylester d. norm. Caprylsäure. Sd. 224,7° (*A.* 233, 287). — I, 437.
- 10) norm. Butylester d. norm. Heptylsäure. Sd. 225,1° (*A.* 233, 284). — I, 435.
- 11) norm. Amylester d. norm. Caprinsäure. Sd. 222—227° (*M.* 13, 323). — I, 432.
- 12) β -Methylbutylester d. Caprinsäure. Sd. 212—214°₇₇ (*Bl.* [3] 15, 282).
- 13) Isoamylester d. Isobutylelessigsäure. Sd. 215—220° (*A.* 142, 18). — I, 432.
- 14) norm. Hexylester d. norm. Valeriansäure. Sd. 223,8° (*A.* 233, 276). — I, 426.
- 15) norm. Heptylester d. norm. Buttersäure. Sd. 225,2° (*A.* 233, 271). — I, 423.
- 16) norm. Oktylester d. Propionsäure. Sd. 226,4° (*A.* 233, 266). — I, 420.
- 17) Aethylhexylcarbinolester d. Essigsäure (Acetat d. γ -Oxy-nonan). Sd. 210—211°₇₄₉ (*J. r.* 16, 307). — I, 411.
- 18) Aethyldipropylcarbinolester d. Essigsäure (Acetat d. δ -Oxy- δ -Aethyl-heptan). Sd. 188—192° (*J. pr.* [2] 33, 199). — I, 411.
- 19) Nonylester d. Essigsäure. Sd. 207—213° (*Z.* 1870, 404). — I, 411.
- 20) Nonylester d. Essigsäure (aus Petroleumnonan). Sd. 208—212° (*J.* 1863, 529). — I, 411.

 $C_{11}H_{22}O_3$

C 65,3 — H 10,9 — O 23,8 — M. G. 202.

- 1) Aethylester d. ϵ -Oxy- β -Methylheptan- ϵ -Carbonsäure. Sd. 224—225° (*A.* 142, 6; *Z.* 1866, 491). — I, 277.
- 2) Isoamylester d. α -Oxydiäthylelessigsäure. Sd. 225° (*A.* 142, 15). — I, 571.
- 3) Heptylester d. 1- α -Oxybuttersäure. Sd. 245° (*C.* 1895 [1] 826; *Bl.* [3] 15, 484).
- 4) Diisoamylester d. Kohlensäure. Sd. 226° (*A.* 85, 16; 205, 232). — I, 543.

 $C_{11}H_{22}O_4$

C 60,6 — H 10,1 — O 29,3 — M. G. 218.

- 1) β -Dioxydekan- β -Carbonsäure. Sm. 85—86° (*M.* 9, 950). — I, 635.
- 2) Oktylester d. $\alpha\beta$ -Dioxypropionsäure. Sd. 181—183°₁₃ (*Soc.* 63, 1413).

 $C_{11}H_{23}N_2$

C 72,5 — H 12,1 — N 15,4 — M. G. 182.

- 1) Di[1-Piperidyl]methan. Sd. 234—235,5°. + CS₂ (*J. pr.* [2] 36, 126; *A.* 258, 109; *B.* 28 [2] 852; 31, 2586 Anm.). — IV, 22.
- 2) Diisoamylecyanamid. Sd. 144°₂₆ (*Bl.* [3] 7, 547). — I, 1437.
- 3) Methylen-norm. Diamylendiamin. Sd. 237—238° (*B.* 26 [2] 935).

 $C_{11}H_{23}Cl_2$

- 1) $\beta\beta$ -Dichlorundekan (Undekylenchlorid). Sd. 270° (*Z.* 1870, 431). — I, 157.

 $C_{11}H_{23}S_3$

- 1) Isoamylester d. Merkapto-dithioameisenisoamyläthersäure (Diisoamylester d. Perthiokohlensäure). Sd. 245—248° (*A.* 126, 297). — I, 588.

 $C_{11}H_{23}N$

C 78,1 — H 13,6 — N 8,3 — M. G. 169.

- 1) Methylisoamylhexahydropyridin. Sd. 190—193°. HCl, (2HCl, PtCl₄), HJ (*B.* 15, 422). — IV, 8.
- 2) 2,6-Dimethyl-4-Isobutylhexahydropyridin. Sd. 196—198°₇₂₆. HCl, (2HCl, PtCl₄), HBr (*A.* 246, 47). — IV, 43.

 $C_{11}H_{23}Cl$

- 1) Chlorundekan (Undekylchlorid). Sd. 220—224° (*J.* 1863, 530). — I, 157.
- 2) Chlorundekan (aus Petroleum). Sd. 145—150°₆₀ (*Am.* 19, 438, 456, 485).

 $C_{11}H_{23}Br$

- 1) Bromundekan. Fl. (*Z.* 1870, 431). — I, 150.

- C₁₁H₁₄O** C 76,7 — H 13,9 — O 9,3 — M. G. 172.
 1) **p-Oxyundekan** (Hendekatylalkohol). *Sd.* 228—229° (*Z.* 1870, 431). — I, 238.
 2) **p-Oxyundekan**. *Sd.* 245—255° (*Z.* 1870, 404). — I, 238.
 3) **norm. Propyläther d. α-Oxyoktan** (norm. Propyl-norm. Oktyläther). *Sd.* 207° (*A.* 243, 8). — I, 300.
 4) **norm. Butyläther d. α-Oxyheptan** (norm. Butyl-norm. Heptyläther). *Sd.* 205,7° (*A.* 243, 8). — I, 300.
- C₁₁H₁₄O₂** C 70,2 — H 12,8 — O 17,0 — M. G. 188.
 1) **ββ-Dioxy-γγ-Dimethylnonan**. *Sd.* 195—196°₀₀ (*Soc.* 63, 119).
 2) **Diäthyläther d. αα-Dioxyheptan** (Oenanthodiäthylacetal). *Sd.* 204 bis 205°₇₄ (*B.* 30, 3054; 31, 1014).
 3) **Diisoamyläther d. Dioxymethan + H₂O**. *Sd.* 98° (207,3° wasserfrei) (*A.* 240, 200; 276, 164; *Bl.* [3] 11, 756, 882). — I, 912.
- C₁₁H₁₄O₃** C 64,7 — H 11,7 — O 23,5 — M. G. 204.
 1) **Trioxyundekan**. *Fl.* (*J. pr.* [2] 49, 53).
 2) **Aethyl-diisobutyläther d. Trioxymethan** (Orthoameisensäureäthyl-diisobutyläther). *Sd.* 207—208° (*B.* 16, 1647). — I, 312.
- C₁₁H₁₄O₅** C 55,9 — H 10,2 — O 33,9 — M. G. 236.
 1) **Isodulcitolisoamylat** (*B.* 21, 2050). — I, 290.
- C₁₁H₁₄N₂** C 71,7 — H 13,0 — N 15,2 — M. G. 184.
 1) **4-Amido-2,2-Dimethyl-6-Isobutylhexahydropyridin**. *Sd.* 147°₈₅ (*C.* 1898 [2] 1190).
- C₁₁H₁₅N** C 77,2 — H 24,6 — N 8,2 — M. G. 171.
 1) **β-Amidoundekan**. *Sd.* 230—231°₄₁. *HCl*, (2 *HCl*, *PtCl*) (*G.* 24 [2] 277).
- C₁₁H₁₅O₁₁** 1) **Verbindung** (aus Aethyläther). *Sm.* 51° (*A.* 217, 385).

C₁₁-Gruppe mit drei Elementen.

- C₁₁H₅O₅Cl₅** 1) **3-Acetat d. 2,4,5,6,7-Pentachlor-3-Oxy-1-Ketoinden**. *Sm.* 178 bis 179° (*A.* 272, 262). — III, 170.
- C₁₁H₅N₁₁Co₃** 1) **Kobaltokobalticyanwasserstoffsäure**. *K* + *H*₂*O*, *Ba* + 1½ *H*₂*O*, *Ag*₃ + *H*₂*O* (*B.* 29, 1021).
- C₁₁H₄O₇Br₄** 1) **p-Tetrabromnaphtalin-1-Carbonsäure**. *Sm.* 239°. *Ba* (*B.* 9, 1523). — II, 1447.
 2) **p-Tetrabromnaphtalin-2-Carbonsäure**. *Sm.* 259—260°. *Ba* (*B.* 9, 1523). — II, 1457.
- C₁₁H₄O₄Cl₂** 1) **p-Dichlornaphtochinon-1-Carbonsäure**. *Sm.* 255—259° (*J. pr.* [2] 38, 247). — II, 1878.
- C₁₁H₄O₄Br₂** 1) **3,8-Dibrom-1,2-Naphtochinon-6-Carbonsäure** (*J. pr.* [2] 53, 100).
 2) **3,5-Dibrom-1,2-Naphtochinon-7-Carbonsäure**. *Sm.* 253—254°. + *C*₇*H*₄*O*₂ (*A.* 293, 132).
- C₁₁H₄O₅N₂** C 54,1 — H 1,6 — O 32,8 — N 11,5 — M. G. 244.
 1) **p-Nitro-1,2-Naphtostyrlchinon**. *Sm.* 285° (*J. pr.* [2] 38, 185). — III, 395.
- C₁₁H₄O₅Br₂** 1) **3,5-Dibrom-2-Oxy-1,4-Naphtochinon-7-Carbonsäure**. *Zers.* bei 281°. + *C*₇*H*₄*O*₂ (*A.* 293, 137).
- C₁₁H₄O₅Br₄** 1) **Lakton d. αβ-Dibrom-α-[5,6-Dibrom-2,3,4-Acetyltrioxyphenyl]-äthen-β-Carbonsäure** (Acetyl-tetrabromdaphnetin). *Sm.* 290° u. *Zers.* (*B.* 12, 113). — II, 1950.
- C₁₁H₅O₅Cl** 1) **Lakton d. p-Chlor-8-Oxynaphtalin-1-Carbonsäure**. *Sm.* 184—185° (*J. pr.* [2] 38, 280). — II, 1689.
- C₁₁H₅O₅Cl₃** 1) **p-Trichlornaphtalin-1-Carbonsäure**. *Sm.* 163—164° (*J. pr.* [2] 38, 153). — II, 1447.
- C₁₁H₅O₅Br** 1) **Lakton d. p-Brom-8-Oxynaphtalin-1-Carbonsäure**. *Sm.* 192° (*J. pr.* [2] 38, 281). — II, 1689.
- C₁₁H₅O₅Br₃** 1) **p-Tribromnaphtalin-2-Carbonsäure**. *Sm.* 269—270°. *Ba* (*B.* 9, 1522). — II, 1456.
- C₁₁H₅O₅N** C 66,3 — H 2,5 — O 24,1 — N 7,0 — M. G. 198.
 1) **1,2-Naphtostyrlchinon**. *Sm.* bei 278° (*J. pr.* [2] 38, 183). — III, 395.
- C₁₁H₅O₅N₅** C 51,8 — H 2,0 — O 18,8 — N 27,4 — M. G. 255.
 1) **Verbindung** (aus 5,6-Diamido-1,2,3-Benztriazol u. Krokonsäure) (*B.* 26, 2059). — IV, 1260.

- $C_{11}H_5O_4N$ C 61,4 — H 2,3 — O 29,8 — N 6,5 — M. G. 215.
 1) Lakton d. *p*-Nitro-8-Oxynaphtalin-1-Carbonsäure. Sm. 242° (*J. pr.* [2] 38, 281). — II, 1689.
- $C_{11}H_5O_4Br$ 1) 2,6,8-Tribrom-3,7-Dioxy-5-Methyl-1,4-Naphtochinon? (*β*-Bromcarmin). Sm. 238° u. Zers. K_2 (*B.* 18, 3188; 26, 2662). — III, 398.
- $C_{11}H_5O_5N_3$ C 51,0 — H 1,9 — O 30,9 — N 16,2 — M. G. 259.
 1) 1,8-Anhydrid d. 5,*p*-Dinitro-8-Amidonaphtalin-1-Carbonsäure. Sm. oberh. 290° (*J. pr.* [2] 38, 182). — II, 1452.
- $C_{11}H_5O_5Cl$ 1) Chloroxynaphtochinon- α -Carbonsäure. Sm. 246°. NH_4 , $(NH_4)_2$ (*J. pr.* [2] 38, 251). — II, 1970.
- $C_{11}H_5O_5N_3$ C 43,0 — H 1,6 — O 41,7 — N 13,7 — M. G. 307.
 1) α -Trinitronaphtalin-1-Carbonsäure. Sm. 283°. $Ca + 5H_2O$ (*J. pr.* [2] 38, 272). — II, 1449.
 2) β -Trinitronaphtalin-1-Carbonsäure. Sm. 236° (*J. pr.* [2] 38, 274). — II, 1449.
 3) γ -Trinitronaphtalin-1-Carbonsäure. Sm. 293° (*J. pr.* [2] 38, 275). — II, 1449.
- $C_{11}H_5NCl_2$ 1) Nitril d. 5,8-Dichlornaphtalin-2-Carbonsäure. Sm. 140° (*J. pr.* [2] 43, 419). — II, 1456.
- $C_{11}H_5NBr_2$ 1) Nitril d. 1,6-Dibromnaphtalin-2-Carbonsäure. Sm. 178° (*J. pr.* [2] 43, 54). — II, 1456.
- $C_{11}H_5O_5N_2$ C 66,7 — H 3,0 — O 16,2 — N 14,1 — M. G. 198.
 1) 4,5-Diazinnaphtalin-1-Carbonsäure (*B.* 19, 1985; 20, 219; *J. pr.* [2] 38, 259). — II, 1452.
 2) Nitril d. 4-Nitronaphtalin-1-Carbonsäure. Sm. 133° (*B.* 28, 1839).
 3) Nitril d. 5-Nitronaphtalin-1-Carbonsäure. Sm. 205° (*B.* 14, 1065; 15, 1126; 16, 2246). — II, 1448.
 4) Nitril d. 8-Nitronaphtalin-1-Carbonsäure. Sm. 81° (*B.* 2, 408). — II, 1448.
 5) Nitril d. *p*-Nitronaphtalin-1-Carbonsäure. Sm. 152–153° (*B.* 16, 2248). — II, 1448.
 6) Nitril d. 1-Nitronaphtalin-2-Carbonsäure. Sm. 101° (*C.* 1899 [1] 288).
 7) Nitril d. 5-Nitronaphtalin-2-Carbonsäure. Sm. 172–173° (168°) (*B.* 2, 408; 16, 2218; *C.* 1899 [1] 288). — II, 1457.
 8) Nitril d. 8-Nitronaphtalin-2-Carbonsäure. Sm. 143° (*C.* 1899 [1] 288).
- $C_{11}H_5O_5Cl_2$ 1) 5,8-Dichlornaphtalin-1-Carbonsäure. Sm. 186–187°. $Ca + 2H_2O$ (*J. pr.* [2] 38, 151). — II, 1447.
 2) 5,8-Dichlornaphtalin-2-Carbonsäure. Sm. 291°. $K + H_2O$, $Ca + 2\frac{1}{2}H_2O$, $Ba + 4H_2O$ (*B.* 17, 1605; *J. pr.* [2] 43, 419, 421). — II, 1456.
 3) *p*-Dichlornaphtalin-2-Carbonsäure. Sm. 254° (*J. pr.* [2] 43, 426). — II, 1456.
 4) *p*-Dichlornaphtalin-2-Carbonsäure. Sm. 282°. $Na + 2H_2O$, $Ca + 3\frac{1}{2}H_2O$ (*J. pr.* [2] 43, 424). — II, 1456.
- $C_{11}H_5O_5Br_2$ 1) 1,6-Dibromnaphtalin-2-Carbonsäure. Sm. 245° (*J. pr.* [2] 43, 54). — II, 1456.
- $C_{11}H_5O_5N_2$ C 61,7 — H 2,8 — O 22,4 — N 13,1 — M. G. 214.
 1) 1,8-Anhydrid d. 5-Nitro-8-Amidonaphtalin-1-Carbonsäure. Sm. bei 300° (*J. pr.* [2] 38, 180). — II, 1452.
 2) 1,8-Anhydrid d. *p*-Nitro-8-Amidonaphtalin-1-Carbonsäure. Sm. bei 235° (*J. pr.* [2] 38, 180). — II, 1452.
 3) Naphtalin-3,4-Dioximanhydrid-2-Carbonsäure. Sm. 294° (*B.* 26, 2899). — II, 1692.
- $C_{11}H_5O_5Br_2$ 1) 3,5-Dibrom-1,2-Dioxynaphtalin-7-Carbonsäure (*A.* 293, 135).
- $C_{11}H_5O_5Br_4$ 1) 2,2,4,6-Tetrabrom-1,5-Dioxy-3-Keto-7-Methyl-2,3-Dihydroinden-1-Carbonsäure + $3H_2O$. Sm. 106° (213–216° wasserfrei) (*B.* 26, 2667). — II, 1965.
- $C_{11}H_5O_5N_2$ C 50,4 — H 2,3 — O 36,6 — N 10,7 — M. G. 262.
 1) 4,5-Dinitronaphtalin-1-Carbonsäure. Sm. 265°. $Na + 6H_2O$, $Ca + 3H_2O$, $Ba + 2\frac{1}{2}H_2O$ (*J. pr.* [2] 38, 256). — II, 1448.
 2) 5,8-Dinitronaphtalin-1-Carbonsäure. Sm. 218°. $Ca + 7H_2O$ (*J. pr.* [2] 38, 267; *B.* 20, 221). — II, 1449.
 3) *p*-Dinitronaphtalin-1-Carbonsäure. Sm. 215°. Na , Ca (*J. pr.* [2] 38, 270). — II, 1449.

- $C_{11}H_6O_6N_2$ 4) 1,8-[oder 4,5-]Dinitronaphtalin-2-Carbonsäure. Sm. 248°. $NH_4 + H_2O$, $Na + 4H_2O$, $Ca + 5H_2O$, $Ba + 8H_2O$ (B. 17, 1603; J. pr. [2] 42, 286). — II, 1458.
- 5) p-Dinitronaphtalin-2-Carbonsäure. Sm. 226°. $NH_4 + H_2O$, $Ca + 4H_2O$, $Ba + 6H_2O$ (B. 17, 1603; J. pr. [2] 42, 300). — II, 1458.
- $C_{11}H_6O_6N_4$ C 45,5 — H 2,1 — O 33,1 — N 19,3 — M. G. 290.
- $C_{11}H_6O_6Br_2$ 1) 1,2-Naphtochinondinitromonourein (G. 27 [1] 237).
- $C_{11}H_6O_7N_2$ 1) α ,2-Lakton d. β -Brom- α -Oxy- α -[6-Bromphenyl]äthan- β ,2,4-Tri-carbonsäure. Sm. 224° u. Zers. (A. 293, 166).
C 47,5 — H 2,1 — O 40,3 — N 10,1 — M. G. 278.
- 1) p-Dinitro-3-Oxynaphtalin-2-Carbonsäure. Sm. 252° u. Zers. (J. pr. [2] 48, 536). — II, 1691.
- $C_{11}H_6NCl$ 1) Nitril d. 4-Chlornaphtalin-1-Carbonsäure. Sm. 110° (B. 38, 1840).
- 2) Nitril d. 5-Chlornaphtalin-1-Carbonsäure. Sm. 145° (J. pr. [2] 38, 147). — II, 1447.
- 3) Nitril d. 5[oder 8]-Chlornaphtalin-2-Carbonsäure. Sm. 144° (J. pr. [2] 43, 411). — II, 1456.
- $C_{11}H_6NBr$ 1) Nitril d. p-Bromnaphtalin-1-Carbonsäure. Sm. 147° (B. 9, 1516). — II, 1447.
- 2) Nitril d. p-Bromnaphtalin-2-Carbonsäure. Sm. 148—149° (B. 9, 1517). — II, 1456.
- $C_{11}H_6N_2Cl_3$ 1) 3-Trichlormethyl-2-[$\alpha\beta\beta$ -Trichloräthyliden]-1,2-Dihydro-1,4-Benz-diazin. Sm. 149° (B. 25, 2695). — IV, 564.
- $C_{11}H_6N_4Br_6$ 1) 6-Phenylamido-2,4-Di[Tribrommethyl]-1,3,5-Triazin. Sm. 205° (J. pr. [2] 50, 109).
- $C_{11}H_6Br_4S$ 1) p-Tetrabrom-2-Methyl-4-Phenylthiophen. Sm. 136—137° (B. 20, 2559). — III, 748.
- $C_{11}H_7ON$ C 78,1 — H 4,1 — O 9,5 — N 8,3 — M. G. 169.
- 1) 1,8-Anhydrid d. 8-Amidonaphtalin-1-Carbonsäure (Naphtostyriil). Sm. 180—181° (J. pr. [2] 38, 160). — II, 1450.
- 2) 1-Naphtylisocyanat. Sd. 269—270° (B. 3, 658). — II, 608.
- $C_{11}H_7ON_2$ C 67,0 — H 3,5 — O 8,1 — N 21,3 — M. G. 197.
- 1) Verbindung (aus β -Naphtochinonamidoguanidin). Na, Ag (A. 302, 325). — IV, 1223.
- $C_{11}H_7OCl$ 1) Chlorid d. Naphtalin-1-Carbonsäure. Sd. 297,5° (B. 1, 41). — II, 1445.
- 2) Chlorid d. Naphtalin-2-Carbonsäure. Sm. 43°; Sd. 304—306° (A. 180, 317). — II, 1453.
- $C_{11}H_7O_2N_2$ C 62,0 — H 3,3 — O 15,0 — N 19,7 — M. G. 213.
- 1) 5-Keto-3-[6-Chinolyl]-4,5-Dihydro-1,2,4-Ox Diazol. Sm. 155° (B. 22, 2765). — IV, 350.
- $C_{11}H_7O_2Cl$ 1) 2-Chlornaphtalin-1-Carbonsäure. Sm. 152—153°. $Ca + 2H_2O$ (B. 22, 394; 28, 184, 1262). — II, 1446.
- 2) 4-Chlornaphtalin-1-Carbonsäure. Sm. 210° (B. 28, 1843).
- 3) 5-Chlornaphtalin-1-Carbonsäure. Sm. 245°. $Ca + 2H_2O$ (J. pr. [2] 38, 148). — II, 1446.
- 4) 8-Chlornaphtalin-1-Carbonsäure. Sm. 167°. $Ca + 2H_2O$ (J. pr. [2] 38, 150). — II, 1447.
- 5) 1-Chlornaphtalin-2-Carbonsäure. Sm. 196°. $Ca + 2H_2O$, Ag (B. 21, 1190). — II, 1455.
- 6) 3-Chlornaphtalin-2-Carbonsäure. Sm. 193°. $Ca + 2H_2O$ (B. 26, 668; 28, 184, 1262). — II, 1455.
- 7) 5[oder 8]-Chlornaphtalin-2-Carbonsäure. Sm. 263° (260°). $Na + 2H_2O$, $Ca + 3\frac{1}{2}H_2O$, $Ba + 4\frac{1}{2}H_2O$ (J. pr. [2] 38, 411; [2] 43, 417). — II, 1455.
- 8) Chlorid d. 1-Oxynaphtalin-2-Carbonsäure. Sm. 82—84° (B. 30, 222).
- $C_{11}H_7O_2Cl_3$ 1) Methylester d. 2-[$\alpha\beta\beta$ -Trichloräthenyl]phenyldichloressigsäure. Sm. 83—84° (B. 21, 3559). — II, 1430.
- $C_{11}H_7O_2Br$ 1) p-Bromnaphtalin-1-Carbonsäure. Sm. 242°. $K + \frac{1}{2}H_2O$, $Ca + 1\frac{1}{2}H_2O$, $Ba + 3H_2O$, Ag (B. 9, 1517; J. pr. [2] 38, 155). — II, 1447.
- 2) p-Bromnaphtalin-2-Carbonsäure. Sm. 256°. $K + 2\frac{1}{2}H_2O$, $Ca + 3H_2O$, $Ba + 3H_2O$, Ag (B. 9, 1518). — II, 1456.
- 3) p-Brom-6-Phenyl-1,2-Pyron (Bromphenyleumalin). Sm. 138—139° (B. 27, 843). — II, 1680.

- C₁₁H₇O₃N** C 65,7 — H 3,5 — O 23,9 — N 6,9 — M. G. 201.
 1) Cuprin (oder C₂₂H₁₁O₆N₂). Zers. oberh. 280°. HCl, (2HCl, PtCl₄) (A. 210, 89). — III, 921.
- C₁₁H₇O₃N₃** C 57,6 — H 3,1 — O 21,0 — N 18,3 — M. G. 229.
 1) 6-Oxy-2,4-Difuranyl-1,3,5-Triazin. Zers. oberh. 250° (B. 25, 1425). — IV, 1176.
- C₁₁H₇O₃Cl** 1) *p*-Chlor-8-Oxynaphtalin-1-Carbonsäure. Sm. 190—191°. Ca (J. pr. [2] 38, 280). — II, 1689.
 2) *p*-Chlor-3-Oxynaphtalin-2-Carbonsäure. Sm. 230° (231—233° u. Zers.) (J. pr. [2] 48, 535; B. 27, 2622). — II, 1691.
 3) Methylester d. 2-Chlor-1-Ketoinden-3-Carbonsäure. Sm. 105° (A. 283, 351). — II, 1687.
- C₁₁H₇O₃Cl₃** 1) Methylester d. $\alpha\alpha\beta$ -Trichlor- γ -Keto- γ -Phenylpropen-2-Carbonsäure. Sm. 47—48° (A. 255, 374). — II, 1678.
- C₁₁H₇O₃Cl₅** 1) Methylester d. 2-Trichloracetylphenyldichloressigsäure. Sm. 108 bis 109° (A. 300, 200).
 2) Methylester d. 2-Pentachlorpropionyl]benzol-1-Carbonsäure. Sm. 78—79° (A. 255, 377). — II, 1660.
- C₁₁H₇O₃Br** 1) 4-Brom-3-Acetyl-1,2-Benzpyron (β -Brom- α -Acetylcumarin). Sm. 161 bis 162° (G. 27 [2] 500).
 2) *p*-Brom-1-Oxynaphtalin-2-Carbonsäure. Sm. 238° (B. 20, 2700). — II, 1688.
 3) *p*-Brom-3-Oxynaphtalin-2-Carbonsäure. Sm. 233—235° u. Zers. (B. 27, 2622). — II, 1691.
- C₁₁H₇O₃J** 1) Methyläther d. 3-Jod-2-Oxy-1,4-Naphtochinon. Sm. 156—157° (B. 28, 347). — III, 384.
- C₁₁H₇O₄N** C 60,8 — H 3,2 — O 29,5 — N 6,4 — M. G. 217.
 1) *p*-Nitro-6-Phenyl-1,2-Pyron (Nitrophenylcumalin). Sm. 161° (B. 27, 843). — II, 1680.
 2) 4-Nitronaphtalin-1-Carbonsäure. Sm. 220° (B. 28, 1841).
 3) 5-Nitronaphtalin-1-Carbonsäure. Sm. 241—242°. Na + 5H₂O, K + H₂O, Ca + 2H₂O, Ba + 3½H₂O, Pb + 5½H₂O (J. pr. [2] 38, 241, 276; B. 14, 1066; 15, 1127; 16, 2250). — II, 1448.
 4) 8-Nitronaphtalin-1-Carbonsäure. Sm. 215°. Ca + 3H₂O, Ba + 6H₂O, Pb + H₂O (B. 3, 740; J. pr. [2] 38, 156, 277). — II, 1447.
 5) *p*-Nitronaphtalin-1-Carbonsäure. Sm. 255° (B. 16, 2252). — II, 1448.
 6) 1-Nitronaphtalin-2-Carbonsäure. Sm. 182° (C. 1899 [1] 288).
 7) 5-Nitronaphtalin-2-Carbonsäure (β Säure). Sm. 295° (286—287°). Na + 2H₂O, K + H₂O, Ca + 3½H₂O, Ba + 4H₂O (B. 16, 2252; J. pr. [2] 42, 273; C. 1899 [1] 288). — II, 1457.
 8) 8-Nitronaphtalin-2-Carbonsäure. Sm. 295° (C. 1899 [1] 288).
 9) *p*-Nitronaphtalin-2-Carbonsäure (α -Säure). Sm. 220°. Ca (B. 3, 741; 12, 1395; J. pr. [2] 42, 273). — II, 1457.
 10) *p*-Nitronaphtalin-2-Carbonsäure (γ Säure). Sm. 279° (280°). Ca + 7H₂O (B. 12, 1395; 18, 1205; J. pr. [2] 43, 409). — II, 1457.
 11) *p*-Nitronaphtalin-2-Carbonsäure (δ Säure). Sm. 288°. Na + 2H₂O, Ca + 4½H₂O, Ba + 8H₂O (J. pr. [2] 42, 292). — II, 1457.
 12) *p*-Nitronaphtalin-2-Carbonsäure (ϵ -Säure). Sm. 285° (J. pr. [2] 42, 304). — II, 1458.
 13) *p*-Nitronaphtalin-2-Carbonsäure (ζ -Säure) (J. pr. [2] 43, 410). — II, 1458.
 14) 4-Nitroso-3-Oxynaphtalin-2-Carbonsäure. Sm. 185° u. Zers. (B. 26, 2898). — II, 1691.
 15) α -Cyan- β -(3,4-Dioxyphenyl)akryl-3,4-Methylenäthersäure. Sm. 230°. Ag (J. pr. [2] 50, 19). — II, 1777.
 16) Chinolin-2,3-Dicarbonsäure + 2H₂O (Akridinsäure). Zers. bei 120 bis 130° (B. 13, 100). — IV, 369.
 17) Chinolin-2,4-Dicarbonsäure. Sm. 246° u. Zers. K₂ + 2½H₂O, Ca, Ba, Cu + H₂O, Ag₂ (B. 22, 3009; J. pr. [2] 56, 308). — IV, 369.
 18) Chinolin-2,6-Dicarbonsäure. Sm. 275—280° u. Zers. Cu (B. 23, 2261). — IV, 369.
 19) Chinolin-5,8-Dicarbonsäure + 2H₂O. Sm. 268—270° (wasserfrei). Cu, HCl + 1½H₂O, (2HCl, PtCl₄) (M. 7, 149). — IV, 370.
 20) Chinolin-*p*-Dicarbonsäure + H₂O. Sm. 268—270° (B. 20, 99). — IV, 370.

- $C_{11}H_7O_4N_2$ C 53,9 — H 2,8 — O 26,2 — N 17,1 — M. G. 245.
 1) 1-Naphtylpurpursäure. NH_4 , K, Ca, Ba (A. 157, 327). — II, 863.
- $C_{11}H_7O_4Cl_2$ 1) Trichlorlimettin. Sm. 188,5° (Soc. 61, 348). — III, 636.
- $C_{11}H_7O_3N$ C 56,7 — H 3,0 — O 34,3 — N 6,0 — M. G. 233.
 1) Benzamtartridsäure. $CuOH$ (A. 232, 164). — II, 1267.
 2) 2-Nitro-8-Oxynaphtalin-1-Carbonsäure. $Ca + 5\frac{1}{2}H_2O$ (J. pr. [2] 38, 281). — II, 1689.
 3) 4-Nitro-1-Oxynaphtalin-2-Carbonsäure. Sm. 202° (B. 20, 2700; 23, 806). — II, 1688.
 4) 2-Nitro-3-Oxynaphtalin-2-Carbonsäure. Sm. 233–238° u. Zers. NH_4 , Na, K (J. pr. [2] 48, 534). — II, 1691.
- $C_{11}H_7O_3N_2$ C 50,6 — H 2,7 — O 30,6 — N 16,1 — M. G. 261.
 1) 6-Oxy-2-[3-Nitrophenyl]-1,3-Diazin-4-Carbonsäure. Sm. 260° (B. 28, 486). — IV, 987.
- $C_{11}H_7O_3N_2$ C 47,6 — H 2,5 — O 34,6 — N 15,2 — M. G. 277.
 1) 2,4-Dinitrophenylimid d. Citrakonsäure. Sm. 120° (A. 85, 21; Z. 1871, 203). — II, 418.
- $C_{11}H_7O_3Cl_2$ 1) 2,4,6-Trichlor-3,5-Diacetoxylbenzol-1-Carbonsäure. Sm. 207° (B. 25, 2688). — II, 1747.
- $C_{11}H_7O_3Br$ 1) α ,2-Lakton d. α -Oxy- α -[6-Bromphenyl]äthan- β ,2,4-Tricarbonsäure. Sm. 275–276°. Ba + $3H_2O$ (A. 293, 169).
- $C_{11}H_7O_7N_2$ C 45,0 — H 2,4 — O 38,2 — N 14,3 — M. G. 293.
 1) Methyläther d. 2,4,5 [oder 2,4,8]-Trinitro-1-Oxynaphtalin. Sm. 128° (B. 14, 900; A. 217, 172). — II, 864.
 2) Methyläther d. 2-Trinitro-2-Oxynaphtalin. Sm. 213° (A. 217, 172; B. 14, 900). — II, 884.
 3) Methyläther d. 2-Trinitro-2-Oxynaphtalin (aus 1,2,5,8-Tetranitronaphtalin). Sm. 191° (B. 28, 372).
 4) Methyläther d. 2-Trinitro-2-Oxynaphtalin (aus 1,3,5,8-Tetranitronaphtalin). Sm. 186° (B. 28, 372).
- $C_{11}H_7O_7N_2$ C 41,1 — H 2,2 — O 34,9 — N 21,8 — M. G. 321.
 1) Furyl-2,4,6-Trinitrophenylhydrazin. Sm. 230° (G. 24 [1] 579). — IV, 764.
- $C_{11}H_7NCl_4$ 1) Tetrachlordispolin. Sm. 135° (J. pr. [2] 8, 304). — IV, 333.
- $C_{11}H_7NS$ 1) 1-Naphtylsenfö. Sm. 53° (58°) (J. 1858, 350; B. 15, 986, 1414; 16, 2017; 21, 971). — II, 609.
 2) 2-Naphtylsenfö. Sm. 62–63° (B. 14, 61; 15, 1413). — II, 619.
 3) 2-Naphtylrhodanid. Sm. 35° (B. 8, 463). — II, 619, 888.
 4) β -Naphtthiazol. Sm. 45–46°. ($2HCl$, $PtCl_4$) (B. 20, 1799, 2265). — II, 888.
- $C_{11}H_7NS_2$ 1) 1-Merkapto- α -Naphtthiazol. Sm. 232° u. Zers. (B. 24, 1408). — II, 871.
 2) 2-Merkapto- β -Naphtthiazol. Sm. oberh. 240° (B. 21, 2626; 24, 1406). — II, 889.
- $C_{11}H_7N_2Cl_3$ 1) 3-Dichlormethyl-2-[$\alpha\beta\beta$ -Trichloräthyliden]-1,2-Dihydro-1,4-Benzdiazin. Sm. 126° (B. 25, 2693). — IV, 564.
- $C_{11}H_5ON_2$ C 71,7 — H 4,3 — O 8,7 — N 15,2 — M. G. 184.
 1) 1,8-Anhydrid d. 5,8-Diamidonaphtalin-1-Carbonsäure. Sm. 239 bis 240°. HCl (J. pr. [2] 38, 181, 269). — II, 1451.
 2) Nitril d. 1-Keto-3-Methyl-1,2-Dihydroisochinolin-4-Carbonsäure. Sm. noch nicht bei 310° (B. 25, 3567; 27, 830). — II, 1868.
- $C_{11}H_5ON_4$ C 62,2 — H 3,8 — O 7,5 — N 26,4 — M. G. 212.
 1) Verbindung (aus Nitroso- β Naphtolamidoguanidinnitrat). Sm. oberh. 240°. HCl , HNO_3 (A. 302, 326). — IV, 1222.
- $C_{11}H_5OS$ 1) 2 [oder 3]-Benzoylthiophen. Sm. 55°; Sd. 300° (A. 267, 180). — III, 766.
- $C_{11}H_5OS_2$ 1) 1-Oxynaphtalin-2-Dithiocarbonsäure. Sm. 110° u. Zers. (M. 15, 607). — II, 1688.
- $C_{11}H_5O_2N_2$ C 66,0 — H 4,0 — O 16,0 — N 14,0 — M. G. 200.
 1) 2-[4-Nitrophenyl]pyridin. Sm. bei 117° (B. 28, 527; 29, 165, 279). — IV, 377.
 2) 1,2-Naphtochinonmonurein (G. 25 [1] 79; 27 [1] 235). — III, 390.
 3) 4,5-Diamidonaphtalin-1-Carbonsäure (J. pr. [2] 38, 264). — II, 1451.
 4) 2,3-Bipyridyl-3-Carbonsäure + H_2O . Sm. 182,5–184°. $Ca + 2H_2O$, $Ag + \frac{1}{2}H_2O$ (M. 3, 597; Ph. Ch. 3, 396). — IV, 986.

- $C_{11}H_9O_2N_2$ 5) **2,3-Benzdiazin-1-Akrylsäure.** Sm. 200° u. Zers. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 30, 3035). — IV, 986.
- $C_{11}H_9O_2N_4$ C 57,9 — H 3,5 — O 14,0 — N 24,6 — M. G. 228.
 1) **Methylalloxazin.** Zers. bei 250° (B. 24, 3030). — IV, 561.
 2) **Tolualloxazin** (B. 24, 2365). — IV, 946.
 3) **2-Naphtenyldioxytetrarazotsäure.** K, Ag, 2-Naphtenylamidinsalz (A. 297, 380). — IV, 1278.
- $C_{11}H_9O_2Cl_4$ 1) **Methylester d. 2-[$\alpha\beta$ -Dichloräthenyl]phenyldichloressigsäure.** Sm. 99–100° (B. 21, 3556). — II, 1430.
- $C_{11}H_9O_2Hg$ 1) **Formiat d. Quecksilber-2-Naphtyloxydhydrat.** Sm. 155–158° (B. 27, 252). — IV, 1713.
- $C_{11}H_9O_2N_2$ C 61,1 — H 3,7 — O 22,2 — N 13,0 — M. G. 216.
 1) **3-Diazonaphtalin-2-Carbonsäure.** Sulfat (B. 28, 3099). — IV, 1556.
 2) **5-Keto-4-Benzyliden-4,5-Dihydropyrazol-3-Carbonsäure.** Sm. 243° (J. pr. [2] 51, 49). — IV, 986.
 3) **1-Phenylpyrazol-4-Ketocarbonsäure.** Sm. 168° u. Zers. — IV, 543.
 4) **6-Oxy-2-Phenyl-1,3-Diazin-4-Carbonsäure.** Sm. 247° u. Zers. Ca, Ba, Zn (PINNER, Imidoäther 257). — IV, 987.
 5) **4-Keto-2-Phenyl-1,4-Dihydro-1,3-Diazin-5-Carbonsäure** (Phenylpyrimidoncarbonsäure). Sm. 265° u. Zers. Ag₂ (B. 30, 822, 1489, 1564). — IV, 987.
 6) **Amid d. 4-Nitronaphtalin-1-Carbonsäure.** Sm. 218° (B. 28, 1841).
 7) **Amid d. 8-Nitronaphtalin-1-Carbonsäure.** Sm. 280° (J. pr. [2] 38, 276). — II, 1448.
 8) **Amid d. 5-Nitronaphtalin-2-Carbonsäure.** Sm. 261–263° (C. 1899 [1] 288).
 9) **Amid d. 8-Nitronaphtalin-2-Carbonsäure.** Sm. 218° (C. 1899 [1] 288).
- $C_{11}H_9O_2Cl_2$ 1) **Methylester d. 2,3-Dichlor-1-Oxyinden-1-Carbonsäure.** Sm. 137 bis 138° (B. 19, 2501; A. 283, 350). — II, 1679.
- $C_{11}H_9O_2Cl_4$ 1) **Methylester d. 2-Dichloracetylphenyldichloressigsäure.** Sm. 114 bis 115° (A. 300, 197).
 2) **Methylester d. 2,2,3,3-Tetrachlor-1-Oxy-2,3-Dihydroinden-1-Carbonsäure.** Sm. 166° (A. 267, 338; 283, 360). — II, 1662.
- $C_{11}H_9O_2Br_2$ 1) **Aethyläther d. 3,2-Dibrom-7-Oxy-1,2-Benzpyron.** Sm. 216° (B. 19, 1786). — II, 1775.
- $C_{11}H_9O_2N_2$ C 56,9 — H 3,4 — O 27,6 — N 12,1 — M. G. 232.
 1) **p-Dinitro-2-Methylnaphtalin.** Sm. 206° (B. 17, 844). — II, 218.
 2) **5-Keto-3-Methyl-4-[3-Nitrobenzyliden]-4,5-Dihydroisoxazol.** Sm. 148–149° (B. 30, 1338).
 3) **p-Nitro-p-Amidonaphtalin-1-Carbonsäure.** Sm. bei 110° (J. pr. [2] 38, 271). — II, 1452.
 4) **p-Nitro-p-Amidonaphtalin-2-Carbonsäure.** Sm. 235°. HCl (J. pr. [2] 42, 302). — II, 1459.
 5) **1-Phenylpyrazol-3,4-Dicarbonsäure.** Sm. 234° u. Zers. (G. 23 [1] 311, 317; 28 [1] 383). — IV, 543, 544.
 6) **1-Phenylpyrazol-3,5-Dicarbonsäure.** Sm. 266° u. Zers. (NH₄)₂, Pb, Ag₂ (A. 278, 286; B. 23, 1449). — IV, 544.
 7) **1-Phenylpyrazol-4,5-Dicarbonsäure.** Sm. 215–216°. Ag₂ (A. 295, 315; G. 28 [1] 383). — IV, 544.
 8) **4-Phenylpyrazol-3,5-Dicarbonsäure.** Sm. 240° u. Zers. Ca + 4H₂O (B. 26, 257). — IV, 951.
 9) **5-Phenylpyrazol-3,4-Dicarbonsäure.** Sm. 235° u. Zers. K (B. 26, 260; 27, 3247 Anm.; A. 279, 252). — IV, 952.
 10) **2-Phenylimidazol-4,5-Dicarbonsäure** (A. ch. [6] 24, 542). — IV, 952.
 11) **5-Nitro-2-Methylchinolin-3-Carbonsäure.** Sm. 236°. HCl (J. pr. [2] 56, 384).
 12) **8-Nitro-2-Methylchinolin-3-Carbonsäure.** Sm. 196° u. Zers. (J. pr. [2] 56, 376).
 13) **6-Methyl-1,4-Benzdiazin-2,3-Dicarbonsäure + 1/2 H₂O.** Zers. bei 145° (A. 237, 353). — IV, 951.
 14) **Esoanhydrid d. Benzenylamidoximfumarsäure** (B. 31, 2112).
 15) **Methylester d. α -Cyan- β -[2-Nitrophenyl]akrylsäure.** Sm. 142° (Soc. 73, 88).

- $C_{11}H_9O_4N_2$ 16) Methylester d. α -Cyan- β -[3-Nitrophenyl]akrylsäure. Sm. 135–136° (Soc. 73, 89).
 17) Methylester d. Benzoyloximidocyanessigsäure. Sm. 131–132° (A. ch. [7] 1, 534). — II, 1153.
 18) Benzoat d. 4-Oximido-5-Keto-3-Methyl-4,5-Dihydroisoxazol (B. 28, 2101).
 19) Phenylhydrazid d. Krokonsäure. Sm. oberh. 300°. K₂ (B. 19, 774). — IV, 715.
- $C_{11}H_9O_4N_2$ C 50,8 — H 3,1 — O 24,6 — N 21,5 — M. G. 260.
 1) β -Nitroso- β -Nitro-6-Oxy-4-Methyl-2-Phenyl-1,3-Diazin. Sm. 236 bis 243° (B. 20, 2363). — IV, 958.
- $C_{11}H_8O_4Cl_2$ 1) 3,5[oder 4,6]-Dichlor-4[oder 5]-Oxy-1,6[oder 1,3]-Dimethylbenzofuran-2-Carbonsäure. Sm. 260–270°. Ba + 2H₂O (A. 283, 260). — III, 732.
 2) $\alpha\gamma$ -Lakton d. α -Oxy- α -[2,4-Dichlorphenyl]propan- $\beta\gamma$ -Dicarbonsäure (Dichlorphenylparakonsäure). Sm. 164,5–165,5° (A. 260, 75). — II, 1956.
 3) $\alpha\gamma$ -Lakton d. α -Oxy- α -[2,5-Dichlorphenyl]propan- $\beta\gamma$ -Dicarbonsäure + H₂O. Sm. 197–198° (A. 260, 75). — II, 1956.
 4) $\alpha\gamma$ -Lakton d. α -Oxy- α -[3,4-Dichlorphenyl]propan- $\beta\gamma$ -Dicarbonsäure. Sm. 136–137° (A. 260, 76). — II, 1956.
 5) 2, α -Lakton d. $\beta\beta$ -Dichlor- α -Oxy- α -Phenyläthan-2-Carbonsäure- β -Carbonsäuremethylester. Sm. 77° (B. 27, 739). — II, 1952.
 6) Methylester d. 2,2-Dichlor-1-Keto-3-Oxy-2,3-Dihydroinden-3-Carbonsäure. Sm. 122° (124–125°) (A. 267, 338; 283, 354; B. 21, 2384). — II, 1865.
- $C_{11}H_8O_4Br_2$ 1) 2,4-Dibrom-3,5,7,8-Tetraoxy-1-Methylnaphtalin (B. 26, 2670). — II, 1036.
 2) Dibromlimettin. Sm. 257° u. Zers. (Soc. 57, 324; 61, 348). — III, 636.
 3) Anhydrid d. $\alpha\beta$ -Dibrom- β -[2-Carboxylmethoxyphenyl]propionsäure. Sm. bei 213° (B. 17, 3002). — II, 1564.
 4) Methylester d. 2,2-Dibrom-3-Oxy-1-Keto-2,3-Dihydroinden-3-Carbonsäure. Sm. 137° (B. 21, 2387). — II, 1866.
- $C_{11}H_8O_5N_2$ C 53,2 — H 3,2 — O 32,2 — N 11,3 — M. G. 248.
 1) Methyläther d. 1,6-Dinitro-2-Oxynaphtalin. Sm. 198° (C. 1897 [1] 239).
 2) Methyläther d. 1,8-Dinitro-2-Oxynaphtalin. Sm. 190° (C. 1897 [1] 239).
- $C_{11}H_8O_5N_2$ C 47,8 — H 2,9 — O 29,0 — N 20,3 — M. G. 276.
 1) s-Furyl-2,4-Dinitrophenylhydrazin. Sm. 202° (G. 24 [1] 568). — IV, 764.
 2) 4-Phenylhydrazon-5-Keto-4,5-Dihydropyrazol-3,4²-Dicarbonsäure. Sm. 227° (J. pr. [2] 51, 51; B. 27, 785). — IV, 1489.
- $C_{11}H_8O_5Br_2$ 1) α -Oxybromcarminmethyläthersäure. Sm. 185° (B. 18, 3184). — II, 2098.
 2) α -Oxybromcarminmethylester. Sm. 192° (B. 18, 3183). — II, 2098.
- $C_{11}H_8O_5S$ 1) Naphtalin-1-Carbonsäure- α -Sulfonsäure. Sm. 235° u. Zers. K₂ + 2H₂O, Ca + 3H₂O, Ba + 4H₂O, BaH + 2H₂O (A. 168, 119; 188, 3). — II, 1453.
 2) Naphtalin-1-Carbonsäure- β -Sulfonsäure. Sm. 218–222° u. Zers. Ba + 3 $\frac{1}{2}$ H₂O, BaH + 4H₂O (A. 168, 119; 188, 5). — II, 1453.
 3) Naphtalin-1-Carbonsäure- γ -Carbonsäure. Sm. 182–185°. Ba + 1 $\frac{1}{2}$ H₂O, BaH + H₂O (A. 188, 7). — II, 1453.
 4) Naphtalin-2-Carbonsäure- β -[α]Sulfonsäure. Sm. 229–230° u. Zers. Ba + 1(6 $\frac{1}{2}$)H₂O (A. 168, 123; 188, 10). — II, 1460.
 5) Naphtalin-2-Carbonsäure- β -[β]Sulfonsäure. Ba + 2H₂O (A. 168, 123; 188, 12). — II, 1460.
 6) Aldehyd d. 1-Oxynaphtalin-4-Carbonsäure-2-Sulfonsäure. Ba (C. 1898 [2] 836).
- $C_{11}H_8O_6N_2$ C 50,0 — H 3,0 — O 36,4 — N 10,6 — M. G. 264.
 1) β -Dinitro-1-Methylnitroamidonaphtalin. Sm. 157,5° (B. 20, 2272). — II, 598.
- $C_{11}H_8O_6Cl_2$ 1) Dichloroxysacculmid (G. 12, 296; B. 16, 244). — I, 1109.
 2) 2,4 oder 2,6-Dichlor-3,5-Diacetoxylbenzol-1-Carbonsäure. Sm. 179° (B. 25, 2688). — II, 1747.
- $C_{11}H_8O_6S$ 1) 1-Oxynaphtalin-2-Carbonsäure-4-Sulfonsäure + 5H₂O. Na, Na₂, Ba (B. 22, 787; 23, 806). — II, 1688.

- C₁₁H₈O₈S** 2) 1-Oxynaphtalin-2-Carbonsäure-7-Sulfonsäure. Ba (B. 30, 1460).
 3) 3-Oxynaphtalin-2-Carbonsäure-5-Sulfonsäure + 4H₂O. Ba + 5H₂O. (B. 26, 671, 1115, 1117). — II, 1692.
 4) 3-Oxynaphtalin-2-Carbonsäure-7-Sulfonsäure (B. 26, 1115, 1117). — II, 1692.
- C₁₁H₈O₈S** 1) 1,7-Dioxynaphtalin-2-Carbonsäure-4-Sulfonsäure. Na, Anilinsalz (B. 29, 38).
 2) 3,5-Dioxynaphtalin-2-Carbonsäure-7-Sulfonsäure. Ba + 2H₂O (B. 26, 1119). — II, 1875.
- C₁₁H₈O₈S₂** 1) Aldehyd d. 2-Oxynaphtalin-1-Carbonsäure-3,7-Disulfonsäure. Na, Ba (C. 1898 [2] 836).
 2) Aldehyd d. 1-Oxynaphtalin-2-Carbonsäure-4,7-Disulfonsäure. Ba (C. 1898 [2] 836).
 3) Aldehyd d. 1-Oxynaphtalin-2-Carbonsäure-4,8-Disulfonsäure. Ba (C. 1898 [2] 836).
- C₁₁H₈O₈S₂** 1) 1-Oxynaphtalin-2-Carbonsäure-4,7-Disulfonsäure + 4H₂O. Na₂ + 6H₂O, K₂, Ba₂, Ba₂ + 6H₂O (B. 22, 788; 29, 37). — II, 1688.
 2) 3-Oxynaphtalin-2-Carbonsäure-5,7-Disulfonsäure (B. 26, 1118). — II, 1692.
- C₁₁H₈NCl** 1) 6-Chlor-2-Phenylpyridin. Sm. 34° (B. 29, 1679; G. 26 [2] 349). — IV, 376.
- C₁₁H₈N₂S** 1) 1-Naphtylthiocarbizin. Sm. 184—185°. HCl (B. 24, 4187). — IV, 927.
 2) 2-Naphtylthiocarbizin. Sm. 253—254° (A. 253, 31). — IV, 929.
- C₁₁H₈ON** C 77,2 — H 5,3 — O 9,3 — N 8,2 — M. G. 171.
 1) 1-Oximidomethylnaphtalin (α-Naphtobenzaldoxim). Sm. 98° (B. 22, 2151). — III, 63.
 2) 2-Oxy-1-Imidomethylnaphtalin. HCl (B. 32, 285).
 3) 4-Oxy-1-Imidomethylnaphtalin. HCl (B. 32, 284).
 4) 2-Phenylimidomethylfuran. Sm. 85°; Sd. 163—164°₁₀ (A. 271, 12; B. 31, 2613 Anm.). — III, 723.
 5) 2-Benzoylpyrrol. Sm. 77—78°. Ag (B. 17, 2955). — IV, 100.
 6) 2-Keto-6-Phenyl-1,2-Dihydropyridin. Sm. 197° (B. 29, 1678; G. 26 [2] 347). — IV, 376.
 7) 4-Keto-1-Phenyl-1,4-Dihydropyridin + 2H₂O (M. 5, 407). — IV, 117.
 8) α-[2-Furanyl]-β-[2-Pyridyl]äthan (α-Furfuräthenpyridin). Sm. 51—53°. (HCl, HgCl₂ + H₂O), (2HCl, PtCl₄ + 2H₂O), Pikrat (B. 21, 2709). — IV, 124.
 9) Aldehyd d. Chinolin-2-Methylcarbonsäure. Sm. 103—104°. (2HCl, PtCl₄ + 2H₂O), Pikrat (B. 18, 3467; 19, 908; A. 267, 38). — IV, 372.
 10) Aldehyd d. 2-Methylchinolin-6-Carbonsäure. Sm. 106°. (2HCl, PtCl₄ + 2H₂O) (B. 18, 3237). — IV, 372.
 11) Aldehyd d. 2-Methylchinolin-7-Carbonsäure + 1½ H₂O. Sm. 61° (73°). HCl, (2HCl, PtCl₄), Pikrat (B. 22, 277). — IV, 372.
 12) Amid d. Naphtalin-1-Carbonsäure. Sm. 202° (B. 1, 39; 5, 319; 15, 3065; G. 14, 122; C. r. 66, 476). — II, 1445.
 13) Amid d. Naphtalin-2-Carbonsäure. Sm. 192° (A. 180, 320; G. 14, 123; J. pr. [2] 52, 432). — II, 1453.
 14) 1-Naphtylamid d. Ameisensäure. Sm. 138,5° (137°). Hg, Ag (A. 108, 229; 211, 42; B. 15, 2447; Soc. 67, 830; Am. 13, 515; 18, 547). — II, 605.
 15) 2-Naphtylamid d. Ameisensäure. Sm. 129° (120—123°) (B. 14, 58; 15, 2447; A. 211, 42; Soc. 67, 830). — II, 615.
 16) Verbindung (aus Benzoyl R Trimethylen) (Soc. 47, 846). — III, 163.
 C 66,3 — H 4,5 — O 8,0 — N 21,1 — M. G. 199.
- C₁₁H₈ON₂** 1) Amid d. 2-Diazonaphtalin-N-Carbonsäure (A. d. 2-Naphtylazocarbon-säure). Sm. 137—138° (B. 28, 2600). — IV, 1452.
- C₁₁H₈OCl** 1) Methyläther d. 1-Chlor-2-Oxynaphtalin. Sm. 68° (C. 1895 [1] 834).
- C₁₁H₈OBr** 1) Verbindung (aus 5-Phenyl-2-Methylfuran). Sm. 208—210° (B. 17, 2760). — III, 272.
- C₁₁H₈O₂N** C 70,6 — H 4,8 — O 17,1 — N 7,5 — M. G. 187.
 1) 2-Nitro-1-Methylnaphtalin. Sd. 194—195°₂₇ (B. 24, 3932). — II, 217.
 2) 2-Nitro-2-Methylnaphtalin. Sm. 81° (B. 17, 844). — II, 218.
 3) Methyläther d. 2-Nitroso-1-Oxynaphtalin. Sm. 95° (B. 8, 630; 17, 2591; 18, 572, 2224). — II, 862.

- $C_{11}H_9O_3N$
- 4) Methyläther d. 4-Nitroso-1-Oxynaphtalin. Sm. 98–100° (B. 17, 2591; 18, 2226). — II, 861.
 - 5) Methyläther d. 1-Nitroso-2-Oxynaphtalin. Sm. 75° (B. 17, 2587; 18, 572). — II, 881.
 - 6) 2-Methylamido-1,4-Naphtochinon. Sm. 232° (Soc. 37, 639). — III, 374.
 - 7) 1-Naphtylhydroxamsäure. Sm. 186–187° u. Zers. (B. 20, 1355). — II, 1445.
 - 8) 2-Naphtylhydroxamsäure. Sm. 168°. K (B. 20, 1359). — II, 1454.
 - 9) N-Phenylfurfuraldoxim. Sm. 91–92° (B. 30, 2017).
 - 10) 2,4-Oxyphenylimidomethylfuran (p-Oxyfurfuranilin). Sm. 180–182° u. Zers. HCl (A. 201, 358). — III, 724.
 - 11) 5-Keto-4-Benzyliden-3-Methyl-4,5-Dihydroisoxazol. Sm. 139–141° (142°). HCl (B. 28, 2733, 2906; 30, 1337).
 - 12) 2,6-Dioxy-4-Phenylpyridin. Sm. 254–255° (Soc. 75, 248).
 - 13) 2-Oxy-3-Acetylchinolin. Sm. 232° (B. 16, 1838). — IV, 373.
 - 14) 5,6-Methylenäther d. 5,6-Dioxy-2-Methylchinolin. Sm. 12° (2HCl, PtCl₄), H₂CrO₄, Pikrat (B. 24, 623). — IV, 313.
 - 15) Acetat d. 6-Oxychinolin. Sm. 36–38°; Sd. 298°. (2HCl, PtCl₄) (M. 3, 555). — IV, 271.
 - 16) Acetat d. 8-Oxychinolin. Sd. 280°. (2HCl, PtCl₄ + 2H₂O) (M. 3, 541). — IV, 274.
 - 17) Acetylderivat d. 4-Keto-1,4-Dihydrochinolin. Sm. 228° (B. 21, 1378). — IV, 269.
 - 18) 4-Amidonaphtalin-1-Carbonsäure. Sm. 177° (B. 28, 1842).
 - 19) 5-Amidonaphtalin-1-Carbonsäure. Sm. 211–212° (198–199°). Ca + 3H₂O, HCl, HNO₃, H₂SO₄ (J. pr. [2] 38, 244; C. 1899 [1] 289). — II, 1450.
 - 20) 8-Amidonaphtalin-1-Carbonsäure. Ca + 9 $\frac{1}{2}$ H₂O (J. pr. [2] 38, 159; B. 20, 243). — II, 1450.
 - 21) 3-Amidonaphtalin-2-Carbonsäure. Sm. 214°. Na, Fe (B. 28, 3096).
 - 22) 5 [oder 8]-Amidonaphtalin-2-Carbonsäure. Sm. 232°. Ca + 4H₂O, HCl, HNO₃, H₂SO₄ (J. pr. [2] 42, 280). — II, 1459.
 - 23) 7-Amidonaphtalin-2-Carbonsäure. Sm. 245° (C. 1899 [1] 289).
 - 24) 2-Amidonaphtalin-2-Carbonsäure. Sm. 219°. Ca + 4H₂O, HCl (J. pr. [2] 42, 295). — II, 1159.
 - 25) 2-Amidonaphtalin-2-Carbonsäure. Sm. 211° (B. 18, 1206). — II, 1159.
 - 26) Chinolin-2-Methylcarbonsäure (2-Chinolylessigsäure). Sm. 274–275°. Ca, Ag, (2HCl, PtCl₄) (A. 287, 38). — IV, 255.
 - 27) 2-Methylchinolin-3-Carbonsäure. Sm. 234°. Ag (A. 282, 117; B. 16, 1836; 19, 37; 22, 267). — IV, 351.
 - 28) 2-Methylchinolin-4-Carbonsäure (Aniluvitoninsäure). Sm. 246° (241 bis 242°). subl. HCl + H₂O, (2HCl, PtCl₄ + 2H₂O), HBr + 2(1)H₂O, Dichromat, Pikrat, Ba, Ag (A. 191, 321; B. 14, 90; 16, 2357; Bl. [3] 13, 337; J. pr. [2] 33, 341; [2] 38, 582; [2] 56, 283). — IV, 353.
 - 29) 2-Methylchinolin-6-Carbonsäure. Sm. 259°. Ca + 2H₂O, Cu + 6H₂O, Ag, HCl + H₂O, (2HCl, PtCl₄ + 4H₂O), H₂Cr₂O₇ (B. 17, 939; 23, 2264). — IV, 353.
 - 30) 2-Methylchinolin-7-Carbonsäure. Sm. 285° u. Zers. Ca + 2H₂O, Cu + 3H₂O, Ag, HCl + H₂O, (2HCl, PtCl₄), H₂Cr₂O₇ (B. 17, 941; 22, 281; 23, 2263, 3484). — IV, 354.
 - 31) 2-Methylchinolin-8-Carbonsäure. Sm. 151°. Cu + 1 $\frac{1}{2}$ H₂O, HCl, (2HCl, PtCl₄ + 2H₂O) (B. 17, 943; 23, 2259). — IV, 354.
 - 32) 3-Methylchinolin-2-Carbonsäure. Sm. 144°. Cu (B. 17, 1715; 18, 1641). — IV, 354.
 - 33) 3-Methylchinolin-4-Carbonsäure. Sm. 254° (B. 23, 2257). — IV, 354.
 - 34) 4-Methylchinolin-6-Carbonsäure. Sm. 250–270° u. Zers. (B. 23, 2265). — IV, 354.
 - 35) 8-Methylchinolin-5-Carbonsäure. Sm. 286°. Ca, HCl + H₂O, (2HCl, PtCl₄ + 6H₂O) (A. 237, 310). — IV, 354.
 - 36) Methylenchinolin-4-Carbonsäure (Methylenecinchoninsäure). Sm. 210° (A. 270, 350). — IV, 346.
 - 37) Chinolinbetaïn. Sm. 171°. (2HCl, PtCl₄ + 2H₂O) (B. 15, 1254, 2007). — IV, 253.

- C₁₁H₉O₂N** 38) Methylbetain d. Chinolin-4-Carbonsäure. Sm. 236° u. Zers. (A. 270, 347). — IV, 346.
 39) α -Cyan- β -[2-Methylphenyl]akrylsäure. Sm. 202° (A. ch. [6] 29, 484). — II, 1427.
 40) α -Cyan- β -[3-Methylphenyl]akrylsäure. Sm. 156° (A. ch. [6] 29, 473). — II, 1427.
 41) α -Cyan- β -[4-Methylphenyl]akrylsäure. Sm. 214° (A. ch. [6] 29, 480). — II, 1428.
 42) Inn. Anhydrid d. α -Acetylamido- β -Phenylakrylsäure. Sm. 146 bis 147° (A. 284, 47). — II, 1420.
 43) Aldehyd d. 4-Oxy-2-Methylchinolin-3-Carbonsäure. Sm. 273° u. Zers. HCl, (2HCl, PtCl₄) (B. 21, 1972). — IV, 372.
 44) Methylester d. α -Cyan- β -Phenylakrylsäure. Sm. 70° (89°) (A. ch. [6] 29, 452; Bl. [3] 7, 11; Soc. 73, 88). — II, 1417.
 45) Methylester d. β -[2-Cyanphenyl]akrylsäure. Sm. 57° (B. 27 [2] 262). — II, 1417.
 46) 1-Naphtylester d. Amidoameisensäure. Sm. 158° (A. 244, 43). — II, 858.
 47) 2-Naphtylester d. Amidoameisensäure. Sm. 187° (A. 244, 44). — II, 878.
 48) Acetat d. Truxonoxim. Sm. 261° (B. 23, 320). — III, 170.
 49) Amid d. 3-Oxynaphtalin-2-Carbonsäure. Sm. 185° (B. 25, 3634). — II, 1691.
 50) Phenylamid d. Furan-2-Carbonsäure. Sm. 123,5° (A. 239, 367). — III, 698.
 51) Allylimid d. Benzol-1,2-Dicarbonsäure. Sm. 70—71°; Sd. 295° (B. 14, 171; 23, 999; 26, 2850). — II, 1804.
 52) Phenylimid d. Citrakonsäure. Sm. 98°; Sd. 171,7°₁₃ (A. 77, 277; 239, 142; B. 18, 1052; 19, 623, 1375; 21, 1368; 22, 2287; 23, 893, 2980). — II, 418.
 53) Benzylimid d. Maleinsäure. Sm. 67,5° (G. 22 [1] 171; 23 [1] 171; 26 [1] 439). — II, 530.
 54) Nitril d. $\alpha\gamma$ -Diketo- α -Phenylbutan- β -Carbonsäure (α -Cyanbenzenyl-aceton). Sm. 74°. Ag (J. pr. [2] 47, 113). — III, 271.
C₁₁H₉O₂N₃ C 61,4 — H 4,2 — O 14,9 — N 19,5 — M. G. 215.
 1) 2-Semicarbazon-1-Keto-1,2-Dihydronaphtalin. Zers. bei 184° (A. 302, 330).
 2) 4-Semicarbazon-1-Keto-1,4-Dihydronaphtalin. Sm. 247° u. Zers. (A. 302, 330).
 3) 3-[2,4-Dioxyphenyl]azopyridin. Sm. 218° u. Zers. (B. 31, 2495). — IV, 1484.
 4) Nitril d. 6-Nitro-1,3,5-Trimethylbenzol-2,4-Dicarbonsäure. Sm. 118° (A. 278, 220). — II, 1857.
 5) Amid d. 6-Oxy-2-Phenyl-1,3-Diazin-4-Carbonsäure (B. 22, 1630). — IV, 987.
C₁₁H₉O₂Br 1) 3-Brom-4,6-Dimethyl-1,2-Benzpyron (3-Brom-4,6-Dimethylcumarin) (B. 19, 1299). — II, 1663.
 2) 1-Brom-1-Methylinden-2-Carbonsäure. Sd. 245° (A. 247, 162). — II, 1443.
C₁₁H₉O₂N C 65,0 — H 4,4 — O 23,6 — N 6,9 — M. G. 203.
 1) Methyläther d. 1-Nitro-2-Oxynaphtalin. Sm. 126° (C. 1897 [1] 239, 240).
 2) Methyläther d. 6-Nitro-2-Oxynaphtalin. Sm. 134° (C. 1897 [1] 239).
 3) Methyläther d. 8-Nitro-2-Oxynaphtalin. Sm. 69° (C. 1897 [1] 239).
 4) 2-Oxy-1-Naphtohydroxamsäure. Sm. 178° u. Zers. (B. 22, 1277). — II, 1690.
 5) 1-Oxy-2-Naphtohydroxamsäure. Sm. 174° u. Zers. (B. 22, 1276). — II, 1687.
 6) 6-Acetylamido-1,2-Benzpyron (6-Acetylamidocumarin). Sm. 216—217° (B. 27, 1937). — II, 1632.
 7) Oxim d. 3-Acetyl-1,2-Benzpyron. Sm. 206° (B. 31, 733).
 8) 5-Keto-3-Methyl-4-[2-Oxybenzyliden]-4,5-Dihydroisoxazol. Sm. 174—175° (B. 30, 1340).

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- 9) **1-Acetyl-2,3-Diketo-5-Methyl-2,3-Dihydroindol**(Acetylmethylpseudoisatin). Sm. 172° (B. 18, 197; J. pr. [2] 33, 71). — II, 1651.
- 10) **Tarkonin**. $HCl + 1\frac{1}{2}H_2O$, $(2HCl, PtCl_4)$ (Soc. 32, 535; A. 245, 321). — III, 918.
- 11) **8-Acetat d. 2,8-Dioxychinolin**. Sm. $244-247^\circ$ (M. 16, 765). — IV, 287.
- 12) **Monoacetat d. 2-Dioxychinolin**. Sm. $115-117^\circ$ (B. 20, 1822). — IV, 288.
- 13) α -Cyan- β -[4-Methoxyphenyl]akrylsäure. Sm. 226° . Ag (J. pr. [2] 50, 11). — II, 1637.
- 14) γ -Cyan- α -Keto- α -Phenylpropan- γ -Carbonsäure + H_2O (Phenacylcyanessigsäure). Sm. 69° ($99-100^\circ$ wasserfrei). Na + $3H_2O$, Phenylhydrazinsalz (C. 1895 [2] 917).
- 15) **3-Keto-2,3-Dihydroindol-2-[Aethenyl- α -Carbonsäure]** (Brenztraubensäureindogenid). Sm. 197° (B. 16, 2199). — II, 1615.
- 16) **3-Keto-1-Methylen-1,3-Dihydroisindol-2-Methylcarbonsäure** (Methylenphthalimidylessigsäure). Sm. $199-200^\circ$. Ag (B. 29, 2519).
- 17) **3-Keto-2-Methyl-1,3-Dihydroisindol-1-Methenylcarbonsäure** (Phthalmethylimidylessigsäure). Sm. 212° u. Zers. Ag (B. 18, 2453). — II, 1873.
- 18) β -Phtalimidylpropionsäure. Sm. 225° . Ca + H_2O , Ba, Ag (B. 18, 3119). — II, 1964.
- 19) **4-Amido-1-Oxynaphtalin-2-Carbonsäure**. Sm. oberh. 200° (B. 20, 2700). — II, 1688.
- 20) **4-Amido-3-Oxynaphtalin-2-Carbonsäure**. Zers. bei $205,5^\circ$ (B. 28, 3091).
- 21) **2-Amido-1-Oxynaphtalin-2-Carbonsäure**. Sm. oberh. 300° (B. 20, 1275). — II, 1688.
- 22) isom. **2-Amido-1-Oxynaphtalin-2-Carbonsäure**. Sm. oberh. 200° (B. 20, 2701). — II, 1688.
- 23) **2-Amido-3-Oxynaphtalin-2-Carbonsäure** (J. pr. [2] 48, 535). — II, 1692.
- 24) **8-Oxy-2-Methylchinolin-5[2]-Carbonsäure** + H_2O . Sm. 207° (B. 21, 883). — IV, 366.
- 25) **2-Oxy-4-Methylchinolin-8-Carbonsäure**. Sm. $312,4^\circ$. Ag (B. 24, 853). — IV, 366.
- 26) **4-Oxy-2-Methylchinolin-3-Carbonsäure**. Sm. 245° u. Zers. Mg (B. 21, 1975; 27, 1400). — IV, 365.
- 27) **6-Oxychinolinmethyläther-4-Carbonsäure** (Chininsäure). Sm. bei 280° u. Zers.; subl. u. Zers. Ca + $2H_2O$, Ba + $4H_2O$, Cu + $1\frac{1}{2}H_2O$, Ag, $HCl + 2H_2O$, $(2HCl, PtCl_4 + 4H_2O)$ (B. 12, 1106; M. 2, 592; 10, 68; 17, 327; A. 282, 106; Ph. Ch. 3, 395). — III, 820; IV, 361.
- 28) **Oxyessig-8-Chinolyläthersäure** (o-Chinolyloxyessigsäure). Sm. 176° . K + H_2O , Ba + $3H_2O$, Pb, Ag, HCl , $(HCl, SnCl_2 + H_2O)$, $(2HCl, PtCl_4 + 2H_2O)$, $HJ + 2H_2O$, $H_2SO_4 + 2H_2O$, $2 + HgCl_2 + 3H_2O$ (M. 18, 32). — IV, 274.
- 29) **2-Keto-1-Methyl-1,2-Dihydrochinolin-4-Carbonsäure**. Sm. 246° . Ba, Ag (A. 282, 366). — IV, 362.
- 30) **1-Keto-2-Methyl-1,2-Dihydroisochinolin-3-Carbonsäure**. Sm. 238° . Ag (B. 27, 204). — IV, 365.
- 31) **1,4-Anhydrid d. 6-Oxy-1-Methylchinolinammonium-4-Carbonsäure** + H_2O . Sm. 304° (wasserfrei) (A. 282, 96). — IV, 361.
- 32) β -Phtalimidylpropiolakton. Sm. 205° u. Zers. Ca, Ba, Ag, (B. 18, 3120). — II, 1964.
- 33) **Aldehyd d. α -[2-Nitrophenyl]- $\alpha\gamma$ -Butadien- δ -Carbonsäure**. Sm. 153° (B. 17, 2026). — III, 63.
- 34) **Methylester d. Benzoylcyanessigsäure**. Sm. 74° . Na, Ba + H_2O , + 2 Molec. Phenylhydrazin (B. 21 [2] 529; Bl. [3] 15, 131). — II, 1646.
- 35) β -Ketopropylimid d. **Benzol-1,2-Dicarbonsäure** (Acetonylphthalimid). Sm. 124° (B. 21, 2684; 26, 2198). — II, 1814.
- 36) **Phenylimid d. Oxalpropionsäure**. Sm. $191-192^\circ$ u. Zers. (B. 24, 1256). — II, 420.
- 37) **Amid d. β -Phtalylpropionsäure**. Sm. $193-195^\circ$ (B. 11, 1014). — II, 1875.

- C₁₁H₉O₃N** 38) Nitril d. 3,4,5-Trioxy-1-Aethenylbenzol-5-Methyläther-3,4-Methylenäther-2-Carbonsäure (Cotarnonnitril). Sm. 160° (A. 254, 339). — II, 1951.
- 39) Nitril d. 2-Keto-4-Methyl-1,2-Dihydrochinolin-3-Carbonsäure. Sm. 330—332° u. Zers. Ag. — IV, 365.
- C₁₁H₉O₃N₂** C 57,1 — H 3,9 — O 20,8 — N 18,2 — M. G. 231.
- 1) 5-Nitro-8-Acetylamidochinolin. Sm. 220° (J. pr. [2] 53, 204). — IV, 915.
- 2) 6-Nitro-8-Acetylamidochinolin. Sm. 224° (J. pr. [2] 53, 208). — IV, 915.
- 3) 6-Oxy-4-Methyl-2-[3-Nitrophenyl]-1,3-Diazin. Sm. 254° (B. 28, 485). — IV, 958.
- 4) 4-Acetat d. 4-Oximido-5-Keto-3-Phenyl-4,5-Dihydropyrazol. Sm. 82° (J. pr. [2] 52, 28). — IV, 905.
- 5) Phenylacetylhydrazoncyanessigsäure. Sm. 210° (J. pr. [2] 57, 207).
- C₁₁H₉O₃Cl₃** 1) α ,2-Lakton d. 4-Aethoxyl-1-[$\beta\beta\beta$ -Trichlor- α -Oxyäthyl]benzol-2-Carbonsäure (5-Aethoxyltrichlormethylphtalid). Sm. 118° (A. 296, 352).
- 2) Methylester d. 2,2,3-Trichlor-1-Oxy-2,3-Dihydroinden-1-Carbonsäure. Sm. 150° (B. 20, 2894). — II, 1662.
- C₁₁H₉O₃Br** 1) Bromdehydroacetylpaonol. Sm. 175—177° (B. 25, 1300). — III, 135.
- 2) Methylenäther d. γ -Keto- α -[β -Brom-3,4-Dioxyphenyl]- α -Buten. Sm. 152—154° (B. 24, 2595). — III, 162.
- 3) Aethyläther d. 3-Brom-7-Oxy-1,2-Benzpyron. Sm. 115,5° (B. 19, 1784). — II, 1775.
- C₁₁H₉O₄N** C 60,3 — H 4,1 — O 29,2 — N 6,4 — M. G. 219.
- 1) Tarnin + 1½ H₂O. Sm. noch nicht bei 290°. HCl, (2HCl, PtCl₄), HBr (A. 212, 187). — III, 921.
- 2) α -[2-Nitrophenyl]- $\alpha\gamma$ -Butadien- δ -Carbonsäure. Sm. 217,5° (B. 18, 2331). — II, 1442.
- 3) α -[4-Nitrophenyl]- $\alpha\gamma$ -Butadien- δ -Carbonsäure. Sm. 271°. Ag (A. 253, 356). — II, 1442.
- 4) 1-Acetoxyindol-2-Carbonsäure. Sm. 161° u. Zers. (B. 29, 651). — IV, 237.
- 5) Lakton d. γ -Oxy- α -[4-Nitrophenyl]- α -Buten- δ -Carbonsäure. Sm. 110 bis 111° (A. 253, 371). — II, 1663.
- 6) Aethylester d. 4-Nitrophenylpropionsäure. Sm. 126° (A. 212, 156). — II, 1441.
- 7) Aethylester d. Isatogensäure. Sm. 115° (B. 14, 1741; 15, 55, 780). — II, 1439.
- 8) Acetoxydimethylimid d. Benzol-1,2-Dicarbonsäure. Sm. 118° (B. 31, 3233).
- 9) Bernsteinsäurephenylimid-3-Carbonsäure. Sm. 235°. Ba + 2H₂O, Ag (J. r. 4, 295). — II, 1265.
- 10) Nitril d. 2,4-Diacetoxybenzol-1-Carbonsäure. Sm. 72° (B. 24, 3651). — II, 1736.
- C₁₁H₉O₄N₂** C 53,4 — H 3,6 — O 25,9 — N 17,0 — M. G. 247.
- 1) 5-Acetylmethyl-3-[4-Nitrophenyl]-1,2,4-Oxdiazol. Sm. 140° (B. 22, 2427). — II, 1237.
- 2) 5-Methyl-1-[4-(?)Nitrophenyl]pyrazol-3-Carbonsäure. Sm. 122—124° (A. 279, 224). — IV, 539.
- 3) Benzylnitrosobarbitursäure. Sm. 226° (B. 15, 2849). — II, 1849.
- C₁₁H₉O₄Cl** 1) $\alpha\gamma$ -Lakton d. α -Oxy- α -[2-Chlorphenyl]propan- $\beta\gamma$ -Dicarbonsäure (o-Chlorphenylparakonsäure). Sm. 146—147°. Ag (A. 247, 370). — II, 1955.
- 2) $\alpha\gamma$ -Lakton d. α -Oxy- α -[3-Chlorphenyl]propan- $\beta\gamma$ -Dicarbonsäure. Sm. 160—161° (A. 247, 371). — II, 1955.
- 3) $\alpha\gamma$ -Lakton d. α -Oxy- α -[4-Chlorphenyl]propan- $\beta\gamma$ -Dicarbonsäure + ½ H₂O. Sm. 119—120° (A. 247, 371). — II, 1955.
- 4) Methylester d. Phenoxyimucoclorsäure. Sm. 59° (Am. 19, 638).
- C₁₁H₉O₄Cl₃** 1) Diacetat d. 4,5,6-Trichlor-2,3-Dioxy-1-Methylbenzol. Sm. 165° (A. 296, 185).
- 2) Diacetat d. 3,4,6-Trichlor-2,5-Dioxy-1-Methylbenzol. Sm. 114° (A. 152, 253). — II, 957.

- C₁₁H₉O₄Cl₃** 3) Diacetat d. 2,5,6-Trichlor-3,4-Dioxy-1-Methylbenzol. Sm. 161° (A. 296, 162).
 4) Diacetat d. 2,4,6-Trichlor-3,5-Dioxy-1-Methylbenzol. Sm. 130—131° (B. 26, 319). — II, 962.
 5) Lakton d. 3,4-Dimethoxyl-1-[βββ-Trichlor-α-Oxyäthyl]benzol-2-Carbonsäure. Sm. 104° (A. 301, 356).
 6) α,2-Lakton d. 4,6-Dimethoxyl-1-[βββ-Trichlor-α-Oxyäthyl]benzol-2-Carbonsäure (3,5-Dimethoxyltrichlormethylphtalid). Sm. 125° (A. 296, 352).
- C₁₁H₉O₄Br** 1) Phenylbromparakonsäure. Sm. 99° (A. 256, 76). — II, 1866.
 2) Phenylisobromparakonsäure. Sm. 144° u. Zers. (A. 256, 79). — II, 1867.
 3) αγ-Lakton d. α-Oxy-α-[p-Bromphenyl]propan-βγ-Dicarbonsäure (Bromphenylparakonsäure). Sm. 141,5° (A. 256, 86). — II, 1956.
 4) Methylester d. Phenoxylmucobromsäure. Sm. 75—76° (Am. 19, 632).
- C₁₁H₉O₄Br₃** 1) Diacetat d. 2,4,6-Tribrom-3,5-Dioxy-1-Methylbenzol. Sm. 143° (B. 11, 1440). — II, 963.
- C₁₁H₉O₅N** C 56,2 — H 3,8 — O 34,0 — N 5,9 — M. G. 235.
 1) Methylenäther d. γ-Keto-α-[2-Nitro-3,4-Dioxyphenyl]-α-Buten. Sm. 153° (B. 24, 620). — III, 163.
 2) 1-[4-Nitrobenzoyl]-R-Trimethylen-1-Carbonsäure. Sm. 176°. Ag (B. 18, 959). — II, 1682.
- C₁₁H₉O₅N₂** C 50,2 — H 3,4 — O 30,4 — N 16,0 — M. G. 263.
 1) Aethyläther d. 5,7-Dinitro-8-Oxychinolin. (2HCl, PtCl₄ + 4H₂O) (J. pr. [2] 45, 533). — IV, 284.
- C₁₁H₉O₅Cl₃** 1) 1,2-Diacetat-4-Methyläther d. 3,5,6-Trichlor-1,2,4-Trioxybenzol. Sm. 103° (B. 27, 556). — II, 1017.
- C₁₁H₉O₆N** C 52,6 — H 3,6 — O 38,2 — N 5,6 — M. G. 251.
 1) Tartranbensamsäure. Ba, Cu (A. 232, 162). — II, 1266.
 2) α-Acetoximido-α-[3,4-Dioxyphenylmethylenäther]essigsäure. Sm. 139—140° u. Zers. (G. 21 [2] 177). — II, 1946.
 3) 1,6-Anhydro-6-Amido-3-Acetoxy-4-Methoxybenzol-1,2-Dicarbonsäure. Sm. 198° (B. 19, 2308). — II, 1997.
 4) αγ-Lakton d. α-Oxy-α-[3-Nitrophenyl]propan-βγ-Dicarbonsäure (m-Nitrophenylparakonsäure). Sm. 171°. Pb, Cu, Ag (R. 6, 2). — II, 1956.
 5) αγ-Lakton d. α-Oxy-α-[4-Nitrophenyl]propan-βγ-Dicarbonsäure. Sm. 163° (155°). Cu, Ag (R. 6, 6; B. 18, 2742). — II, 1956.
 6) Lakton d. α-Acetoxy-β-Oxy-β-[2-Pyridyl]propionsäure-3-Carbonsäure? Sm. 177° (B. 26, 1509). — IV, 175.
 7) Methylester d. β-[6-Nitro-3,4-Dioxyphenyl]akryl-3,4-Methylenäthersäure. Sm. 152° (Soc. 59, 153). — II, 1777.
 8) 1-Methylamid d. 4,5-Dioxybenzol-4,5-Methylenäther-1-Carbonsäure-2-Ketocarbonsäure (Hydrastininsäure). Sm. 164°. Ba + 5H₂O (B. 22, 1159, 2323; A. 271, 371). — II, 2046.
 9) Nitrolimettin (Soc. 61, 350). — III, 636.
 10) Verbindung (aus Nitrocannabinolakton). Sm. 229—230° (Soc. 75, 31).
- C₁₁H₉O₆Br** 1) 5-Brom-3,4-Diacetoxylbenzol-1-Carbonsäure. Sm. 187° (A. 293, 182).
 2) Dimethylester d. 6-Brombenzol-1,2,4-Tricarbonsäure. Sm. 130 bis 131° (A. 293, 151).
- C₁₁H₉O₆P** 1) 1-Carboxylnaphtyl-2-Phosphorsäure. Sm. 156°. Ag₃ (B. 22, 392). — II, 1690.
 2) 2-Carboxylnaphtyl-1-Phosphorsäure. Pb₃, Ag₃ (B. 21, 1186). — II, 1688.
 3) 2-Carboxylnaphtyl-3-Phosphorsäure. Sm. 174° (B. 26, 667). — II, 1691.
- C₁₁H₉O₇N₂** C 44,7 — H 3,0 — O 38,0 — N 14,2 — M. G. 295.
 1) Citrakon-2,4-Dinitrophenylaminsäure. Ag (A. 85, 24). — II, 418.
- C₁₁H₉O₇Cl** 1) Monäthylester d. Acetchlormekensäure. Sm. 70° (J. pr. [2] 32, 139). — II, 1993.
- C₁₁H₉O₈N₅** C 38,9 — H 2,6 — O 37,8 — N 20,6 — M. G. 339.
 1) 2-Nitro-1-[2,4,6-Trinitrophenyl]tetrahydropyridin. Sm. 195° (R. 15, 74). — IV, 9.
- C₁₁H₉NCl₂** 1) 1,3-Dichlor-4-Aethylisochinolin. Sm. 165—166° (B. 20, 1206). — IV, 332.

- $C_{11}H_9NJ$, 1) 1-Naphtyldijodamidomethan (B. 25, 2544). — II, 1446.
2) 2-Naphtyldijodamidomethan (B. 25, 2544). — II, 1454.
- $C_{11}H_9NS$ 1) Amid d. Naphtalin-1-Thiocarbonsäure. Sm. 126° (B. 1, 40; 20, 54). — II, 1452.
2) Amid d. Naphtalin-2-Thiocarbonsäure. Sm. 149° (B. 20, 1116). — II, 1459.
- $C_{11}H_9NS_2$ 1) 1-Naphtylamidodithioameisensäure. Ba, Ni (B. 24, 3028). — II, 609.
2) 2-Naphtylamidodithioameisensäure. Ba, Ni (B. 24, 3028). — II, 618.
- $C_{11}H_9N_2Cl$ 1) 6-Chlor-4-Methyl-2-Phenyl-1,3-Diazin. Sm. 71° (PINNER, Imidoäther 246). — IV, 957.
- $C_{11}H_{10}ON_2$ C 70,9 — H 5,4 — O 8,6 — N 15,0 — M. G. 186.
1) 2-Methylnitrosamidonaphtalin (2-Naphtylmethylnitrosamin). Sm. 86° (90°) (B. 27, 682; 28, 2370 Anm.; 30, 1785).
2) 4-Nitroso-1-Methylamidonaphtalin. Sm. 157° u. Zers. HCl (A. 286, 159).
3) 1-Naphtylharnstoff. Sm. 213—214° (A. 101, 90; B. 12, 385; Soc. 71, 1200). — II, 608.
4) 2-Naphtylharnstoff. Sm. 213—214° (B. 14, 62; Soc. 71, 1202). — II, 617.
5) 1-Naphtenylamidoxim. Sm. 148—149°. HCl, (2HCl, PtCl₄) (B. 20, 223; 22, 2451). — II, 1446.
6) 2-Naphtenylamidoxim. Sm. 150°. HCl (B. 20, 225; 22, 2451). — II, 1455.
7) Methyläther d. 2-Diazonaphtalin. Fl. (B. 28, 235).
8) Furylphenylhydrazin. Sm. 97—98° (A. 190, 137; B. 17, 574; J. pr. [2] 56, 155). — IV, 764.
9) 5-Keto-4-Benzyliden-3-Methyl-4,5-Dihydropyrazol. Sm. 204° (J. pr. [2] 50, 514). — IV, 958.
10) 4-Acetyl-1-Phenylpyrazol. Sm. 121,5—122,5° (G. 19, 136). — IV, 549.
11) 5-Methyl-3-[β-Phenyläthenyl]-1,2,4-Ox Diazol. Sm. 78° (B. 19, 1509). — II, 1409.
12) 3-Keto-6-Methyl-2-Phenyl-2,3-Dihydro-1,2-Diazin. Sm. 81—82° (A. 253, 47). — IV, 820.
13) 6-Oxy-4-Methyl-2-Phenyl-1,3-Diazin. Sm. 216°. (2HCl, PtCl₄ + 2H₂O), H₂Cr₂O₇ + 5H₂O, Pikrat (B. 22, 2617; PINNER, Imidoäther 240). — IV, 957.
14) 6-Oxy-2-Methyl-4-Phenyl-1,3-Diazin. Sm. 238° (PINNER, Imidoäther 221). — IV, 958.
15) 2-Keto-6-Methyl-4-Phenyl-2,5-Dihydro-1,3-Diazin (Benzoylacetonharnstoff). Sm. 228—229°. (2HCl, PtCl₄), 2 + AgNO₃ (J. pr. [2] 48, 509). — III, 270.
16) Methyläther d. 6-Oxy-3-Phenyl-1,2-Diazin. Sm. 116—117° (B. 32, 400).
17) 4-Acetylamidochinolin + H₂O. Sm. 172° (176°) (J. pr. [2] 56, 190). — IV, 909.
18) 5-Acetylamidochinolin. Sm. 178° (J. pr. [2] 53, 410). — IV, 910.
19) 6-Acetylamidochinolin. Sm. 75° (J. pr. [2] 53, 120). — IV, 913.
20) 8-Acetylamidochinolin. Sm. 103° (J. pr. [2] 53, 403). — IV, 913.
21) Amid d. γ-Cyan-α-Phenylpropen-β-Carbonsäure (α-Benzyliden-β-Cyanpropionsäureamid). Zers. bei 260° (J. pr. [2] 50, 6). — II, 1867.
22) Amid d. 4-Amidonaphtalin-1-Carbonsäure. Sm. 175° (B. 28, 1842).
23) Amid d. 2-Methylechinolin-4-Carbonsäure. Sm. 239° (J. pr. [2] 56, 291).
24) Hydrazid d. Naphtalin-2-Carbonsäure. Sm. 186° (B. 30, 1881; A. 298, 37).
25) Nitril d. γ-Imido-α-Keto-α-Phenylbutan-β-Carbonsäure. Sm. 148° (J. pr. [2] 47, 115). — III, 271.
26) Nitril d. β-Benzoylimidobuttersäure. Sm. 82° (J. pr. [2] 47, 117). — II, 1195.
27) Nitril d. β-[2-Acetylamidophenyl]akrylsäure. Sm. 172—174° (B. 31, 1297).
28) Verbindung (aus Harmolsäure). (2HCl, PtCl₄) (B. 22, 643). — III, 886.
 $C_{11}H_{10}ON_4$ C 61,7 — H 4,6 — O 7,5 — N 26,2 — M. G. 214.
1) 2-Imidoamidomethylhydrazon-1-Keto-1,2-Dihydronaphtalin(β-Naphtochinonamidoguanidin). subl. bei 175—180° u. Zers. Sm. 202°. HCl, HNO₃ (A. 302, 323). — IV, 1223.

- $C_{11}H_{10}ON_4$ 2) 4-Imidoamidomethylhydrazon-1-Keto-1,4-Dihydronaphtalin(α -Naph-
tochinonamidoguanidin). Sm. 233° u. Zers. HCl, HNO₃ (A. 302, 320). —
IV, 1223.
- 3) s-Di[3-Pyridyl]harnstoff. Sm. 217° u. Zers. (B. 31, 2494).
- $C_{11}H_{10}OS$ 4) Urocanin. (2HCl, PtCl₄) (B. 8, 811; H. 24, 402). — II, 2113.
- 1) 3-Aethyl-1,2-Benzthiopyron (Thio- α -Aethyleumarin). Sm. 93–94° (B.
24, 3462). — II, 1663.
- $C_{11}H_{10}O_2N_2$ C 65,3 — H 4,9 — O 15,8 — N 13,8 — M. G. 202.
- 1) 2-Methylnitramidonaphtalin. Sm. 109° (B. 30, 1263). — IV, 1543.
- 2) 1-Methyläther d. 1,2-Dioximidonaphtalin. Sm. 158–159° (B. 19,
177). — III, 396.
- 3) 2-Methyläther d. 1,2-Dioximidonaphtalin. Fl. (B. 19, 178). — III, 396.
- 4) Methyläther d. 2-Diazonaphtalinsäure. Sm. 40° (B. 30, 1263). —
IV, 1543.
- 5) Succinbenzimidid. Sm. 212° (PINNER, Imidoäther 268). — IV, 958.
- 6) 2-Acetyl-3-Keto-1-Phenyl-2,3-Dihydropyrazol. Sm. 62–63° (B. 29,
520). — IV, 499.
- 7) 1-Acetyl-5-Keto-3-Phenyl-4,5-Dihydropyrazol. Sm. 122° (121°). Ag
(J. pr. [2] 50, 229, 516; [2] 52, 31). — IV, 906.
- 8) 1[oder 3]-Acetyl-2-Keto-4-Phenyl-2,3-Dihydroimidazol. Sm. 157°
(B. 27, 583; 28, 254). — IV, 916.
- 9) 4-[β -Phenyläthenyl]-2,5-Diketotetrahydroimidazol (Styrylhydantoïn).
Sm. 172° (195–198°) (B. 20, 2353; 22, 687). — II, 1655.
- 10) 2-Imido-4-Keto-5-[β -Phenyläthenyl]tetrahydrooxazol (Pseudostyryl-
hydantoïn). Zers. bei 300° (B. 22, 688). — II, 1655.
- 11) 5-Acetylamido-3-Phenyl-4,5-Dihydroisoxazol. Sm. 164° (J. pr. [2]
47, 125). — II, 1645.
- 12) 5-[β -Ketopropyl]-3-Phenyl-1,2,4-Oxdiazol. Sm. 86° (B. 22, 2414). —
II, 1203.
- 13) 4-Oxy-3-Keto-6-Methyl-2-Phenyl-2,3-Dihydro-1,2-Diazin. Sm. 196°
(A. 253, 53). — IV, 821.
- 14) 5-Nitro-6,8-Dimethylechinolin. Sm. 107–108° (B. 23, 3681). — IV, 331.
- 15) 2-Acetat d. 5-Methyl-3-[2-Oxyphenyl]-1,2,4-Oxdiazol. Sm. 74°
(B. 22, 2784). — II, 1502.
- 16) ?-Diamidonaphtalin-1-Carbonsäure. 2HCl (Sm. 250°) (J. pr. [2] 38,
271). — II, 1451.
- 17) ?-Diamidonaphtalin-2-Carbonsäure. Sm. 202°. Ca, 2HCl (J. pr. [2]
42, 291). — II, 1459.
- 18) ?-Diamidonaphtalin-2-Carbonsäure. Sm. bei 230°. Ca + 4½ H₂O, 2HCl
(J. pr. [2] 42, 302). — II, 1459.
- 19) 3-Methyl-1-Phenylpyrazol-4-Carbonsäure. Sm. 191,5–192,5°. Ca +
2H₂O (G. 23 [1] 315, 354; 28 [1] 387). — IV, 538.
- 20) 3-Methyl-1-Phenylpyrazol-5-Carbonsäure. Sm. 189–190°. Ag₂ (A.
253, 54; 278, 288). — IV, 538.
- 21) 5-Methyl-1-Phenylpyrazol-3-Carbonsäure + H₂O. Sm. 136° (wasser-
frei). Na, Ag (A. 278, 278; B. 26, 1886). — IV, 539.
- 22) 5-Methyl-1-Phenylpyrazol-4-Carbonsäure. Sm. 167–168°. Ca + 2H₂O
(A. 295, 313; G. 28 [1] 388). — IV, 539.
- 23) 3-Methyl-5-Phenylpyrazol-4-Carbonsäure. Sm. 260–265°. Ba, Ag
(A. 279, 251). — IV, 948.
- 24) 5-Amido-2-Methylechinolin-3-Carbonsäure. Sm. 275° u. Zers. (J. pr.
[2] 56, 387). — IV, 947.
- 25) 8-Amido-2-Methylechinolin-3-Carbonsäure. Sm. 230° u. Zers. Ag
(J. pr. [2] 56, 381). — IV, 947.
- 26) 7-Amido-8-Methylechinolin-5-Carbonsäure + 1½ H₂O. Zers. bei 270°.
Ag, HCl, (2HCl, PtCl₄), H₂SO₄, H₂Cr₂O₇, Pikrat (A. 274, 357). — IV, 948.
- 27) 2,6-Dimethyl-1,3-Benzdiazin-4-Carbonsäure + 2H₂O. Sm. 160–161°.
NH₄, Ag + 4H₂O (B. 28, 725). — IV, 948.
- 28) 2,3-Dimethyl-1,4-Benzdiazin-6-Carbonsäure. Sm. 257–260° u. Zers.
Ag (B. 23, 3629). — II, 1275.
- 29) Methylester d. 1-Phenylpyrazol-3-Carbonsäure. Sm. 77° (A. 278,
278). — IV, 534.
- 30) Methylester d. 1-Phenylpyrazol-5-Carbonsäure. Sm. 67° (A. 278,
293). — IV, 534.

- $C_{11}H_{10}O_2N_7$ 31) Amid d. 6-Oxychinolinmethylläther-4-Carbonsäure (A. d. Chininsäure). Sm. 197°. HCl, (2HCl, PtCl₄) (M. [17](#), [331](#)). — IV, [362](#).
- 32) Isopropylidenamidoisimid d. Benzol-1,2-Dicarbonsäure. Sm. oberh. 260° (B. [27](#), [692](#)). — II, [1815](#).
- 33) Phenylamidoimid d. Citrakonsäure. Sm. 160° (Am. [9](#), [201](#)). — IV, [707](#).
- 34) Phenylhydrazid d. Furan-2-Carbonsäure. Sm. 142—143° (G. [20](#), [520](#)). — IV, [733](#).
- $C_{11}H_{10}O_2N_4$ C [57,4](#) — H [4,3](#) — O [13,9](#) — N [24,3](#) — M. G. [230](#).
- 1) 2-Semicarbazol-1-Oximido-1,2-Dihydronaphtalin. Sm. bei 189° (A. [302](#), [332](#)).
- 2) 6-Ureidooximidomethylechinolin (Chinolin-6-Methenyluramidoxim). Sm. 164,5° u. Zers. (B. [22](#), [2766](#)). — IV, [350](#).
- 3) Amid d. 1-Phenylpyrazol-3,5-Dicarbonsäure. Sm. 190° (A. [278](#), [288](#)). — IV, [544](#).
- 4) Amid d. 1-Phenylpyrazol-4,5-Dicarbonsäure. Sm. 253—255° (A. [295](#), [319](#)). — IV, [544](#).
- 5) Benzylidenhydrazid d. 5-Keto-4,5-Dihydropyrazol-3-Carbonsäure. Sm. über 250° (J. pr. [2](#) [51](#), [56](#)). — IV, [535](#).
- $C_{11}H_{10}O_2Br_2$ 1) $\gamma\delta$ -Dibrom- α -Phenyl- α -Buten- δ -Carbonsäure (A. [283](#), [336](#)). — II, [1430](#).
- 2) 3,4-Dibrom-1,2,3,4-Tetrahydronaphtalin-1-Carbonsäure. Sm. 132° (A. [266](#), [179](#)). — II, [1432](#).
- 3) isom. 3,4-Dibrom-1,2,3,4-Tetrahydronaphtalin-1-Carbonsäure. Sm. 152° (A. [266](#), [183](#)). — II, [1432](#).
- 4) Dibrom-1,2,3,4-Tetrahydronaphtalin-2-Carbonsäure. Sm. 208° (A. [266](#), [196](#)). — II, [1433](#).
- 5) 2,3-Dibrom-3-Methyl-2,3-Dihydroinden-2-Carbonsäure. Sm. 215° u. Zers. (A. [247](#), [161](#)). — II, [1432](#).
- 6) Lakton d. $\alpha\beta$ -Dibrom- γ [oder δ]-Oxy- δ -Phenylvaleriansäure. Sm. 99—100° (A. [283](#), [334](#)). — II, [1663](#).
- $C_{11}H_{10}O_2Br_4$ 1) $\alpha\beta\gamma\delta$ -Tetrabrom- δ -Phenylvaleriansäure. Sm. 243° u. Zers. (A. [283](#), [336](#)). — II, [1392](#).
- $C_{11}H_{10}O_2S$ 1) Methyl-1-Naphtylsulfon. Sm. 102—103° (J. pr. [2](#) [47](#), [102](#); A. [284](#), [305](#)). — II, [867](#).
- 2) Methyl-2-Naphtylsulfon. Sm. 142—143° (J. pr. [2](#) [47](#), [103](#); A. [284](#), [305](#)). — II, [866](#).
- 3) Methylester d. Naphtalin-1-Sulfinsäure. Fl. (J. pr. [2](#) [47](#), [163](#)). — II, [200](#).
- 4) Methylester d. Naphtalin-2-Sulfinsäure. Sm. 44° (J. pr. [2](#) [47](#), [157](#)). — II, [200](#).
- $C_{11}H_{10}O_3N_2$ C [60,5](#) — H [4,6](#) — O [22,0](#) — N [12,8](#) — M. G. [218](#).
- 1) 4-Benzoylamido-3,5-Dioxyisopyrrol. Sm. 200° u. Zers. (B. [22](#), [116](#), [1955](#)). — II, [1186](#).
- 2) 2-Imido-3-Acetyl-4-Keto-5-Phenyltetrahydrooxazol. Zers. bei 290° (B. [22](#), [698](#)). — II, [1325](#).
- 3) 4-[α -Oxy- β -Phenyläthenyl]-2,5-Diketotetrahydroimidazol (Oxystyrylhydantoin). Sm. 185° u. Zers. (B. [22](#), [694](#)). — II, [1655](#).
- 4) 2,4,5-Triketo-1-Aethyl-3-Phenyltetrahydroimidazol (Aethylphenylparabansäure). Sm. 97° (B. [31](#), [138](#)).
- 5) 1-Acetyl-2,5-Diketo-4-Phenyltetrahydroimidazol. Sm. 145° (B. [21](#), [2329](#)). — II, [1325](#).
- 6) 3-Keto-1,2-Diacetyl-1,3-Dihydroindazol. Sm. 112° (A. [212](#), [336](#)). — II, [1288](#).
- 7) 2-Benzoat d. 2-Oximido-5-Ketotetrahydropyrrol. Sm. 184° (B. [24](#), [3431](#)). — II, [1210](#).
- 8) Aethyläther d. 5-Nitro-6-Oxychinolin. Sm. 110°. HNO₃ (J. pr. [2](#) [48](#), [27](#); Bl. [3](#) [15](#), [24](#)). — IV, [282](#).
- 9) Aethyläther d. 5-Nitro-8-Oxychinolin. Sm. 128°. (2HCl, PtCl₄) (J. pr. [2](#) [45](#), [533](#)). — IV, [283](#).
- 10) 5-Nitro-2-Keto-1-Aethyl-1,2-Dihydrochinolin. Sm. 135° (J. pr. [2](#) [45](#), [176](#)). — IV, [285](#).
- 11) 5-Nitro-2-Keto-1,6-Dimethyl-1,2-Dihydrochinolin. Sm. 192°. (2HCl, PtCl₄) (J. pr. [2](#) [45](#), [177](#)). — IV, [320](#).

- C₁₁H₁₀O₃N₂** 12) 5-Keto-4-Methyl-1-Phenyl-4,5-Dihydropyrazol-3-Carbonsäure. Sm. 220—221° (A. 246, 331). — IV, 714.
 13) 5-Keto-4-Methyl-1-Phenyl-4,5-Dihydropyrazol-4-Carbonsäure. Sm. 189° u. Zers. Ag (B. 28, 987). — IV, 541.
 14) 5-Keto-1-Phenyl-4,5-Dihydropyrazol-3-Methylcarbonsäure. Sm. 134° (B. 24, 3253; A. 261, 171). — IV, 540.
 15) 3-Phenyl-1,2,4-Oxdiazol-5-Propionsäure. Sm. 120°. Ca + 3½ H₂O, Ba + H₂O, Pb, Cu, Ag (B. 18, 2459). — II, 1204.
 16) 3-Keto-6-Phenyl-2,3,4,5-Tetrahydro-1,2-Diazin-4-Carbonsäure. Sm. 116—117° (J. pr. [2] 50, 527). — IV, 949.
 17) 1-Nitroso-3-Methylindol-2-Methylcarbonsäure. Sm. 135° u. Zers. (M. 10, 516). — IV, 241.
 18) Benzylbarbitursäure. Sm. 206° (B. 15, 2846). — II, 1849.
 19) αγ-Lakton d. β-Phenylnitrosamido-α-Oxy-β-Buten-γ-Carbonsäure? Sm. 103—104° u. Zers. (A. 288, 22).
 20) Methylester d. 5-Keto-1-Phenyl-4,5-Dihydropyrazol-3-Carbonsäure. Sm. 197° (A. 277, 378). — IV, 536.
 21) Aethylester d. 3-Phenyl-1,2,4-Oxdiazol-5-Carbonsäure. Sm. 51°; Sd. 260° (B. 22, 3132). — II, 1203.
 22) β-Oximidopropylimid d. Benzol-1,2-Dicarbonsäure. Sm. 172° (B. 21, 2684). — II, 1814.
- C₁₁H₁₀O₃N₄** C 53,7 — H 4,1 — O 19,5 — N 22,7 — M. G. 246.
 1) Methylester d. 4-Phenylhydrazon-5-Keto-4,5-Dihydropyrazol-3-Carbonsäure. Sm. 209—211° (J. pr. [2] 51, 52; B. 26, 2055). — IV, 1489, 1582.
 2) Ureid d. 3-Oxy-6 oder 7-Methyl-1,4-Benzdiazin-2-Carbonsäure. Sm. 258° (A. 237, 355). — IV, 946.
- C₁₁H₁₀O₃Cl₂** 1) Methyläther d. p-Di[Chloracetyl]-1-Oxybenzol. Sm. 106° (B. 30, 1715).
- C₁₁H₁₀O₃Br₂** 1) 3,4-Methylenäther d. αβ-Dibrom-γ-Keto-α-[3,4-Dioxyphenyl]butan. Sm. 76° (Bl. [3] 13, 350). — III, 150.
 2) Methyläther d. p-Di[Bromacetyl]-1-Oxybenzol. Sm. 79—80° (B. 31, 173).
 3) 2-Lakton d. αβ-Dibrom-β-[2,4-Dioxyphenyl]butter-4-Methyläthersäure. Sm. 233—235° (B. 17, 2134). — II, 1767.
- C₁₁H₁₀O₃Br₄** 1) βγ-Dibrom-γ-[p-Dibrom-2-Oxyphenylmethyläther]buttersäure. Sm. 200° (Soc. 39, 432). — II, 1581.
- C₁₁H₁₀O₃S** 1) 1-Methylnaphtalin-α-Sulfonsäure. Ba + 3H₂O (A. 155, 115; J. pr. [2] 46, 322). — II, 217.
 2) 1-Methylnaphtalin-β-Sulfonsäure. Ba + 3H₂O (J. pr. [2] 46, 322). — II, 217.
 3) 2-Methylnaphtalin-α-Sulfonsäure. Ba + 3H₂O (A. 206, 377; J. pr. [2] 46, 322). — II, 218.
 4) 2-Methylnaphtalin-β-Sulfonsäure. Ba + H₂O (J. pr. [2] 46, 322). — II, 218.
 5) Methylester d. Naphtalin-1-Sulfonsäure. Sm. 78°; Sd. 214°₁₅ (J. pr. [2] 47, 164; B. 25, 2263). — II, 201.
 6) Methylester d. Naphtalin-2-Sulfonsäure. Sm. 56° (53—54°); Sd. 224 bis 225°₁₅ (J. pr. [2] 47, 161; B. 25, 2261). — II, 202.
- C₁₁H₁₀O₄N₂** C 56,4 — H 4,3 — O 27,3 — N 12,0 — M. G. 234.
 1) Methylharminsäure. Zers. oberh. 260° (B. 30, 2486).
 2) Benzolazoacetonoxyalsäure. Sm. 179—180° u. Zers. (A. 278, 284). — IV, 1473.
 3) 3-[2-Oxyphenyl]-1,2,4-Oxdiazol-5-[Aethyl-β-Carbonsäure]. Sm. 116 bis 117° (B. 22, 2800). — II, 1503.
 4) 3-[3-Oxyphenyl]-1,2,4-Oxdiazol-5-[Aethyl-β-Carbonsäure]. Sm. 123° (B. 24, 832). — II, 1519.
 5) 3-[4-Oxyphenyl]-1,2,4-Oxdiazol-5-[Aethyl-β-Carbonsäure]. Sm. 176° (B. 24, 840). — II, 1531.
 6) 5-Phenyl-4,5-Dihydropyrazol-3,4-Dicarbonsäure + 2H₂O. Sm. 159° (wasserfrei) u. Zers. (178°). Ca + 5H₂O, Ag₂, Phenylhydrazinsalz (B. 21, 2644; 26, 259; 28, 223). — IV, 892, 1556.
 7) Aethylester d. 2-Keto-3-Phenyl-2,3-Dihydro-1,3,4-Oxdiazol-5-Carbonsäure. Sm. 87° (B. 24, 4199). — IV, 700.

- C₁₁H₁₀O₄N₂** 8) 5-Acetat-6-Methyläther d. 5,6-Dioxy-4-Keto-3,4-Dihydro-2,3-Benzdiazin. Sm. 209—210° (B. 27, 1421). — II, 1939.
 9) 4-Nitrophenylimid d. Brenzweinsäure. Sm. 155° (A. 90, 144). — II, 415.
 10) 2-Nitro-4-Methylphenylimid d. Bernsteinsäure. Sm. 140° (B. 8, 1225; A. 209, 379). — II, 502.
 11) 3-Nitro-4-Methylphenylimid d. Bernsteinsäure. Sm. 137° (G. 27 [1] 298).
 12) 2-Nitrobenzylimid d. Bernsteinsäure. Sm. 130° (J. pr. [2] 47, 398). — II, 530.
 13) Acetylderivat d. Verbindung C₉H₅O₃N₂. Sm. 172° (B. 16, 2648). — II, 1574.
 14) Verbindung (aus Furfurol u. m-Nitranilin). Sm. 100—120°. HCl (A. 201, 357). — III, 723.
- C₁₁H₁₀O₄N₄** C 50,4 — H 3,8 — O 24,4 — N 21,4 — M. G. 262.
 1) Aethylester d. α-Cyan-α-[2-Nitrophenyl]hydrazonessigsäure (2 isom. Formen). α-Sm. 116°; β-Sm. 146°. Ag (J. pr. [2] 51, 228). — IV, 1455.
 2) Aethylester d. α-Cyan-α-[3-Nitrophenyl]hydrazonessigsäure (2 isom. Formen). α-Sm. 136—137°; β-Sm. 124—125°. K + x H₂O, Ag (J. pr. [2] 51, 219). — IV, 1455.
 3) Aethylester d. α-Cyan-α-[4-Nitrophenyl]hydrazonessigsäure (2 isom. Formen). α-Sm. 168°; β-Sm. 184°. Ag (J. pr. [2] 51, 225). — IV, 1456.
- C₁₁H₁₀O₄Cl₂** 1) Diacetat d. p-Dichlor-2,5-Dioxy-1-Methylbenzol. Sm. 122—124° (A. 168, 271). — II, 956.
- C₁₁H₁₀O₄Cl₄** 1) 1-Methyläther d. 2,2,4,4-Tetrachlor-1,1,3,3-Tetraoxy-1,2,3,4-Tetrahydronaphtalin + H₂O. Sm. 86—156°; Zers. bei 160° (A. 300, 195).
- C₁₁H₁₀O₄Br₂** 1) Diacetat d. 3,5-Dibrom-2-Oxy-1-Oxymethylbenzol. Sm. 70—71° (A. 302, 152).
 2) Verbindung (aus d. Säure C₉H₅O₄Br₂). Sm. 161° (B. 18, 3187). — II, 1779.
- C₁₁H₁₀O₄S** 1) α-Merkaptoäthenbenzyläther-αβ-Dicarbonsäure (Benzylsulfhydryl-maleinsäure). Sm. 175° (M. 18, 85).
 2) 2-Oxynaphtalinmethyläther-6-Sulfonsäure (C. 1895 [1] 1064).
 3) 2-Oxynaphtalinmethyläther-8-Sulfonsäure (C. 1895 [1] 1064).
- C₁₁H₁₀O₅N₂** C 52,8 — H 4,0 — O 32,0 — N 11,2 — M. G. 250.
 1) Methylenäther d. p-Nitro-7,8-Dioxy-1-Keto-2-Methyl-1,2,3,4-Tetrahydroisochinolin (Nitrooxyhydrastinin). Sm. 271° (B. 20, 2406). — II, 1765.
 2) β-[3-Nitro-4-Acetylamidophenyl]akrylsäure. Sm. 261—266° (B. 16, 2042). — II, 1421.
 3) α-Phenylazoacetessigsäure-3-Carbonsäure (B. 18, 962). — IV, 1467.
 4) Aethylester d. 1-Nitroso-3-Keto-2-Oxy-2,3-Dihydroindol-2-Carbonsäure. Sm. 113° u. Zers. (B. 15, 777). — II, 1441.
 5) Acetat d. p-Nitro-2-Oxy-2-Methyl-1,3-Benzoxazin. Sm. 131° u. Zers. (B. 31, 1600).
 6) Verbindung (aus Benzol-1,2-Dicarbonsäureallylimid). Sm. 172—173° (B. 23, 1001). — II, 1804.
- C₁₁H₁₀O₅Br₂** 1) αβ-Dibrom-β-[2-Carboxylmethoxylphenyl]propionsäure (2-Cumaroxyessigsäuredibromid). Sm. 219—220° (B. 17, 2998). — II, 1563.
- C₁₁H₁₀O₅N₂** C 49,6 — H 3,8 — O 36,1 — N 10,5 — M. G. 266.
 1) ββ-Diketo-γ-[2,4-Dinitrophenyl]pentan. Sm. 121° (Bl. [3] 17, 808).
 2) 4-Methyl-1,3-Phenylendioxaminsäure. Ba + 2 H₂O, Pb, Ag₂ (A. 268, 345). — IV, 605.
 3) Aethylester d. α-Nitro-β-[3-Nitrophenyl]akrylsäure (A. 229, 235). — II, 1415.
 4) Aethylester d. α-Nitro-β-[4-Nitrophenyl]akrylsäure. Sm. 109—110° (A. 219, 224; 229, 210; B. 14, 2576; 16, 848, 850). — II, 1415.
 5) Aethylester d. 4-Nitrobenzoyloximidoessigsäure. Sm. 220° u. Zers. (Soc. 49, 449). — II, 1646.
- C₁₁H₁₀O₇N₂** C 46,8 — H 3,5 — O 39,7 — N 9,9 — M. G. 282.
 1) 4,6-Dinitro-1,3,5-Trimethylbenzol-2-Ketocarbonsäure. Sm. 178 bis 185° (A. 264, 143). — II, 1666.
 2) Methylester d. β-[p-Dinitro-3-Methoxylphenyl]akrylsäure. Sm. 177 bis 178° (B. 22, 2358). — II, 1635.

- C₁₁H₁₀NCl** 1) **2-Chlor-3-Aethylechinolin**. Sm. 72—73°. (2HCl, PtCl₄) (B. 13, 120). — IV, 326.
 2) **1-Chlor-3-Aethylisochinolin**. Sm. 24°; Sd. 288°_{761.5}. (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃), Pikrat (B. 27, 2236). — IV, 332.
 3) **1[oder 3]-Chlor-4-Aethylisochinolin**. Sm. 78—80° (B. 20, 1206). — IV, 332.
 4) **2-Chlor-3,4-Dimethylechinolin**. Sm. 131°. (2HCl, PtCl₄ + 4H₂O) (A. 245, 360). — IV, 330.
- C₁₁H₁₀N₂S** 1) **1-Naphtylthioharnstoff**. Sm. 198° (Bl. 26, 126; Soc. 67, 1044). — II, 609.
 2) **2-Naphtylthioharnstoff**. Sm. 186° (180°) (B. 14, 61; 23, 362). — II, 619.
 3) **2-Phenylhydrazonmethylthiophen**. Sm. 134,5° (119°) (B. 19, 638, 1855; 22, 2839). — III, 762.
- C₁₁H₁₀N₂S₂** 1) **2-Naphtylhydrazidodithioameisensäure**. 2-Naphtylhydrazinsalz (A. 253, 33). — IV, 929.
- C₁₁H₁₁ON** C 76,3 — H 6,3 — O 9,2 — N 8,1 — M. G. 173.
 1) **Methyläther d. 1-Amido-2-Oxynaphtalin**. Sm. 84° (C. 1896 [2] 1057; 1897 [1] 239).
 2) **Methyläther d. 6-Amido-2-Oxynaphtalin**. Sm. 98° (C. 1897 [1] 239).
 3) **2-Phenylimido-1-Keto-R-Pentamethylen**. Sm. 111° (B. 30, 1472).
 4) **2-Amidobenzylfuran**. + C₆H₇N, HCl (A. 239, 376). — III, 694.
 5) **2-[β-Phenyläthenyl]-4,5-Dihydrooxazol**. Sm. 52—53° (55—56°). (2HCl, PtCl₄), Pikrat (B. 24, 3225). — IV, 333.
 6) **2-Keto-3-Methyl-1-Phenyl-2,5-Dihydropyrrol** (α-Methyl-γ-Anilido-crotonsäurelaktam). Sm. 97—97,5° (A. 295, 64).
 7) **1-Acetyl-2-Methylindol**. Sd. 200—210°₁₀ (B. 21, 1936). — IV, 221.
 8) **3-Acetyl-2-Methylindol**. Sm. 195—196° (B. 14, 880; A. 242, 379). — IV, 242.
 9) **2-Acetyl-3-Methylindol**. Sm. 147—148°. Pikrat (B. 21, 1938). — IV, 242.
 10) **3-Keto-2-Aethyl-1-Methylen-1,3-Dihydroisoindol**. Fl. (B. 19, 2369). — II, 1873.
 11) **2-[β-Oxyäthyl]chinolin** (Chinaldinalkin). Sm. 94—95° (104—105°). (2HCl, PtCl₄), (2HCl, 3HgCl₂), (HCl, AuCl₃), Pikrat (B. 27, 2689; 32, 224). — IV, 326.
 12) **4-[β-Oxyäthyl]chinolin**. Fl. HCl, (2HCl, PtCl₄), Pikrat (B. 31, 2370).
 13) **4-Oxy-2,3-Dimethylechinolin + H₂O**. Sm. oberh. 305°. HCl + H₂O, (2HCl, PtCl₄ + 2H₂O) (B. 24, 2991). — IV, 327.
 14) **6-Oxy-2,4-Dimethylechinolin**. Sm. 214°; Sd. oberh. 360°. HCl, (2HCl, PtCl₄ + 2H₂O), H₂SO₄, Pikrat (B. 22, 218). — IV, 328.
 15) **8-Oxy-2,4-Dimethylechinolin**. Sm. 65°; Sd. 281°. (2HCl, PtCl₄ + 2H₂O), H₂SO₄, H₂Cr₂O₇, Pikrat (B. 22, 210). — IV, 328.
 16) **2-Oxy-2,4-Dimethylechinolin**. Sm. 44°. (2HCl, PtCl₄ + 2H₂O) (J. pr. [2] 33, 409). — IV, 328.
 17) **4-Oxy-2,6-Dimethylechinolin + H₂O**. Sm. 274—275° wasserfrei. HCl, (2HCl, PtCl₄) (B. 21, 525). — IV, 329.
 18) **4-Oxy-2,8-Dimethylechinolin + H₂O**. Sm. 260—261° (wasserfrei). (2HCl, PtCl₄) (B. 21, 524). — IV, 330.
 19) **2-Oxy-3,4-Dimethylechinolin**. Sm. 262° (A. 245, 359). — IV, 330.
 20) **2-Oxy-4,6-Dimethylechinolin**. Sm. 249—250° (A. 245, 365). — IV, 330.
 21) **2-Oxy-4,7-Dimethylechinolin**. Sm. 220°. (2HCl, PtCl₄) (A. 245, 370). — IV, 330.
 22) **2-Oxy-4,8-Dimethylechinolin**. Sm. 185°. (2HCl, PtCl₄ + 2H₂O) (B. 17, 542; A. 245, 368). — IV, 331.
 23) **5-Oxy-6,8-Dimethylechinolin**. Sm. 197—198° (B. 23, 3683). — IV, 331.
 24) **Methyläther d. 4-Oxy-2-Methylechinolin**. Sm. 82°; Sd. 294—298° (B. 20, 954). — IV, 311.
 25) **Methyläther d. 8-Oxy-2-Methylechinolin**. Sm. 125°; Sd. 282°. (2HCl, PtCl₄) (B. 17, 1707). — IV, 312.
 26) **Methyläther d. 2-Oxy-4-Methylechinolin**. Sd. 275—276°. (2HCl, PtCl₄) (A. 236, 100). — IV, 316.
 27) **Methyläther d. 6-Oxy-4-Methylechinolin + H₂O**. Sm. 50—52°. (2HCl, PtCl₄) (B. 18, 1934; 23, 2673). — IV, 317.

- C₁₁H₁₁ON** 28) **Methyläther d. 8-Oxy-6-Methylechinolin.** Fl. (2HCl, PtCl₄ + 4H₂O) (B. 17, 1553). — IV, 319.
- 29) **Methyläther d. 5-Oxy-8-Methylechinolin.** Sd. 225—230°. (2HCl, PtCl₄) (B. 17, 1551). — IV, 322.
- 30) **Methyläther d. 1-Oxy-3-Methylisochinolin.** Sm. 32°; Sd. 258°₇₆₄ (B. 27, 830 Anm.). — IV, 321.
- 31) **Aethyläther d. 2-Oxychinolin.** Sd. 266°₇₆₀ (B. 15, 335, 1422, 2103; 30, 930 Anm.). — IV, 268.
- 32) **Pseudoäthyläther d. 4-Oxychinolin.** Sd. 186,5°₉₀. (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃ + H₂O) (M. 15, 461). — IV, 269.
- 33) **Aethyläther d. 6-Oxychinolin.** Sd. 290—292°. HCl + 1½ H₂O, H₂SO₄, HNO₃ (Bl. [3] 15, 23). — IV, 271.
- 34) **Aethyläther d. 8-Oxychinolin.** Nadeln. Sd. 285—287°₇₁₀. (2HCl, PtCl₄), Pikrat, + AgNO₃ (B. 16, 717; 17, 759; J. pr. [2] 45, 531). — IV, 273.
- 35) **Aethyläther d. 7-Oxyisochinolin.** Sm. 7—9°; Sd. 199°₉₀. HCl, (2HCl, PtCl₄), Pikrat (A. 286, 14). — IV, 303.
- 36) **Aethyläther d. 8-Oxyisochinolin.** Fl. (J. pr. [2] 52, 15). — IV, 303.
- 37) **2-Keto-1-Aethyl-1,2-Dihydrochinolin.** Sm. 53—55°; Sd. 316—318°. (2HCl, PtCl₄ + 2H₂O) (B. 18, 1529; J. pr. [2] 47, 36). — IV, 285.
- 38) **2-Keto-3-Aethyl-1,2-Dihydrochinolin?** Sm. 168°. (2HCl, PtCl₄) (B. 13, 121). — IV, 326.
- 39) **2-Keto-1,4-Dimethyl-1,2-Dihydrochinolin.** Sm. 131—132°; Sd. 290°₉₈₀. (2HCl, PtCl₄ + 3H₂O) (A. 236, 105; B. 30, 931). — IV, 316.
- 40) **4-Keto-1,2-Dimethyl-1,4-Dihydrochinolin.** Sm. 176°. (2HCl, PtCl₄), Pikrat (B. 20, 956; 22, 75; 30, 922, 926 Anm.). — IV, 311.
- 41) **1-Keto-2-Aethyl-1,2-Dihydroisochinolin.** Sd. 310—311°₇₁₁ (B. 27, 204). — IV, 303.
- 42) **1-Keto-3-Aethyl-1,2-Dihydroisochinolin.** Sm. 140—141° (B. 27, 2235). — II, 1682.
- 43) **1-Keto-2,3-Dimethyl-1,2-Dihydroisochinolin.** Sm. 103° (B. 25, 3568). — II, 1427.
- 44) **Nitril d. β-Keto-α-Phenylbutan-α-Carbonsäure.** Sm. 58° (J. pr. [2] 55, 344).
- 45) **Verbindung (aus 2-Oxymethylfuran u. Anilin).** + Salzs. Anilin (B. 19, 2154). — III, 697.
- C₁₁H₁₁ON₃** C 65,7 — H 5,5 — O 7,9 — N 20,9 — M. G. 201.
- 1) **1-Naphtylamidoharnstoff.** Sm. 231° (B. 21, 1223). — IV, 926.
- 2) **2-Naphtylamidoharnstoff.** Sm. 225° (221°) (B. 21, 1223; 22, 2657; A. 253, 28; Soc. 73, 370). — IV, 928.
- 3) **4-[α-Oximidoäthyl]-1-Phenylpyrazol.** Sm. 129—131° (G. 19, 137). — IV, 549.
- 4) **3-Acetyl-5-Methyl-1-Phenyl-1,2,4-Triazol.** Sm. 88—89° (B. 25, 3541; 26, 2392, 2785). — IV, 1119.
- 5) **6-Oxy-4-Methyl-2-[3-Amidophenyl]-1,3-Diazin.** Sm. 177°. HCl + 5H₂O, (2HCl, PtCl₄ + 2H₂O) (B. 28, 487). — IV, 1168.
- 6) **Amid d. 3-Methyl-1-Phenylpyrazol-5-Carbonsäure.** Sm. 181° (A. 278, 289). — IV, 539.
- 7) **Amid d. 5-Methyl-1-Phenylpyrazol-3-Carbonsäure.** Sm. 146° (A. 278, 283). — IV, 539.
- 8) **Amid d. 2,6-Dimethyl-1,3-Benzdiazin-4-Carbonsäure.** Sm. 212° (B. 28, 728). — IV, 948.
- 9) **Nitril d. γ-Harnstoff-α-Phenylpropen-γ-Carbonsäure.** Sm. 160° u. Zers. (B. 20, 2353). — II, 1654.
- 10) **Verbindung (aus Diacetonitril u. Phenylcarbonimid).** Sm. 121—122° (J. pr. [2] 52, 91).
- 11) **isom. Verbindung (aus Diacetonitril u. Phenylcarbonimid).** Sm. bei 150° (J. pr. [2] 52, 92).
- 12) **polym. Verbindung C₁₁H₁₁ON₃ (aus Diacetonitril u. Phenylcarbonimid).** Sm. 229° (J. pr. [2] 52, 92).
- C₁₁H₁₁ON₅** C 57,6 — H 4,8 — O 7,0 — N 30,6 — M. G. 229.
- 1) **2-Imidoamidomethylhydrazon-1-Oximido-1,2-Dihydronaphtalin (Nitroso-β-Naphtolamidoguanidin).** HNO₃ (A. 302, 326). — IV, 1222.

- $C_{11}H_{11}OCl$ 1) Chlorid d. α -Phenyl- α -Buten- β -Carbonsäure. Fl. (J. 1877, 789). — II, 1432.
- $C_{11}H_{11}OBr_2$ 1) β -Tribrombutylphenylketon. Sm. 121—122° (Soc. 45, 188). — III, 153.
- $C_{11}H_{11}O_2N$ C 69,8 — H 5,8 — O 16,9 — N 7,4 — M. G. 189.
- 1) Sardinin. HCl (B. 26 [2] 823).
 - 2) Hydrastinin + H_2O . Sm. 117°. HCl, (2HCl, $PtCl_4$), H_2SO_4 , $H_2Cr_2O_7$ (B. 20, 90, 2403; A. 286, 18).
 - 3) 5-Keto-3-Phenyl-2-Aethyl-2,5-Dihydroisoxazol. Sm. 76° (A. 296, 45). — IV, 306.
 - 4) 5-Keto-3-Methyl-4-Benzyl-4,5-Dihydroisoxazol. Sm. 106°. Pb, Cu, Ag (B. 30, 1161).
 - 5) α -Oxy- α -(2-Furanyl)- β -(2-Pyridyl)äthan (α -Pikolylfurylalkin). Sm. 41 bis 43°; Sd. 164°₁₀. (HCl, $HgCl_2$), (2HCl, $PtCl_4$), (HJ, CdJ_2), Pikrat (B. 23, 2693). — IV, 333.
 - 6) 2,3-Diketo-1-Propyl-2,3-Dihydroindol (Propylpseudoisatin). Sm. 72° (B. 30, 2816).
 - 7) 2,3-Diketo-1-Aethyl-5-Methyl-2,3-Dihydroindol (Aethyl-p-Pseudotolisin). Sm. 109—110° (B. 18, 199; A. 232, 219). — II, 1651.
 - 8) 1-Acetyl-2-Keto-3-Methyl-2,3-Dihydroindol. Sm. 79° (M. 18, 536).
 - 9) 1-Acetyl-2-Keto-5-Methyl-2,3-Dihydroindol. Sm. 161° (B. 31, 393).
 - 10) 2,4-Dioxy-3-Aethylchinolin (B. 21, 301). — IV, 326.
 - 11) 6-Methyläther d. 4,6-Dioxy-2-Methylchinolin. Sm. 290° u. ger. Zers. HCl, (2HCl, $PtCl_4$), H_2SO_4 (B. 21, 1650). — IV, 312.
 - 12) 8-Methyläther d. 4,8-Dioxy-2-Methylchinolin + H_2O . Sm. 229° (wasserfrei). (2HCl, $PtCl_4$) (B. 21, 1654). — IV, 312.
 - 13) Methyläther d. 4-Oxy-2-Keto-1-Methyl-1,2-Dihydrochinolin. Sm. 68°. (2HCl, $PtCl_4$) (B. 20, 2013). — IV, 286.
 - 14) Dimethyläther d. 4,6-Dioxychinolin. Fl. (M. 17, 338).
 - 15) Dimethyläther d. 7,8-Dioxychinolin. HCl + H_2O , (2HCl, $PtCl_4$ + H_2O), $H_2Cr_2O_7$, Pikrat (M. 8, 343). — IV, 287.
 - 16) Dimethyläther d. β -Dioxychinolin. Fl. HCl + H_2O , (2HCl, $PtCl_4$ + 4 H_2O), Pikrat (B. 20, 1824). — IV, 288.
 - 17) Dimethyläther d. β -Dioxyisochinolin. HCl + 3 H_2O , (2HCl, $PtCl_4$), $H_2Cr_2O_7$, Pikrat (M. 7, 494; 8, 522; 9, 344). — IV, 304.
 - 18) 2-Aethyläther d. 2,4-Dioxychinolin. Sm. 228° (A. 251, 378). — IV, 286.
 - 19) Monoäthyläther d. 2, β -Dioxychinolin. Sm. 73°. HCl, (2HCl, $PtCl_4$) (B. 14, 1919). — IV, 288.
 - 20) 1,3-Diketo-4-Aethyl-1,2,3,4-Tetrahydroisochinolin. Sm. 97—99° (B. 20, 2505). — II, 1855.
 - 21) 1,3-Diketo-2,4-Dimethyl-1,2,3,4-Tetrahydroisochinolin. Sm. 64 bis 66°; Sd. 310—311° (B. 27, 2496). — II, 1853.
 - 22) 1,3-Diketo-4,4-Dimethyl-1,2,3,4-Tetrahydroisochinolin. Sm. 119 bis 120°; Sd. 318,5°₇₇₀ (B. 19, 2363; 20, 1199; 26, 2687). — II, 1856.
 - 23) 1-Keto-2-Acetyl-1,2,3,4-Tetrahydroisochinolin. Sm. 100° (B. 26, 1220). — II, 1372.
 - 24) Kairokoll (Chinolinderivat). Sm. 66° (B. 16, 719). — IV, 198.
 - 25) 3-Aethyl-1,2-Benzpyron-2-Oxim (α -Aethylcumaroxim). Sm. 157° (B. 24, 3462). — II, 1663.
 - 26) Aethyläther d. Cumarinoxim. Sm. 50° (B. 19, 1664). — II, 1630.
 - 27) Acetat d. anti- γ -Oximido- α -Phenylpropen (A. d. Antizimmtaldoxim). Sm. 35,5° (B. 27, 3429). — III, 62.
 - 28) Acetat d. syn- γ -Oximido- α -Phenylpropen (A. d. Synzimmtaldoxim). Sm. 69—70° (B. 25, 1920; 27, 3429). — III, 62.
 - 29) α -(2-Amidophenyl)- $\alpha\gamma$ -Butadien- δ -Carbonsäure. Sm. 176,5° u. Zers. (B. 18, 2332). — II, 1442.
 - 30) α -(2-Cyanphenyl)propan- β -Carbonsäure. Sm. 99°. Ag (B. 31, 2886).
 - 31) 1-Aethylindol-2-Carbonsäure. Sm. 183° (B. 17, 565). — IV, 235.
 - 32) 2-Methylindol-3-Methylcarbonsäure (A. 236, 149, 267, 110; G. 23 [2] 21). — IV, 240.
 - 33) 3-Methylindol-2-Methylcarbonsäure (Skatolessigsäure). Sm. 134° (M. 10, 514). — IV, 241.
 - 34) 1,2-Dimethylindol-3-Carbonsäure. Sm. 185° u. Zers. (A. 236, 157). — IV, 238.

- $C_{11}H_{11}O_2N$ 35) 1,5-Dimethylindol-2-Carbonsäure. Sm. 221° u. Zers. (A. 232, 216). — IV, 239.
- 36) 1,7-Dimethylindol-2-Carbonsäure. Sm. 209—210° (A. 232, 220). — IV, 240.
- 37) 1-Methyl-1,2-Dihydrochinolin-4-Carbonsäure (A. 282, 364). — IV, 240.
- 38) Lakton d. β -Phenylamido- α -Oxy- β -Buten- γ -Carbonsäure? (A. 288, 21).
- 39) Anhydroverbindung d. Benzoylamidoessigsäureäthylester. Sm. 58° (H. 20, 415).
- 40) Äthylester d. 2-Amidophenylpropionsäure. Sm. 55° (B. 15, 2148). — II, 1441.
- 41) Imid d. β -Phenylpropan- $\alpha\gamma$ -Dicarbonsäure. Sm. 173—174° (C. 1899 [1] 730).
- 42) Äthylimid d. Benzol-1-Carbonsäure-2-Methylcarbonsäure. Sm. 105° (B. 20, 2493). — II, 1843.
- 43) norm. Propylimid d. Benzol-1,2-Dicarbonsäure. Sm. 66°; Sd. 282 bis 283° (296,9°₇₃₈) (B. 24, 3105; 31, 1228). — II, 1802.
- 44) Isopropylimid d. Benzol-1,2-Dicarbonsäure. Sm. 85°; Sd. 272—273° (286°₇₈₁) (B. 24, 3106). — II, 1802.
- 45) Phenylimid d. Propan- $\alpha\beta$ -Dicarbonsäure. Sm. 107° (B. 30, 3040; A. 90, 139; 91, 105). — II, 415.
- 46) Phenylimid d. Propan- $\alpha\gamma$ -Dicarbonsäure. Sm. 144—145°. — II, 414.
- 47) 2-Methylphenylimid d. Bernsteinsäure. Sm. 101—102° (75°); Sd. 339 bis 340°₇₅₈ (B. 10, 579; 12, 25, 321; C. 1895 [2] 86). — II, 467.
- 48) 3-Methylphenylamid d. Bernsteinsäure. Sm. 111—112°; Sd. 340 bis 344° (C. 1895 [2] 86).
- 49) 4-Methylphenylimid d. Bernsteinsäure. Sm. 150°; Sd. 344—345°₇₃₃ (B. 8, 1225; 10, 577; 12, 321; A. 126, 164; 209, 378; 292, 189; C. 1895 [2] 86). — II, 502.
- 50) Benzylimid d. Bernsteinsäure. Sm. 104—105° (98—99°); Sd. 390 bis 400° (Soc. 55, 629; B. 28, 2354). — II, 530.
- 51) Verbindung (aus α -Brompropionsäure-1-Naphtylamid). Sm. 207—209° u. Zers. (B. 25, 2922). — II, 614.
- 52) Verbindung (aus α -Brompropionsäure-2-Naphtylamid). Sm. 191—193° (B. 25, 2923). — II, 621.
- $C_{11}H_{11}O_2N_3$ C 60,8 — H 5,1 — O 14,7 — N 19,4 — M. G. 217.
- 1) 4-Nitroso-3-Keto-1,5-Dimethyl-2-Phenyl-2,3-Dihydropyrazol (Nitrosoantipyrin). Zers. bei 200°. HCl (A. 238, 212; 293, 56). — IV, 510.
- 2) 4-Äthyläther d. 4-Oximido-5-Keto-3-Phenyl-4,5-Dihydropyrazol. Sm. 153° (J. pr. [2] 52, 28). — IV, 905.
- 3) 4-[2-Methylphenyl]hydrazon-5-Keto-3-Methyl-4,5-Dihydroisoxazol. Sm. 154—155° (B. 30, 1165). — IV, 804.
- 4) 4-[4-Methylphenyl]hydrazon-5-Keto-3-Methyl-4,5-Dihydroisoxazol. Sm. 202° (B. 30, 1165). — IV, 811.
- 5) 5-[β -Oximidopropyl]-3-Phenyl-1,2,4-Oxdiazol. Sm. 80° (B. 22, 2414). — II, 1203.
- 6) 5-Methyl-3-[2-Acetylamidophenyl]-1,2,4-Oxdiazol. Sm. 96° (B. 29, 629). — IV, 1138.
- 7) 5-Keto-4-Acetyl-3-Methyl-1-Phenyl-4,5-Dihydro-1,2,4-Triazol. Sm. 96°. — IV, 1105.
- 8) 4-Phenylhydrazon-2,6-Diketohexahydropyridin. Sm. 230° (B. 19, 2705). — IV, 121.
- 9) 2-Acetyl-3-Acetylamidoindazol. Sm. 177—178° (A. 305, 349).
- 10) 2-Acetyl-6-Acetylamidoindazol. Sm. 184—185° (B. 25, 3151). — IV, 1147.
- 11) 2,3-Diacetyl-2,3-Dihydro-1,2,3-Benzotriazin. Sm. 179° (B. 29, 627). — IV, 1149.
- 12) Äthylphenylhydrazoncyanessigsäure. Sm. 147° (J. pr. [2] 49, 333). — IV, 1454.
- 13) 5-Äthyl-1-Phenyl-1,2,4-Triazol-3-Carbonsäure. Sm. 122—123° (144—145° u. Zers. aus Benzol). Cu + 3H₂O, HCl (B. 25, 175). — IV, 1117.

- $C_{11}H_{11}O_2N$, 14) **Methylester d. 5-Methyl-1-Phenyl-1,2,4-Triazol-3-Carbonsäure.** Sm. 101—101,5° (B. 25, 176 Anm.). — IV, 1114.
- 15) **Methylester d. 2-Methylphenylazocyanessigsäure.** Sm. 167,2° (B. 21 [2] 354). — IV, 1456.
- 16) **Methylester d. 4-Methylphenylazocyanessigsäure.** Sm. 125,8° (B. 21 [2] 354). — IV, 1456.
- 17) **Aethylester d. Phenylhydrazoncyanessigsäure.** Sm. 82° (J. pr. [2] 49, 326; [2] 57, 206). — IV, 1454.
- 18) **Aethylester d. isom. Phenylhydrazoncyanessigsäure.** Sm. 125°. $K + 2H_2O$ (C. r. 106, 1171; J. pr. [2] 49, 323; [2] 57, 207). — IV, 1454.
- 19) **Aethylester d. Phenylazocyanessigsäure.** Sm. 84° (J. pr. [2] 57, 207). — IV, 1454.
- 20) **Aethylester d. 1-Phenyl-1,2,4-Triazol-3-Carbonsäure.** Sm. 72° (B. 23, 1814). — IV, 1113.
- 21) **Aethylester d. 1-Phenyl-1,2,5-Triazol-3-Carbonsäure.** Sm. 59°; Sd. 305—307° (A. 262, 287). — IV, 1112.
- 22) **Amid d. 3-Phenyl-1,2,4-Oxiazol-5-Propionsäure.** Sm. 168° (B. 18, 2462). — II, 1204.
- 23) β -**Phenyläthenylhydrazid d. Oxaminsäure** (Semioxamazid d. Zimmtsäurealdehyd). Sm. 274° u. Zers. (B. 30, 590).
- 24) **Verbindung** (aus d. Amid d. Furan-2-Carbonsäure) (Am. 15, 136). — III, 698.
- $C_{11}H_{11}O_2Cl_2$ 1) **uns. Trichlorpseudobutylester d. Benzolcarbonsäure.** Sd. 282° (J. pr. [2] 39, 286). — II, 1140.
- 2) **2,4,6-Trichlorphenylester d. Isovaleriansäure.** Sd. 281—284° (B. 18, 1163). — II, 671.
- $C_{11}H_{11}O_2Br$ 1) **p-Brom- δ -Phenyl- α -Buten- δ -Carbonsäure** (Bromphenylallylessigsäure). Sm. 75° (B. 29, 2602).
- 2) **Lakton d. p-Brom- γ -Oxy- δ -Phenylvaleriansäure.** Sm. 139—140° u. Zers. (A. 268, 87). — II, 1590.
- 3) **Aethylester d. α -Brom- β -Phenylakrylsäure.** Sd. 293,5—295,5° (J. pr. [2] 20, 185; B. 20, 1384; R. 15, 130). — II, 1411.
- 4) **Aethylester d. Allo- α -Brom- β -Phenylakrylsäure.** Sd. 173—174°, (176,5—177°₈₀) (B. 20, 551, 1384; R. 15, 130). — II, 1412.
- 5) **Aethylester d. Allo- β -Brom- β -Phenylakrylsäure.** Sd. 150—152°, (B. 20, 551). — II, 1413.
- $C_{11}H_{11}O_2Br_3$ 1) **Acetat d. 4,6-Dibrom-2-Oxy-5-Brommethyl-1,3-Dimethylbenzol.** Sm. 150—151° (A. 302, 87).
- 2) **Acetat d. 3,6-Dibrom-5-Oxy-2-Brommethyl-1,4-Dimethylbenzol.** Sm. 161° (A. 301, 268).
- 3) **Acetat d. isom. Pseudocumenoltribromid.** Sm. 105—106° (B. 32, 22).
- 4) **Aethylester d. β -[2,4,6-Tribromphenyl]propionsäure.** Sm. 78° (B. 28, 1269).
- $C_{11}H_{11}O_2J$ 1) **Jodecannabinolakton.** Sm. 137,5°. Ag (Soc. 75, 33).
- $C_{11}H_{11}O_3N$ C 64,4 — H 5,4 — O 23,4 — N 6,8 — M. G. 205.
- 1) **3,4-Methylenäther d. γ -Oximido- α -[3,4-Dioxyphenyl]- α -Buten.** Sm. 186° (179°) (B. 24, 620; Bl. [3] 13, 349). — III, 162.
- 2) **Oxim d. Isomethylpiperonylakrylsäureketon.** Sm. bei 183° (B. 24, 621). — III, 162.
- 3) **2,4-Diketo-5,5-Dimethyl-3-Phenyltetrahydrooxazol.** Sm. 118—119° (Bl. [3] 19, 784).
- 4) **Methylenäther d. 7,8-Dioxy-1-Keto-2-Methyl-1,2,3,4-Tetrahydroisochinolin** (Oxyhydrastinin). Sm. 97—98°. HCl, (2HCl, PtCl₄), (2HCl, AuCl₃), HBr (B. 20, 2401; 22, 457; A. 273, 318; Soc. 57, 1034). — II, 1765.
- 5) **Strychninsäure + H₂O** (J. 1883, 1340; R. 2, 270). — III, 935.
- 6) **Cotarnaminsäure.** HCl + H₂O (A. Spl. 2, 379; B. 14, 310). — III, 918.
- 7) **Methyltarkoninsäure + 2H₂O.** Sm. 244°. HCl + H₂O (A. 254, 367). — III, 919.
- 8) **Pseudomethyltarkoninsäure.** H₂SO₄ + 3H₂O, H₂SO₄ + 6H₂O (A. 245, 323). — III, 919.
- 9) **Itakonphenylaminsäure.** Sm. 151,5° (A. 254, 140). — II, 418.
- 10) **Pseudo-Itakonphenylaminsäure.** Sm. 189° u. Zers. Ba, Cu, Ag (A. 77, 284; 254, 144; Am. 9, 200). — II, 417.

- $C_{11}H_{11}O_2N$ 11) Citrakonphenylaminsäure (Mesakonphenylaminsäure). Sm. 152—153° (A. 77, 280; 254, 135; Am. 9, 198; B. 22, 2292). — II, 418.
- 12) Fumarmethylphenylaminsäure. Sm. 128° (G. 16, 24). — II, 416.
- 13) Maleinbenzylaminsäure. Sm. 138° (G. 22 [1] 171; 23 [1] 171; 26 [1] 439). — II, 530.
- 14) Malein-2-Methylphenylaminsäure. Sm. 117,5—118° (Am. 19, 495).
- 15) Malein-4-Methylphenylaminsäure. Sm. 201° u. Zers. (Am. 19, 494).
- 16) β -[2-Formylamidophenyl]propen-4-Carbonsäure. Sm. 195—196°. — II, 1429.
- 17) α -Acetylamido- β -Phenylakrylsäure + 2 H₂O. Sm. 185—186° (wasserfrei 190—191° u. Zers.) (A. 284, 47). — II, 1419.
- 18) β -[4-Acetylamidophenyl]akrylsäure. Sm. 259—260° (B. 16, 2041). — II, 1419.
- 19) 1-[α -Oximidobenzyl]-R-Trimethylen-1-Carbonsäure. Sm. 164—166° u. Zers. (Soc. 59, 883). — II, 1682.
- 20) 3-Keto-1-Methyl-1,3-Dihydroisindol-2-Methylcarbonsäure + H₂O (Methylphthaloisimidinessigsäure). Sm. 124° (162—162,5° wasserfrei). Ag (B. 29, 2523).
- 21) 3-Keto-2-Methyl-1,3-Dihydroisindol-1-Methylcarbonsäure + H₂O (Phthalmethimidinessigsäure). Sm. 174—175° (wasserfrei) (B. 29, 2524).
- 22) 3-Oxyindoläthyläther-2-Carbonsäure. Sm. 160° (B. 14, 1743). — II, 1440.
- 23) Methoxyhydrat d. Chinolin-8-Carbonsäure. Jodid (B. 15, 196). — IV, 351.
- 24) Säure (aus 5-Keto-3-Methyl-4-Benzyliden-4,5-Dihydroisoxazol). Sm. 186°. NH₄ (B. 28, 2997).
- 25) Anhydrid d. Oxyacetyl-[2-Methylphenyl]amidoessigsäure. Sm. 108 bis 109° (J. pr. [2] 40, 502). — II, 470.
- 26) Lakton d. labil.- γ -Oximido- α -Oxy- α -Phenylbutan-2-Carbonsäure. Sm. 127—128° (M. 19, 433).
- 27) Lakton d. stabil.- γ -Oximido- α -Oxy- α -Phenylbutan-2-Carbonsäure. Sm. 59—61° (M. 19, 433).
- 28) Aldehyd d. α -[3-Nitrophenyl]- α -Buten- β -Carbonsäure. Sm. 46° (B. 22, 1838). — III, 63.
- 29) Methylester d. Maleinphenylaminsäure. Sm. 77—79°; Zers. bei 145 bis 150° (R. 17, 198).
- 30) Methylester d. 1-Oxyindolmethyläther-2-Carbonsäure. Sm. 67—68° (B. 29, 653). — IV, 237.
- 31) Methylester d. 2-Keto-1,2,3,4-Tetrahydrochinolin-7-Carbonsäure. Sm. 191—192° (B. 22, 2274).
- 32) Äthylester d. 1-Oxyindol-2-Carbonsäure. Sm. 65° (B. 29, 649). — IV, 237.
- 33) Äthylester d. 3-Oxyindol-2-Carbonsäure. Sm. 120—121° (116—117°) (B. 14, 1742; 15, 782; 31, 1816; A. 301, 351). — II, 1440.
- 34) Acetat d. Oximidomethyl-4-Methylphenylketon. Sm. 67—68° (B. 25, 3461). — III, 147.
- 35) Acetat d. α -Oximido- β -Keto- α -Phenylpropan. Sm. 61—62° (A. 291, 284). — III, 268.
- 36) Acetat d. 5-Oxy-1,3-Dimethylbenzoxazol. Sm. 65° (M. 19, 510).
- 37) Acetat d. 2-Oxy-2-Methyl-1,3-Benzoxazin. Sm. 263—264° (B. 31, 1597).
- 38) Methylimid d. 4-Oxybenzoläthyläther-1,2-Dicarbonsäure. Sm. 110 bis 111° (A. 286, 24). — II, 1936.
- 39) Äthoxymethylimid d. Benzol-1,2-Dicarbonsäure. Sm. 83°; Sd. 325° (B. 31, 1230).
- 40) γ -Oxypropylimid d. Benzol-1,2-Dicarbonsäure (B. 23, 87). — II, 1803.
- 41) 2-Methylphenylimid d. Äpfelsäure. Sm. 114,5—116° (B. 23, 2044). — II, 468.
- 42) 4-Methylphenylimid d. Äpfelsäure. Sm. 184° (G. 23, 180). — II, 503.
- 43) α -Benzylimid d. Äpfelsäure. Sm. 114° (G. 23 [1] 174; B. 30, 1582). — II, 530.
- 44) β -Benzylimid d. Äpfelsäure? Sm. 105° (G. 23 [1] 175; B. 30, 1582). — II, 530.
- 45) 4-Methoxyphenylimid d. Bernsteinsäure. Sm. 162—163° (164—165°) (2 + KJ, J₂) (B. 29, 84; G. 25 [2] 512, 522; 28 [2] 203; C. 1897 [1] 49).

- $C_{11}H_{11}O_3N$ 46) Verbindung (aus Formaldehyd u. 8-Oxy-2-Oxymethylchinolin). Sm. 141 bis 142° (B. 27, 2412). — IV, 313.
- $C_{11}H_{11}O_3N_3$ C 56,6 — H 4,7 — O 20,6 — N 18,0 — M. G. 233.
- 1) Methyläther d. 4-[2-Oxyphenyl]hydrason-5-Keto-3-Methyl-4,5-Dihydroisoxazol. Sm. 172—173° (B. 30, 1164). — IV, 814.
 - 2) 4-Nitro-3-Keto-1,5-Dimethyl-2-Phenyl-2,3-Dihydropyrazol (Nitroantipyrin). Sm. 273° (A. 238, 214; B. 17, 2039). — IV, 511.
 - 3) 2-Keto-5-Methyl-3-[4-Acetylamidophenyl]-2,3-Dihydro-1,3,4-Ox-diazol. Sm. 194° (B. 26, 1319). — IV, 1127.
 - 4) 3-Aethoxyl-1-Phenyl-1,2,4-Triazol-5-Carbonsäure. Ag + 2H₂O (Soc. 71, 313). — IV, 1113.
 - 5) Anhydro-γ-[3-Nitrophenyl]hydrasonvaleriansäure. Sm. 118—119° (A. 253, 59). — IV, 692.
 - 6) Aethylester d. 2-Oxyphenylhydrasoncyanessigsäure. Sm. 204° (J. pr. [2] 52, 173). — IV, 1456.
 - 7) Aethylester d. 3-Oxyphenylhydrasoncyanessigsäure. Sm. 87° (J. pr. [2] 52, 174). — IV, 1456.
 - 8) Aethylester d. 4-Oxyphenylhydrasoncyanessigsäure. Sm. 150° (J. pr. [2] 52, 174). — IV, 1456.
 - 9) Imid d. Phenylnitrosamidobrenzweinsäure. Sm. 173° (B. 18, 1043). — II, 439.
- $C_{11}H_{11}O_3Cl$ 1) β-Chlor-β-[2-Aethoxylphenyl]akrylsäure (Chlor-o-Cumaräthyläthersäure). Sm. 108—109° (A. 269, 10). — II, 1631.
- 2) Aethylester d. Benzoylchloroessigsäure. Sd. 191—195°₁₀ (G. 22 [2] 41). — II, 1645.
- $C_{11}H_{11}O_3Br$ 1) α-[oder β]-Brom-β-[2-Aethoxylphenyl]akrylsäure (Brom-o-Cumaräthyläthersäure). Sm. 164° (Soc. 39, 422). — II, 1631.
- 2) Lakton d. β-Brom-γ-Oxy-γ-[4-Methoxylphenyl]buttersäure. Sm. 118,5° (A. 255, 296). — II, 1767.
- $C_{11}H_{11}O_4N$ C 59,7 — H 5,0 — O 29,0 — N 6,3 — M. G. 221.
- 1) Methyläther d. γ-Keto-α-[3-Nitro-4-Oxyphenyl]-α-Buten (A. 243, 365). — III, 162.
 - 2) Oxim d. Cotarnon. Sm. 130—132° (A. 249, 165). — III, 918.
 - 3) Nitrocannabinolakton (Orycannabin). Sm. 178° (C. 1898 [1] 948; Soc. 75, 29).
 - 4) 4-Acetylamido-1-Methylbenzol-3-Ketocarbonsäure (Acetylmethylisatinsäure). Sm. 166° (B. 18, 197; 28, 724). — II, 1651.
 - 5) 2-Diacetylamidobenzol-1-Carbonsäure. Sm. 220°. Ag (Soc. 37, 742). — II, 1250.
 - 6) 2-Acetylacetamidobenzol-1-Carbonsäure. Sm. 160° u. Zers. (G. 21, 345). — II, 1252.
 - 7) 3-Acetylacetamidobenzol-1-Carbonsäure. Sm. 172—173° u. Zers. Ag (G. 21, 343). — II, 1264.
 - 8) Säure (aus 8-Oxy-1-Methyl-1,2,3,4-Tetrahydrochinolin-?-Carbonsäure). Sm. 254—255° u. Zers. (M. 9, 215). — IV, 214.
 - 9) αγ-Lakton d. α-Oxy-α-[3-Amidophenyl]propan-βγ-Dicarbonsäure (Amidophenylparakonsäure). HCl, (2HCl, PtCl₄) (R. 6, 18). — II, 1956.
 - 10) αγ-Lakton d. α-Oxy-α-[4-Amidophenyl]propan-βγ-Dicarbonsäure. HCl (R. 6, 18). — II, 1957.
 - 11) 2-Aldehyd d. 2-Carboxylphenylmonamid d. Oxalsäuremonäthylester. Sm. 196° (B. 28, 291). — III, 17.
 - 12) Methylester d. α-[4-Nitrophenyl]-α-Propen-β-Carbonsäure. Sm. 115° (B. 20, 620). — II, 1426.
 - 13) Aethylester d. β-[2-Nitrophenyl]akrylsäure. Sm. 42° (44°) (J. 1879, 712; A. 163, 131; 212, 172; B. 13, 2257; 14, 1916). — II, 1414.
 - 14) Aethylester d. β-[3-Nitrophenyl]akrylsäure. Sm. 78—79° (B. 11, 1783). — II, 1414.
 - 15) Aethylester d. β-[4-Nitrophenyl]akrylsäure. Sm. 138,5° (A. 163, 128; 212, 127; B. 14, 2359). — II, 1414.
 - 16) Aethylester d. Benzoyloximidoessigsäure. Sm. 120—121° (Soc. 47, 244). — II, 1645.
 - 17) Aethylester d. 3-Keto-2-Oxy-2,3-Dihydroindol-2-Carbonsäure (Ac. d. Indoxanthinsäure). Sm. 107° (B. 15, 775). — II, 1440.

- C₁₁H₁₁O₄N** 18) **Methylimid d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure** (M. d. Hemipinsäure). Sm. 168° (B. 23, 2905). — II, 1996.
 19) **Benzylimid d. d-Weinsäure**. Sm. 196° (G. 24 [1] 224). — II, 530.
 20) **Benzylimid d. i-Weinsäure**. Sm. 123–126° (B. 30, 1577).
 21) **Benzylimid d. Traubensäure**. Sm. 168° (B. 29, 2720; 30, 1577).
 22) **1-Methylamid d. Benzol-1-Carbonsäure-2-Acetylcarbonsäure**. Sm. 145° u. Zers. (B. 18, 2452). — II, 1872.
- C₁₁H₁₁O₄N₂** C 53,0 — H 4,4 — O 25,7 — N 16,9 — M. G. 249.
 1) **Methylanilinalloxan**. HCl (G. 17, 416). — II, 421.
- C₁₁H₁₁O₄N₂** C 47,6 — H 3,9 — O 23,1 — N 25,4 — M. G. 277.
 1) **3-Methyl-4-Aethyl-1-[p-Dinitrophenyl]-1,2,5-Triazol**. Sm. 113° (A. 262, 313). — IV, 1110.
- C₁₁H₁₁O₄Cl** 1) **Methylester d. 3,4-Dioxy-1-[β-Chloräthyl]benzoldimethylenäther-2-Carbonsäure**. Sm. 82–83° (Soc. 57, 1029). — II, 1764.
- C₁₁H₁₁O₄Br** 1) **3,4-Methylenäther d. α-Oxy-γ-Keto-α-[p-Brom-3,4-Dioxyphenyl]-butan**. Sm. 110° (B. 24, 2596). — III, 150.
 2) **4-Methyläther-2-Acetat d. Brommethyl-2,4-Dioxyphenylketon** (Bromacetyl-päonol). Sm. 86–87° (B. 27, 1755; 30, 301).
 3) **isom. Bromacetyl-päonol**. Sm. 161,5° (B. 29, 1755).
- C₁₁H₁₁O₅N** C 55,7 — H 4,6 — O 33,7 — N 5,9 — M. G. 237.
 1) **Bernsteinsäuremonophenylamid-2-Carbonsäure**. Sm. 178° (A. 292, 191).
 2) **Bernsteinsäuremonophenylamid-3-Carbonsäure**. Sm. 222–223° (230°). Ba + 1½ H₂O (J. r. 4, 298; G. 15, 550). — II, 1265.
 3) **Bernsteinsäuremonophenylamid-4-Carbonsäure**. Sm. 225–226°. Ba, Ag (B. 10, 578). — II, 1273.
 4) **Lakton d. αβ-Dioxy-β-[2-Pyridyl]propionsäureäthylester-3-Carbonsäure**. Sm. 135–136° u. Zers. (B. 26, 1509). — IV, 175.
 5) **Methylester d. β-[3-Nitro-2-Methoxyphenyl]akrylsäure**. Sm. 69° (B. 22, 1708). — II, 1632.
 6) **Methylester d. isom. β-[3-Nitro-2-Methoxyphenyl]akrylsäure**. Sm. 88–89° (B. 22, 1709). — II, 1632.
 7) **Methylester d. β-4-Nitro-3-Methoxyphenyl]akrylsäure**. Sm. 143° (163°) (B. 18, 2572; 22, 2358). — II, 1634.
 8) **Methylester d. β-[3-Nitro-4-Methoxyphenyl]akrylsäure**. Sm. 125° (A. 243, 372). — II, 1636.
 9) **2-Methylester d. 1,6-Anhydro-6-Amido-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure**. Sm. 127° (B. 19, 2300). — II, 1998.
 10) **Aethylester d. β-[3-Nitro-4-Oxyphenyl]akrylsäure**. Sm. 108,5° (A. 243, 375). — II, 1636.
 11) **Aethylester d. 4-Nitrobenzoylessigsäure**. Sm. 74–76°. Na (Soc. 49, 447). — II, 1646.
 12) **2-Aethylester d. Benzol-1-Carbonsäure-2-Amidoketocarbonsäure**. Sm. 180–181° (B. 15, 777; M. 9, 743). — II, 1253.
 13) **3-Aethylester d. Benzol-1-Carbonsäure-3-Amidoketocarbonsäure**. Sm. 225° u. Zers. (A. 232, 131). — II, 1264.
 14) **Diacetat d. 2-Nitroso-3,5-Dioxy-1-Methylbenzol + 2H₂O**. Sm. 119 bis 120° (B. 29, 993, 1344 Anm.; M. 18, 167).
 15) **p-Nitrophenylmonohydrazid d. Citrakonsäure**. Sm. 206–207° (B. 19, 1387). — IV, 708.
- C₁₁H₁₁O₅N₂** C 49,8 — H 4,1 — O 30,2 — N 15,9 — M. G. 265.
 1) **p-Dinitro-2-Keto-1,3,3-Trimethyl-2,3-Dihydroindol**. Sm. 148° (M. 17, 266). — IV, 226.
 2) **α-[2-Nitro-4-Methylphenyl]hydrazon-β-Ketopropan-α-Carbonsäure**. Sm. 176°. Ba (B. 17, 2421). — IV, 808.
- C₁₁H₁₁O₅N₂** C 45,0 — H 3,7 — O 27,3 — N 23,9 — M. G. 293.
 1) **Verbindung (aus Salpetrigsäureanhydrid u. Phenylhydrazoncyanessigsäure-äthylester)**. Zers. bei 70° (J. pr. [2] 49, 338). — IV, 1454.
- C₁₁H₁₁O₅J** 1) **Aldehyd d. 3-Diacetyljodosobenzol-1-Carbonsäure**. Sm. 157° (Soc. 69, 1004).
- C₁₁H₁₁O₅N** C 52,2 — H 4,3 — O 38,0 — N 5,5 — M. G. 253.
 1) **β-[3-Nitrophenyl]propan-αγ-Dicarbonsäure**. Sm. 205–206° (A. 303, 235).
 2) **β-4-Nitrophenyl]propan-αγ-Dicarbonsäure**. Sm. 235° (A. 303, 239).

- C₁₁H₁₁O₈N** 3) **p-Nitrobenzol-1-Methylcarbonsäure-3-[Aethyl- β -Carbonsäure]**. Sm. 172°. Ca, Ag₂ (A. 286, 274). — II, 1856.
 4) **Dimethylester d. 3-Nitrobenzol-1-Carbonsäure-4-Methylcarbonsäure**. Sm. 75–77° (G. 22 [2] 390). — II, 1845.
 5) **Diacetat d. p-Nitro-2,5-Dioxy-1-Methylbenzol**. Sm. 101–104° (B. 28, 1543).
- C₁₁H₁₁O₆N₂** C 47,0 — H 3,9 — O 34,1 — N 14,9 — M. G. 281.
 1) **Dimethyläther d. 4-Methyl-5-[p-Nitro-3,4-Dioxyphenyl]-1,2,3,6-Dioxdiazin**. Sm. bei 189° (G. 24 [2] 8). — II, 976.
 2) **Methylester d. p-Dinitro-1,2,3,4-Tetrahydrochinolin-1-Carbonsäure**. Sm. 174° u. Zers. (B. 24, 3700). — IV, 192.
 3) **2,6-Dinitro-4-Methylphenylimid d. Essigsäure**. Sm. 129,5° (B. 27, 101). — II, 493.
- C₁₁H₁₁O₇N** C 49,1 — H 4,1 — O 41,6 — N 5,2 — M. G. 269.
 1) **α -Oxy- α -[3-Nitrophenyl]propan- $\beta\gamma$ -Dicarbonsäure** (3-Nitrophenyl-itamalsäure). Ba (R. 6, 3). — II, 1956.
 2) **α -Oxy- α -[4-Nitrophenyl]propan- $\beta\gamma$ -Dicarbonsäure**. Ba (R. 6, 10). — II, 1956.
 3) **$\alpha\beta$ -Dioxybernsteinsäuremonophenylamid-3-Carbonsäure** (A. 232, 160). — II, 1266.
 4) **α -Oximido- α -[2,3,4,5-Tetraoxyphenyl]methan-?-Dimethyläther-?-Methylenäther- α -Carbonsäure** (Oxim d. Apionylglyoxylsäure) (G. 21 [2] 184). — II, 2044.
- C₁₁H₁₁O₇N₃** C 40,6 — H 3,4 — O 34,5 — N 21,5 — M. G. 325.
 1) **Verbindung** (aus d. Essigsäure-2,4,6-Trinitrophenylester). Sm. 144° (B. 31, 1400).
- C₁₁H₁₁O₈N** C 46,3 — H 3,9 — O 44,9 — N 4,9 — M. G. 285.
 1) **Oxyessig-[p-Nitro-1-Methyl-3,5-Phenylen]äthersäure**. Sm. 140° (J. pr. [2] 21, 169). — II, 961.
 2) **isom. Oxyessig-[p-Nitro-1-Methyl-3,5-Phenylen]äthersäure** (J. pr. [2] 21, 170). — II, 961.
- C₁₁H₁₁NBr₂** 1) **Bromäthylat d. 3-Bromchinolin**. Sm. 216°. + 2C₂H₅O (B. 20, 2873). — IV, 257.
 2) **Bromäthylat d. 5-Bromchinolin**. Sm. 290° (B. 20, 2881). — IV, 257.
 3) **Bromäthylat d. 6-Bromchinolin**. Sm. 230° (B. 20, 2876). — IV, 258.
 4) **Bromäthylat d. 7-Bromchinolin**. Sm. 214° (B. 20, 2881). — IV, 258.
 5) **β -Bromäthylbromid d. Chinolin** (B. 14, 1349). — IV, 252.
- C₁₁H₁₁NJ₂** 1) **Jodäthylat d. 2-Jodchinolin**. Sm. 220° (A. 282, 378). — IV, 262.
- C₁₁H₁₁NS** 1) **2-Aethyl-4-Phenylthiazol**. Sd. 296,2°₇₂₉. (2HCl, PtCl₄), HBr (A. 259, 231). — IV, 334.
 2) **Aethyläther d. 2-Merkaptochinolin**. Fl. (2HCl, PtCl₄ + H₂O), HJ (B. 21, 623). — IV, 291.
- C₁₁H₁₁N₂Cl** 1) **5-Chlor-3,4-Dimethyl-1-Phenylpyrazol**. Sd. 147°, (B. 31, 3194).
 2) **isom. Chlordimethylphenylpyrazol**. Sd. 137°, (B. 31, 3194).
 3) **4-Chlor-1-Propyl-2,3-Benzdiazin**. Sm. 67° (B. 29, 1438). — IV, 941.
- C₁₁H₁₁N₂Br** 1) **4-Brom-3,5-Dimethyl-1-Phenylpyrazol**. Fl. (B. 23, 1452). — IV, 524.
- C₁₁H₁₁N₃S** 1) **1-Naphtylamidothioharnstoff**. Sm. 209° u. Zers. (B. 24, 4191). — IV, 927.
 2) **2-Naphtylamidothioharnstoff**. Sm. 204° (201–202°) (B. 22, 2657; A. 253, 30). — IV, 928.
 3) **2-Allylimido-5-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol**. Sm. 115° (B. 27, 629). — IV, 1158.
 4) **Allylcyanamid d. Phenylamidothioameisensäure**. Sm. 100° (B. 23, 1665). — II, 399.
- C₁₁H₁₁ON₂** C 70,2 — H 6,4 — O 8,5 — N 14,9 — M. G. 188.
 1) **3-Cyan-1-Methylbenz-4-Imidoäthyläther**. Sm. 199° u. Zers. (B. 21, 2663). — II, 1846.
 2) **3,5-Dimethyl-1-[4-Oxyphenyl]pyrazol**. Sm. 166° (A. 278, 298). — IV, 524.
 3) **Methyläther d. 5-Oxy-3-Methyl-1-Phenylpyrazol**. Sd. 247–248°₇₂₅ (277–282°₇₂₅). (2HCl, PtCl₄ + 2H₂O) (B. 28, 713, 1626; J. pr. [2] 54, 188). — IV, 507.
 4) **Aethyläther d. 5-Oxy-1-Phenylpyrazol**. Sm. 34–35°. (2HCl, PtCl₄) (B. 28, 631; Am. 14, 583). — IV, 499.

- $C_{11}H_{12}ON_2$ 5) **5-Keto-3-Methyl-1-[2-Methylphenyl]-4,5-Dihydropyrazol.** Sm. 183° (B. 17, 549). — IV, 511.
- 6) **5-Keto-3-Methyl-1-[4-Methylphenyl]-4,5-Dihydropyrazol.** Sm. 140° (143—144°) (B. 17, 550; Am. 16, 442). — IV, 511.
- 7) **3-Keto-2,5-Dimethyl-1-Phenyl-2,3-Dihydropyrazol** (Isoantipyrin). Sm. 113°. (2HCl, PtCl₄), Pikrat (J. pr. [2] 45, 91). — IV, 516.
- 8) **3-Keto-1,5-Dimethyl-2-Phenyl-2,3-Dihydropyrazol** (Antipyrin). Sm. 113°; Sd. 309°₁₇₄. (2HCl, PtCl₄ + 2H₂O), HJ + H₂O, (4HCN, Fe(CN)₂), Pikrat, + HgCl₂, + HgBr₂, + Hg(CN)₂. Lit. bedeutend. — IV, 502.
- 9) **5-Keto-3,4-Dimethyl-1-Phenyl-4,5-Dihydropyrazol.** Sm. 127—132° (B. 17, 2050; 28, 3203; J. pr. [2] 54, 201, 208 Anm.; A. 238, 162, 165). — IV, 521.
- 10) **1-Benzoyl-5-Methyl-4,5-Dihydropyrazol.** Sm. 156° u. Zers. (J. pr. [2] 58, 329).
- 11) **4,5-Dimethyl-2-[2-Oxyphenyl]imidazol.** Sm. 218°. (2HCl, PtCl₄ + 2H₂O) (Soc. 57, 10). — IV, 941.
- 12) **5-Imido-3-Aethyl-4-Phenyl-4,5-Dihydroisoxazol.** Sm. 70—71° (J. pr. [2] 55, 345).
- 13) **5-Imido-3-[4-Methylphenyl]-4-Methylisoxazol.** Sm. 134° (J. pr. [2] 52, 114).
- 14) **5-Propyl-3-Phenyl-1,2,4-Oxdiazol.** Sd. 265° (B. 18, 1085). — II, 1201.
- 15) **5-Isopropyl-3-Phenyl-1,2,4-Oxdiazol.** Sd. 253—255° (B. 22, 3144). — II, 1201.
- 16) **5-Methyl-3-[2,4-Dimethylphenyl]-1,2,4-Oxdiazol.** Sm. 89° (B. 22, 2445). — II, 1376.
- 17) **5-Keto-2-Benzyl-3,4,5,6-Tetrahydro-1,3-Diazin.** Sm. 189,5—190,5° (B. 25, 1566). — II, 1312.
- 18) **1-Nitroso-2,3,5-Trimethylindol.** Sm. 73° (B. 21, 3362). — IV, 228.
- 19) **2-[α -Oximidoäthyl]-3-Methylindol.** Sm. 119° (B. 21, 1939). — IV, 242.
- 20) **1-Acetyl-5,7-Dimethylisindazol.** Sm. 166,5—168° (J. pr. [2] 58, 348).
- 21) **2-Acetyl-5,7-Dimethylindazol.** Sm. 116—117° (A. 305, 311).
- 22) **1-Acetyl-2,5-Dimethylbenzimidazol.** Sm. 241—242°. (2HCl, PtCl₄) (A. 273, 288). — IV, 883.
- 23) **7-Amido-2-Oxy-4,6-Dimethylchinolin.** Sm. oberh. 300° (B. 31, 798). — IV, 939.
- 24) **Aethyläther d. 5-Amido-6-Oxychinolin.** Sm. 76° (115—116° wasserfrei) (Bl. [3] 15, 25; J. pr. [2] 48, 29). — IV, 911.
- 25) **Aethyläther d. 5-Amido-8-Oxychinolin + H₂O.** Sm. 70° (114° wasserfrei). 2HCl, PtCl₄ + 3 $\frac{1}{2}$ H₂O (J. pr. [2] 45, 541). — IV, 912.
- 26) **4-Keto-2-Propyl-3,4-Dihydro-1,3-Benzdiazin.** Sm. 205°. (2HCl, PtCl₄) (B. 28, 286). — IV, 940.
- 27) **4-Keto-2-Isopropyl-3,4-Dihydro-1,3-Benzdiazin.** Sm. 224° (195 bis 196°) (B. 27 [2] 516; 28, 287, 443; J. pr. [2] 51, 569). — IV, 940.
- 28) **4-Keto-7-Methyl-2-Aethyl-3,4-Dihydro-1,3-Benzdiazin.** Sm. 240° (B. 27 [2] 516; J. pr. [2] 51, 568). — IV, 940.
- 29) **4-Keto-2,6,8-Trimethyl-3,4-Dihydro-1,3-Benzdiazin.** Sm. 271,5 bis 272,5° (J. pr. [2] 58, 346).
- 30) **2-Keto-3-Methyl-1-Aethyl-1,2-Dihydro-1,4-Benzdiazin + 2H₂O.** Sm. 77° (96—97° wasserfrei); Sd. 303° (B. 25, 1630). — IV, 903.
- 31) **Aethyläther d. 3-Oxy-6-Methyl-1,4-Benzdiazin.** Sm. 67° (B. 20, 30). — IV, 902.
- 32) **1-Keto-4-Propyl-1,2-Dihydro-2,3-Benzdiazin.** Sm. 156° (B. 29, 1437).
- 33) **1-Keto-4-Methyl-2-Aethyl-1,2-Dihydro-2,3-Benzdiazin** (Methyläthylphthalazon). Sm. 75—76°; Sd. 309°₇₄₅ (B. 26, 707). — II, 1647.
- 34) **Aethyläther d. 4-Oxy-1-Methyl-2,3-Benzdiazin.** Sm. 56—57° (B. 26, 709). — IV, 904.
- 35) **3-Allylamido-1,4-Benzoxazin.** Sm. 63°. HCl (Am. 20, 567).
- 36) **3-Allylimido-3,4-Dihydro-2,1-Benzoxazin.** Sm. 77—78°. (2HCl, PtCl₄) (B. 22, 2937). — IV, 877.
- 37) **Anhydro- γ -Phenylhydrazonvaleriansäure.** Sm. 106—107°; Sd. 340 bis 345° u. ger. Zers. (A. 236, 147). — IV, 691.
- 38) **Nitril d. 2-Acetyläthylamidobenzol-1-Carbonsäure.** Sd. 268—275° u. Zers. (M. 19, 637).

- $C_{11}H_{13}ON_2$ 39) Nitril d. 4-Acetylamido-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 196,5—197,5° (*J. pr.* [2] 58, 345).
 40) Nitril d. 2-Keto-4,6-Dimethyl-1-Allyl-1,2-Dihydropyridin-3-Carbonsäure. Sm. 114° (*C.* 1899 [1] 289).
 41) Aethylphenylamid d. Cyanessigsäure. Sm. 50—51°. — II, 367.
 42) Verbindung (aus 2-Methylchinolin u. Formamid). Sm. 76° (*B.* 20, 76). — IV, 308.
- $C_{11}H_{13}ON_4$ C 61,1 — H 5,5 — O 7,4 — N 25,9 — M. G. 216.
 1) 1-Oxy-2-Naphtylamidoguanidin. $HCl + H_2O$ (*A.* 302, 324). — IV, 1224.
 2) 4-Phenylazo-5-Keto-3,4-Dimethyl-4,5-Dihydropyrazol. Sm. 188° (*J. pr.* [2] 52, 42). — IV, 1489.
 3) *p*-Diamido-6-Oxy-4-Methyl-2-Phenyl-1,3-Diazin. Sm. 232—240° u. Zers. 2HCl, (2HCl, $PtCl_4$), 2HJ (*B.* 20, 2364). — IV, 958.
 4) Amid d. Aethylphenylhydrazoncyanessigsäure. Sm. 153° (*J. pr.* [2] 49, 333). — IV, 1454.
 5) Amid d. 5-Aethyl-1-Phenyl-1,2,4-Triazol-3-Carbonsäure. Sm. 152 bis 152,5° (*B.* 25, 177). — IV, 1117.
 6) Verbindung (aus Phenylamidoguanidin u. Acetessigsäureäthylester) (*G.* 21 [1] 336). — IV, 1222.
- $C_{11}H_{13}OBr_2$ 1) 3,4-Dimethyläther d. *p*-Dibrom-3,4-Dioxy-1-Allylbenzol. Sm. 29,5° (*B.* 28, 2083).
 2) $\gamma\delta$ -Dibrombutylphenylketon. Fl. (*Soc.* 45, 188). — III, 153.
- $C_{11}H_{13}OS$ 1) Aethylester d. β -Phenylthiolakrylsäure. Sd. über 250° u. Zers. (*Z.* 1868, 359). — II, 1421.
- $C_{11}H_{13}OS_2$ 1) 1,2,3,4-Tetrahydronaphtyl-2-Xanthogensäure. Cu (*B.* 23, 211). — II, 855.
- $C_{11}H_{13}O_2N_2$ C 64,7 — H 5,9 — O 15,7 — N 13,7 — M. G. 204.
 1) β -Benzoylisopropylidenharnstoff (Urimidobenzoylaceton). Sm. 191° (*J. pr.* [2] 48, 508). — III, 270.
 2) Aethyläther d. γ -Nitroso- γ -Oximido- α -Phenylpropen. Sm. 61° (*B.* 22, 2395). — II, 1409.
 3) γ -Phenylhydrazon- $\beta\delta$ -Diketopentan. Sm. 90° (*B.* 21, 1702). — IV, 787.
 4) α -Acetylphenylhydrazon- β -Ketopropan. Sm. 93° (*A.* 247, 199; *B.* 25, 1344). — IV, 757.
 5) 4-Oxy-3-Keto-1,5-Dimethyl-2-Phenyl-2,3-Dihydropyrazol (4-Oxy-antipyrin). Sm. 182° (*A.* 293, 50). — IV, 513.
 6) 5-Keto-3-Methyl-4-Oxymethyl-1-Phenyl-4,5-Dihydropyrazol (*A.* 255, 233). — IV, 522.
 7) 2-Acetyl-3-Keto-1-Phenyltetrahydropyrazol. Sm. 66—67° (*B.* 29, 519). — IV, 488.
 8) 2,5-Diketo-1-Aethyl-4-Phenyltetrahydroimidazol. Sm. 94° (*B.* 21, 2325). — II, 1325.
 9) 2,4-Diketo-3-[2-Methylphenyl]-1-Methyltetrahydroimidazol (*C.* 1896 [1] 701).
 10) 2,4-Diketo-3-[4-Methylphenyl]-1-Methyltetrahydroimidazol. Sm. 112—113° (*C.* 1896 [1] 701).
 11) 2-Imido-4-Keto-3-Aethyl-5-Phenyltetrahydrooxazol. Zers. oberh. 300° (*B.* 21, 2326). — II, 1325.
 12) 3,6-Diketo-2-Methyl-1-Phenylhexahydro-1,2-Diazin. Sm. 180° (*B.* 26, 677). — IV, 703.
 13) 2,4-Diketo-4-[4-Methylphenyl]hexahydro-1,4-Diazin (Imid d. 4-Methylphenylimidoessigsäure). Sm. 195° (*B.* 30, 2472).
 14) 3-Oximido-2-Keto-1-Propyl-2,3-Dihydroindol. Sm. 88° (*B.* 30, 2817).
 15) *p*-Aethyläther d. 3,*p*-Dioxy-2-Methyl-1,4-Benzdiazin. Sm. 224° (*B.* 25, 499). — IV, 903.
 16) γ -Phenylhydrazon- α -Buten- α -Carbonsäure. Sm. 157° u. Zers. (*B.* 21, 2493, 2937; *Ann.* 15, 174). — IV, 693.
 17) 1-Aethylisoindazol-3-Methylcarbonsäure? (Aethylisoindazolessigsäure). Sm. 131° (u. 126°). Zers. bei 162—165° (*B.* 16, 654; *A.* 221, 285; 227, 332). — IV, 892.
 18) Inn. Anhydrid d. α -Benzenylamidoximbuttersäure (5-Keto-6-Aethyl-3-Phenyl-4,5-Dihydro-1,2,4-Oxdiazin). Sm. 106° (*B.* 29, 2656).

- $C_{11}H_{12}O_3N_2$ 19) Inn. Anhydrid d. α -Benzenylamidoximlsoobuttersäure. Sm. 112° (B. 28, 1375).
- 20) Nitril d. 6-Nitro-1,2,4,5-Tetramethylbenzol-3-Carbonsäure. Sm. 160° (B. 28, 968).
- 21) 4-Methyl-1,2-Phenylenamid d. Bernsteinsäure. Sm. 185–186° u. Zers. (G. 24 [1] 146). — IV, 616.
- 22) Imid d. Phenylamidobrenzweinsäure. Sm. 150°. Ag (B. 18, 1040). — II, 439.
- 23) Imid d. 2-Methylphenylimidodiessigsäure. Sm. 145–146° (B. 25, 2279). — II, 470.
- 24) Phenylhydrazid d. Tetrinsäure. Sm. 191–192° (Am. 13, 311). — IV, 623.
- 25) Verbindung (aus Salicyluramidocrotonsäureäthylester). Zers. bei 285° (G. 23 [1] 377). — II, 1868.
- $C_{11}H_{12}O_2N_4$ C 56,9 — H 5,2 — O 13,8 — N 24,1 — M. G. 232.
- 1) 3-Keto-4-Diazo-1,5-Dimethyl-2-Phenyl-2,3-Dihydropyrazol. Chlorid (A. 293, 68). — IV, 1558.
- 2) Diamid d. 5-Phenylpyrazol-3,4-Dicarbonsäure. Sm. 228° u. Zers. (B. 26, 260). — IV, 823.
- 3) Amid d. 3-Aethoxyl-1-Phenyl-1,2,4-Triazol-5-Carbonsäure. Sm. 149–150° (Soc. 71, 313). — IV, 1113.
- 4) Hydrazid d. 3-Keto-6-Phenyl-2,3,4,5-Tetrahydro-1,2-Diazin-4-Carbonsäure. Zers. bei 190° (J. pr. [2] 50, 528). — IV, 949.
- $C_{11}H_{12}O_2Cl_2$ 1) Aethylester d. i - $\alpha\beta$ -Dichlor- β -Phenylpropionsäure. Fl. (B. 27, 890).
- $C_{11}H_{12}O_2Br_2$ 1) $\alpha\beta$ -Dibrom- α -Phenylvaleriansäure. Sm. 162° (B. 31, 2003).
- 2) $\alpha\beta$ -Dibrom- δ -Phenylvaleriansäure. Sm. 139° (126–128°) (A. 283, 313, 325). — II, 1392.
- 3) $\beta\gamma$ -Dibrom- δ -Phenylvaleriansäure. Sm. 111–112° (109–110°) (A. 268, 86; 283, 326).
- 4) $\beta\delta$ -Dibrom- δ -Phenylvaleriansäure. Sm. 113,5–114,5° (A. 283, 329). — II, 1392.
- 5) $\gamma\delta$ -Dibrom- δ -Phenylvaleriansäure. Sm. 108–109° (B. 13, 122; A. 268, 86; 283, 327). — II, 1392.
- 6) 2,5-Dibrom-4-Isopropylphenylessigsäure. Sm. 92°. Mg + 8H₂O, Ba + 5H₂O (G. 21 [1] 56). — II, 1395.
- 7) Aethylester d. $\alpha\beta$ -Dibrom- β -Phenylpropionsäure. Sm. 74–75° (69°) (B. 11, 1220; 12, 538; 22, 1181; 28, 2246). — II, 1359.
- 8) Aethylester d. d - $\alpha\beta$ -Dibrom- β -Phenylpropionsäure. Sm. 71° (B. 26, 1666). — II, 1359.
- 9) Acetat d. $\beta\gamma$ -Dibrom- γ -Phenyl-norm. Propylalkohol. Sm. 85–86° (Bl. 20, 121). — II, 1070.
- 10) Acetat d. 6-Brom-5-Oxy-2-Brommethyl-1,4-Dimethylbenzol. Sm. 92–93° (A. 302, 128).
- $C_{11}H_{12}O_2Br_4$ 1) Dimethyläther d. ?-Dibrom-3,4-Dioxy-1-[$\beta\gamma$ -Dibrompropyl]benzol. Sm. 65° (B. 28, 2083).
- $C_{11}H_{12}O_2S$ 1) β -Merkaptopropenbenzyläther- α -Carbonsäure (β -Thiobenzylcrotonsäure). Sm. 192–194° u. Zers. (B. 29, 1649, 1652).
- 2) isom. β -Merkaptopropenbenzyläther- α -Carbonsäure (β -Thiobenzylcrotonsäure). Sm. 130–131° (B. 29, 1647, 1652).
- 3) Merkaptoessig- γ -Phenylpropenyläthersäure (Zimmtaldehydthioglykolsäure). Sm. 76–77° (B. 21, 481). — III, 59.
- $C_{11}H_{12}O_3N_2$ C 60,0 — H 5,4 — O 21,8 — N 12,7 — M. G. 220.
- 1) Dimethyläther d. 3-[3,4-Dioxyphenyl]-4-Methyl-1,2,5-Oxdiazol. Sm. 75° (G. 24 [2] 12). — II, 976.
- 2) ?-Nitro-2-Keto-1,3,3-Trimethyl-2,3-Dihydroindol. Sm. 203–204° (201–202°) (M. 17, 278; B. 29, 2467). — IV, 226.
- 3) s -Di[2-Furanylmethyl]harnstoff (Difurylharustoff). Sm. 128° (B. 23, 3207). — IV, 70.
- 4) Benzoylacetnitrosimidoäthyläther. Sm. 117° (Bl. 48, 24). — II, 1645.
- 5) Acetylmethylisatinamid. Sm. 141° (J. pr. [2] 33, 72). — II, 1652.
- 6) Acetat d. 2-Acetylamidobenzaldoxim. Sm. 127,5–128,5° (B. 14, 2340). — III, 51.
- 7) Styrylhydantoinsäure. Sm. 185°. Ag (B. 22, 692). — II, 1654.

- C₁₁H₁₂O₂N₂** 8) β -[2-Aethylnitrosamidophenyl]akrylsäure. Sm. 150° u. Zers. (B. 14, 482; 16, 653; A. 221, 270; 227, 332). — II, 1418.
 9) β -Phenylhydrazon- γ -Ketobutan- α -Carbonsäure. Sm. 161–162° u. Zers. (A. 247, 203). — IV, 757.
 10) α -[2-Methylphenyl]hydrazon- β -Ketopropan- α -Carbonsäure. Sm. 135° (B. 26, 1884). — IV, 803.
 11) α -[4-Methylphenyl]hydrazon- β -Ketopropan- α -Carbonsäure Sm. 188 bis 190° u. Zers. (B. 11, 1419). — IV, 808.
 12) Pseudoitakonphenylhydrazidsäure. Sm. 193–194° (A. 254, 150). — IV, 707.
 13) Säure (aus Dimethylanilinalloxan). Zers. bei 281° (G. 17, 419). — II, 421.
 14) Aethylester d. Benzol-1-Carbonsäureamid-2-Amidoketocarbon-säure. Sm. 158–159° (J. pr. [2] 43, 228). — II, 1253.
 15) Allyl-2-Nitrobenzylamid d. Ameisensäure. Fl. (J. pr. [2] 48, 570). — II, 523.
 16) Verbindung (aus 3,4-Diamido-1-Methylbenzol u. Maleinsäureanhydrid) (G. 24 [1] 147). — IV, 616.
- C₁₁H₁₂O₂N₄** C 53,2 — H 4,8 — O 19,3 — N 22,6 — M. G. 248.
 1) $\alpha\gamma$ -Dioximido- β -Acetylphenylhydrazonpropan. Sm. 133° (B. 21, 2992). — IV, 762.
 2) Monacetat d. Diisonitrosoacetonhydrazon. Sm. 133° (B. 21, 2992).
 3) *p*-Nitro-5-Acetylamido-1,2-Dimethylbenzimidazol. Sm. 220–221° + C₂H₅O₂ (B. 29, 1056). — IV, 1150.
- C₁₁H₁₂O₂Cl₂** 1) $\beta\gamma$ -Dichlorpropylester d. 4-Oxybenzolmethyläther-1-Carbonsäure. Sm. 81° (74–76°) (B. 24, 776; 27, 1603). — II, 1526.
 2) $\beta\beta$ -Dichlorisopropylester d. 4-Oxy-1-Methylbenzol-3-Carbonsäure. Sm. 45,5° (B. 24, 776). — II, 1546.
 3) Isobutylester d. 3,5-Dichlor-2-Oxybenzol-1-Carbonsäure. Sm. 188° (B. 11, 1226). — II, 1504.
- C₁₁H₁₂O₂Br₂** 1) $\alpha\beta$ -Dibrom- β -[2-Oxyphenyläthyläther]propionsäure. Sm. 155° u. Zers. (A. 216, 158; 269, 3). — II, 1563.
 2) Dibromverb. (d. Säure C₁₁H₁₂O₂ v. Sm. 124–125°). Sm. 163° (B. 27, 1572). — II, 1592.
 3) Methylester d. $\alpha\beta$ -Dibrom- β -[2-Oxyphenylmethyläther]propion-säure (2 isom. Form.?). Sm. 125° u. 68°? (Soc. 39, 420). — II, 1563.
 4) Methylester d. $\alpha\beta$ -Dibrom- β -[4-Oxyphenylmethyläther]propion-säure. Sm. 118° (G. 16, 424). — II, 1565.
 5) 5-Acetat d. 3,6-Dibrom-5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol. Sm. 120–121,5° (A. 301, 279).
 6) Acetat d. 3,6-Dibrom-1-Oxy-4-Keto-1,2,5-Trimethyl-1,4-Dihydro-benzol. Sm. 113° (B. 28, 2919; 29, 1112, 1118, 2330).
 7) 1-Acetat d. 2,6-Dibrom-1,4-Dioxy-3,5-Dimethyl-1-Oxymethyl-1,4-Dihydrobenzol-1,4-Anhydrid. Sm. 165–166° (A. 302, 84).
 8) Monoacetat d. Alkohols C₉H₁₀O₂Br₂. Sm. 106° (B. 32, 24).
 9) Acetat d. Verb. C₉H₁₀O₂Br₂ (aus Dibrompseudocumenol). Sm. 95–96° (B. 30, 758; A. 302, 168).
- C₁₁H₁₂O₄N₂** C 55,9 — H 5,1 — O 27,1 — N 11,9 — M. G. 236.
 1) 3,4-Dimethyläther d. 4-Oximido-3-[3,4-Dioxyphenyl]-4,5-Dihydro-isoxazol. Sm. 171–172° u. Zers. (G. 24 [2] 10). — II, 976.
 2) Dimethyläther d. 4-Methyl-5-[3,4-Dioxyphenyl]-1,2,3,6-Dioxdiazin (Diisonitrosomethylisoeugenolsuperoxyd). Sm. 118° (G. 22 [2] 337; 24 [2] 7). — II, 976.
 3) Diacetat d. 1,4-Dioximido-2-Methyl-1,4-Dihydrobenzol. Sm. 120° (B. 21, 431). — III, 360.
 4) 3,4-Diacetyldiamidobenzol-1-Carbonsäure. Sm. 218° u. Zers. (B. 23, 3632). — II, 1275.
 5) Benzoylamidoacetylamidoessigsäure. Sm. 206,5°. Ba + 5 H₂O, Zn + 1½ H₂O, Ti, Cu + 3½ H₂O, Ag (J. pr. [2] 24, 239; [2] 26, 175). — II, 1189.
 6) Dimethylester d. Phenylhydrazonmethan- $\alpha\alpha$ -Dicarbonsäure. Sm. 61–62° (B. 28, 858). — IV, 720.
 7) Aethylester d. Benzoylallophansäure. Sm. 179° (163°) (B. 8, 104; 28, 2384). — II, 1181.
 8) Aethylester d. *p*-Nitro- β -[2-Amidophenyl]akrylsäure. Sm. 158–160° (A. 229, 243). — II, 1420.

- C₁₁H₁₁O₄N₂** 9) Monoäthylester d. Phenylhydrazon- $\alpha\alpha$ -Dicarbonsäure. Sm. 115° (B. 24, 866, 1244). — IV, 720.
 10) Äthylester d. Benzenylamidoximketocarbonsäure. Fest. Zers. bei 118° (B. 22, 3131). — II, 1203.
 11) Diäthylester d. $\alpha\gamma$ -Dicyanpropen- $\alpha\gamma$ -Dicarbonsäure. Sm. 178—179°. $\text{NH}_4 + \frac{1}{2}\text{H}_2\text{O}$, $\text{Na} + 2\text{H}_2\text{O}$, $\text{Ca} + 4\text{H}_2\text{O}$, $\text{Cu} + 4\text{H}_2\text{O}$, Ag (G. 27 [2] 393; B. 31, 1241; Soc. 73, 282).
 12) α -Amid d. Bernsteinsäuremonophenylamid-2-Carbonsäure. Sm. 191° (A. 292, 192).
 13) α -Amid d. Bernsteinsäuremonophenylamid-3-Carbonsäure. Sm. 218 bis 219° u. Zers. (G. 15, 548). — II, 1265.
 14) 1-Amid d. Benzol-1-Carbonsäure-3-Amidoketocarbonsäureäthylester. Sm. 191,5° (A. 232, 136). — II, 1264.
 15) 2-Nitro-4-Methylphenylimid d. Essigsäure. Sm. 78° (B. 27, 101). — II, 493.
- C₁₁H₁₁O₄N₄** C 50,0 — H 4,5 — O 24,2 — N 21,2 — M. G. 264.
 1) Nitrosocytisin. Sm. 237° (B. 27 [2] 510). — III, 878.
 2) Monamid d. Phenylnitrosohydrazonmalonsäuremonäthylester? Sm. 178°. Ag (J. pr. [2] 49, 340). — IV, 1454.
 3) Diamid d. 4-Methyl-1,3-Phenylendioxaminsäure. Zers. oberh. 220° (A. 268, 343). — IV, 605.
 4) Methylamid d. 4-Nitrophenylazoacetessigsäure. Sm. 189° (B. 31, 3127; 32, 207). — IV, 1467.
- C₁₁H₁₁O₄S** 1) α -Merkaptoäthanbenzyläther- $\alpha\beta$ -Dicarbonsäure (Benzylthioäpfelsäure). Sm. 180—181° (M. 18, 81, 87).
- C₁₁H₁₁O₄S₂** 1) Merkaptoessigbenzylidenäthersäure (Benzylidendithioglykolsäure). Sm. 123—124° (B. 21, 479). — III, 11.
 2) Merkaptoessig[5-Methyl-1,3-Phenylen]äthersäure. Sm. 151—151,5° (B. 12, 1640). — II, 966.
- C₁₁H₁₁O₅N₂** C 52,4 — H 4,8 — O 31,7 — N 11,1 — M. G. 252.
 1) Äthoxallylacetylfurfuramidin. Sm. bei 190° u. Zers. (B. 25, 1419). — IV, 945.
 2) Opianharnstoff. Sm. 259° u. Zers. (B. 21, 2522). — II, 1941.
 3) Brenzwein-4-Nitrophenylaminsäure. Sm. etwas über 150°. Ag (A. 90, 145). — II, 415.
 4) β -[3-Nitro-4-Acetylamidophenyl]propionsäure. Sm. 174° (B. 15, 844). — II, 1367.
 5) Äthylester d. 3-Nitro-4-Methylphenyloxaminsäure. Sm. 127—128° (B. 15, 2691). — II, 501.
 6) Äthylester d. 3-Nitro-2-Acetylamidobenzol-1-Carbonsäure (2 isom. Formen). Sm. 102° und 85—94° (J. pr. [2] 43, 438). — II, 1281.
 7) Äthylester d. 4-Nitro-2-Acetylamidobenzol-1-Carbonsäure. Sm. 112° (Am. 20, 220).
 8) Äthylester d. 5-Nitro-2-Acetylamidobenzol-1-Carbonsäure. Sm. 153° (J. pr. [2] 43, 473). — II, 1283.
 9) Äthylester d. 3-Nitro-4-Acetylamidobenzol-1-Carbonsäure. Sm. 95—96° (J. pr. [2] 43, 457). — II, 1286.
 10) Acetylamid d. β -Oxy- β -[2-Nitrophenyl]propionsäure. Sm. 141—142° (B. 16, 2647). — II, 1574.
 11) Acetylamid d. β -Oxy- β -[4-Nitrophenyl]propionsäure. Sm. 146—150° (B. 17, 1496). — II, 1575.
- C₁₁H₁₁O₅N₄** C 47,1 — H 4,3 — O 28,6 — N 20,0 — M. G. 280.
 1) 2-Dinitro-3-Keto-2,2,7-Trimethyl-1,2,3,4-Tetrahydro-1,4-Benzodiazin. Sm. oberh. 280° (A. 248, 82). — IV, 888.
- C₁₁H₁₁O₅Br₂** 1) 2,6-Dibrom-3,4,5-Trioxybenzoltrimethyläther-1-Methylcarbon-säure. Sm. 152° (B. 26, 2023). — II, 1927.
- C₁₁H₁₁O₅S₂** 1) Merkaptoessig-2-Oxybenzylidenäthersäure. Sm. 147—148° (B. 21, 480). — III, 66.
- C₁₁H₁₁O₆N₂** C 49,3 — H 4,5 — O 35,8 — N 10,4 — M. G. 268.
 1) 1-Methyläther-2-Acetat d. 5-Nitro-3-Acetylamido-1,2-Dioxybenzol. Sm. 204° (Soc. 69, 1331).
 2) 2,5-Dinitro-1-Pseudobutylbenzol-4-Carbonsäure (Bl. [3] 19, 69).
 3) 3,5-Dinitro-2,4,6-Trimethylphenylessigsäure. Sm. 243° (A. 264, 140; B. 30, 1275). — II, 1396.

- C₁₁H₁₂O₆N₂** 4) Methylester d. α -[2,4-Dinitrobenzyl]propionsäure. Sm. 76° (Soc. 53, 559). — II, 1382.
 5) 3,4-Dimethylester d. Benzol-1-Carbonsäure-di-3,4-Amidoameisensäure. Sm. 340–350° u. Zers. (B. 23, 3630). — II, 1275.
 6) Aethylester d. β -[2,4-Dinitrophenyl]propionsäure. Sm. 32° (B. 12, 601). — II, 1361.
 7) Aethylester d. *p*-Dinitro-3-Methylphenylessigsäure. Sm. 68° (M. 9, 856). — II, 1374.
- C₁₁H₁₂O₆N₄** C 44,6 — H 4,0 — O 32,4 — N 18,9 — M. G. 296.
 1) *p*-Dinitro-3,4-Di[Acetyl-amido]-1-Methylbenzol. Sm. 251–252° (B. 25, 1991). — IV, 613.
 2) 1-[2,4,6-Trinitrophenyl]hexahydropyridin. Sm. 106° (B. 24, 3688; Soc. 59, 716). — IV, 9.
- C₁₁H₁₂O₇N₂** C 46,5 — H 4,2 — O 39,4 — N 9,9 — M. G. 284.
 1) β -[3,5-Dinitro-4-Oxyphenyläthyläther]propionsäure. Sm. 126° (A. 225, 83). — II, 1566.
 2) Methylester d. α -Nitro- β -Oxy- β -[4-Nitrophenyl]propionmethyläthersäure. Sm. 117–118° (A. 229, 221). — II, 1575.
 3) Methylester d. β -[3,5-Dinitro-4-Oxyphenylmethyläther]propionsäure. Sm. 53° (A. 225, 80). — II, 1566.
 4) Aethylester d. β -[3,5-Dinitro-4-Oxyphenyl]propionsäure. Sm. 74 bis 75°. Ag (A. 225, 76). — II, 1566.
 5) Aethylester d. 3,5-Dinitro-2-Oxybenzoläthyläther-1-Carbonsäure. Sm. 49° (A. 173, 51). — II, 1511.
 6) Aethylester d. 3,5-Dinitro-4-Oxybenzoläthyläther-1-Carbonsäure. Sm. 59° (56°) (A. 183, 48; J. pr. [2] 43, 461; Am. 19, 215). — II, 1539.
- C₁₁H₁₂O₈N₄** C 38,4 — H 3,5 — O 41,8 — N 16,3 — M. G. 344.
 1) Aethylester d. *p*-Trinitro-4-Aethoxylphenylamidoameisensäure. Sm. 211–212° u. Zers. (J. pr. [2] 29, 278). — II, 735.
- C₁₁H₁₂O₁₀N₈** C 31,7 — H 2,9 — O 38,5 — N 26,9 — M. G. 416.
 1) Lepidopterinsäure. Ag₂ (B. 26 [2] 7). — II, 2110.
- C₁₁H₁₂NCl** 1) Chlormethylat d. 2-Methylenisochinolin. 2 + PtCl₄ (J. pr. [2] 40, 306). — IV, 300.
 2) Chlormethylat d. 2-Methylchinolin. 2 + PtCl₄, + AuCl₃ (B. 18, 33; A. 242, 303). — IV, 308.
 3) Chloräthylat d. Chinolin + H₂O. Sm. 92,5°. 2 + PtCl₄ (B. 16, 1278). — IV, 251.
 4) Chloräthylat d. Isochinolin. 2 + PtCl₄ (B. 19, 2363). — IV, 300.
- C₁₁H₁₂NBr** 1) Bromäthylat d. Chinolin + H₂O. Sm. 80°. + Hg(CN)₂ (B. 16, 1277). — IV, 251.
- C₁₁H₁₂NJ** 1) Jodmethylat d. 2-Methylenisochinolin (J. pr. [2] 40, 305). — IV, 300.
 2) Jodmethylat d. 2-Methylchinolin. Sm. 195° (B. 16, 2468). — IV, 308.
 3) Jodmethylat d. 3-Methylchinolin. Sm. 221° (B. 18, 1642). — IV, 314.
 4) Jodmethylat d. 4-Methylchinolin. Sm. 173–174° (R. 2, 318). — IV, 314.
 5) Jodmethylat d. 6-Methylchinolin (M. 2, 161). — IV, 318.
 6) Jodmethylat d. 7-Methylchinolin + $\frac{1}{2}$ H₂O (M. 3, 385). — IV, 321.
 7) Jodmethylat d. 8-Methylchinolin (M. 2, 156). — IV, 322.
 8) Jodäthylat d. Chinolin. Sm. 118°. + Hg(CN)₂ (J. 1856, 534; R. 2, 321; 4, 63; B. 16, 1279, 1851). — IV, 251.
 9) Jodäthylat d. Isochinolin. Sm. 148° (R. 5, 308; B. 19, 2362). — IV, 300.
- C₁₁H₁₂N₂J₂** 1) Di[1-Jod-1,1-Dihydro-1-Pyridyl]methan. Zers. bei 220° (C. 1897 [1] 241). — IV, 110.
 2) Jodmethylat d. Jodnikotyrin. Sm. 196–197° (B. 31, 2020).
- C₁₁H₁₂N₂S** 1) 2-[4-Methylphenyl]amido-4-Methylthiazol. Sm. 125° (B. 20, 3130). — IV, 520.
 2) 2-Merkapto-1-[2,4-Dimethylphenyl]imidazol. Sm. 192°. 2 + PtCl₄ (B. 25, 2367). — IV, 503.
 3) Methyläther d. 2-Merkapto-1-[4-Methylphenyl]imidazol. Sm. 90°. (2HCl, PtCl₄), HJ (B. 25, 2364). — IV, 503.
 4) 3-Allylimido-3,4-Dihydro-2,1-Benzthiazin. Sm. 90–91° (B. 22, 1670). — IV, 878.

- C₁₁H₁₂N₂S₂** 1) Aethyläther d. 5-Merkapto-3-[4-Methylphenyl-1,2,4-Thiodiazol. Sm. 37° (B. 24, 392). — IV, 851.
- C₁₁H₁₂N₂Cl** 1) 3-Chlor-5-Propyl-1-Phenyl-1,2,4-Triazol. Sd. 326,5° u. Zers. HCl (B. 29, 2676; 30, 2433). — IV, 1110.
2) 3-Chlor-5-Isopropyl-1-Phenyl-1,2,4-Triazol. Sm. 56° (B. 29, 2675). — IV, 1110.
- C₁₁H₁₂N₂S** 1) Amid d. 5-Aethyl-1-Phenyl-1,2,4-Triazol-3-Thiocarbonsäure. Sm. 149,5—150° (B. 25, 177). — IV, 1117.
- C₁₁H₁₃ON** C 75,4 — H 7,4 — O 9,1 — N 8,0 — M. G. 175.
1) γ -Methylimido- α -Keto- α -Phenylbutan. Sm. 74—75° (B. 24, 1669). — III, 270.
2) δ -Phenylimido- β -Ketopentan (Acetylacetonanilid). Sd. 285—286° (Bl. 49, 89). — II, 447.
3) 4-Isopropylbenzylisocyanat (B. 8, 1151). — II, 561.
4) α -Oximido- ϵ -Phenyl- β -Penten. Sm. 109° (B. 31, 1994).
5) Oxim d. Benzoyl-R-Tetramethylen. Sm. 91—93° (Soc. 61, 59). — III, 166.
6) Oxim d. 2-Benzoyl-1-Methyl-R-Trimethylen. Fl. (Soc. 61, 86). — III, 166.
7) 4-Benzoylmorpholin. Sm. 74—75° (A. 301, 7).
8) 2-Keto-1-[4-Methylphenyl]tetrahydropyrrol (γ -p-Toluidobuttersäurelaktam). Sm. 82°; Sd. 189°₁₅ (A. 295, 54).
9) 5-Aethyl-2-Phenyl-4,5-Dihydrooxazol. Fl. Pikrat (B. 28, 3116). — IV, 229.
10) 1-Benzyl-5-Methyl-4,5-Dihydrooxazol. Pikrat (B. 24, 3224). — II, 1311.
11) 5-Methyl-2-[2-Methylphenyl]-4,5-Dihydrooxazol. Sd. 257—258° (2HCl, PtCl₄), Pikrat (B. 26, 1322). — II, 1330.
12) 5-Methyl-2-[4-Methylphenyl]-4,5-Dihydrooxazol. Sd. 264—265°₇₅₄. (2HCl, PtCl₄), HBr, Pikrat (B. 26, 1326). — II, 1341.
13) 2-Benzyl-4,5-Dihydro-1,3-Oxazin. Fl. (2HCl, PtCl₄), Pikrat (B. 24, 3224). — II, 1311.
14) 6-Methyl-2-Phenyl-4,5-Dihydro-1,3-Oxazin. Fl. Pikrat (B. 29, 1428).
15) 2-[α -Oximidoäthyl]-2,3-Dihydroinden. Sm. 125—126° (Soc. 65, 241). — III, 166.
16) Aethyläther d. 2-Oxymethylindol? Sm. 142,5° (B. 21, 2649). — IV, 767.
17) Aethyläther d. 3-Oxy-2-Methylindol. Sm. 143,5° (A. 269, 25). — IV, 221.
18) 2-Keto-1-Propyl-2,3-Dihydroindol. Sm. 68—69° (B. 30, 2817).
19) 2-Keto-1-Methyl-3-Aethyl-2,3-Dihydroindol. Sd. 280—285°₇₄₅ (M. 18, 545).
20) 2-Keto-1,3,3-Trimethyl-2,3-Dihydroindol. Sm. 55—56° (50°); Sd. 264—265°₇₅₁. (2HCl, PtCl₄ + 1½ H₂O), (HCl, AuCl₃) (B. 29, 2467; M. 17, 271, 482; 18, 109, 538; G. 28 [2] 62). — IV, 226.
21) 1-Acetyl-2-Methyl-2,3-Dihydroindol. Sm. 55—56° (B. 14, 883). — IV, 188.
22) 3-Keto-1-Propyl-1,3-Dihydroisindol (Propylphtalimidin). Sm. 135 bis 136° (B. 29, 1437).
23) Methyläther d. 2-Oxy-3,3-Dimethylpseudoindol. Sm. 62° (M. 18, 108). — IV, 225.
24) 1-Acetyl-1,2,3,4-Tetrahydrochinolin. Sd. 295° (B. 13, 2400; 16, 734). — IV, 192.
25) 2-Keto-3-Aethyl-1,2,3,4-Tetrahydrochinolin. Sm. 87—88° (B. 13, 119). — IV, 229.
26) 2-Acetyl-1,2,3,4-Tetrahydroisochinolin. Sm. 46°; Sd. 220—225°₇₀ (B. 26, 1213). — IV, 201.
27) Aethyläther d. 2-Oxy-P-Dihydrochinolin. Sm. 199° (B. 15, 335). — IV, 268.
28) Methyloxyhydrat d. 2-Methylechinolin. Chlorid, Jodid, Bichromat (B. 16, 2468; 18, 32; A. 242, 302). — IV, 308.
29) Aethyloxyhydrat d. Chinolin. Salze, siehe diese (B. 16, 1279). — IV, 251.

- C₁₁H₁₃ON** 30) Nitril d. δ -Oxyvalerianphenyläthersäure. Sm. 28—30°; Sd. 299 bis 304° u. Zers. (B. 25, 419; 30, 1058). — II, 665.
 31) Nitril d. 4-Oxy-1-Pseudobutyl-3-Carbonsäure? (Am. 16, 640). — II, 1588.
 32) Amid d. α -Phenyl- α -Buten- β -Carbonsäure. Sm. 128° (J. 1877, 789 bis 790). — II, 1432.
 33) Amid d. 1,2,3,4-Tetrahydronaphtalin-1-Carbonsäure. Sm. 116° (A. 266, 186). — II, 1432.
 34) Amid d. 1,2,3,4-Tetrahydronaphtalin-5-Carbonsäure. Sm. 182° (B. 22, 630). — II, 1432.
 35) Dimethylamid d. β -Phenylakrylsäure. Sm. 96° (C. 1899 [1] 730).
 36) Aethylamid d. β -Phenylakrylsäure. Sm. 92—93° (C. 1899 [1] 730).
 37) Phenylamid d. R-Tetramethylencarbonsäure. Sm. 111° (B. 21, 2697). — II, 371.
- C₁₁H₁₃ON₃** C 65,0 — H 6,4 — O 7,9 — N 20,7 — M. G. 203.
 1) 1-Semicarbazon-1,2,3,4-Tetrahydronaphtalin. Sm. 217—220° u. Zers. (Soc. 75, 149).
 2) 3-Keto-1,5-Dimethyl-2-[4-Amidophenyl]-2,3-Dihydropyrazol. Sm. 210° (C. 1897 [2] 968).
 3) 4-Amido-3-Keto-1,5-Dimethyl-2-Phenyl-2,3-Dihydropyrazol. Sm. 109°. HCl, H₂SO₄, Pikrat (A. 293, 56, 58). — IV, 1108.
 4) 3-Oxy-5-Propyl-1-Phenyl-1,2,4-Triazol. Sm. 160° u. Zers. (B. 29, 1950). — IV, 1110.
 5) 3-Oxy-5-Isopropyl-1-Phenyl-1,2,4-Triazol. Sm. 242°. HCl, Ag + 4 $\frac{1}{2}$ H₂O (B. 29, 1950). — IV, 1110.
 6) 5-Keto-3-Methyl-4-Aethyl-1-Phenyl-4,5-Dihydro-1,2,4-Triazol. Sm. 59°. — IV, 1105.
 7) 5-Acetylamido-1,2-Dimethylbenzimidazol + H₂O. Sm. 238,5°. Pikrat (B. 27, 605; 29, 1054). — IV, 1150.
 8) 4-Acetylamido-2,6-Dimethylbenzimidazol. Sm. 166° (B. 19, 721). — IV, 1152.
- C₁₁H₁₃OCl** 1) Chlormethyl-1,2,4-Trimethylphenylketon. Sm. 76° (B. 30, 1713).
 2) Chlormethyl-2,4,6-Trimethylphenylketon. Sm. 68,5° (Bl. [3] 17, 510).
 3) Chlorid d. isom. β - δ -Phenylvaleriansäure. Sd. 129—131°₁₁ (A. 261, 304). — II, 1393.
 4) Chlorid d. α -Benzylbuttersäure. Sd. 145—150°₁₁ (A. 261, 307). — II, 1394.
- C₁₁H₁₃OBr** 1) δ -Brombutylphenylketon. Sm. 61° (Soc. 51, 732). — III, 153.
 2) α -Brompropyl-4-Methylphenylketon. Sd. 169—173°_{20—25} (C. 1897 [2] 576).
 3) α -Bromäthyl-2,4-Dimethylphenylketon. Sd. 160—163°_{20—25} (C. 1897 [2] 576).
 4) α -Bromäthyl-2,5-Dimethylphenylketon. Sd. 166—168°_{40—45} (C. 1897 [2] 576).
 5) Brommethyl-1,2,4-Trimethylphenylketon. Sm. 56° (B. 30, 1714).
 6) Verbindung (aus 5-Oxy-1,2,4-Trimethylbenzol). Sm. 174° (B. 29, 1119).
- C₁₁H₁₃OBr₃** 1) 2,4,6-Tribrom-5-Oxy-3-Isobutyl-1-Methylbenzol. Sm. 128—130° (A. 288, 339).
- C₁₁H₁₃O₂N** C 69,1 — H 6,8 — O 16,7 — N 7,3 — M. G. 191.
 1) 2-Nitro-4-Isopropylphenyläthen. Fl. (B. 17, 2025). — II, 172.
 2) 2-Imido-1,5-Diacetyl-4-Methyl-1,2-Dihydrobenzol? Sm. 235° (A. 297, 74).
 3) Aethylester d. Acetylimidooxymethylbenzol. Sd. 156°₁₇ (Am. 19, 137; 20, 71).
 4) Benzoylacetimidoäthyläther. Sm. 89,5°. HCl (Bl. 48, 24). — II, 1645.
 5) Methyl-2-Propionylamidophenylketon. Sm. 68° (B. 26, 1386). — III, 124.
 6) Methyl-4-Acetylamido-3-Methylphenylketon. Sm. 143—144° (B. 18, 2698). — III, 146.
 7) δ [β]-Oximido- α -Keto- α -Phenylpentan. Sm. 122—123° (B. 16, 2868). — III, 272.
 8) β -Oximido- γ -Keto- α -[3-Methylphenyl]butan. Sm. 54—55° (B. 31, 2130).

- C₁₁H₁₃O₂N** 9) **1-Oximido-5-Methyl-3-[2-Furanyl]-1,2,3,4-Tetrahydrobenzol**. Sm. 96—98° (A. 303, 247).
- 10) **4-Methyläther d. 5-Methyl-2-[4-Oxyphenyl]-4,5-Dihydrooxazol**. Fl. (2 HCl, PtCl₄), HBr, Pikrat (B. 27, 2157). — II, 1530.
- 11) **4-Methyläther d. 2-[4-Oxyphenyl]-5,6-Dihydropentoxazol**. Fl. (2 HCl, PtCl₄), HBr, Pikrat (B. 27, 2157). — II, 1530.
- 12) **3,5-Diacetyl-2,6-Dimethylpyridin**. Sm. 73—74°. (2 HCl, PtCl₄ + H₂O), (HCl, AuCl₃), HNO₃, Pikrat (A. 297, 71; B. 30, 2297).
- 13) **3-Oxy-2-Keto-1-Propyl-2,3-Dihydroindol**. Sm. 70° (B. 30, 2817).
- 14) **Methyloxydhydrat d. 6-Oxychinolin-6-Methyläther**. Chlorid, Jodid (M. 6, 766; J. pr. [2] 56, 438, 440).
- 15) **6-Oxychinolinäthyloxydhydrat + H₂O**. Zers. bei 140° (J. pr. [2] 43, 525). — IV, 271.
- 16) **8-Oxychinolinäthyloxydhydrat + 2 H₂O**. Bromid (J. pr. [2] 47, 426; [2] 54, 7). — IV, 273.
- 17) **8-Oxyisochinolinäthyloxydhydrat + H₂O**. Sm. 160° u. Zers. Salze, siehe diese (J. pr. [2] 52, 14). — IV, 303.
- 18) **6,7-Methylenäther d. 6,7-Dioxy-2-Methyl-1,2,3,4-Tetrahydroisochinolin** (Hydrohydrastinin). Sm. 66° (60—61°). HCl, (2 HCl, PtCl₄), HBr, HJ, H₂Cr₂O₇ (B. 20, 93, 2401; 24, 2734; 31, 1578; A. 286, 18). — IV, 202.
- 19) **Aethyläther d. 2-Oxy-2-Methyl-1,3-Benzoxazin**. Zers. bei 235—240° (B. 31, 1599).
- 20) **Isopropyläther d. 3-Oxy-1,4-Benzoxazin**. Sch. 137—138°₁₄ (Am. 20, 564).
- 21) **4-Acetyl-3-Methyl-3,4-Dihydro-1,4-Benzoxazin**. Sm. 87° (B. 30, 1638).
- 22) **3-Isobutylidenamidobenzol-1-Carbonsäure**. Sm. 145—150° u. Zers. (A. 210, 118). — II, 1270.
- 23) **α -[2-Amidophenyl]- α -Buten- β -Carbonsäure**. Sm. 59° (B. 20, 378). — II, 1431.
- 24) **β -Phenylamido- β -Buten- β -Carbonsäure**. Ag (A. 295, 65).
- 25) **β -[4-Methylphenyl]amidocrotonsäure** (B. 17, 542). — II, 509.
- 26) **β -[2-Aethylamidophenyl]akrylsäure**. Sm. 125° (B. 14, 481; 15, 1423; A. 221, 267). — II, 1418.
- 27) **β -[2-Methylphenyl]imidobuttersäure**. Sm. 110—112° (B. 22, 2203). — II, 473.
- 28) **1-Methyl-1,2,3,4-Tetrahydrochinolin-4-Carbonsäure + 2 H₂O**. Sm. 169—170° u. Zers. HCl + H₂O, (2 HCl, PtCl₄), HJ + H₂O (M. 3, 66). — IV, 213.
- 29) **1-Methyl-1,2,3,4-Tetrahydrochinolin-7-Carbonsäure**. Sm. 164° (B. 17, 766). — IV, 213.
- 30) **Homohydrocinchoninsäure**. Sm. 125°. HCl + H₂O (M. 5, 646). — IV, 215.
- 31) **Lakton d. α -Phenylamido- γ -Oxyvaleriansäure**. Sm. 59° u. Zers. (B. 27, 1294).
- 32) **$\beta\delta$ -Lakton d. γ -Phenylamido- δ -Oxybutan- β -Carbonsäure**. Sm. 92° (A. 288, 22).
- 33) **Amidocannabinolakton**. Sm. 119°. (2 HCl, PtCl₄), HJ (C. 1898 [1] 948; Soc. 75, 32).
- 34) **Methylester d. β -Phenylamidocrotonsäure**. Sm. 51° (B. 21, 1968). — II, 406.
- 35) **Methylester d. 1,2,3,4-Tetrahydrochinolin-1-Carbonsäure**. Sm. bei 35° (B. 24, 3698). — IV, 192.
- 36) **Aethylester d. β -Phenylamidoakrylsäure**. Sm. 106° (143—144°) (B. 20, 3108; 25, 1051). — II, 436.
- 37) **Aethylester d. β -[2-Amidophenyl]akrylsäure**. Sm. 77—78° (B. 15, 1422; 28, 594, 1921). — II, 1417.
- 38) **Aethylester d. β -[3-Amidophenyl]akrylsäure**. Fl. HCl (B. 28, 1921).
- 39) **Aethylester d. β -[4-Amidophenyl]akrylsäure**. Sm. 68—69°. HCl (B. 28, 593).
- 40) **Allylester d. α -Amido- α -Phenylessigsäure**. Sm. 226° u. Zers. HCl (B. 24, 4146, 4149). — II, 1323.
- 41) **Amid d. 1-Isopropylbenzol-4-Ketocarbonsäure**. Sm. 189° (O. 21 [1] 51). — II, 1665.

- C₁₁H₁₃O₂N** 42) Amid d. γ -Keto- α -Phenylbutan- β -Carbonsäure (A. d. α -Benzylacetessigsäure). Sm. 149—150° (C. 1897 [1] 369).
 43) Phenylamid d. α -Acetylpropionsäure. Sm. 138—140° (A. 245, 358). — II, 406.
 44) Benzylamid d. Acetessigsäure. Sm. 96—97° (B. 27, 3380).
 45) 4-Methylphenylamid d. Propionylameisensäure. Sm. 130—131° (A. 279, 106).
 46) Phenylacetylamid d. Propionsäure. Sd. 159—160° (Am. 18, 700).
 47) Butyrylamid d. Benzolcarbonsäure. Sm. 104—105° (Am. 20, 72).
 48) 2-Methylphenylimid d. Essigsäure. Sm. 18°; Sd. 144—145°₁₁ (B. 26, 2855; 28, 1665 Anm.). — II, 461.
 49) 4-Methylphenylimid d. Essigsäure. Sm. 48°; Sd. 211,5—212°₁₀₀ (B. 26, 2852, 2854; 28, 1665 Anm.). — II, 493.
 50) Phenylformylamid d. Buttersäure. Sd. 164—185°₂₀ (Am. 18, 699).
 51) Nitril d. 2,6-Dioxybenzoldiäthyläther-1-Carbonsäure. Sm. 122° (R. 2, 226; 3, 383). — II, 1739.
- C₁₁H₁₃O₂N₃** C 60,3 — H 5,9 — O 14,6 — N 19,2 — M. G. 219.
 1) α -Phenylhydrazon- α -Acetylamido- β -Ketopropan. Sm. 143° (B. 26, 2785). — IV, 1229.
 2) Nitrosocytisin. Sm. 174° (B. 24, 679). — III, 879.
 3) 2-Nitroso-5-Keto-3,3-Dimethyl-1-Phenyltetrahydropyrazol (A. 292, 293). — IV, 490.
 4) 4,6-Diketo-5-Aethyl-2-Phenylhexahydro-1,3,5-Triazin (Aethylbenzylidenbiuret). Sm. 250° (A. 291, 370).
 5) 7-Nitro-5-Pseudobutylbenzimidazol. Sm. 261° (J. pr. [2] 48, 108). — IV, 888.
 6) 1 oder 4-Nitroso-3-Keto-2,2,7-Trimethyl-1,2,3,4-Tetrahydro-1,4-Benzdiazin. Sm. 153—154° u. Zers. (A. 248, 80). — IV, 888.
 7) Acetat d. α -Oximido- β -Phenylhydrazonpropan. Sm. 163° (A. 262, 278). — IV, 758.
 8) Amid d. Styrylhydantoinsäure. Sm. 210—220° u. Zers. (B. 22, 692). — II, 1655.
 9) Methylamid d. α -Phenylazoacetessigsäure. Sm. 150,5° (B. 32, 206).
 10) Benzylidenhydrazid d. Acetylamidoessigsäure. Sm. 198° (J. pr. [2] 52, 444). — III, 39.
- C₁₁H₁₃O₂Cl** 1) 4-Isopropylphenylchloroessigsäure. Sm. 82° (G. 21 [1] 47; B. 28, 2768). — II, 1395.
 2) d-4-Isopropylphenylchloroessigsäure. Sm. 75—76° (B. 28, 2768).
 3) Propylester d. d-Phenylchloroessigsäure. Sd. 180°₆₀ (B. 28, 1295).
- C₁₁H₁₃O₂Cl₃** 1) Diäthyläther d. 3,4,6-Trichlor-2,5-Dioxy-1-Methylbenzol. Sm. 107° (A. 152, 254). — II, 957.
- C₁₁H₁₃O₂Br** 1) 3-Methyläther d. β -Brom-3,4-Dioxy-1-Allylbenzol. Sd. 185°₄₄ (B. 10, 237; 28, 2084; B. 32, 3; J. 1879, 520). — II, 975.
 2) Dimethyläther d. β -Brom- $\gamma\gamma$ -Dioxy- α -Phenylpropen. Sd. 161—162°₁₁ (B. 31, 1017).
 3) β -Brom- δ -Phenylvaleriansäure. Sm. 57—58° (55—56°) (A. 283, 313, 321). — II, 1392.
 4) γ -Brom- δ -Phenylvaleriansäure. Sm. 58—59° (A. 268, 92; 283, 319; B. 31, 2003). — II, 1392.
 5) 4-Isopropylphenylbromessigsäure. Sm. 94—95° (G. 21 [1] 48). — II, 1395.
 6) Aldehyd d. 5-Brom-4-Oxy-1-tert. Butylbenzol-3-Carbonsäure. Sm. 86—87° (Am. 18, 643). — III, 91.
 7) Propylester d. d-Phenylbromessigsäure. Sd. 165°₉₀ (C. 1898 [2] 918).
 8) Isobutylester d. α -Bromphenylessigsäure (B. 31, 1420).
- C₁₁H₁₃O₂Br₃** 1) Dimethyläther d. β -Brom-3,4-Dioxy-1-[$\beta\gamma$ -Dibrompropyl]benzol. Sm. 77—78° (J. 1879, 520; B. 10, 236; 28, 2084). — II, 975.
- C₁₁H₁₃O₃N** C 63,7 — H 6,3 — O 23,2 — N 6,8 — M. G. 207.
 1) Corydaldin. Sm. 175° (See. 67, 20).
 2) Erysipelin. (2HCl, PtCl₄) (Bl. [3] 7, 250; B. 25 [2] 915). — III, 890.
 3) Hydrastinin. Sm. 116—117°. HCl, (2HCl, PtCl₄), (HJ, J₂), H₂SO₄, H₂Cr₂O₇ (B. 19, 2500; 20, 90; 22, 457). — III, 105.
 4) Methyl-3-Nitro-4-Propylphenylketon. Fl. (B. 21, 2226). — III, 153.

- $\text{H}_{15}\text{O}_3\text{N}$ 5) **Methyl- β -Nitro-4-Isopropylphenylketon.** Sm. 49° (B. 21, 2227). — III, 154.
- 6) **2-Propylamidobenzol-1-Ketocarbonsäure** (Propylpseudoisatinsäure). Ba (B. 30, 2816).
- 7) **α -Phenylacetylamidopropionsäure.** Sm. 143°. Na + 3H₂O (B. 23, 2011, 2597; Ph. Ch. 10, 648). — II, 432.
- 8) **β -[4-Acetylamidophenyl]propionsäure.** Sm. 143° (B. 15, 844). — II, 1364.
- 9) **α -[2-Methylbenzoyl]amidopropionsäure** (J. pr. [2] 53, 356).
- 10) **α -[4-Methylbenzoyl]amidopropionsäure** (J. pr. [2] 53, 357).
- 11) **2-Methylphenylacetylamidoessigsäure.** Sm. 210–212° (B. 25, 2276; Ph. Ch. 10, 641). — II, 469.
- 12) **4-Methylphenylacetylamidoessigsäure.** Sm. 175–176°. Na + 3H₂O (B. 23, 2596; 25, 2286). — II, 505.
- 13) **α -Oximido- α -Phenylbutan- β -Carbonsäure.** Sm. 89–90° (B. 26, 1691). — II, 1664.
- 14) **α -Oximido- α -Phenylbutan- δ -Carbonsäure.** Sm. 110° (A. 302, 221).
- 15) **γ -Oximido- α -Phenylbutan- β -Carbonsäure.** Na, Ba (B. 30, 1161).
- 16) **α -Oximido- α -[4-Isopropylphenyl]essigsäure.** Sm. 124° u. Zers. (G. 21 [1] 51). — II, 1665.
- 17) **8-Oxy-1-Methyl-1,2,3,4-Tetrahydrochinolin- β -Carbonsäure + 2H₂O.** Sm. 211° (wasserfrei) (216°) (B. 20, 1219; M. 9, 212). — IV, 214.
- 18) **Tetrahydrochininsäure** (M. 10, 701). — IV, 215.
- 19) **Methylester d. Phenylacetylamidoessigsäure.** Sm. 86,5° (J. pr. [2] 38, 105). — II, 1313.
- 20) **Aethylester d. 2-Acetylamidobenzol-1-Carbonsäure.** Sm. 61–62° (J. pr. [2] 36, 145). — II, 1250.
- 21) **Aethylester d. Phenylmalonaminsäure.** Sm. 38–39° (B. 17, 739). — II, 412.
- 22) **Aethylester d. 4-Methylphenyloxaminsäure.** Sm. 66–67° (A. 184, 285). — II, 501.
- 23) **Aethylester d. Phenylformylamidoessigsäure.** Sd. 290–295° (B. 23, 2592). — II, 429.
- 24) **Aethylester d. anti-Benzaldoximessigsäure.** Sm. 59° (A. 289, 306). — III, 43.
- 25) **Aethylester d. Benzoylamidoessigsäure.** Sm. 60,5°; Sd. oberh. 180° u. Zers. (A. 31, 148; J. pr. [2] 15, 246; [2] 52, 436; B. 15, 2122). — II, 1184.
- 26) **norm. Propylester d. Phenylloxaminsäure.** Sm. 92° (A. 254, 11). — II, 408.
- 27) **Isopropylester d. Phenylloxaminsäure.** Sm. 52° (A. 254, 11). — II, 408.
- 28) **Acetat d. 4-Acetylamido-2-Oxy-1-Methylbenzol.** Sm. 132,5° (B. 17, 610; A. 235, 250). — II, 741.
- 29) **Acetat d. 2-Acetylamido-4-Oxy-1-Methylbenzol.** Sm. 128–129° (B. 17, 609). — II, 753.
- 30) **Acetat d. 2-Acetylamido-1-Oxymethylbenzol.** Sm. 91° (B. 22, 1667; 27, 3519). — II, 1062.
- 31) **Acetat d. 3-Acetylamido-1-Oxymethylbenzol.** Sm. 67° (B. 30, 1066).
- 32) **Acetat d. Benzylacetylhydroxylamin** (B. 26, 2632). — II, 533.
- 33) **α -Aethyläther d. Acetylbenzhydroxamsäure.** Sm. 38–39° (55°) (B. 24, 3456; 25, 41; A. 281, 263). — II, 1198.
- 34) **β -Aethyläther d. Acetylbenzhydroxamsäure.** Sm. 57° (B. 25, 41). — II, 1199.
- 35) **Aethylester d. Benzimidomethyläther-N-Carbonsäure.** Sd. 155°, (Am. 20, 69).
- 36) **Monamid d. Phenylmethandicarbonsäuremonäthylester.** Sm. 152° (B. 29, 2602).
- 37) **Phenylmonamid d. Propan- $\alpha\alpha$ -Carbonsäure** (Aethylmalonphenylaminsäure). Sm. 150° u. Zers. Ag (B. 21, 1246). — II, 415.
- 38) **Phenylmonamid d. Propan- $\alpha\beta$ -Dicarbonsäure** (Brenzweinphenylaminsäure). Sm. 147°. Pb (A. 90, 141; 91, 106; 248, 273; B. 21, 1381; 22, 2294). — II, 414.
- 39) **Phenylmonamid d. Bernsteinsäuremonomethylester.** Sm. 91–96° (97–99°) (R. 15, 341; 17, 200).

- C₁₁H₁₃O₃N** 40) **Benzylmonamid d. Bernsteinsäure** (Benzylsuccinaminsäure). Sm. 139°. Ba, Ag (*Soc.* 55, 630). — II, 530.
- 41) **Methylphenylmonamid d. Bernsteinsäure**. Sm. 91—92,5° (*A.* 292, 192).
- 42) **2-Methylphenylmonamid d. Bernsteinsäure** (2-Methylphenylsuccinaminsäure). Sm. 97°. Ba + H₂O (*B.* 12, 322; *Ph. Ch.* 3, 374). — II, 467.
- 43) **4-Methylphenylmonamid d. Bernsteinsäure** (4-Methylphenylsuccinaminsäure). Sm. 179—180° (157°). Ba + H₂O (*B.* 12, 322; *Ph. Ch.* 3, 374; *A.* 292, 188). — II, 502.
- 44) **1,2,4-Trimethyl-5-Phenylmonamid d. Oxalsäure** (1,2,4-Trimethyl-5-Phenyloxaminsäure) + H₂O. Sm. 167° u. Zers. Na + 3H₂O, K, Ca + H₂O, Ag (*M.* 9, 747). — II, 552.
- 45) **Acetylderivat d. 4-Dimethylamidobenzol-1-Carbonsäure**. Sm. 109° (*B.* 26, 1365). — II, 1271.
- C₁₁H₁₃O₃N₃** C 56,2 — H 5,5 — O 20,4 — N 17,9 — M. G. 235.
- 1) **Aethyläther d. γ -Nitro- α -[4-Oxyphenyl]azopropen**. Sm. 94—95° (*B.* 25, 1705). — IV, 1407.
- 2) **1-Nitroso- ρ -Nitro-2,3-Dimethyl-1,2,3,4-Tetrahydrochinolin**. Sm. 111° (*G.* 23 [2] 112). — IV, 207.
- 3) **1-Nitroso- ρ -Nitro-2,4-Dimethyl-1,2,3,4-Tetrahydrochinolin**. Sm. 92—92,5° (*G.* 23 [2] 122). — IV, 207.
- 4) **1-Nitroso- ρ -Nitro-4,4-Dimethyl-1,2,3,4-Tetrahydrochinolin**. Sm. 154—155° (*G.* 22 [2] 421). — IV, 208.
- 5) **Monoacetat d. ρ -Dioxy-1,2,3,4-Tetrahydrochinolin** (*B.* 16, 2217). — IV, 200.
- 6) **α -[2-Amido-4-Methylphenyl]hydrazon- β -Ketopropan- α -Carbonsäure**. Sm. 162° (*B.* 17, 2421). — IV, 809.
- 7) **γ -Phenylhydrazon- β -Oximidovaleriansäure**. Sm. 152° (*B.* 25, 1720). — IV, 692.
- 8) **Aethylester d. 4-Aethoxyl-1,3-Diazoimidobenzol-N-Carbonsäure**. Zers. unter 100° (*J. pr.* [2] 29, 273). — IV, 1548.
- 9) **Amid d. 3,5-Diacetyldiamidobenzol-1-Carbonsäure + 2H₂O**. Sm. über 265° (*Z.* 1870, 642). — II, 1276.
- 10) **Amid d. Benzoylamidoacetylamidoessigsäure**. Sm. 202°. HCl (*J. pr.* [2] 26, 194). — II, 1190.
- 11) **Acetylhydrazid d. Benzoylamidoessigsäure**. Sm. 186° (*J. pr.* [2] 52, 247).
- C₁₁H₁₃O₃Br** 1) **1-Acetat d. 3-Brom-1,4-Dioxy-2,5-Dimethyl-1-Oxymethyl-1,4-Dihydrobenzol-1,4-Anhydrid**. Sm. 65° (*A.* 302, 125).
- 2) **Methylester d. 5-Brom-2-Oxybenzolpropyläther-1-Carbonsäure**. Sm. 1—2°; Sd. 321—324°₄₁ (*G.* 16, 414). — II, 1505.
- 3) **Methylester d. 5-Brom-2-Oxybenzolisopropyläther-1-Carbonsäure**. Sd. 303—305° (*G.* 16, 415). — II, 1505.
- C₁₁H₁₃O₃J** 1) **α -Jod- β -Oxy- β -Phenylpropionäthyläthersäure + H₂O**. Sm. 138—139° (wasserfrei) (*A.* 289, 273).
- 2) **Säure (aus Jodecannabinolaktone)**. Ag (*Soc.* 75, 33).
- C₁₁H₁₃O₄N** C 59,2 — H 5,8 — O 28,7 — N 6,3 — M. G. 223.
- 1) **Methyldicarbocollidylumdehydrid**. Sm. 92°; Sd. oberh. 360° (*B.* 17, 1022). — IV, 170.
- 2) **Hydrat d. Acetoximidomethyl-4-Methylphenylketon**. Sm. 148° (*B.* 25, 3462). — III, 147.
- 3) **Acetat d. 4-Nitro-3-Oxy-1-Isopropylbenzol**. Sm. 65° (*Bl.* [3] 7, 328). — II, 762.
- 4) **Diäthyläther d. 3,5-Dioxy-1-Keto-1,2-Dihydrobensoxazol**. Sm. 192 bis 195° (*M.* 18, 364).
- 5) **Aethylbenzhydroxamessigsäure**. Fl. (*B.* 26, 1569). — II, 1203.
- 6) **α -Phenylamidoformoxylisobuttersäure**. Sm. 129° (*Bl.* [3] 19, 778).
- 7) **α -[4-Nitrobenzyl]buttersäure**. Zers. oberh. 300°. Ca (*B.* 20, 438). — II, 1394.
- 8) **α -[4-Nitro-3-Methylbenzyl]propionsäure**. Sm. 139°. Ag (*B.* 17, 2326). — II, 1395.
- 9) **ρ -Nitro-1-Pseudobutylbenzol-3-Carbonsäure**. Sm. 140°. Ag (*B.* 19, 1727). — II, 1394.
- 10) **ρ -Nitro-1-Pseudobutylbenzol-4-Carbonsäure**. Sm. 161°. Ag (*B.* 19, 1726). — II, 1394.

- $C_{11}H_{13}O_4N$ 11) Phenylamidobrenzweinsäure + H_2O . Sm. 141° u. 171°. Cu + H_2O , Cu + NH_3 , Ag + 2 NH_3 , HCl (B. 18, 1046; 21, 1362). — II, 438.
- 12) 2-Methylphenylimidodiessigsäure. Sm. 158–162° u. Zers. (NH_4) + 2 C_2H_5O (B. 23, 1994; 25, 2278; Ph. Ch. 10, 644). — II, 469.
- 13) 4-Methylphenylimidodiessigsäure + $\frac{1}{2}H_2O$. Sm. 100–120°. Cu + H_2O , Ag + $AgNO_3$, p-Toluidinsalz (B. 8, 1158; 14, 1324; 25, 2285; Ph. Ch. 10, 648). — II, 506.
- 14) 2-Methylphenylmalaminsäure. Sm. 178° (B. 23, 2043). — II, 468.
- 15) 4-Methylphenylmalaminsäure. Sm. 174° u. ger. Zers. Ag (G. 23, 1 181). — II, 503.
- 16) Oxyacetyl-2-Methylphenylamidoessigsäure. Sm. 143–144°. K + H_2O , Ba + 7 H_2O , Ag (J. pr. [2] 40, 502). — II, 470.
- 17) 2,6-Dimethyl-4-Aethylpyridin-3,5-Dicarbonsäure. Sm. 289–290° u. Zers. Ba + 3 H_2O , HCl + H_2O (A. 231, 40, — IV, 170.
- 18) Methylester d. 2-Nitro-1-Isopropylbenzol-4-Carbonsäure. Sm. 64° (J. pr. [2] 40, 438). — II, 1387.
- 19) Methylester d. 4-Nitro-1,3,5-Trimethylbenzol-2-Carbonsäure. Sm. 50° (A. 278, 218). — II, 1391.
- 20) Methylester d. Oxyessig-4-Acetylamidophenyläthersäure. Sm. 129 bis 130° (C. 1898 [1] 1252).
- 21) Dimethylester d. Phenylamidoessigsäure-2-Carbonsäure. Sm. 97° (A. 301, 350).
- 22) Aethylester d. 2-Oximidomethylphenoxylessigsäure. Sm. 80° (B. 31, 2811).
- 23) Aethylester d. Phenylamidoformoxylessigsäure (Glykolsäureäthylesterphenylurethan). Sm. 65° (Bl. [3] 19, 772).
- 24) Aethylester d. β -[2-Nitrophenyl]propionsäure. Fl. (B. 13, 1681). — II, 1361.
- 25) Aethylester d. β -[4-Nitrophenyl]propionsäure. Sm. 33–34° (A. 163, 133; J. 1879, 708). — II, 1361.
- 26) Aethylester d. 6-Nitro-1,3-Dimethylbenzol-4-Carbonsäure. Sm. 75 bis 76° (A. 271, 19). — II, 1377.
- 27) Aethylester d. 2-Nitro-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 72° (A. 147, 50). — II, 1379.
- 28) Aethylester d. 4-Nitro-1,3-Dimethylbenzol-5-Carbonsäure. Sm. 64 bis 65° (A. 193, 167). — II, 1379.
- 29) Monäthylester d. Benzol-1-Carbonsäure-2-Amidoessigsäure (M. 9, 728). — II, 1252.
- 30) Aethylester d. Benzoylamidooxyessigsäure. Sm. 114–115° (A. 287, 96; B. 26, 2644). — II, 1192.
- 31) Phenylmethancarbonsäureamidoameisensäureäthylester (Aethylurethanphenoxylessigsäure). Sm. 155° (B. 24, 4154). — II, 1324.
- 32) Aethylester-2-Acetylamidophenylester d. Kohlensäure. Sm. 77–78° (B. 19, 2270). — II, 706.
- 33) Aethylester-4-Acetylamidophenylester d. Kohlensäure. Sm. 120° (121°) (C. 1897 [1] 469; A. 305, 285).
- 34) Monäthylester d. 2,6-Dimethylpyridin-3,5-Dicarbonsäure. Sm. 131°. HCl + 2 H_2O (B. 19, 1306). — IV, 168.
- 35) Diäthylester d. Pyridin-2,3-Dicarbonsäure. Sd. 280–285° u. ger. Zers. (B. 27, 1788). — IV, 161.
- 36) Diäthylester d. Pyridin-3,4-Dicarbonsäure. Sd. 172,1°. (2HCl, PtCl₄) (M. 16, 693; 18, 230). — IV, 164.
- 37) Benzylmonamid d. Äpfelsäure. Sm. 130–132°. Ag (G. 22 [1] 175). — II, 530.
- 38) 4-Methoxylphenylmonamid d. Bernsteinsäure. Sm. 156–157° (B. 29, 85).
- 39) 4-Methoxylphenylmonamid d. Oxalsäureäthylester. Sm. 108° (G. 25 [2] 535; B. 31, 333; C. 1897 [1] 49).
- 40) 4-Aethoxylphenylmonamid d. Methandicarbonsäure. Sm. 143° u. Zers. (G. 25 [2] 541).
- $C_{11}H_{13}O_4N_3$ C 52,6 — H 5,2 — O 25,5 — N 16,7 — M. G. 251.
- 1) 2-Nitro-2,4-Di[Acetyl-amido]-1-Methylbenzol. Sm. 253° (B. 3, 9; 8, 1211). — IV, 602.

- $C_{11}H_{13}O_4N_3$ 2) **p-Nitro-3,4-Di[Acetylamido]-1-Methylbenzol**. Sm. 239° (B. 25, 1993). — IV, 613.
- 3) **1-[2,4-Dinitrophenyl]hexahydropyridin**. Sm. 92° (B. 21, 2283). — IV, 9.
- 4) **γ -[3-Nitrophenyl]hydrazonvaleriansäure**. Sm. oberh. 200° u. Zers. (A. 253, 61). — IV, 692.
- 5) **Aethylester d. 4-Harnstoffphenyl-1-Oxaminsäure**. Sm. 210—211° (B. 27, 963; A. 293, 380). — IV, 593.
- 6) **Amid d. 4-Urethanphenyl-1-Oxaminsäure**. Sm. 301—302° u. Zers. (B. 27, 962; A. 293, 379). — IV, 593.
- 7) **Phenylnitrosomonohydrazid d. Malonsäuremonoäthylester**. Sm. 85° (B. 25, 1506). — IV, 702.
- 8) **Verbindung** (aus d. Phenylhydrazid d. Oxaminsäure). Sm. 236° (J. pr. [2] 48, 80).
- $C_{11}H_{13}O_4N_3$ C 47,3 — H 4,7 — O 22,9 — N 25,1 — M. G. 279.
- 1) **p-Dinitro-4-Pseudobutyl-2-Methyldiazobenzolimid?** Sm. 146° (C. 1898 [2] 1232).
- $C_{11}H_{13}O_4P$ 1) **1,2-Betaïn d. Trimethylphenylphosphoniumoxydhydrat-2,4-Dicarbonsäure**. Sm. 160° (B. 31, 2923). — IV, 1674.
- 2) **1,3-Betaïn d. Trimethylphenylphosphoniumoxydhydrat-3,5-Dicarbonsäure**. Sm. 115° (B. 31, 2924). — IV, 1677.
- $C_{11}H_{13}O_5N$ C 55,2 — H 5,4 — O 33,5 — N 5,9 — M. G. 239.
- 1) **5[oder 6]-Nitro-3-Oxy-4-Propyl-1-Methylbenzol-2-Carbonsäure** (Nitrothymotinsäure). Sm. 173—175°. Ag (B. 28, 2795).
- 2) **p-Nitro-3-Oxy-1-Isopropylbenzoldimethyläther-4-Carbonsäure**. Sm. 145—146°. Ba + 2 $\frac{1}{2}$ H₂O (J. 1880, 664). — II, 1582.
- 3) **2-Acetylamido-3,4-Dioxybenzoldimethyläther-1-Carbonsäure**. Sm. 188—190° (B. 28, 810). — II, 1746.
- 4) **Säure** (aus Nitrocannabiolakton). K, Ag (Soc. 75, 30).
- 5) **Aldehyd d. p-Nitro-2,5-Dioxybenzoldiäthyläther-1-Carbonsäure**. Sm. 129—130° (J. pr. [2] 22, 472). — III, 99.
- 6) **2-Methylester d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure-1-Amid**. Sm. 173—174° (R. 15, 338).
- 7) **Isomethylester d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure-2-Amid** (Isomethylester d. α -Hemipinaminsäure). HCl (Sm. bei 141°), (HCl.AuCl₃) (R. 15, 335).
- 8) **Methylester d. 2-Nitro-1-[α -Oxyisopropyl]benzol-4-Carbonsäure**. Sm. 119—120°. — II, 1586.
- 9) **Aethylester d. β -[3-Nitro-4-Oxyphenyl]propionsäure**. Sm. 38° (A. 225, 93). — II, 1565.
- 10) **Aethylester d. β -Oxy- β -[3-Nitrophenyl]propionsäure**. Sm. 56° (B. 17, 1660). — II, 1574.
- 11) **Aethylester d. β -Oxy- β -[4-Nitrophenyl]propionsäure**. Sm. 45—46° (B. 16, 3006; 17, 1661). — II, 1574.
- 12) **Aethylester d. 3-Nitro-2-Oxybenzoläthyläther-1-Carbonsäure**. Fl. (A. 195, 35; J. pr. [2] 43, 434). — II, 1508.
- 13) **Aethylester d. 5-Nitro-2-Oxybenzoläthyläther-1-Carbonsäure**. Sm. 68° (98°) (A. 195, 15; J. pr. [2] 43, 469). — II, 1509.
- 14) **Aethylester d. 2-Nitro-3-Oxybenzoläthyläther-1-Carbonsäure**. Sm. 53—54° (J. pr. [2] 43, 468).
- 15) **Aethylester d. 4-Nitro-3-Oxybenzoläthyläther-1-Carbonsäure**. Sm. 60—61° (J. pr. [2] 43, 463). — II, 1520.
- 16) **Aethylester d. 2-Nitro-4-Oxybenzoläthyläther-1-Carbonsäure**. Sm. 53—54° (J. pr. [2] 43, 468). — II, 1520.
- 17) **Aethylester d. 3-Nitro-4-Oxybenzoläthyläther-1-Carbonsäure**. Sm. 64° (J. pr. [2] 43, 454). — II, 1538.
- 18) **Diäthylester d. 4-Oxypyridin-2,6-Dicarbonsäure**. Sm. 80—81° (M. 5, 388). — IV, 172.
- 19) **Diäthylester d. 4-Keto-1,4-Dihydropyridin-3,5-Dicarbonsäure**. Sm. 251° (B. 31, 1690).
- 20) **Propylester d. Oxyessig-4-Nitrophenyläthersäure**. Sm. 75—76° (C. 1898 [1] 1252).
- 21) **Benzylmonamid d. Weinsäure**. Sm. 166°. Ba + H₂O (G. 24 [1] 225). — II, 531.

- C₁₁H₁₃O₅N₃** C 49,4 — H 4,9 — O 30,0 — N 15,7 — M. G. 267.
- 1) 3,4-Dioxy-1-Semicarbazonmethylbenzoldimethyläther-2-Carbonsäure (Opianäuresemicarbazon). Sm. 187° (B. 29, 177).
 - 2) 1,2,4-Trimethyl-3,6-Dinitro-5-Phenylamid d. Essigsäure. Sm. 280° (B. 18, 2661). — II, 552.
 - 3) 1,3,5-Trimethyl-2,4-Dinitro-6-Phenylamid d. Essigsäure. Sm. 275° (A. 179, 167). — II, 554.
 - 4) p-Trimethyl-p-Dinitro-p-Phenylamid d. Essigsäure. Sm. 204° (B. 18, 2232). — II, 556.
 - 5) 2,5-Dimethyl-p-Dinitrobenzylamid d. Essigsäure. Sm. 162° (B. 25, 3015). — II, 555.
- C₁₁H₁₃O₅Br** 1) Methylester d. 2-Brom-3,4,5-Trioxybenzoltrimethyläther-1-Carbonsäure. Sd. 202°₁₆ (M. 19, 596).
- C₁₁H₁₃O₆N** C 51,8 — H 5,1 — O 37,6 — N 5,5 — M. G. 255.
- 1) p-Nitro-3,4-Dioxybenzol-3-Methyläther-4-Propyläther-1-Carbonsäure (Bl. 29, 270). — II, 1745.
 - 2) Aethylester d. 6-Nitro-3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 99–100° (B. 11, 132). — II, 1745.
 - 3) 3-Aethylester d. 2,6-Dioxypyridin-2-Aethyläther-3,5-Dicarbon-säure. Sm. 159–160° (A. 262, 105; 297, 87; B. 22, 1428). — IV, 174.
 - 4) 5-Aethylester d. 6-Oxy-2-Keto-1-Aethyl-1,2-Dihdropyridin-3,5-Dicarbon-säure. Sm. 103° (A. 285, 73).
 - 5) Diäthylester d. 2,6-Dioxypyridin-3,5-Dicarbon-säure. Sm. 201° (199°). NH₄, Na + $\frac{1}{2}$ (2)H₂O, Cu, Ag, Phenylhydrazinsalz (B. 26, 2801; 28, 825; 31, 1242; 32, 779; Soc. 73, 284; G. 27 [2] 397, 401). — IV, 174.
- C₁₁H₁₃O₆N₃** C 46,6 — H 4,6 — O 33,9 — N 14,8 — M. G. 283.
- 1) 2,4,6-Trinitro-3-Butyl-1-Methylbenzol. Sm. 96–97° (B. 24, 2835). — II, 106.
 - 2) 2,4,6-Trinitro-3-Isobutyl-1-Methylbenzol. Sm. 124° (A. 289, 165).
 - 3) 2,5,6-Trinitro-4-Propyl-1,3-Dimethylbenzol. Sm. 110° (B. 23, 2350). — II, 106.
 - 4) 2,5,6-Trinitro-4-Isopropyl-1,3-Dimethylbenzol. Sm. 182° (B. 23, 2351). — II, 106.
 - 5) 3,5,6-Trinitro-2-Propyl-1,4-Dimethylbenzol. Sm. 85° (B. 23, 2350). — II, 106.
 - 6) Trinitrolaurol. Sm. 84° (A. 145, 150). — II, 106.
 - 7) Aethylester d. β-[3,5-Dinitro-4-Amidophenyl]propionsäure. Sm. 95° (A. 225, 90). — II, 1368.
 - 8) Aethylester d. p-Dinitro-4-Aethoxylphenylamidoameisensäure. Sm. 121° (J. pr. [2] 29, 274). — II, 735.
 - 9) Aethylester d. isom. p-Dinitro-4-Aethoxylphenylamidoameisen-säure. Sm. 141° (J. pr. [2] 29, 274). — II, 735.
- C₁₁H₁₃O₇N** C 48,7 — H 4,8 — O 41,3 — N 5,2 — M. G. 271.
- 1) Methylester d. 2-Nitro-3,4,5-Trioxybenzoltrimethyläther-1-Carbonsäure. Sm. 67° (M. 19, 599).
 - 2) Diäthylester d. 4-Acetoxyisoxazol-3,5-Dicarbon-säure. Sm. 42° (B. 24, 862). — I, 765.
- C₁₁H₁₃O₇N₃** C 44,1 — H 4,4 — O 37,4 — N 14,0 — M. G. 299.
- 1) 2,4,5-Trinitro-6-Oxy-3-Pseudobutyl-1-Methylbenzol. Sm. 85–86° (B. 27, 1614). — II, 776.
 - 2) Methyläther d. p-Trinitro-4-Oxy-1-Pseudobutylbenzol. Sm. 74–75° (B. 27, 1619).
 - 3) Methyläther d. 2,5,6-Trinitro-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 92° (Z. 1871, 415). — II, 773.
 - 4) Isoamyläther d. 2,4,6-Trinitro-1-Oxybenzol. Sm. 68–69°. + Na-triumisoamylat (Am. 20, 451).
- C₁₁H₁₃O₈N₃** C 41,9 — H 4,1 — O 40,6 — N 13,3 — M. G. 315.
- 1) Diäthyläther d. 2,4,6-Trinitro-3,5-Dioxy-1-Methylbenzol. Sm. 61,5° (Z. 1871, 229). — II, 964.
- C₁₁H₁₃NS**
- 1) 4-Isobutylphenylsenföl. Sm. 42°; Sd. 277° (B. 17, 1235). — II, 558.
 - 2) p-Tetramethyl-1-Phenylsenföl. Sm. 65° (B. 17, 1915). — II, 563.
 - 3) 4-Isopropylbenzylsenföl. Sd. 245–270° u. Zers. (B. 8, 1152; 10, 53). — II, 561.

- C₁₁H₁₃N₈**
- 4) 5-Methyl-2-[2-Methylphenyl]-4,5-Dihydrothiazol. Sd. 284—295°. Pikrat (B. 26, 1328). — II, 1335.
 - 5) 5-Methyl-2-[4-Methylphenyl]-4,5-Dihydrothiazol. Sd. 294—295°. (2HCl, PtCl₄), Pikrat (B. 26, 1329). — II, 1354.
 - 6) 2-Benzyl-5,6-Dihydro-1,3-Pentthiazol. Fl. (B. 26, 1082). — II, 1328.
 - 7) 2-[2-Methylphenyl]-5,6-Dihydro-1,3-Pentthiazol. Fl. (B. 26, 1081). — II, 1335.
 - 8) 2-[4-Methylphenyl]-5,6-Dihydro-1,3-Pentthiazol. Sm. 52—53° (B. 26, 1081). — II, 1354.
 - 9) 1-Isobutylbenzthiazol. Fl. (2HCl, PtCl₄) (B. 13, 22). — II, 797.
 - 10) 1,3,5,6-Tetramethylbenzthiazol. Sm. 60—62° (B. 22, 906). — II, 827.
 - 11) 3-Propyl-2,4-Benzthiazin. Sd. 282—284°. Pikrat (B. 30, 1147). — IV, 229.
 - 12) Allyläther d. α-Phenylamido-α-Merkaptoäthan. Sd. oberh. 260° u. Zers. (B. 12, 1061). — II, 369.
 - 13) Amid d. 5,6,7,8-Tetrahydronaphtalin-1-Thiocarbonsäure. Fl. (B. 22, 629). — II, 1432.
- C₁₁H₁₃N₈**
- 1) 1,2,3,4-Tetrahydro-2-Naphtylamidodithioameisensäure. Tetrahydro-2-Amidonaphtalinsalz (Sm. 142°) (B. 21, 857). — II, 588.
- C₁₁H₁₃N₂Cl**
- 1) Chlormethylat d. 3-Methyl-1-Phenylpyrazol. 2 + PtCl₄ (A. 278, 276). — IV, 506.
 - 2) Chlormethylat d. 5-Phenyl-1-Methylpyrazol. 2 + PtCl₄ (B. 28, 698). — IV, 906.
 - 3) Chlormethylat d. 2-Methylamidochinolin. 2 + PtCl₄ (A. 282, 384). — IV, 908.
- C₁₁H₁₃N₂Br**
- 1) Bromäthylat d. 5[oder 8]-Amidoisochinolin. Sm. 257° (J. pr. [2] 52, 20). — IV, 915.
- C₁₁H₁₃N₂J**
- 1) Jodmethylat d. 3-Methyl-1-Phenylpyrazol. Sm. 144° (A. 278, 276). — IV, 506.
 - 2) Jodmethylat d. 4-Methyl-1-Phenylpyrazol. Sm. 160° (G. 23 [1] 489). — IV, 515.
 - 3) Jodmethylat d. 5-Methyl-1-Phenylpyrazol. Sm. 296° u. Zers. (A. 278, 291). — IV, 315.
 - 4) Jodmethylat d. 1-Methyl-5-Phenylpyrazol. Sm. 156—157° (B. 28, 698). — IV, 906.
 - 5) Jodäthylat d. 1-Phenylpyrazol. Sm. 116—117° (G. 17, 179). — IV, 497.
 - 6) Jodmethylat d. 1-Benzylimidazol (A. 271, 38). — IV, 502.
 - 7) Jodmethylat d. 1-[4-Methylphenyl]imidazol. Sm. 90° (B. 25, 2366). — IV, 502.
 - 8) Jodmethylat d. Nikotyrin. Sm. 211—213° (207°) (B. 27, 2539; 28, 1911). — IV, 858.
 - 9) Jodmethylat d. 2-Methylamidochinolin + H₂O. Sm. 160° (A. 282, 383). — IV, 908.
 - 10) Jodäthylat d. 2-Amidochinolin. Sm. 232° (A. 282, 381). — IV, 908.
 - 11) Jodäthylat d. 4-Amidochinolin. Sm. 232° (J. pr. [2] 56, 186).
 - 12) Jodäthylat d. 5[oder 8]-Amidoisochinolin. Sm. 216° (J. pr. [2] 52, 20). — IV, 915.
 - 13) Jodäthylat d. 6-Methyl-1,4-Benzdiazin. Sm. 176° u. Zers. (A. 287, 339; 292, 246). — IV, 902.
- C₁₁H₁₃N₃S**
- 1) α-Benzylidenamido-β-Allylthioharnstoff. Sm. 124—125° (B. 27, 626). — III, 40.
 - 2) 1-Phenylimidomerkaptomethyl-2-Methyl-4,5-Dihydroimidazol. Sm. 173—174° (Soc. 69, 34).
 - 3) norm. Propylecyanamid d. Phenylamidothioameisensäure. Sm. 108° (B. 23, 1665). — II, 399.
 - 4) Benzylecyanamid d. Aethylamidothioameisensäure. Sm. 143,5° (B. 23, 1661). — II, 529.
- C₁₁H₁₃N₃S₂**
- 1) α-Phenylmethyldithio-α-Methylalduret. Sm. 168° (B. 28, 1108).
- C₁₁H₁₄ON₂**
- 1) α-Phenyldithiodi-α-Methylketuret. Sm. 236° (A. 275, 36). — II, 401.
- C 69,5 — H 7,4 — O 8,4 — N 14,7 — M. G. 190.
- 1) Cytisin (Ulexin). Sm. 152—153°. Salze meist bek. (Z. 1869, 677; J. 1880, 370; B. 19 [2] 838; 22 [2] 694; 23, 3202; 24, 255, 635, 676; 27 [2] 509, 884, 885; 29 [2] 36; R. 10, 4; 13, 486; 15, 187; C. 1896 [1] 312, 375). — III, 878.

- C₁₁H₁₄ON₂** 2) Aethyläther d. α -Phenylallenylamidoxim. Sm. 83° (B. 19, 1510). — II, 1408.
 3) γ -Phenylhydrazon- β -Ketopentan. Sm. 116—117° (A. 247, 220). — IV, 780.
 4) β -Phenylhydrazon- γ -Ketopentan. Sm. 102—103° (B. 21, 1414; 22, 2117). — IV, 780.
 5) γ -[4-Methylphenyl]hydrazon- β -Ketobutan. Sm. 161° (A. 247, 225). — IV, 810.
 6) α -Aethylphenylhydrazon- β -Ketopropan. Sm. 55° (A. 247, 202). — IV, 757.
 7) 5-Keto-2,3-Dimethyl-1-Phenyltetrahydropyrazol (Hydroantipyrin). Sm. 107°. Pikrat (B. 25, 766). — IV, 489.
 8) 5-Keto-3,3-Dimethyl-1-Phenyltetrahydropyrazol. Sm. 74,5—75°. HCl (A. 292, 285). — IV, 489.
 9) 5-Keto-3,3-Dimethyl-2-Phenyltetrahydropyrazol. Sm. 109—110° (G. 27 [2] 374).
 10) 2-Acetyl-1-Phenyltetrahydropyrazol. Sd. 231—232°₁₁₉ (A. 274, 324). — IV, 479.
 11) 5-Isopropyl-3-Phenyl-4,5-Dihydro-1,2,4-Oxdiazol. Sm. 96°. HCl (B. 22, 3143). — II, 1205.
 12) 2-Keto-1-[4-Methylphenyl]hexahydro-1,3-Diazin (Trimethylen-p-Tolylharnstoff). Sm. 207° (B. 30, 2500).
 13) 1-Aethylamido-2-Keto-1,2,3,4-Tetrahydrochinolin. Sm. 74° (A. 221, 284). — II, 1368.
 14) 1-Nitroso-6,8-Dimethyl-1,2,3,4-Tetrahydrochinolin. Sm. 42° (B. 24, 2076). — IV, 209.
 15) 3-Keto-2,2,7-Trimethyl-1,2,3,4-Tetrahydro-1,4-Benzdiazin. Sm. 227° (A. 248, 79). — IV, 888.
 16) Inn. Anhydrid d. β -[α -Aethyl-2-Hydrazidophenyl]propionsäure. Sm. 165,5° (A. 221, 294). — II, 1369.
 17) Nitril d. α -Phenylamido- γ -Oxyvaleriansäure. Fl. (B. 27, 1293).
 18) Phenylamid d. β -Methylamidocrotonsäure. Sm. 145° (J. pr. [2] 45, 413; B. 25, 396, 771, 1872). — II, 371, 406.
- C₁₁H₁₄OCl₂** 1) $\alpha\alpha$ -Dichlor- β -Oxy- α -[4-Methylphenyl]- β -Methylpropan (p-Tolylpseudobutylalkohol). Sd. 245° (J. pr. [2] 37, 369). — II, 1067.
- C₁₁H₁₄OBr₂** 1) Methyläther d. 2,6-Dibrom-3-Oxy-4-Isopropyl-1-Methylbenzol. Fl. (G. 22 [2] 583). — II, 772.
- C₁₁H₁₄OS₂** 1) m-Dimethylphenylester d. Aethylxanthogensäure. Fl. (J. pr. [2] 41, 192). — II, 826.
- C₁₁H₁₄O₂N₂** C 64,1 — H 6,8 — O 15,5 — N 13,6 — M. G. 206.
 1) 2,4-Di[Acetylamido]-1-Methylbenzol. Sm. 224° (221°) (A. 153, 132; B. 3, 8; 8, 1211). — IV, 602.
 2) 2,5-Di[Acetylamido]-1-Methylbenzol. Sm. 220° (B. 10, 1157; 12, 2237). — IV, 609.
 3) 2,6-Di[Acetylamido]-1-Methylbenzol. Sm. 202—203° (Soc. 59, 1017). — IV, 610.
 4) 3,4-Di[Acetylamido]-1-Methylbenzol. Sm. 210° (B. 23, 1878). — IV, 613.
 5) s-Butyrylphenylharnstoff. Sm. 99° (PINNER, Imidoäther 124). — II, 382.
 6) s-Isobutyrylphenylharnstoff. Sm. 140° (Soc. 69, 863). — II, 382.
 7) $\alpha\delta$ -Dioximido- α -Phenylpentan. Sm. 108° (B. 23, 1791). — III, 272.
 8) Butyrylbenzenylamidoxim. Sm. 94° (B. 18, 1084). — II, 1201.
 9) Acetat d. 2,4-Dimethylbenzenylamidoxim. Sm. 189° (B. 22, 2445). — II, 1376.
 10) Acetat d. β -Phenylhydrazon- α -Oxypropan. Zers. bei 60° (B. 23 [2] 687). — IV, 767.
 11) Acetylderivat d. 4-Oxy-1-Phenyltetrahydropyrazol? (B. 24, 355). — IV, 660.
 12) 1-[2-Nitrophenyl]hexahydropyridin. Sm. 81°. (2HCl, PtCl₄) (B. 21, 2281). — IV, 8.
 13) 1-[4-Nitrophenyl]hexahydropyridin. Sm. 105,5°. HCl, (2HCl, PtCl₄) (B. 21, 2282). — IV, 8.
 14) Aethyläther d. 1-Nitroso-8-Oxy-1,2,3,4-Tetrahydrochinolin. Sm. 113° (B. 16, 718; 17, 759). — IV, 199.

- C₁₁H₁₄O₂N₂**, 15) α -Phenylhydrazonbutan- α -Carbonsäure (Phenylhydrazinbutyryl-ameisensäure). Sm. 98° (M. 15, 751).
- 16) γ -Phenylhydrazonbutan- α -Carbonsäure (Phenylhydrazinlävulinsäure). Sm. 108° (B. 19, 1568; 27, 2221; 28, 2130; A. 236, 146; 299, 44). — IV, 691.
- 17) α -Phenylhydrazonisovaleriansäure. Sm. 129° u. Zers. (M. 15, 763). — IV, 691.
- 18) α -[Methyl-4-Methylphenyl]hydrazonpropionsäure. Sm. 83,5° u. Zers. (A. 232, 215). — IV, 807.
- 19) α -Benzylidenhydrazidobuttersäure. Sm. 125° (B. 29, 674).
- 20) α -Benzylidenhydrazidoisobuttersäure. Sm. 144—145°. Ag (A. 290, 15). — III, 41.
- 21) β -Phenylazoisovaleriansäure. Sm. 57,5—58°. Ag (A. 292, 288). — IV, 1458.
- 22) Lakton d. α -Phenylhydrazido- γ -Oxyvaleriansäure. Sm. 113° (B. 27, 1296). — IV, 741.
- 23) Methylester d. β -[2-Amidophenyl]imidobuttersäure. Sm. 87° (B. 29, 1502). — IV, 560.
- 24) Äthylester d. α -Phenylhydrazonpropionsäure. Sm. 116—117° (B. 16, 2243; 19, 2968; A. 236, 142; 247, 206; Bl. [3] 9, 112; [3] 13, 478). — IV, 688.
- 25) Monophenyldiamid d. Äthylmalonsäure. Sm. 182° (B. 21, 1246). — II, 415.
- 26) Mono[2-Methylphenyl]diamid d. Bernsteinsäure. Sm. 160° (B. 12, 321). — II, 466.
- 27) Mono[4-Methylphenyl]diamid d. Bernsteinsäure. Sm. 207° (148°) (B. 12, 321; A. 292, 189). — II, 502.
- 28) Monobenzylidiamid d. Bernsteinsäure. Sm. 189° (Soc. 55, 632). — II, 530.
- 29) Benzylidenamid d. Essigsäure. Sm. 240—241° (A. 154, 74; B. 26, 1974). — III, 33.
- C₁₁H₁₄O₂N₂**, C 56,4 — H 6,0 — O 13,7 — N 23,9 — M. G. 234.
- 1) γ -Phenylallylidendiharnstoff (Cinnamaldiureid). Sm. 171—172° u. Zers. (A. 23 [1] 382). — III, 61.
- 2) 1-[4-Nitrophenyl]azohehexahydropyridin. Sm. 96—97° (98°) (A. 235, 263; B. 28, 841). — IV, 1580.
- 3) 3-[$\alpha\beta$ -Diimido- β -Dimethylamidoäthyl]amidobenzol-1-Carbonsäure. HCl (B. 18, 2411). — II, 1268.
- 4) Verbindung (aus Dimethylalloxanphenylhydrazon). Sm. 123—124° (B. 24, 4144). — IV, 700.
- C₁₁H₁₄O₂Br₂**, 1) Dimethyläther d. 3,4-Dioxy-1-[$\alpha\beta$ -Dibrompropyl]benzol. Sm. 101 bis 102° (B. 23, 1167; 28, 2090). — II, 976.
- 2) Dimethyläther d. 3,6-Dibrom-5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol. Sm. 102—103° (B. 29, 2339).
- 3) 5-Äthyläther d. 4,6-Dibrom-2-Oxy-5-Oxymethyl-1,3-Dimethylbenzol. Sm. 147° (A. 302, 80).
- 4) 2-Äthyläther d. 3,6-Dibrom-5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol. Sm. 85—87° (B. 28, 2905; 29, 2339; A. 301, 270).
- 5) Diäthyläther d. 2-Dibrom-3,5-Dioxy-1-Methylbenzol. Sm. 142 bis 144° (M. 11, 316; 19, 90). — II, 963.
- C₁₁H₁₄O₂S**, 1) Äthylester d. Merkaptoessigbenzyläthersäure. Sd. 275—290° (B. 12, 1641). — II, 1054.
- C₁₁H₁₄O₂N₂**, C 59,4 — H 6,3 — O 21,6 — N 12,6 — M. G. 222.
- 1) 4-Nitro-2-Äthylacetyl-amido-1-Methylbenzol. Sm. 90° (Soc. 67, 247).
- 2) α -Oximido- α -[3-Nitro-4-Propylphenyl]äthan. Sm. 86° (B. 21, 2227). — III, 154.
- 3) α -Oximido- α -[3-Nitro-4-Isopropylphenyl]äthan. Sm. 116—117° (B. 21, 2228). — III, 154.
- 4) Oxim d. Hydrastinin. Sm. 145—146°. HCl, (2HCl, PtCl₄) (B. 22, 458). — III, 105.
- 5) α -Benzenylamidoximobuttersäure. Sm. 81—82°. HCl (B. 29, 2655).
- 6) α -Benzenylamidoximisobuttersäure. Sm. 111—112°. HCl (B. 28, 1376).

- $C_{11}H_{14}O_3N_2$ 7) β -[2-Aethylnitrosamidophenyl]propionsäure. Sm. 78° (A. [222](#), [271](#)). — II, [1363](#).
- 8) [1,3-Phenylentrimethyloxamidsäure](#) + $3\frac{1}{2}H_2O$. (2HCl, PtCl₄), HJ + H₂O (B. [18](#), 2408). — IV, [577](#).
- 9) [1,4-Phenylentrimethyloxamidsäure](#) + $2\frac{1}{2}H_2O$ (B. [18](#), 2409). — IV, [593](#).
- 10) Aethylester d. β -Phenylnitrosamidopropionsäure. Fl. (B. [29](#), [515](#)).
- 11) Aethylester d. *s*-Methylphenylharnstoff- α -Carbonsäure. Sm. 114° u. Zers. (B. [27](#), [976](#)).
- 12) Aethylester d. Phenyluramidoessigsäure. Sm. 139—140° (B. [24](#), 4150). — II, [1325](#).
- 13) Aethylester d. 4-Acetylamidoameisensäure. Sm. 202,5° (B. [27](#), [398](#); A. [293](#), [374](#)). — IV, [590](#).
- 14) Aethylester d. Benzoylamidoacetylamidoameisensäure. Sm. 162° (J. pr. [\[2\]](#) [52](#), [266](#)).
- 15) Aethylester d. 3-Amido-4-Methylphenyloxaminsäure (Amidotolyl-oxamäthan). Sm. 168—170° (B. [3](#), [222](#); A. [268](#), [307](#)). — IV, [604](#).
- 16) Aethylester d. 3-Methylphenylamidoameisensäure-6-Carbonsäureamid. Sm. 171° (J. pr. [\[2\]](#) [51](#), [511](#)).
- 17) Aethylester d. 4-Methylbenzenylamidoximkohlsäure. Sm. 130° (B. [22](#), 2436). — II, [1343](#).
- 18) Aethylester d. β -Acetyl- α -Phenylhydrazidoameisensäure. Sm. 72 bis 73° (B. [32](#), [10](#)).
- 19) Aethylester d. α -Acetyl- β -Phenylhydrazidoameisensäure. Sm. 102 bis 103° (A. [263](#), [281](#)). — IV, [737](#).
- 20) Amid d. Oxyacetyl-2-Methylphenylamidoessigsäure. Sm. 152° (J. pr. [\[2\]](#) [40](#), [504](#)). — II, [470](#).
- 21) Monamid d. 4-Methylphenylimidodiessigsäure. Sm. 222° (B. [25](#), 2286). — II, [507](#).
- 22) Dimethylamid d. β -[4-Nitrophenyl]propionsäure. Sm. 90—91° (R. [16](#), [42](#)).
- 23) Aethyl-5-Nitro-2-Methylphenylamid d. Essigsäure. Sm. 96—97° (B. [25](#), 3137). — II, [462](#).
- 24) Aethyl-3-Nitro-4-Methylphenylamid d. Essigsäure. Sm. 245—250°₁₅₀ (B. [20](#), 1883). — II, [492](#).
- 25) [1,2,4-Trimethyl-*p*-Nitro-5-Phenylamid](#) d. Essigsäure. Sm. 202 bis 204° (193—194°) (B. [18](#), [692](#), 2661). — II, [552](#).
- 26) [1,3,5-Trimethyl-*p*-Nitro-6-Phenylamid](#) d. Essigsäure. Sm. 186 bis 188° (191°) (A. [179](#), [166](#); B. [7](#), [1134](#); [8](#), [58](#)). — II, [554](#).
- 27) *p*-Trimethyl-*p*-Nitro-*p*-Phenylamid d. Essigsäure. Sm. 131° (B. [18](#), 2231). — II, [555](#).
- 28) Phenylmonohydrazid d. Malonsäuremonäthylester. Sm. 99° (B. [24](#), 1800; [25](#), 1504). — IV, [701](#).
- 29) 4-Methylphenylhydrazid d. Oxalsäuremonoäthylester. Sm. 133° (B. [24](#), 4198). — IV, [807](#).
- 30) Verbindung (aus Cantharidin). Sm. 218—220° (G. [23](#) [\[1\]](#) [132](#)). — III, [623](#).
- 31) Verbindung (aus [3,4-Diamido-1-Methylbenzol](#) u. Bernsteinsäureanhydrid) (G. [24](#) [\[1\]](#) [146](#)). — IV, [616](#).
- 32) Verbindung (aus 5-Chlor-3-Methoxyl-4-Methyl-1-Phenylpyrazol). Sm. 173 bis 174° (B. [31](#), 3013).
- $C_{11}H_{14}O_3N_4$ C [52,8](#) — H [5,6](#) — O [19,2](#) — N [22,4](#) — M. G. [250](#).
- 1) α -Nitro- α -[5-Acetylamido-2-Methylphenyl]hydrazonäthan. Sm. 143° (A. [235](#), [250](#)). — IV, [1381](#).
- $C_{11}H_{14}O_3Br$ 1) Dimethyläther d. [2,6-Dibrom-3,4,5-Trioxy-1-Propylbenzol](#). Sm. 108—109° (B. [8](#), [67](#); [11](#), [331](#)). — II, [1024](#).
- $C_{11}H_{14}O_3S$ 1) 4-Methylphenyl- β -Merkapto- α -Oxyisobuttersäure. Sm. 101—102°. Ca, Ba + H₂O, Ag (B. [25](#), 2981). — II, [825](#).
- 2) Sulfonsäure d. Kohlenw. $C_{11}H_{14}$ (aus Petroleum). Na (J. r. [15](#), [323](#)). — II, [172](#).
- 3) Sulfonsäure d. Kohlenw. $C_{11}H_{14}$ (aus Petroleum) (B. [15](#), [733](#)).
- $C_{11}H_{14}O_3Hg$ 1) Propionat d. 4-Aethoxyphenyloxydhydrat. Sm. 116° (B. [27](#), [259](#)). — IV, [1710](#).

$C_{11}H_{11}O_4N_2$ C 55,4 — H 5,9 — O 26,9 — N 11,8 — M. G. 238.

- 1) *p*-Dinitro-3-Pseudobutyl-1-Methylbenzol. Sm. 92°; Sd. 224–225° (i. V.) (B. 24, 2835; 27, 1624). — II, 106.
- 2) *p*-Dinitro-4-Pseudobutyl-1-Methylbenzol. Sm. 87–88° (B. [3] 19, 68).
- 3) *p*-Dinitro-4-Pseudobutyl-1-Methylbenzol. Sm. 95° (B. 30, 1774).
- 4) 4,6-Dinitro-2-Propyl-1,3,5-Trimethylbenzol. Sm. 123° (B. 28, 2463).
- 5) Dimethyläther d. 3,4-Dioxy-1-[$\alpha\beta$ -Dioximidopropyl]benzol + H_2O . Sm. 112° (G. 24 [2] 13). — II, 977.
- 6) Dimethyläther d. isom. 3,4-Dioxy-1-[$\alpha\beta$ -Dioximidopropyl]benzol. Sm. 196° (G. 24 [2] 16). — II, 977.
- 7) 1,2-Arabinodiamidobenzol. Sm. 235° u. Zers. HCl, HBr (B. 20, 3116). — IV, 565.
- 8) Methylester d. α -Methylisonitramido- β -Phenylpropionsäure. Sm. 82° (A. 300, 133).
- 9) Aethylester d. 4-Methoxybenzenylamidoximkohlsäure. Sm. 119 bis 120° (B. 22, 2794). — II, 1531.
- 10) Aethylester d. α -Oxy- α -Phenyläthenylamidoximkohlsäure. Sm. 106–107° (B. 18, 2479). — II, 1554.
- 11) Aethylester d. α -[2-Nitrophenyl]amidopropionsäure. Sm. 142,5° (B. 30, 2765).
- 12) Aethylester d. α -[3-Nitrophenyl]amidopropionsäure. Sm. 203° (B. 30, 2766).
- 13) Aethylester d. α -[4-Nitrophenyl]amidopropionsäure. Sm. 86–87° (B. 30, 2767).
- 14) Aethylester d. 3-Nitro-4-Methylphenylamidoessigsäure. Sm. 65° (B. 20, 27). — II, 505.
- 15) Aethylester d. 4-Nitro-2-Aethylamidobenzol-1-Carbonsäure. Sm. 80° (Am. 20, 222).
- 16) Aethylester d. Oxyessig-4-Carbamidophenyläthersäure. Sm. 148° (B. 30, 548).
- 17) Isobutylester d. 2-Nitrophenylamidoameisensäure. Sm. 13° (Am. 19, 313).
- 18) Isobutylester d. 4-Nitrophenylamidoameisensäure. Sm. 62° (Am. 19, 319).
- 19) Diamid d. Oxyessig-[1-Methyl-3,5-Phenylen]äthersäure (J. pr. [2] 21, 168). — II, 961.
- 20) $\alpha\beta$ -Propylenimid d. Aethan- $\alpha\beta$ -Dicarbonsäure (Propylendisuccinimid). Sm. 98–100° (B. 21, 2360). — I, 1381.

$C_{11}H_{11}O_4N_2$ C 49,6 — H 5,3 — O 24,1 — N 21,0 — M. G. 266.

- 1) Aethylester d. Kaffeincarbonsäure. Sm. 207–208° (Am. 17, 419). — III, 962.

$C_{11}H_{11}O_4S$ 1) Aethylester d. β -Phenylsulfonpropionsäure. Fl. (B. 21, 97).

- 2) Benzoat d. β -Oxydiäthylsulfon. Sm. 118° (J. pr. [2] 36, 443). — II, 1139.

$C_{11}H_{11}O_5N_2$ C 52,0 — H 5,5 — O 31,5 — N 11,0 — M. G. 254.

- 1) Methyläther d. *p*-Dinitro-4-Oxy-1-tert. Butylbenzol. Sm. 101–102° (J. pr. [2] 48, 99; B. 27, 1619). — II, 765.
- 2) Isoamyläther d. 2,4-Dinitro-1-Oxybenzol. Fl. (B. 12, 765). — II, 684.
- 3) Nitrit d. Dimethyläther d. 3,4-Dioxy-1-Allylbenzol. Sm. 125° (118°) (B. 21, 1061; A. 271, 307). — II, 973.
- 4) Diacetat d. 2,4-Dioximido-3-Keto-1-Methylhexahydrobenzol. Sm. 125–130° (B. 29, 1083).
- 5) 6-Aethylamido-2-Keto-1-Aethyl-1,2-Dihydropyridin-3,5-Dicarbonsäure. Sm. 191° u. Zers. (A. 285, 78). — IV, 836.
- 6) Aethylester d. 2-Nitro-4-Aethoxyphenylamidoameisensäure. Sm. 71° (J. pr. [2] 29, 261). — II, 732.
- 7) Verbindung (aus d. Dimethyläther d. 3,4-Dioxy-1-Propenylbenzol). Sm. 107° u. Zers. (G. 24 [2] 19). — II, 977.

$C_{11}H_{11}O_5S$ 1) Diäthylester d. Benzol-1-Carbonsäure-3-Sulfonsäure. Fl. (A. 102, 252). — II, 1299.

$C_{11}H_{11}O_6N_4$ C 41,3 — H 4,7 — O 32,2 — N 18,8 — M. G. 298.

- 1) 2,4,5-Trinitro-6-Amido-3-Pseudobutyl-1-Methylbenzol. Sm. 168° (B. 30, 304).

- $C_{11}H_{14}O_2S$ 1) Diäthylester d. 2-Oxybenzol-1-Carbonsäure-5-Sulfonsäure. Sm. 62° (56°) (A. 103, 62; M. 18, 137). — II, 1515.
- $C_{11}H_{14}O_2N_2$ 1) Diäthylester d. 2-Acetyl-4-Oxy-1,2,6-Oxdiazin-3,5-Dicarbonsäure. Sm. 93° (B. 26, 1004). — IV, 545.
- $C_{11}H_{14}O_2N_2$ 1) Trimethylester d. 4,5-Dihydropyrazol-3,4,5-Tricarbonsäure-4-Methylcarbonsäure. Sm. 167° (B. 27, 875). — IV, 494.
- $C_{11}H_{14}NCl$ 1) 1-Chlor-1,3,3-Trimethyl-1,1-Dihydropseudoindol. $2 + PtCl_4$ (M. 17, 264).
- $C_{11}H_{14}NBr$ 1) p-Brom-2-[$\alpha\beta$ -Dibromäthyl]-1-Dimethylamidomethylbenzol. HBr (G. 23 [2] 413). — II, 585.
- $C_{11}H_{14}NJ$ 1) p-Jod- β -Phenylimido- β -Methylbutan (A. ch. [6] 16, 168). — II, 445.
- $C_{11}H_{14}N_2S$ 1) s- γ -Butenylphenylthioharnstoff. Sm. 97° (B. 29, 1432).
- 2) s-Allylbenzylthioharnstoff. Sm. 93–94° (Soc. 55, 300; B. 25, 820). — II, 527.
- 3) s-Allyl-[2-Methylphenyl]thioharnstoff. Sm. 75–76° (98°) (Soc. 55, 622; 67, 559; B. 22, 2998). — II, 465.
- 4) s-Allyl-[4-Methylphenyl]thioharnstoff. Sm. 99° (97°) (Z. 1865, 441; J. 1869, 636; B. 8, 1528). — II, 497.
- 5) 2-Benzylamido-5-Methyl-4,5-Dihydrothiazol. Sm. 65–66° (Soc. 59, 561). — II, 528.
- 6) 2-[Methylphenyl]amido-5-Methyl-4,5-Dihydrothiazol. Sd. bei 300°. (2HCl, PtCl₄), Pikrat (B. 22, 2296). — II, 393.
- 7) 2-[2-Methylphenyl]amido-5-Methyl-4,5-Dihydrothiazol. Sm. 126°. (2HCl, PtCl₄), Pikrat (B. 22, 2999). — II, 465.
- 8) 2-Thiocarbonyl-1-[4-Methylphenyl]hexahydro-1,3-Diazin (Trimethylen-p-Tolylthioharnstoff). Sm. 188° (B. 30, 2501).
- 9) 2-[4-Methylphenyl]amido-4,5-Dihydro-1,3-Thiazin (Trimethylen-p-Tolylpseudothioharnstoff). Sm. 135°. (2HCl, PtCl₄), HJ, Pikrat (B. 30 2509).
- 10) 2-Phenylamido-6-Methyl-4,5-Dihydro-1,3-Thiazin (n-Phenylbutylenpseudothioharnstoff). Sm. 106,5°. Pikrat (B. 29, 1431).
- 11) 2-Thiocarbonyl-1-Methyl-3-Aethyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 65°. HJ (J. pr. [2] 51, 137). — IV, 634.
- $C_{11}H_{14}N_2S_2$ 1) 1-Amido-1,2,3,4-Tetrahydro-5-Naphtyldithioameisensäure. 1,5-Diamido-1,2,3,4-Tetrahydronaphtalinsalz (B. 22, 955). — IV, 862.
- $C_{11}H_{14}N_2Br$ 1) Bromäthylat d. 3-Methyl-1-Phenyl-1,2,4-Triazol. Sm. 222–224° (C. 1897 [1] 1160).
- $C_{11}H_{14}N_2J$ 1) Jodäthylat d. 3-Methyl-1-Phenyl-1,2,4-Triazol. Sm. 181–182° (C. 1897 [1] 1160).
- $C_{11}H_{14}N_2F$ 1) 1-[4-Fluorphenyl]azohexahydropyridin (A. 243, 223). — IV, 1580.
- $C_{11}H_{15}ON$ C 74,6 — H 8,5 — O 9,0 — N 7,9 — M. G. 177.
- 1) 2-Acetylmethylamido-1,3-Dimethylbenzol. Sm. 94–95° (M. 19, 642).
- 2) β -Phenylamido- γ -Keto- β -Methylbutan. Sm. 61–62° (A. 241, 298; 262, 336). — II, 446.
- 3) β -Amido- γ -Keto- α -[3-Methylphenyl]butan. HCl, (2HCl, SnCl₄), (2HCl, PtCl₄), Pikrat (B. 31, 2131).
- 4) Methyl-4-Dimethylamido-3-Methylphenylketon. Sm. 95° (B. 18, 2699). — III, 145.
- 5) δ -Oximido- δ -Phenyl- β -Methylbutan. Sm. 74° (J. pr. [2] 46, 490). — III, 153.
- 6) α -Oximido- α -[4-Methylphenyl]- β -Methylpropan. Sm. 92° (J. pr. [2] 46, 481). — III, 153.
- 7) α -Oximido- α -[2,4-Dimethylphenyl]propan. Sm. 72° (J. pr. [2] 46, 475). — III, 154.
- 8) α -Oximido- α -[4-Propylphenyl]äthan. Sm. 43–44° (B. 21, 2225). — III, 153.
- 9) α -Oximido- α -[4-Isopropylphenyl]äthan. Sm. 70–71° (B. 21, 2226). — III, 154.
- 10) α -Oximido- α -[2,4,5-Trimethylphenyl]äthan. Sm. 85–86° (B. 31, 1005).
- 11) Methyläther d. anti-4-Isopropylbenzaldoxim. Sd. 245–246°₇₀₅ (B. 23, 2175). — III, 56.

- C₁₁H₁₅ON** 12) Isobutyläther d. anti-Benzaldoxim. *Sd.* 237—239° u. *ger. Zers.* (*B.* 16, 828). — III, 42.
- 13) Benzimidobisobutyläther. *Sd.* 248—250°_∞. *HCl*, 2*HCl*, (2*HCl*, *PtCl*₄), *H*₂*SO*₄ (*B.* 10, 1890, 1894; *II*, 10; *Am.* 20, 75). — II, 1213.
- 14) Cyancampher. *Sm.* 127—128°; *Sd.* 250° u. *Zers.* *Na*, *K* (*J.* 1878, 644; 1881, 327; 1886, 541; *C. r.* 93, 72; *A.* 281, 349; *A. ch.* [6] 20, 12). — III, 497.
- 15) 4,5-Camphylisoxazol. *subl.* bei 70°; *Sm.* 124—125° (*Am.* 19, 409; 20, 340). — IV, 209.
- 16) 2-Oxy-1,3,3-Trimethyl-2,3-Dihydroindol. *Sm.* 97—98° (95°). *HCl*, (2*HCl*, *PtCl*₄), *H*₂*SO*₄, *Pikrat* (*M.* 17, 257; *B.* 29, 2469; *G.* 27 [1] 474). — IV, 225.
- 17) 8-Oxy-1-Aethyl-1,2,3,4-Tetrahydrochinolin. *Sm.* 76°. *HCl* (*B.* 16, 717; 17, 756). — IV, 200.
- 18) Methyläther d. 6-Oxy-1-Methyl-1,2,3,4-Tetrahydrochinolin (Methylthallin). *Sd.* 277—278,5°. *H*₂*SO*₄ (*M.* 6, 776). — IV, 198.
- 19) Methyläther d. 8-Oxy-1-Methyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 256—258°. (2*HCl*, *PtCl*₄), *H*₂*SO*₄ (*B.* 19, 1041). — IV, 199.
- 20) Methyläther d. 8-Oxy-2-Methyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 270°. *HCl* (*B.* 17, 1707). — IV, 205.
- 21) Methyläther d. 7-Oxy-2-Methyl-1,2,3,4-Tetrahydroisochinolin. *Sd.* 179°_∞. *HCl*, (2*HCl*, *PtCl*₄) (*A.* 286, 19). — IV, 202.
- 22) Aethyläther d. 5-Oxy-1,2,3,4-Tetrahydrochinolin. *Sm.* 73°. *HCl* + *H*₂*O* (*B.* 16, 724). — IV, 197.
- 23) Aethyläther d. 8-Oxy-1,2,3,4-Tetrahydrochinolin. *Sd.* 275—276°_{ne} (*B.* 16, 718; 17, 759). — IV, 198.
- 24) Aethyläther d. 7-Oxy-1,2,3,4-Tetrahydroisochinolin. *Sd.* 194 bis 195°_∞. *HCl*, (2*HCl*, *PtCl*₄) (*A.* 286, 19). — IV, 202.
- 25) 4-Benzyl-2,3,5,6-Tetrahydro-1,4-Oxazin (Benzylmorpholin). *Sd.* 260 bis 261°. *HCl*, (2*HCl*, *PtCl*₄), (*HCl*, *AuCl*₃), *HBr*, *Pikrat* (*M.* 12, 84; *B.* 29, 2386). — II, 515.
- 26) Aldehyd d. 4-Diäthylamidobenzol-1-Carbonsäure. *Sm.* 41° (*B.* 19, 396). — III, 18.
- 27) Amid d. β-[2,4-Dimethylphenyl]propionsäure. *Sm.* 107° (*J. pr.* [2] 46, 477). — II, 1396.
- 28) Amid d. 4-Isopropylphenylelessigsäure. *Sm.* 170° (*G.* 21 [1] 55). — II, 1395.
- 29) Amid d. 2,4,5-Trimethylphenylelessigsäure. *Sm.* 174° (*J. pr.* [2] 41, 512). — II, 1396.
- 30) Amid d. 2,4,6-Trimethylphenylelessigsäure. *Sm.* 208° (*J. pr.* [2] 41, 507). — II, 1396.
- 31) Amid d. 1-Pseudobutylbenzol-3-Carbonsäure. *Sm.* 130° (*B.* 19, 1727). — II, 1394.
- 32) Amid d. 1-Pseudobutylbenzol-4-Carbonsäure. *Sm.* 171° (*B.* 19, 1726). — II, 1394.
- 33) Amid d. 4-Isopropyl-1-Methylbenzol-2-[?]Carbonsäure. *Sm.* 138 bis 139° (*B.* 8, 442). — II, 1396.
- 34) Amid d. 1,2,3,4-Tetramethylbenzol-5-Carbonsäure. *Sm.* 222° (*B.* 30, 1279).
- 35) Amid d. 1,2,4,5-Tetramethylbenzol-3-Carbonsäure. *Sm.* 178° (*A.* 244, 55; *B.* 29, 2571). — II, 1397.
- 36) Dimethylamid d. β-Phenylpropionsäure. *Sd.* 181°₂₅ (*B.* 16, 42).
- 37) Diäthylamid d. Benzolcarbonsäure. *Sd.* 280—282° (*B.* 9, 846; *R.* 4, 387). — II, 1161.
- 38) Phenylamid d. Valeriansäure. *Sm.* 103—105° (95—96°) (*C.* 1896 [1] 37; 1899 [1] 467).
- 39) Phenylamid d. Isovaleriansäure. *Sm.* 115°; *Sd.* über 220° (300°) (*A.* 84, 109; 193, 102; *B.* 16, 1200; *Am.* 18, 700). — II, 370.
- 40) 2-Methylphenylamid d. Isobuttersäure. *Sm.* 115—116° (*B.* 25, 2928; *A.* 279, 172).
- 41) 3-Methylphenylamid d. Isobuttersäure. *Sm.* 85° (*B.* 27 [2] 516; *J. pr.* [2] 51, 570).
- 42) 4-Methylphenylamid d. Isobuttersäure. *Sm.* 109° (*A.* 279, 173).

- C₁₁H₁₅ON** 43) Methyl-4-Methylphenylamid d. Propionsäure. Sd. 266—269° (B. 20, 2270). — II, 493.
 44) norm. Propylphenylamid d. Essigsäure. Sm. 46—48° (56°); Sd. 266 bis 267° (B. 16, 913; 21, 1109; 25, 2315; J. 1888, 683). — II, 367.
 45) 2-Propylphenylamid d. Essigsäure. Sm. 104—105° (G. 28 [2] 98).
 46) 4-norm. Propylphenylamid d. Essigsäure. Sm. 87° (B. 16, 108). — II, 549.
 47) Isopropylphenylamid d. Essigsäure. Sm. 39°; Sd. 262—263°₇₁₃ (B. 21, 1109). — II, 367.
 48) 2-Isopropylphenylamid d. Essigsäure. Sm. 72° (B. 21, 1162). — II, 550.
 49) 4-Isopropylphenylamid d. Essigsäure. Sm. 102—102,5° (B. 21, 1159). — II, 550.
 50) Aethyl-2-Methylphenylamid d. Essigsäure. Sd. 254—256° (B. 16, 31). — II, 462.
 51) Aethyl-4-Methylphenylamid d. Essigsäure. Sd. 258° (B. 20, 2271). — II, 493.
 52) 2-Methyl-*p*-Aethylphenylamid d. Essigsäure. Sm. 105—105,5°; Sd. 313—315° (B. 15, 1651). — II, 551.
 53) Methyl-2,3-Dimethylphenylamid d. Essigsäure. Sm. 75°. (2HCl, PtCl₄), (HCl, AuCl₃) (A. 263, 317). — II, 540.
 54) Methyl-2,4-Dimethylphenylamid d. Essigsäure. Sm. 65° (B. 31, 2930).
 55) 2,4,5-Trimethylphenylamid d. Essigsäure. Sm. 161° (B. 18, 629, 1146, 2661). — II, 552.
 56) 2,4,6-Trimethylphenylamid d. Essigsäure. Sm. 216—217° (210°) (A. 179, 173; B. 8, 58; 24, 3546; Soc. 71, 232). — II, 554.
 57) 3,4,5-Trimethylphenylamid d. Essigsäure. Sm. 163—164° (164,5°) (B. 18, 2681; 21, 644). — II, 551.
 58) *p*-Trimethylphenylamid d. Essigsäure. Sm. 112° (B. 18, 2230). — II, 555.
 59) 3,5-Dimethylbenzylamid d. Essigsäure. Sm. 78° (B. 25, 3013). — II, 555.
 60) Isobutylphenylamid d. Ameisensäure. Sd. 274°₇₃₁ (B. 21, 1109). — II, 359.
 61) 4-Isobutylphenylamid d. Ameisensäure. Sm. 59°; Sd. 314—316° (B. 18, 1009). — II, 557.
 62) 2,5-Dimethyl-6-Aethylphenylamid d. Ameisensäure. Sm. 104—105° (Soc. 61, 421). — II, 562.
 63) 2,3,4,5-Tetramethylphenylamid d. Ameisensäure. Sm. 143—144° (B. 21, 645). — II, 562.
 64) 2,3,4,6-Tetramethylphenylamid d. Ameisensäure. Sm. 183° (B. 21, 646). — II, 562.
C₁₁H₁₅ON₂ C 64.4 — H 7.3 — O 7.8 — N 20.5 — M. G. 205.
 1) γ -Oximido- β -Phenylhydrazonpentan. Sm. 131,5° (B. 22, 2118). — IV, 780.
 2) β -Oximido- γ -Phenylhydrazonpentan. Sm. 128° (B. 22, 2119). — IV, 781.
 3) γ -Oximido- β -Methylphenylhydrazonbutan. Sm. 105,5° (A. 262, 305). — IV, 780.
 4) Nitril d. α -Phenylhydrazido- γ -Oxyvaleriansäure. Fl. (B. 27, 1295). — IV, 741.
 5) Amid d. β -sec. Butyliden- α -Phenylhydrazidoameisensäure. Sm. 168° (B. 30, 1017). — IV, 768.
 6) Aethylamid d. α -Phenylhydrazonpropionsäure. Sm. 165° (A. 280, 298). — IV, 688.
 7) Isopropylidenhydrazid d. Phenylamidoessigsäure. Sm. 183° (J. pr. [2] 52, 449).
 8) Verbindung (aus Phenylisocyanat). Sm. 199—200° u. Zers. (Soc. 61, 521). — II, 378.
C₁₁H₁₅OC1 1) Methyläther d. 6-Chlor-3-Oxy-4-Isopropyl-1-Methylbenzol. Sd. 251°_{780.2} (G. 28 [1] 215, 228).
C₁₁H₁₅OB_r 2) Chlormethylencampher. Sd. 241—242° (A. 281, 361). — III, 115.
 1) Brommethylencampher. Sm. 31—32°; Sd. 260—261° (A. 281, 362). — III, 115.

- C₁₁H₁₅OBr** 2) Methyläther d. *p*-Brom-2-Oxy-4-Isopropyl-1-Methylbenzol. *Sd.* 147 bis 150°₁₅ (*B.* 28, 1665).
- 3) Methyläther d. 6-Brom-3-Oxy-4-Isopropyl-1-Methylbenzol. *Fl.* (*G.* 18, 516). — II, 772.
- C₁₁H₁₅O₂N** C 68,4 — H 7,8 — O 16,6 — N 7,2 — M. G. 193.
- 1) γ -Nitro- γ -Phenyl- β -Methylbutan. *Sd.* 151—153°₃₀ (*C.* 1899 [1] 776).
 - 2) δ -Nitro- δ -Phenyl- β -Methylbutan. *Sd.* 159—161°₃₀ (*C.* 1899 [1] 776).
 - 3) 5-Nitro-3-Pseudobutyl-1-Methylbenzol. *Sm.* 32°; *Sd.* 120°₁₅ (*B.* 30, 304).
 - 4) 6-Nitro-3-Pseudobutyl-1-Methylbenzol. *Sd.* 160—162° (*B.* 24, 2835). — II, 106.
 - 5) 4-Acetylamido-3-Oxy-1-Isopropylbenzol. *Sm.* 95—96° (*Bl.* [3] 9, 37). — II, 762.
 - 6) Aethyläther d. 5-Acetylamido-2-Oxy-1-Methylbenzol. *Sm.* 108° (*B.* 15, 1135; *A.* 217, 218). — II, 741.
 - 7) Aethyläther d. 6-Acetylamido-3-Oxy-1-Methylbenzol. *Sm.* 114° (*B.* 15, 1135; *A.* 217, 220, 222). — II, 746.
 - 8) Aethyläther d. 3-Acetylamido-4-Oxy-1-Methylbenzol. *Sm.* 106,5° (*B.* 15, 1135; *A.* 217, 221—222). — II, 753.
 - 9) Aethyläther d. 4-Acetylmethylamido-1-Oxybenzol. *Sm.* 41° (*A.* 305, 280).
 - 10) Propyläther d. 4-Acetylamido-1-Oxybenzol. *Sm.* 122° (*A.* 305, 283).
 - 11) Diäthyläther d. α -Phenylimido- $\alpha\alpha$ -Dioxymethan. *Sm.* 245° u. *ger.* Zers. (*Am.* 16, 390).
 - 12) 6-Oxy-3-tert. Butyl-1-Oximidomethylbenzol. *Sm.* 112° (*Am.* 16, 638). — III, 91.
 - 13) α -Oximido- ϵ -Oxy- α -Phenylpentan. *Sm.* 56—57° (*Soc.* 57, 311). — III, 153.
 - 14) 4-Aethyläther d. α -Oximido- α -[4-Oxyphenyl]propan. *Sm.* 97° (*B.* 23, 1205). — III, 141.
 - 15) Diäthyläther d. 2-Oxybenzaldoxim. *Fl.* (*B.* 16, 1785). — III, 76.
 - 16) 3-Methylamido-5-Isopropyl-2-Methyl-1,4-Benzochinon. *Sm.* 74° (*B.* 14, 97). — III, 368.
 - 17) Methyläther d. Aethyl-4-Methylbenzhydroxamsäure. *Fl.* (*A.* 281, 218). — II, 1343.
 - 18) Aethyläther d. α -Aethylbenzhydroxamsäure. *Sd.* 244°₇₈₅ (*A.* 182, 221; 205, 273; 252, 218; *B.* 18, 742; 25, 38; 26, 1565). — II, 1198.
 - 19) 2,4-Dimethylphenyläther d. β -Semicarbazon- α -Oxyäthan. *Sm.* 116 bis 117° (*B.* 30, 1708).
 - 20) 3,4-Dimethylphenyläther d. β -Semicarbazon- α -Oxyäthan. *Sm.* 187° (*B.* 30, 1708).
 - 21) α -[2,4,5-Trimethylphenyl]äther d. β -Oximido- α -Oxyäthan. *Sm.* 110° (*B.* 30, 1710).
 - 22) 3,5-Diacetyl-2,6-Dimethyl-1,4-Dihydropyridin. *Sm.* 198° (*B.* 30, 2207).
 - 23) β -Phenylamidovaleriansäure. *Sm.* 147—148° (*B.* 25, 2039). — II, 435.
 - 24) α -Phenylamidoisovaleriansäure. *Sm.* 135° (137—138°). *HCl* (*A. ch.* [5] 21, 445; *B.* 25, 2041; 30, 2308). — II, 435.
 - 25) δ -[2-Amidophenyl]valeriansäure. *Sm.* 60—62° (*B.* 20, 385). — II, 1393.
 - 26) α -[2-Methylphenyl]amidobuttersäure. *Sm.* 84° (*B.* 25, 2317; *Ph. Ch.* 10, 654). — II, 472.
 - 27) α -[4-Methylphenyl]amidobuttersäure. *Sm.* 153—156° (*B.* 25, 2320; *Ph. Ch.* 10, 654). — II, 508.
 - 28) γ -[4-Methylphenyl]amidobuttersäure. *Ag* (*A.* 295, 54).
 - 29) α -[4-Methylphenyl]amidoisobuttersäure. *Sm.* 149—150° (*B.* 25, 2343; *Ph. Ch.* 10, 659). — II, 508.
 - 30) β -[2-Methylphenyl]amidoisobuttersäure. *Sm.* 112° (*B.* 25, 2336; *Ph. Ch.* 10, 658). — II, 472.
 - 31) β -[4-Methylphenyl]amidoisobuttersäure. *Sm.* 194—196° (*B.* 25, 2340). — II, 508.
 - 32) α -Amido- α -[4-Isopropylphenyl]essigsäure. *Sm.* 197° u. Zers. *HCl*, *Cu* (*B.* 14, 1317). — II, 1395.
 - 33) 4-Isopropylbenzylamidoameisensäure. 4-Isopropylbenzylaminsalz. *Sm.* 97,5° (*B.* 22, 931). — II, 561.

- $C_{11}H_{15}O_2N$ **34)** 3-Diäthylamidobenzol-1-Carbonsäure. Sm. 90°. HCl + H_2O , Ba + H_2O (B. **5**, 1040). — II, **1252**.
- 35)** 4-Diäthylamidobenzol-1-Carbonsäure. Sm. 188°. (2HCl, $PtCl_4$), Ag (B. **9**, 1912). — II, **1271**.
- 36)** Methylester d. 2-Amido-1-Isopropylbenzol-4-Carbonsäure. Sm. **51** bis **52°** (J. pr. **[2]** **40**, 439). — II, **1388**.
- 37)** Aethylester d. α -Phenylamidopropionsäure. Sd. 272°₇₅₇. HBr (B. **22**, 1793; **23**, 2010; **30**, 2304). — II, **432**.
- 38)** Aethylester d. β -Phenylamidopropionsäure. Sd. 175°₁₈ (B. **29**, 514).
- 39)** Aethylester d. β -[4-Amidophenyl]propionsäure. Fl. HCl (B. **28**, 1921).
- 40)** Aethylester d. 2-Methylphenylamidoessigsäure. Sd. 281°₇₄₆ (B. **25**, 2275). — II, **462**.
- 41)** Aethylester d. 3-Methylphenylamidoessigsäure. Sm. 68° (B. **15**, 2012). — II, **472**.
- 42)** Aethylester d. 4-Methylphenylamidoessigsäure. Sm. 48—49°; Sd. **260** bis 282° (B. **8**, 1159; B. **25**, 2280). — II, **505**.
- 43)** Aethylester d. Benzylamidoessigsäure. Sd. 160—165°_{10—20}. Pikrat (Ser. **65**, 188). — II, **525**.
- 44)** Aethylester d. 2-Dimethylphenylamidoameisensäure. Sm. 58° (B. **3**, 657). — II, **548**.
- 45)** Aethylester d. **2,4,6**-Trimethylpyridin-3-Carbonsäure. Sd. **255** bis 256°. (2HCl, $PtCl_4$) (A. **215**, 42; **225**, 132). — IV, **150**.
- 46)** Propylester d. 4-Amidophenylessigsäure. Fl. HCl (B. **28**, 1919).
- 47)** β -Amidopropylester d. 1-Methylbenzol-2-Carbonsäure. HBr, Pikrat (B. **26**, 1324). — II, **1329**.
- 48)** β -Amidopropylester d. 1-Methylbenzol-4-Carbonsäure. (2HCl, $PtCl_4$), Pikrat (B. **26**, 1327). — II, **1340**.
- 49)** Isobutylester d. Phenylamidoameisensäure. Sm. 80°; Sd. 216° u. ger. Zers. (B. **5**, 973). — II, **372**.
- 50)** 4-Isopropylbenzylester d. Amidoameisensäure. Sm. 88—89° (J. **1875**, 414). — II, **1066**.
- 51)** 3-Methyl-6-Isopropylphenylester d. Amidoameisensäure. Sm. 131° (J. pr. **[2]** **27**, 505). — II, **771**.
- 52)** Amylester d. Pyridin-2-Carbonsäure. Sd. 278—279° u. Zers. (2HCl, $PtCl_4$) (B. **27**, 1786). — IV, **142**.
- 53)** Amylester d. Pyridin-3-Carbonsäure. Sd. 259° (B. **27**, 1787). — IV, **144**.
- 54)** Acetat d. 4-Dimethylamido-1-Oxymethylbenzol. Sm. 102° (Bl. **[3]** **11**, 320). — II, **1063**.
- 55)** Phenylamidoformiat d. β -Oxy- β -Methylpropan. Sm. 136° (**134**—**135°**) (A. **297**, 148; Bl. **[3]** **19**, 777).
- 56)** Amid d. α -Oxy- α -[4-Isopropylphenyl]essigsäure. Sm. 116° (G. **21** **[1]** **44**). — II, **1592**.
- 57)** Aethoxyläthylamid d. Benzolcarbonsäure. Sd. 267° u. Zers. (A. **252**, 239). — II, **1198**.
- 58)** Phenylamid d. α -Oxyisovaleriansäure. Sm. 133° (B. **30**, 2320).
- 59)** Phenylamid d. α -Oxypropionäthyläthersäure. Sm. 63° (B. **25**, 2301).
- 60)** 2-Methylphenylamid d. α -Oxy-norm. Buttersäure. Sm. 57° (A. **279**, 105).
- 61)** 4-Methylphenylamid d. α -Oxy-norm. Buttersäure. Sm. 112—113° (A. **279**, 105).
- 62)** 2-Methylphenylamid d. α -Oxyisobuttersäure. Sm. 88° (A. **279**, 115).
- 63)** 4-Methylphenylamid d. α -Oxyisobuttersäure. Sm. 132—133°. K (B. **25**, 2929; A. **279**, 116). — II, **500**.
- 64)** 4-Methylphenylamid d. Oxyessigäthyläthersäure. Sm. 32° (J. pr. **[2]** **40**, 435). — II, **500**.
- $C_{11}H_{15}O_2N_3$ C **59,7** — II **6,8** — O **14,5** — N **19,0** — M. G. **221**.
- 1)** 5-Acetylamido-4-Methylnitrosamido-1,3-Dimethylbenzol. Sm. **135°** (B. **31**, 2934).
- 2)** Butyrylphenylamidoharnstoff. Sm. 184° (B. **29**, 1950). — IV, **675**.
- 3)** Isobutyrylphenylamidoharnstoff. Sm. 219° u. Zers. (B. **29**, 1949). — IV, **675**.
- 4)** γ -Oximido- β -Phenylnitrosamido- β -Methylbutan? Sm. **127—128°** (A. **241**, 297; J. **1888**, 682). — II, **447**.

- $C_{11}H_{15}O_2N_2$ 5) α -Phenylhydrason- α -Nitropentan. Sm. 92,5—93° (B. 31, 2632). — IV, 1374.
 6) isom. α -Phenylhydrason- α -Nitropentan. Sm. 51,5—52° (B. 31, 2633). — IV, 1374.
 7) Diamid d. 2-Methylphenylimidodiessigsäure. Sm. 163—164° (B. 25, 2279). — II, 470.
 8) Diamid d. 4-Methylphenylimidodiessigsäure. Sm. 250° u. Zers. (B. 8, 1163). — II, 507.
- $C_{11}H_{15}O_2Br$ 1) Formylbromcampher. Sm. 44° (B. 27, 2402). — III, 116.
 2) Methyläther d. Verb. $C_{10}H_{15}O_2Br$ (aus Tribromthujon). Sm. 156 bis 157° (A. 286, 110). — III, 512.
- $C_{11}H_{15}O_3P$ 1) Betain d. Trimethyl-4-Methylphenylphosphoniumhydrat- α -Carbonsäure. Sm. 206°. Chlorid (A. 293, 289). — IV, 1673.
 2) Betain d. Trimethyl-4-Methylphenylphosphoniumoxydhydrat-2-Carbonsäure. Pikrat (B. 31, 2922). — IV, 1676.
- $C_{11}H_{15}O_3N$ C 63,1 — H 7,2 — O 23,0 — N 6,7 — M. G. 209.
 1) Aethyläther d. 4-Nitro-3-Oxy-1-Isopropylbenzol. Fl. (Bl. [3] 7, 328). — II, 762.
 2) 3-Methyläther-4-Aethyläther d. α -Oximido- α -[3,4-Dioxyphenyl]-äthan. Sm. 116—118° (B. 24, 2867). — III, 138.
 3) Aethyläther d. Methyl-4-Methoxybenzhydroxamsäure. Fl. (A. 281, 219). — II, 1532.
 4) Cantharidinmethylimid. Sm. 125° (B. 24, 1994). — III, 622.
 5) α -Phenylamido- γ -Oxyvaleriansäure. Sm. 143° u. Zers. (B. 27, 1295).
 6) γ -Phenylamido- δ -Oxybutan- β -Carbonsäure. Ba (A. 288, 23).
 7) 3-Trimethylamido-4-Oxybenzolzomethyläther-1-Carbonsäure + 5 H₂O. (2HCl, PtCl₄), HJ + H₂O (B. 6, 587). — II, 1540.
 8) Methylester d. 6-Amido-3-Oxy-1-Isopropylbenzol-4-Carbonsäure. Sm. 75—76° (B. 27, 1935). — II, 1582.
 9) Methylester d. 3-Dimethylamido-4-Oxybenzolzomethyläther-1-Carbonsäure. Sd. 288° (B. 6, 588). — II, 1540.
 10) Aethylester d. α -[4-Oxyphenyl]amidopropionsäure. Sm. 86° (B. 30, 2929).
 11) Aethylester d. α -Amido- β -[4-Oxyphenyl]propionsäure (Ac. d. Tyrosin). HCl (Sm. 166°) (B. 30, 1979).
 12) Aethylester d. 4-Aethoxyphenylamidoameisensäure. Sm. 94° (J. pr. [2] 29, 257). — II, 719.
 13) Aethylester d. Benzoylessigsäure + Ammoniak. Sm. 178° (B. 29, 105).
 14) Aethylester d. 5-Acetyl-2,4-Dimethylpyrrol-3-Carbonsäure. Sm. 142—143° (G. 24 [1] 552; B. 21, 2866). — IV, 89.
 15) Aethylester d. 3-Acetyl-2,4-Dimethylpyrrol-5-Carbonsäure. Sm. 143° (G. 24 [1] 547). — IV, 89.
 16) β -Amidopropylester d. 2-Oxybenzolzomethyläther-1-Carbonsäure. (2HCl, PtCl₄), HBr, Pikrat (B. 27, 2159). — II, 1526.
 17) γ -Amidopropylester d. 4-Oxybenzolzomethyläther-1-Carbonsäure. (2HCl, PtCl₄), HBr, Pikrat (B. 27, 2158). — II, 1526.
 18) Diäthylamid d. 2-Oxyphenylkohlenensäure. Sm. 78° (A. 300, 145).
 C 55,7 — H 6,3 — O 20,2 — N 17,7 — M. G. 237.
- $C_{11}H_{15}O_3N_3$ 1) 5-Nitro-3-Acetylamido-4-Dimethylamido-1-Methylbenzol. Sm. 97° (B. 31, 2519).
 2) $\alpha\alpha$ -Diäthyl- β -[2-Nitrophenyl]harnstoff. Fl. (Am. 19, 317).
- $C_{11}H_{15}O_2Cl$ 1) Chlorecamphocarbonsäure (B. 16, 887). — I, 628.
- $C_{11}H_{15}O_3Br$ 1) ?-Brom-2,4-Diketo-6-Oxy-1,1,3,3,5-Pentamethyl-1,2,3,4-Tetrahydrobenzol. Sm. 75—76° (M. 11, 111). — II, 1025.
 2) Bromcamphocarbonsäure. Sm. 109—110° (112—113°). Ba, Ag (G. 23 [1] 76; B. 6, 1092; 27, 1445). — I, 628.
- $C_{11}H_{15}O_3P$ 1) Diäthylphenylphosphinoxid-4-Carbonsäure. Fl. (A. 293, 290). — IV, 1673.
- $C_{11}H_{15}O_4N$ C 58,6 — H 6,7 — O 28,4 — N 6,2 — M. G. 225.
 1) Diäthyläther d. 3-Nitro-1-Dioxymethylbenzol. Sd. 178°₁₁ (B. 31, 1016).
 2) Methyläther d. Cantharidinoxim. Sm. 134° (B. 19, 1085). — III, 623.
 3) Aethylester d. 6-Amido-3,4-Dioxybenzoldimethyläther-1-Carbonsäure. Sm. 88—89° (B. 11, 135). — II, 1746.

- $C_{11}H_{15}O_4N_3$ C 52,2 — H 5,9 — O 25,3 — N 16,6 — M. G. 253.
 1) 2-Dinitro-6-Amido-3-Pseudobutyl-1-Methylbenzol. Sm. 131° (B. 30, 303).
 2) 2-Dinitro-6-Amido-3-Pseudobutyl-1-Methylbenzol. Sm. 138°. HCl (B. 24, 2839; C. 1898 [2] 1232). — II, 564.
 3) Aethylester d. 5-Keto-3-Methyl-4,5-Dihydropyrazol-1-Carbonyl-β-Amidocrotonsäure. Sm. 176° u. Zers. (A. 283, 31). — IV, 512.
- $C_{11}H_{15}O_4Br$ 1) Methylester d. π-Bromcamphansäure. Sm. 87–88° (Soc. 75, 140).
 $C_{11}H_{15}O_5N$ C 54,8 — H 6,2 — O 33,2 — N 5,8 — M. G. 241.
 1) Methylester d. 2-Amido-3,4,5-Trioxymethyläther-1-Carbonsäure. Sm. 41°. HCl (M. 19, 600).
- $C_{11}H_{15}O_5Cl_3$ 1) 2,2,4-Trimethyl-1-Aethyläther d. 3,5,6-Trichlor-1,1,2,2,4-Pentaoxy-1,2-Dihydrobenzol. Sm. 140° u. Zers. (B. 27, 553). — II, 1040.
- $C_{11}H_{15}O_5P$ 1) Trimethylphenylphosphoniumhydroxyd-2,4-Dicarbonsäure. Cu (B. 31, 2923).
- $C_{11}H_{15}O_6N_3$ C 46,3 — H 5,3 — O 33,7 — N 14,7 — M. G. 285.
 1) 4-Methyläther d. 4,6-Dioxy-2-Methyl-1,3,5-Triazin-2',2''-Dicarbonsäurediäthylester. Sm. 168–171° (J. pr. [2] 49, 94).
- $C_{11}H_{15}O_7N_3$ C 43,8 — H 5,0 — O 37,2 — N 13,9 — M. G. 301.
 1) Aethyldicarboxäthylecyanurat. Sm. 123° (Bl. 44, 28). — I, 1266.
- $C_{11}H_{15}NBr_2$ 1) Di[β-Bromäthyl]benzylamin. Fl. HBr + H₂O, Pikrat (B. 29, 2386).
 $C_{11}H_{15}NS$ 1) 1,2,4-Trimethyl-5-Phenylamid d. Thioessigsäure. Sm. 114° (B. 22, 907). — II, 552.
 2) Aethyläther d. α-[2-Methylphenyl]imido-α-Merkaptoäthan. Sd. 261 bis 162° (B. 16, 147). — II, 461.
 3) Aethyläther d. α-[4-Methylphenyl]imido-α-Merkaptoäthan. Sd. 271 bis 273° (B. 16, 147). — II, 491.
 4) Propyläther d. α-Phenylimido-α-Merkaptoäthan. Sd. 270–273° (B. 12, 1061). — II, 369.
 5) Isopropyläther d. α-Phenylimido-α-Merkaptoäthan. Fl. (B. 12, 1061). — II, 369.
- $C_{11}H_{15}NS_2$ 1) Aethylester d. Aethylphenylamidodithioameisensäure. Sm. 68,4 bis 68,5°; Sd. 305–315° (B. 15, 568; 21, 105). — II, 387.
- $C_{11}H_{15}N_2J$ 1) Jodmethylat d. 3-Methyl-1-Aethylisindazol. Sm. 192° u. Zers. (A. 221, 292). — IV, 870.
 2) Jodmethylat d. 1,2,5-Trimethylbenzimidazol. Sm. 221° (A. 273, 284; B. 20, 1886). — IV, 882.
- $C_{11}H_{15}N_2P$ 1) Phosphazobenzolpiperidid. Sm. 202–203° (B. 27, 494). — IV, 11.
 $C_{11}H_{15}N_3S$ 1) s-[α-Imido-norm. Butyl]phenylthioharnstoff. Sm. 74° (PINNER, Imidoäther 125). — II, 394.
 2) s-[α-Imidoisobutyl]phenylthioharnstoff. Sm. 104° (PINNER, Imidoäther 128). — II, 394.
 3) α-Allyl-β-[2-Methylphenyl]amidothioharnstoff. Sm. 105° (B. 24, 268). — IV, 802.
 4) α-Allyl-β-[4-Methylphenyl]amidothioharnstoff. Sm. 128° (B. 24, 269). — IV, 805.
 5) 5-Methyl-2-[2-Methylphenyl]hydrazido-4,5-Dihydrothiazol. Pikrat (B. 24, 270). — IV, 802.
 6) 5-Methyl-2-[4-Methylphenyl]hydrazido-4,5-Dihydrothiazol. Sm. 133° (B. 24, 270). — IV, 805.
 7) Verbindung (aus Phenylsenföhl u. Aldehydammoniak). Sm. 148–149° u. Zers. + 2AgNO₃ (B. 9, 567; Soc. 53, 416; 61, 518). — II, 394, 413.
- $C_{11}H_{15}N_3S_2$ 1) Aethyl-4-Methylphenylthiobiuret. Sm. 134° (B. 17, 585). — II, 500.
- $C_{11}H_{15}ClS_2$ 1) Diäthylendisulfdbenzylchlorid. Sm. 143° (B. 19, 2667). — II, 1055.
- $C_{11}H_{15}BrS_2$ 1) Diäthylendisulfdbenzylbromid. Sm. 146° (B. 19, 2666). — II, 1054.
- $C_{11}H_{15}JS_2$ 1) Diäthylendisulfdbenzyljodid. Zers. bei 145° (B. 19, 2667). — II, 1055.
- $C_{11}H_{15}S_2P$ 1) Dimethyl-2,4-Dimethylphenylphosphin + Schwefelkohlenstoff. Sm. 115° (B. 15, 2018). — IV, 1676.
- $C_{11}H_{15}ON_2$ C 68,8 — H 8,3 — O 8,3 — N 14,6 — M. G. 192.
 1) Isoamylnitrosamidobenzol. Fl. (B. 18, 3378). — II, 336.
 2) 3-Acetylmethylamido-1-Dimethylamidobenzol. Sd. 280°. HJ (Bl. [3] 21, 24).
 3) 4-Acetylmethylamido-1-Dimethylamidobenzol. Sd. 95°. HJ (B. 12, 1811). — IV, 582.

- C₁₁H₁₄ON₂**
- 4) 2-Acetylamido-5-Dimethylamido-1-Methylbenzol. Sm. 158° (2HCl, PtCl₄ + 4H₂O) (B. 12, 1801). — IV, 609.
 - 5) 3-Acetylamido-4-Dimethylamido-1-Methylbenzol. Sm. 111,5—112,5° (B. 28, 3043). — IV, 611.
 - 6) 3-Methylacetylamido-1-Dimethylamidobenzol. Sm. 68° (A. 286, 167). — IV, 574.
 - 7) γ -Oximido- β -Phenylnitrosamido- β -Methylbutan. Sm. 140—141°. HCl (A. 241, 206; 262, 336; J. 1888, 682). — II, 446.
 - 8) α -Oximido- α -[3-Amido-4-Propylphenyl]äthan. Sm. 116—117° (B. 21, 2229). — III, 154.
 - 9) α -Oximido- α -[2-Amido-4-Isopropylphenyl]äthan. Sm. 95° (B. 21, 2229). — III, 154.
 - 10) Aethyläther d. 2,4-Dimethylbenzenylamidoxim. Sm. 172° (B. 22, 2444). — II, 1376.
 - 11) α -sec. Butylphenylharnstoff. Sm. 155,5—156,5° (Soc. 67, 561).
 - 12) $\alpha\alpha$ -Diäthyl- β -Phenylharnstoff. Sm. 85° (B. 17, 3039). — II, 377.
 - 13) α -Methyl- α -Propyl- β -Phenylharnstoff. Sm. 89° (B. 29, 2114).
 - 14) 4-Methyl-2-Isopropylphenylharnstoff. Sm. 176° (A. 221, 171). — II, 559.
 - 15) 4-Isopropylbenzylharnstoff. Sm. 135° (133°) (B. 8, 1151; 20, 2414). — II, 561.
 - 16) β -Isobutyryl- α -Methyl- α -Phenylhydrazin. Sm. 105° (M. 17, 480). — IV, 667.
 - 17) β -Acetyl- α -Isopropyl- α -Phenylhydrazin. Sm. 101,5° (A. 252, 280). — IV, 665.
 - 18) β -Formyl- α - β -Diäthyl- α -Phenylhydrazin. Sd. 139—140° (Am. 18, 576). — IV, 663.
 - 19) Aethyläther d. β -Phenylhydrazon- α -Oxypropan. Sd. 267° u. Zers. (B. 21, 2649). — IV, 767.
 - 20) Campherimidazon. Sm. über 320° (B. 28, 779). — III, 496.
 - 21) Methoxyhydrat d. 1,2,5-Trimethylbensimidazol. Sm. 115—135°. Jodid, Pikrat (B. 20, 1887). — IV, 882.
 - 22) Amid d. β -Phenylamidovaleriansäure. Sm. 99° (B. 25, 2039). — II, 435.
 - 23) Amid d. α -Phenylamidoisovaleriansäure. Sm. 102—103° (B. 25, 2040). — II, 435.
 - 24) Amid d. α -[4-Methylphenyl]amidobuttersäure. Sm. 138° (B. 30, 2474).
 - 25) Amid d. β -[4-Methylphenyl]amidoisobuttersäure. Sm. 144° (B. 30, 2475).
 - 26) Amid d. 4-Diäthylamidobenzol-1-Carbonsäure. Sm. 136—137° (Am. 19, 23, 329).
 - 27) Amylamid d. Pyridin-3-Carbonsäure. Sd. 191—193° (C. 1898 [1] 677).
 - 28) 2,4,5-Trimethylphenylhydrazid d. Essigsäure. Sm. 156—157° (Soc. 57, 55). — IV, 813.
 - 29) Phenylhydrazid d. Valeriansäure. Sm. 112—112,5° (B. 20, 3190; 31, 2635). — IV, 667.
- C₁₁H₁₄ON₂**
- C 60,0 — H 7,3 — O 7,3 — N 25,4 — M. G. 220.
- 1) Aethyläther d. β -Oximido- α -Imido- β -Amido- β -[4-Methylphenyl]-amidoäthan. Sm. 132—134° (B. 24, 817). — II, 512.
- C₁₁H₁₄O₂N₂**
- C 63,5 — H 7,7 — O 15,4 — N 13,4 — M. G. 208.
- 1) Pilocarpin. Salze meist bek. (J. 1875, 845; 1879, 28; 1880, 993, 1074; B. 10, 896; 14, 2420; A. 204, 70; B. 37, 522; 38, 250; 46, 479; 48, 220, 234; [3] 17, 554; M. 16, 606; 18, 381; 19, 57; J. pr. [2] 45, 368; C. 1897 [1] 1126, 1213; 1897 [2] 361). — III, 924.
 - 2) 5-Nitro-6-Amido-3-Pseudobutyl-1-Methylbenzol. Sm. 81° (B. 30, 303).
 - 3) 5-Nitro-2-Diäthylamido-1-Methylbenzol. Fl. (B. 25, 3138). — II, 458.
 - 4) Diäthyläther d. 2-Oxybenzenylamidoxim. Sd. 195°₁₀₀ (B. 22, 2786). — II, 1502.
 - 5) Diäthyläther d. 3-Oxybenzenylamidoxim. Sm. 109° (B. 24, 831). — II, 1518.
 - 6) Diäthyläther d. 4-Oxybenzenylamidoxim. Sm. 84° (B. 24, 839). — II, 1532.

- C₁₁H₁₆O₃N₂** 7) 2,4-Dimethylphenyläther d. β -Oxyäthylharnstoff. Sm. 132—133° (B. 29, 2402).
 8) Valerolaktonphenylhydrazin. Sm. 76—79° (B. 20, 402). — IV, 688.
 9) *p*-Amido-*p*-Diäthylamidobenzol-1-Carbonsäure (B. 10, 527). — II, 1276.
 10) β -[α -Aethyl-2-Hydrazidophenyl]propionsäure. HCl (A. 221, 293). — II, 1368.
 11) Acetat d. d-Ecgoninnitril. Fl. HJ (B. 26, 972). — III, 865.
 12) Aethylester d. α -[β -Phenylhydrazido]propionsäure. Sm. 116°. HCl (B. 17, 1455; 22, 2924). — IV, 739.
 13) Aethylester d. β -[α -Phenylhydrazido]propionsäure. Sd. 174—175°. Oxalat, Pikrat (B. 29, 516). — IV, 739.
- C₁₁H₁₆O₃N₄** C 55,9 — H 6,8 — O 13,6 — N 23,7 — M. G. 236.
 1) Butyltheobromin. Sm. oberh. 270° (B. 30, 2585).
 2) Isobutyltheobromin. Sm. 129—130° (C. 1897 [1] 285; 1897 [2] 1047). — III, 955.
 3) Benzylidendi[β -Methylharnstoff]. Sm. 187—188° (A. 291, 370).
 4) $\alpha\alpha$ -Di[Cyanacetyl-amido]pentan. Sm. 135—136° (B. 25 [2] 326). — I, 1243.
 5) Verbindung (aus Acetaldoxim u. 4-Diazotoluolchlorid). Sm. 86° (B. 25, 1685). — IV, 810.
- C₁₁H₁₆O₃S** 1) Amylphenylsulfon. Sm. 37° (A. 284, 303).
 2) Butyl-2-Methylphenylsulfon. Fl. (J. pr. [2] 54, 525).
 3) Isobutyl-2-Methylphenylsulfon. Fl. (J. pr. [2] 54, 525).
- C₁₁H₁₆O₃N₂** C 58,9 — H 7,1 — O 21,4 — N 12,5 — M. G. 224.
 1) α -Aethyläther d. γ -Phenylnitrosamido- $\alpha\beta$ -Dioxypropan. Fl. (B. 27, 3424).
 2) Piperidin + 2-Nitro-1-Oxybenzol. Sm. 83—84° (Soc. 73, 143).
 3) Piperidin + 4-Nitro-1-Oxybenzol. Sm. 110° (Soc. 73, 143).
 4) 6-Oxy-2-Hexyl-1,3-Diazin-4-Carbonsäure. Sm. 219° u. Zers. Ba (B. 28, 478). — IV, 835.
 5) Aethylester d. 3-Amido-4-Aethoxyphenylamidoameisensäure. Sm. 88°. HCl (J. pr. [2] 29, 263). — II, 723.
 6) Verbindung (aus 4-Brom-5-Keto-4-Methyl-3-Aethyl-4,5-Dihydroisoxazol). Sm. 137° (B. [3] 21, 17).
- C₁₁H₁₆O₃N₄** C 52,4 — H 6,3 — O 19,0 — N 22,2 — M. G. 252.
 1) Aethyläther d. 2-Oxybenzylidendiarnstoff + H₂O (Salicyldiureid-äthyläther) (A. 151, 201). — III, 74.
 2) Aethyläther d. Oxyäthyltheobromin. Sm. 154° (C. 1897 [1] 284; A. 215, 306). — III, 955.
 3) Diäthyläther d. 2,6-Dioxy-8-Keto-7,9-Dimethylpurin. Sm. 126 bis 127° (B. 17, 336). — I, 1337.
 4) Triäthylharnsäure (J. 1864, 630). — I, 1338.
- C₁₁H₁₆O₃S** 1) γ -Phenylpentan-2-Sulfonsäure. Ba + 1½ H₂O (M. 4, 617). — II, 158.
 2) Isoamylbenzol-2-Sulfonsäure. K + H₂O, Ba (A. 131, 315). — II, 158.
 3) 4-Butyl-1-Methylbenzol-2-Sulfonsäure. Na + 2H₂O, K + 1½ H₂O, Ba + H₂O, Pb + 3H₂O, Cu + 4H₂O (B. 16, 2563). — II, 158.
 4) 3-Pseudobutyl-1-Methylbenzol-6-Sulfonsäure. Sm. 75—76°. Na + H₂O, K + H₂O, Ba + H₂O, Pb + 3H₂O, Cu + 4H₂O (B. 16, 2560; 25, 786; 27, 1606, 1619). — II, 158.
 5) 4-Propyl-1-Aethylbenzol-2-Sulfonsäure (B. 23, 3085). — II, 158.
 6) 4-Propyl-1-Aethylbenzol-3-Sulfonsäure (B. 23, 3084). — II, 159.
 7) 4-Propyl-1,2-Dimethylbenzol-2-Sulfonsäure. Na + H₂O, Mg + 5H₂O, Ba + 3½ H₂O (B. 23, 2349). — II, 158.
 8) 4-Propyl-1,3-Dimethylbenzol-2-Sulfonsäure. Na + 4½ H₂O, Mg + 5H₂O, Ba + 2H₂O (B. 23, 2350). — II, 158.
 9) 2-Propyl-1,4-Dimethylbenzol-2-Sulfonsäure. Na + 1½ H₂O, Ba (B. 23, 2350). — II, 158.
 10) 4-Isopropyl-1,3-Dimethylbenzol-2-Sulfonsäure. Na + 4H₂O, Ba (B. 23, 2351). — II, 158.
 11) 5-Aethyl-1,2,4-Trimethylbenzol- α -Sulfonsäure. Ba + H₂O (B. 25, 1531). — II, 159.
 12) 5-Aethyl-1,2,4-Trimethylbenzol- β -Sulfonsäure. K + H₂O, Ba + 3H₂O (B. 25, 1532). — II, 159.

- $C_{11}H_{16}O_3S$ 13) 2-Aethyl-1,3,5-Trimethylbenzol-4-Sulfonsäure. Na + H_2O , Ba (B. 28, 2463).
 14) Pentamethylbenzolsulfonsäure. Na, Ca, Ba, Cu, Ag (B. 20, 899). — II, 159.
 15) α -Laurolsulfonsäure? Na, Ba + $5H_2O$ (B. 16, 627).
 16) β -Laurolsulfonsäure. Na (B. 16, 628).
 17) Sulfonsäure d. Kohlenw. $C_{11}H_{16}$ (aus Petroleum). Na + $4H_2O$ (A. 234, 99). — II, 159.
- $C_{11}H_{16}O_4N_2$ C 55,0 — H 6,7 — O 26,7 — N 11,6 — M. G. 240.
 1) 2,6-Diäthyläther d. 2,4,6-Trioxypheylharnstoff. Sm. 199,5–201° (M. 18, 365).
 2) 2-Hexylimidazol-4,5-Dicarbonsäure (A. ch. [6] 24, 541). — IV, 549.
 3) Äthylester d. α -Phenyl-3-Nitrophenylamidoessigsäure. Sm. 83 bis 84° (B. 30, 2766).
- $C_{11}H_{16}O_4N_4$ C 49,2 — H 6,0 — O 23,9 — N 20,9 — M. G. 268.
 1) Diäthyläther d. Diisonitramidomethylbenzol. Sm. 133° (A. 300, 126).
- $C_{11}H_{16}O_4S$ 1) 2-Oxy-4-Isopropyl-1-Methylbenzolsäure- β -Sulfonsäure (2 Modif.). Ba + $3\frac{1}{2}$ u. $5H_2O$ (B. 8, 441). — II, 849.
 2) 3-Oxy-4-Isopropyl-1-Methylbenzolsäure- β -Sulfonsäure (2 Modif.). K, Ba + $3H_2O$ (Z. 1869, 47; B. 8, 440). — II, 848.
 3) 4-Oxy-1,3-Dimethylbenzolsäure- β -Sulfonsäure. K + H_2O , Ba + $3H_2O$, Zn + $5H_2O$ (Am. 19, 388).
- $C_{11}H_{16}O_4S_2$ 1) Benzylidendiäthylsulfon. Sm. 133–134° (A. 252, 154). — III, 8.
 $C_{11}H_{16}O_4S_3$ 1) Phenyläther d. Diäthylsulfonmethylmerkaptan. Sm. 86° (A. 253, 166). — II, 780.
- $C_{11}H_{16}O_5N_2$ C 51,6 — H 6,2 — O 31,2 — N 10,9 — M. G. 256.
 1) Diäthylester d. Furaldiamidoameisensäure (Furfurolurethan). Sm. 169° (B. 7, 1081). — III, 724.
 2) $\gamma\delta$ -Diamid d. ϵ -Keto- β -Hexen- $\gamma\delta\zeta$ -Tricarbonsäure- δ -Äthylester. Sm. 199–200° (Soc. 71, 328).
 3) isom. Diamid d. ϵ -Keto- β -Hexen- $\gamma\delta\zeta$ -Tricarbonsäuremonoäthylester. Sm. 165° (Soc. 71, 328).
 4) Phenylhydrazid d. d-Arabonsäure. Sm. 214° u. Zers. (B. 32, 557).
 5) Phenylhydrazid d. l-Arabonsäure. Sm. 215° u. Zers. (B. 23, 2627). — IV, 719.
 6) Phenylhydrazid d. Lyxonsäure + $2H_2O$. Sm. 162–163° (B. 29, 583, 2068; 30, 3108; Bl. [3] 15, 593). — IV, 719.
 7) Phenylhydrazid d. Ribonsäure. Sm. 162–164° (B. 24, 4218). — IV, 719.
- $C_{11}H_{16}O_6N_2$ C 48,5 — H 5,9 — O 35,3 — N 10,3 — M. G. 272.
 1) Diäthylester d. 4-Oxy-2-Aethyl-1,2,6-Oxidiazin-3,5-Dicarbonsäure. Sm. 74° (B. 26, 1004). — IV, 544.
- $C_{11}H_{16}O_6S$ 1) Acetylmethylcamphophenolsulfon + $2H_2O$ (Bl. [3] 4, 718). — III, 499.
- $C_{11}H_{16}O_6S_3$ 1) Diäthylsulfon-Phenylsulfonmethan. Sm. 165–166°. K, Ba, Ag (A. 253, 167; B. 25, 362). — II, 780.
- $C_{11}H_{16}O_7N_2$ C 45,8 — H 5,6 — O 38,9 — N 9,7 — M. G. 288.
 1) Diacetat d. Acetondieessigsäureanhydriddioxim. Sm. 195–196° (A. 267, 76). — I, 767.
- $C_{11}H_{16}O_8S_2$ 1) Verbindung (aus Benzol-1-Carbonsäure-3-Sulfonsäure u. Schwefelsäure-diäthylester). Na_2 , Ba + $3\frac{1}{2}H_2O$, Pb + $2\frac{1}{2}H_2O$, Cu + $2\frac{1}{2}H_2O$ (A. 218, 259). — II, 1298.
- $C_{11}H_{16}NCl$ 1) Chlormethylat d. 1,2-Dimethyl-2,3-Dihydroindol. 2 + $PtCl_4$ + $AuCl_3$ (G. 20, 566). — IV, 188.
 2) Chlormethylat d. 1-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 233°. 2 + $PtCl_4$ (B. 16, 733, 739; 28, 1172). — IV, 192.
 3) Chlormethylat d. 2-Methyl-1,2,3,4-Tetrahydrochinolin. 2 + $PtCl_4$ + $AuCl_3$ (G. 22 [2] 425). — IV, 201.
- $C_{11}H_{16}NJ$ 1) Jodmethylat d. 1,2-Dimethyl-2,3-Dihydroindol. Sm. 211° (200 bis 202°) (B. 26, 1295; G. 20, 566). — IV, 188.
 2) Jodmethylat d. 2-Aethyl-1,3-Dihydroisoindol. Sm. 165° (B. 31, 1706).
 3) Jodmethylat d. 1-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 172 bis 174° u. Zers. (B. 16, 733; 18, 2393; 32, 734 Anm.). — IV, 191.
 4) Jodmethylat d. 2-Methyl-1,2,3,4-Tetrahydrochinolin (A. 242, 316). — IV, 204.

- C₁₁H₁₆NJ** 5) Jodmethylat d. 2-Methyl-1,2,3,4-Tetrahydroisochinolin. Sm. 189° (G. 22 [2] 425) — IV, 201.
- C₁₁H₁₆N₂S** 1) s-Isobutylphenylthioharnstoff. Sm. 82° (B. 26, 815; Soc. 63, 320). — II, 392.
 2) s-[sec.]Butylphenylthioharnstoff. Sm. 100—101° (Soc. 63, 322). — II, 392.
 3) α-Methyl-α-Propyl-β-Phenylthioharnstoff. Fl. (B. 29, 2114).
 4) αα-Diäthyl-β-Phenylthioharnstoff. Sm. 34—34,5° (B. 26, 1686). — II, 392.
 5) 4-Isopropylbenzylthioharnstoff. Sm. 110° (B. 20, 2416). — II, 561.
 6) Aethylester d. Aethylphenylimidoamidothioameisensäure. (2HCl, PtCl₄), HJ, Pikrat (B. 25, 56). — II, 391.
- C₁₁H₁₆N₂S₂** 1) γ-[4-Methylphenyl]amidopropylamidodithioameisensäure (B. 30, 2501).
- C₁₁H₁₆N₃J** 1) Jodäthylat d. 5-Methyl-1-Aethyl-1,2,3-Benzotriazol. + 2AgJ + Anilin, + 2AgJ + Chinolin (A. 240, 130). — IV, 1146.
- C₁₁H₁₇ON** C 73,8 — H 9,5 — O 8,9 — N 7,8 — M. G. 179.
 1) Amidomethylencampher. Sm. 164—165° (A. 281, 355). — III, 116.
 2) α-Aethylphenylamido-β-Oxypropan. Sd. 261—263° (B. 17, 678). — II, 426.
 3) Methyläther d. 5-Amido-2-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 140°. HCl (B. 28, 1662).
 4) Methyläther d. 6-Amido-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 139°. HCl (B. 28, 1663).
 5) Phenyläther d. ε-Amido-α-Oxypentan. Sd. 274—275°. HCl, Pikrat (B. 25, 419). — II, 654.
 6) Aethyläther d. Diäthylhydroxylamin. (2HCl, PtCl₄) (A. 257, 237). — II, 532.
 7) Methyläther d. i-Carvoxim. Fl. (B. 18, 1730). — III, 113.
 8) α-[2-Furanyl]-β-[2-Hexahydropyridyl]äthan. Sd. 245—247°. HCl, HBr, HJ (B. 21, 2711). — IV, 124.
 9) Diäthylester d. 1-Oximido-R-Pentamethylen-3,4-Dicarbonsäure. Sm. 74° (B. 26, 375).
 10) Cyanid d. Campholsäure. Sm. 33°; Sd. 227° (Bl. [3] 11, 614).
 11) Verbindung (aus Oxycarbofenchonon). Sm. 205° (A. 300, 302).
- C₁₁H₁₇ON₂** C 63,8 — H 8,2 — O 7,7 — N 20,3 — M. G. 207.
 1) γ-[4-Methylphenyl]amidopropylharnstoff. Sm. 152° u. Zers. (B. 30, 2500).
 2) 6-Acetylamido-5-Methyl-2,4-Diäthyl-1,3-Diazin (Acetylkyanäthin). Sm. bei 59° (J. pr. [2] 30, 122). — IV, 1133.
 3) d-Carvonsemicarbazid. Sm. 162—163° (B. 27, 1923; 28, 640).
 4) l-Carvonsemicarbazid. Sm. 162—163° (B. 28, 640).
 5) i-Carvonsemicarbazid. Sm. 154—156° (B. 28, 640).
 6) Eucarvonsemicarbazid. Sm. 183—185° (B. 27, 1923).
 7) D-d-Fenchocamphorsemicarbazon. Sm. 204—206° (A. 302, 384).
 8) D-l-Fenchocamphorsemicarbazon. Sm. 210—212° (A. 302, 383).
 9) Pinocarvonsemicarbazid. Sm. 204° (A. 300, 286).
 10) Anhydrooxycamphersemicarbazon (aus Campherchinon). Sm. 208 bis 209° u. Zers. (B. 30, 668).
 11) Verbindung (aus d. Keton C₁₀H₁₄O). Sm. 192—193° (C. 1896 [2] 289; Bl. [3] 19, 77).
- C₁₁H₁₇OBr** 1) Methyläther d. Bromcarveol. Sd. 137—140°₁₄ (A. 281, 129). — III, 504.
- C₁₁H₁₇OP** 1) Diäthylbenzylphosphinoxid. Nadeln. Sd. 328—330° (Soc. 53, 724). — IV, 1662.
 2) Diäthyl-4-Methylphenylphosphinoxid. Sm. 74°. + HgCl₂ + 1/2 H₂O (A. 293, 290). — IV, 1671.
 3) Methyläther d. Diäthyl-4-Oxyphenylphosphin. Sd. 266—267° u. ger. Zers. PtCl₄ (A. 293, 256). — IV, 1655.
- C₁₁H₁₇O₂N** C 67,7 — H 8,7 — O 16,4 — N 17,2 — M. G. 195.
 1) 4-Di[β-Oxyäthyl]amido-1-Methylbenzol. Sd. 338—340°. (2HCl, PtCl₄) (A. 173, 137). — II, 504.
 2) Di[β-Oxyäthyl]benzylamin. Sd. 225—225,5°₄₀ (B. 29, 2385).

- C₁₁H₁₇O₂N** 3) α -Aethyläther d. γ -Phenylamido- $\alpha\beta$ -Dioxypropan (Phenylglykolin-äthyläther). Sm. 61,5°; Sd. 217°₄₀ (B. 27, 3422).
 4) Oximidomethylencampher. Fl. (A. 281, 348). — III, 116.
 5) Oxim d. Oxycarbofenchonon. Sm. 108° (A. 300, 301).
 6) Methyläther d. Oximidocampher. Sd. 188—192° (G. 23 [1], 302). — III, 492.
 7) Formylamidocampher. Sm. 87° (A. 274, 93; B. 31, 3260). — III, 496.
 8) α -Oxy- α -[2-Furanyl]- β -[Hexahydro-2-Pyridyl]äthan (α -Pipékolylfuryl-alkin). Sd. 248—251° (B. 23, 2696). — IV, 140.
 9) Piperidinchinol. Sm. 102—104° (Soc. 73, 141).
 10) Cyancampholsäure. Sm. 164°. Na + 1½ H₂O, Cu + H₂O (Bl. [3] 6, 193; C. 1896 [1] 750). — I, 1221.
 11) Aethylester d. 2,4,6-Trimethyl-1,4-Dihydropyridin-3-Carbonsäure. Sm. 89—90° (B. 31, 1033, 1035).
 12) Aethylester d. Dihydrocollidincarbonsäure. Fl. HCl, (2HCl, PtCl₄) (A. 215, 40; B. 14, 1638). — IV, 86.
 13) Aethylester d. Anhydroecgonin. Sd. 136,5—138,5°₁₆. HCl, (2HCl, PtCl₄) (B. 20, 1225; 26, 329; 30, 715). — III, 871.
 14) α -Mononitril d. Camphersäuremonomethylester. Sm. 40—42° (R. 14, 264; G. 26 [1] 413).
 15) β -Mononitril d. Camphersäuremonomethylester. Sm. 40—41° (Bl. [3] 17, 582).
 16) Methylimid d. Camphersäure. Sm. 40—42°; Sd. 270° (R. 12, 13).
 17) α -Methylisimid d. Camphersäure. Sm. 134—136° (R. 12, 15; 14, 268).
C₁₁H₁₇O₂N₂ C 59,2 — H 7,6 — O 14,3 — N 18,8 — M. G. 223.
 1) p -Nitro-3,4-Di[Dimethylamido]-1-Methylbenzol. Sm. 63° (B. 20, 1890). — IV, 611.
C₁₁H₁₇O₂Br 1) Methylester d. Bromcamphorensäure. Sd. 255°₁₆₇ (C. 1896 [1] 306; Soc. 69, 49).
C₁₁H₁₇O₂P 1) Diäthylester d. 4-Methylphenylphosphinogensäure. Sd. 280° (A. 212, 222). — IV, 1668.
C₁₁H₁₇O₂N C 62,6 — H 8,1 — O 22,7 — N 6,6 — M. G. 211.
 1) Piperidinpyrogallol. Sm. bei 171° u. Zers. (Soc. 73, 142).
 2) Acetylmerochinen. Sm. 112,5° (Bl. [3] 19, 432).
 3) Mexcalin. Sm. 151°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), HJ, H₂SO₄ + 2H₂O (B. 29, 223; 31, 1194; C. 1898 [1] 741). — III, 779.
 4) Aethylester d. 2-Keto-1-Propyl-5-Methyl-2,3-Dihydropyrrol-4-Carbonsäure. Sm. 50°; Sd. 172°_{14—18} (A. 260, 148). — I, 1215.
 5) Methylamid d. β -Oxycamphersäureanhydrid. Sm. 133° (B. 26, 1528).
 6) Imid d. Phoronsäure. Sm. 205° (B. 14, 1080). — I, 1398.
C₁₁H₁₇O₂N₂ C 55,2 — H 7,1 — O 20,1 — N 17,6 — M. G. 239.
 1) Aethylester d. p -Diamido-4-Aethoxylphenylamidoameisensäure. HCl (J. pr. [2] 29, 277). — II, 726.
C₁₁H₁₇O₄N C 58,1 — H 7,5 — O 28,2 — N 6,2 — M. G. 227.
 1) Achilletin (A. 155, 159). — III, 772.
 2) Diäthylester d. δ -Cyanbutan- $\alpha\alpha$ -Dicarbonsäure. Sd. 290—295° (B. 25, 3041). — I, 1225.
 3) Diäthylester d. β -Cyanbutan- $\alpha\beta$ -Dicarbonsäure. Sd. 170—180°₉₀ (A. ch. [6] 27, 255). — I, 1225.
 4) Diäthylester d. β -Cyanbutan- $\beta\gamma$ -Dicarbonsäure. Sd. 272—273° (B. 21, 3164). — I, 1225.
 5) Diäthylester d. α -Cyan- β -Methylpropan- $\alpha\beta$ -Dicarbonsäure. Sd. 186,5° (B. 27 [2] 506).
C₁₁H₁₇O₂Br 1) Bromhexylisoparakonsäure. Sm. 145—146° (A. 305, 5).
C₁₁H₁₇O₄P 1) Phosphit d. Oxymethylencampher. Sm. 113—115° (A. 281, 363). — III, 115.
C₁₁H₁₇O₅P 1) Methyl-2,4,5-Trimethylphenylketon + Phosphorsäure. Sm. 132 bis 133° (B. 31, 1301).
C₁₁H₁₇O₆Cl 1) Triäthylester d. α -Chloräthan- $\alpha\alpha\beta$ -Tricarbonsäure. Sd. 290° u. Zers. (B. 13, 2162; A. 214, 44). — I, 807.
C₁₁H₁₇O₇Cl 1) Verbindung (aus $\alpha\beta\gamma$ -Trioxypropantriacetat u. Acetylchlorid). Sd. 240°₉₈ (Z. 1866, 513). — I, 415.
C₁₁H₁₇N₂Cl 1) Monochlormethylat d. Nikotin. (HCl, PtCl₄) (B. 30, 2119). — IV, 856.

- C₁₁H₁₇N₂Cl** 2) Isomonochlormethylat d. Nikotin. 2 + PtCl₄ (B. 30, 2121). — IV, 856.
 3) Chlormethylat d. 1,4-Dimethyl-1,2,3,4-Tetrahydro-1,4-Benzdiazin. 2 + PtCl₄ (B. 21, 380). — IV, 557.
 4) Chlorpropylat d. $\alpha\beta$ -Di[Methyläthylamido]äthan. 2 + PtCl₄ (C. 1898 [1] 727).
- C₁₁H₁₇N₂J** 1) Monojodmethylat d. Nikotin. Fl. (B. 30, 2118). — IV, 856.
 2) Isomonojodmethylat d. Nikotin. Sm. 164°. HJ (B. 30, 2120). — IV, 856.
 3) Jodmethylat d. 1,4-Dimethyl-1,2,3,4-Tetrahydro-1,4-Benzdiazin. Sm. oberh. 200° u. Zers. (B. 21, 379). — IV, 557.
- C₁₁H₁₇N₂S₂** 1) Verbindung (aus Allylsenföhl u. 2-Allylimido-5-Methyltetrahydrothiazol). Sm. 52° (B. 23, 972). — I, 1325.
- C₁₁H₁₇ClS** 1) Diäthylbenzylsulfinchlorid. 2 + PtCl₄ (B. 7, 1277). — I, 1054.
- C₁₁H₁₇Br₂P** 1) Dimethyl- β -Bromäthyl-4-Methylphenylphosphoniumbromid. Sm. 194° (J. 1883, 1307; B. 15, 2020). — IV, 1671.
- C₁₁H₁₇Br₃P** 1) Dimethyl- β -Bromäthyl-4-Methylphenylphosphoniumtribromid. Sm. 95° (J. 1883, 1307). — IV, 1671.
- C₁₁H₁₇JS** 1) Diäthylbenzylsulfinjodid (B. 7, 1276, 1277). — I, 1054.
- C₁₁H₁₈ON₂** C 68,1 — H 9,3 — O 8,2 — N 14,4 — M. G. 194.
 1) 6-Oxy-4-Methyl-2-Hexyl-1,3-Diazin. Sm. 82°. Ag (B. 28, 476). — IV, 831.
 2) 6-Oxy-4,5-Dimethyl-2-Amyl-1,3-Diazin. Sm. 109° (PINNER, Imidoäther 231). — IV, 831.
 3) 4-Keto-5-Methyl-1,2,6-Triäthyl-1,4-Dihydro-1,3-Diazin. Sm. 43°; Sd. 267—268°. (2HCl, PtCl₄), + HgCl₂ + $\frac{1}{2}$ H₂O (J. pr. [2] 26, 350). — IV, 829.
 4) Aethyläther d. 6-Oxy-5-Methyl-2,4-Diäthyl-1,3-Diazin. Sd. 229 bis 231°. (2HCl, PtCl₄) (J. pr. [2] 22, 277). — IV, 829.
 5) α -d-Carvylharnstoff. Sm. 187° (B. 30, 2072).
 6) Pinylharnstoff. Sm. 156° (A. 268, 204). — IV, 79.
- C₁₁H₁₈ON₄** C 59,4 — H 8,1 — O 7,2 — N 25,2 — M. G. 222.
 1) 2,4-Di[Dimethylamido]phenylharnstoff. Sm. 173° (B. 30, 3114). — IV, 1123.
- C₁₁H₁₈OS₂** 1) d-Bornylxanthogensäure. Cu (B. 23, 214). — III, 471.
- C₁₁H₁₈O₂N₂** C 62,9 — H 8,6 — O 15,2 — N 13,3 — M. G. 210.
 1) Campherharnstoff. Sm. 169° (B. 28, 778). — III, 496.
 2) Aethyläther d. Dioxykyanconiin. Sm. 51°. Ag (J. pr. [2] 30, 150). — IV, 830.
 3) Nitril d. Phoronsäure. Sm. über 320° (B. 14, 1077; 15, 577). — I, 772.
- C₁₁H₁₈O₂Br** 1) Dibromid d. Aethylester d. Campholytischen Säure (Soc. 63, 503).
 2) Dibromid d. Aethylester d. Allocampholytischen Säure. Fl. (Soc. 67, 340).
- C₁₁H₁₈O₂J₂** 1) Dijodundekylensäure. Fl. Ag (B. 28, 1450 Anm.).
- C₁₁H₁₈O₃N₄** C 52,0 — H 7,1 — O 18,9 — N 22,0 — M. G. 254.
 1) Aethylester d. Triamido-4-Aethoxyphenylamidoameisensäure. HCl (J. pr. [2] 29, 281). — II, 726.
- C₁₁H₁₈O₄N₂** C 54,5 — H 7,4 — O 26,4 — N 11,6 — M. G. 242.
 1) Methylester d. 2-Nitrodekahydrochinolin-1-Carbonsäure. Sm. 109° (B. 27, 1469). — IV, 55.
- C₁₁H₁₈O₄Cl₄** 1) Triglycerinacetotetrachlorhydrin. Sd. 230°₂₀ (Z. 1866, 513). — I, 315.
- C₁₁H₁₈O₄Br₂** 1) $\beta\gamma$ -Dibromnonan- $\alpha\beta$ -Dicarbonsäure. Sm. 134—135° (A. 305, 17).
 2) Diäthylester d. $\alpha\epsilon$ -Dibrompentan- $\alpha\epsilon$ -Dicarbonsäure. Sd. 230°₂₈ (B. 28, 660).
- C₁₁H₁₈O₅S** 1) Dimethylester d. Sulfocampfersäure. Sm. 72° (B. 27, 3467).
- C₁₁H₁₈N₂J** 1) Methyläthylphenylammoniumjodid. Sm. 102° (B. 17, 1326). — II, 334.
 2) Trimethyl-4-Aethylphenylammoniumjodid (B. 7, 528). — II, 537.
 3) Trimethyl-2,3-Dimethylphenylammoniumjodid (A. 263, 328). — II, 540.
 4) Trimethyl-2-Dimethylphenylammoniumjodid (B. 5, 713). — II, 548.
 5) Jodmethylat d. Base C₁₀H₁₅N (aus Fleisch) (B. 24 [2] 319). — IV, 140.
- C₁₁H₁₈N₂S₂** 1) Di[β -Amidoäthyläther] d. Dimerkaptomethylbenzol. Fl. 2HCl (B. 25, 3054). — III, 8.

- C₁₁H₁₈N₂S** 2) Verbindung (aus Dipiperidein u. CS₂). Sm. 150° u. Zers. (B. 22, 1333). — IV, 532.
- C₁₁H₁₈ClP** 1) Methyl-diäthylphenylphosphoniumchlorid. 2 + PtCl₄ (A. 181, 359). — IV, 1655.
2) Trimethyl-2,4-Dimethylphenylphosphoniumchlorid. Sm. 110°. 2 + PtCl₄ + AuCl₃ (B. 31, 2921). — IV, 1676.
- C₁₁H₁₈JP** 1) Methyl-diäthylphenylphosphoniumjodid. Sm. 95° (A. 181, 358). — IV, 1655.
2) Trimethyl-2,4-Dimethylphenylphosphoniumjodid. Sm. 265° (B. 31, 2920). — IV, 1676.
3) Trimethyl-3,5-Dimethylphenylphosphoniumjodid. Sm. 205° (B. 31, 2920, 2923). — IV, 1676.
- C₁₁H₁₈ON** C 72,9 — H 10,5 — O 8,8 — N 7,7 — M. G. 181.
1) 1-Oximido-3-Isobutyl-5-Methyl-1,2,3,4-Tetrahydrobenzol. Sm. 92 bis 94° (A. 288, 337).
2) Methyläther d. d-Campheroxim. Sd. 210°₇₆₀. HJ, HNO₃ (Ph. Ch. 16, 218; Soc. 71, 1033). — III, 500.
3) Formylbornylamin. Sm. 61°; Sd. 290—300° (B. 20, 107; A. 269, 351). — IV, 56.
4) d-Formylbornylamin. Sm. 93° (Soc. 73, 392).
5) Formylneobornylamin. Sm. 72—73° (Soc. 73, 394).
6) l-Formylfenchylamin. Sm. 114° (A. 263, 140; 276, 318). — IV, 58.
C₁₁H₁₈ON₂ C 63,1 — H 9,1 — O 7,7 — N 20,1 — M. G. 209.
1) Aethyläther d. 6-Amido-*p*-Oxy-5-Methyl-2,4-Diäthyl-1,3-Diazin (Ac. d. Oxykynäthin). Sm. 115°; Sd. oberh. 300°. subl. bei 100°. (2HCl, PtCl₄), (HCl, AuCl₃), + AgNO₃ (J. pr. [2] 30, 148). — IV, 1133.
2) l-Semicarbazon-3-Isopropyl-5-Methyl-1,2,3,4-Tetrahydrobenzol. Sm. 166—167° (A. 297, 173).
3) Allo-Lemonalsemicarbazon. Sm. 169° (J. pr. [2] 58, 88).
4) d-Camphersemicarbazon. Sm. 236—238° (B. 28, 2192). — III, 487.
5) Isocamphersemicarbazon. Sm. 215° (B. 29, 2817; G. 26 [2] 38). — III, 502.
6) d-Caronsemicarbazon. Sm. 167—169° (B. 27, 1920; 28, 641). — III, 502.
7) l-Caronsemicarbazon. Sm. 167—169° (B. 27, 1920; 28, 641). — III, 503.
8) i-Caronsemicarbazon. Sm. 178° (B. 28, 641). — III, 503.
9) Carvenolsemicarbazon. Sm. 202—203° (Soc. 73, 857).
10) α -Carvenonsemicarbazon. Sm. 202—204° (200—201°) (B. 27, 1921; 28, 1960). — III, 503.
11) β -Carvenonsemicarbazon. Sm. 153—154° (B. 28, 1961). — III, 503.
12) γ -Carvenonsemicarbazon. Sm. 163—165° (B. 28, 1961). — III, 503.
13) Carvotanacetonssemicarbazon. Sm. 177—179° (B. 27, 1923).
14) Citralsemicarbazon. α -Modif. Sm. 164°; β -Modif. Sm. 171° (B. 28, 1957, 2134; 31, 3331; 32, 115; J. pr. [2] 58, 83). — III, 507.
15) Dihydrocarvonsemicarbazon. Sm. 187—188° (B. 27, 1923).
16) Dihydroeucarvonsemicarbazon. Sm. 189—191° (B. 27, 1922; 28, 1960).
17) Pinocamphonsemicarbazon. Sm. 199—200° (A. 300, 288).
18) Pulegonsemicarbazon. Sm. 172° (B. 28, 653; 29, 915; 30, 26). — III, 510.
19) synth. Pulegonsemicarbazon. α -Modif. Sm. 70—85°; β -Modif. Sm. 144° (B. 29, 2956; A. 300, 269).
20) d-Isopulegonsemicarbazon. Sm. 173° (B. 29, 915; 30, 26, 37).
21) l-Isopulegonsemicarbazon. Sm. 186° (B. 30, 37).
22) Thujonsemicarbazon (Tanacetonssemicarbazon). Sm. 171—172° (B. 27, 1923).
23) Isothujonsemicarbazon. α -Modif. Sm. 208—209° u. Zers.; β -Modif. Sm. 184—185° (B. 28, 1958). — III, 512.
24) Semicarbazon d. Keton C₁₀H₁₆O (aus Isolauronsäure). Sm. 49° (C. 1897 [1] 814; Bl. [3] 19, 704).
- C₁₁H₁₈OP** 1) Methyl-diäthylphenylphosphoniumhydrat. 2Chlorid + PtCl₄, Jodid (A. 181, 358). — IV, 1655.
- C₁₁H₁₈O₂N** C 67,0 — H 9,6 — O 16,2 — N 7,1 — M. G. 197.
1) N-Aethylmerochinen. HCl, HBr (B. 30, 1336).

- C₁₁H₁₉O₂N** 2) Aethyläther d. Merochinen. *Sd.* 254—255°₇₁₅. HCl, (HCl, AuCl₃) (*B.* [27](#), 1502; [30](#), 1336).
- 3) 1-Fenchylamidoameisensäure. Fenchylaminsalz (*A.* [289](#), [366](#)). — IV, [58](#).
- 4) Methylester d. Dekahydrochinolin-1-Carbonsäure. *Sd.* 277—277,5°₇₁₂ (*B.* [27](#), 1468). — IV, [55](#).
- 5) Aethylester d. β-1-Piperidylcrotonsäure. *Sd.* 169°₁₅ (*B.* [31](#), [747](#) Anm.).
- 6) Aethylester d. Hydroecgonidin. *Sd.* [137](#)—139°₂₀. (HCl, AuCl₃) (*B.* [30](#), [714](#)).
- 7) Amidoformiat d. d-Borneol (d-Bornylurethan). *Sm.* 115° (*J.* 1882, [393](#)). — III, [471](#).
- 8) Amidoformiat d. l-Borneol (l-Bornylurethan). *Sm.* 126—127° (*Bl.* [41](#), [328](#)). — III, [472](#).
- C₁₁H₁₉O₂N₃** C [58,7](#) — H [8,4](#) — O [14,2](#) — N [18,6](#) — M. G. [225](#).
- 1) Semicarbazon d. Oxybishydrocarvon + H₂O. *Sm.* 174° (*A.* [291](#), [356](#)).
- 2) Semicarbazon d. Oxycampher (aus Campherchinon). *Sm.* 182—183° u. ger. Zers. (*B.* [30](#), [667](#)).
- 3) Semicarbazon d. d-Oxycaron. *Sm.* 197° (*B.* [31](#), [3213](#)).
- C₁₁H₁₉O₂Cl** 1) Methylester d. Chlordihydrofencholensäure. *Sd.* 124—125°₁₄ (*A.* [300](#), [307](#)).
- 2) Methylester d. Hydrochlorpulegensäure. *Sd.* 113—116°₁₂ (*A.* [289](#), [352](#)).
- C₁₁H₁₉O₂Br** 1) α-Brom-α-Deken-α-Carbonsäure (Bromundekylensäure). *Sm.* [41,5](#)°; *Sd.* 203—204°₁₃ (*B.* [29](#), [2239](#)).
- 2) Aethylester d. 4-Brom-1,2-Dimethylhexahydrobenzol-4-Carbonsäure. *Sd.* 170—180°₅₅ (*Soc.* [71](#), [171](#)).
- 3) Aethylester d. 4-Brom-1,3-Dimethylhexahydrobenzol-4-Carbonsäure. *Sd.* 160—170°₄₀ (*Soc.* [71](#), [174](#)).
- C₁₁H₁₉O₃N** C [62,0](#) — H [8,9](#) — O [22,5](#) — N [6,6](#) — M. G. [213](#).
- 1) Acetylcincholeipon. *Sm.* 121°. Ag + $\frac{1}{4}$ H₂O (*M.* [9](#), [813](#)). — III, [844](#).
- 2) Dimethyläther d. Trimethyl-2,5-Dioxyphenylammoniumhydrat. Chlorid, 2Chlorid + PtCl₄, Jodid (*B.* [17](#), [2122](#)). — II, [947](#).
- 3) ββ-Diäthoxyläthyloxydhydrat d. Pyridin (Muscarinpyridindiäthyläther). Fl. Bromid (*Bl.* [3](#), [859](#)). — IV, [183](#).
- 4) Laktyltropein. *Sm.* [74](#)—75°. HCl, (HCl, AuCl₃), HJ, HNO₃, H₂SO₄ (*C.* 1895 [1](#), [434](#)).
- 5) β-Oximido-β-Deken-β-Carbonsäure (Oxim d. Acetyloktenylcarbonsäure). *Sm.* 166° (*A.* [257](#), [317](#)). — I, [625](#).
- 6) Methylester d. α-Campheraminsäure. *Sm.* 152—153° (*B.* [27](#), [917](#); *Am.* [16](#), [308](#); *R.* [15](#), [331](#)).
- 7) Methylester d. β-Campheraminsäure. *Sm.* 138—142° (*R.* [15](#), [333](#)).
- 8) Aethylester d. Ecgonin. (HCl, AuCl₃; *Sm.* 153°) (*B.* [26](#), [696](#); [27](#), [1524](#)).
- 9) Aethylester d. d-Ecgonin. (HCl, AuCl₃) (*B.* [23](#), [985](#); [26](#), [969](#)). — III, [865](#).
- 10) α-Methylmonamid d. Camphersäure. *Sm.* 225°. (HCl, AuCl₃) (*B.* [26](#), [1523](#); *R.* [14](#), [267](#)).
- 11) β-Methylmonamid d. Camphersäure + H₂O. *Sm.* 177—178° wasserfrei (*R.* [14](#), [268](#)).
- C₁₁H₁₉O₃N₃** C [54,8](#) — H [7,9](#) — O [19,9](#) — N [17,4](#) — M. G. [241](#).
- 1) Campholonsäuresemicarbazon. *Sm.* 224° (*B.* [30](#), [252](#)).
- 2) l-Pinonsäuresemicarbazon. *Sm.* 232° (*B.* [29](#), [3016](#)).
- 3) α-Thujaketonsäuresemicarbazon. *Sm.* 182—183° (*B.* [30](#), [426](#)).
- 4) β-Thujaketonsäuresemicarbazon. *Sm.* 190° (*B.* [30](#), [426](#)).
- 5) Isothujaketonsäuresemicarbazon. *Sm.* 193° (*B.* [30](#), [426](#)).
- 6) Semicarbazon d. Säure C₁₀H₁₆O₃ (aus Campherchinon). *Sm.* 217—218° (*B.* [30](#), [3160](#)).
- 7) Lakton d. ζ-Semicarbazon-β-Oxy-β-Methylheptan-γ-Methylcarbonsäure. *Sm.* 199—200° (*A.* [291](#), [343](#)).
- C₁₁H₁₉O₃Cl** 1) Isoamylester d. γ-Chlor-β-Ketopentan-γ-Carbonsäure (l. d. Aethyl-acetylchloroessigsäure). Fl. (*A.* [186](#), [243](#)). — I, [604](#).
- C₁₁H₁₉O₄N** C [57,6](#) — H [8,3](#) — O [27,9](#) — N [6,1](#) — M. G. [229](#).
- 1) Oxycamphermethylaminsäure. *Sm.* 156° (*B.* [26](#), [1529](#)).
- 2) Dimethylester d. α-Dimethylamido-α-Penten-βε-Dicarbonsäure (D. d. i-Methyltropinsäure). *Sd.* 280°. (2 HCl, PtCl₄), Pikrat (*B.* [28](#), [3282](#)).

- C₁₁H₁₉O₄N** 3) Diäthylester d. *cis*-Hexahydropyridin-2,3-Dicarbonsäure. Fl. HCl (Sm. 204—205° u. Zers.) (B. 28, 3159). — IV, 46.
- C₁₁H₁₉O₄Cl** 4) Diäthylester d. Loiponsäure. (2HCl, PtCl₄) (M. 17, 381). — III, 844.
1) Diäthylester d. γ -Chlor- β -Methylbutan- $\beta\gamma$ -Dicarbonsäure. Sd. 114,5 bis 115,5° (C. 1898 [2] 1169).
2) Diäthylester d. δ -Chlor- β -Methylbutan- $\delta\delta$ -Dicarbonsäure (Diäthylester d. Chlorisobutylmalonsäure). Sd. 245° (B. 13, 600; A. 209, 237). — I, 679.
- C₁₁H₁₉O₄Br** 1) Diäthylester d. β -Brom- β -Methylbutan- $\gamma\delta$ -Dicarbonsäure (D. d. Brompimelinsäure). Sd. 248—252° (A. 267, 127). — I, 677.
2) Diäthylester d. α -Brom- $\beta\beta$ -Dimethylpropan- $\alpha\gamma$ -Dicarbonsäure. Sd. 181°₃₀ (C. 1898 [1] 1292; Soc. 75, 55).
C 53,9 — H 7,7 — O 32,7 — N 5,7 — M. G. 245.
- C₁₁H₁₉O₃N** 1) Diäthylester d. γ -Oximidopentan- $\alpha\epsilon$ -Dicarbonsäure. Sm. 38° (A. 253, 226; B. 21, 1399). — I, 767.
2) Monamid d. Camphoronsäuremonäthylester. NH₄ (B. 13, 797; 28, 2690).
C 48,3 — H 7,0 — O 29,3 — N 15,4 — M. G. 273.
- C₁₁H₁₉O₃N₃** 1) δ -Semicarbazon- $\gamma\gamma$ -Dimethylpentan- α -Carbonsäure- β -Methylcarbonsäure (Semicarbazon d. Isoketocampfersäure). Sm. 187° (B. 29, 3018).
- C₁₁H₁₉NBr₂** 1) Methylcampherimindibromid. Sm. 133—134° (Soc. 71, 196). — IV, 77.
- C₁₁H₁₉N₂S₂** 1) Camphylamidodithioameisensäure. Na + 3H₂O, Camphylaminsalz (B. 19, 713). — I, 1262.
- C₁₁H₁₉N₂J** 1) Jodmethylat d. 1,3-Di[Dimethylamido]benzol + H₂O. Zers. bei 192°. HJ (J. 1863, 422; B. 12, 1814). — IV, 571.
2) Jodmethylat d. 1,4-Di[Dimethylamido]benzol. Sm. 265° (B. 12, 526; 27, 603). — IV, 582.
- C₁₁H₂₀ON₂** C 67,3 — H 10,2 — O 8,2 — N 14,3 — M. G. 196.
1) Bornylharnstoff. Sm. 164° (B. 20, 108). — IV, 56.
2) d-Bornylharnstoff. Sm. 175° (Soc. 73, 393).
3) l-Fenchylharnstoff. Sm. 170—171° (A. 269, 359). — IV, 58.
4) Neobornylharnstoff. Sm. 169° (Soc. 73, 396).
5) Pulegonylharnstoff. Sm. 104—105° (A. 289, 348). — IV, 57.
6) Thujenylharnstoff. Sm. 158—159° (A. 286, 98). — IV, 60.
7) Methyl-l-Fenchylnitrosamin. Sm. 52—53° (A. 269, 368). — IV, 58.
8) Terpinennitrolmethylamin. Sm. 141°. HCl (A. 241, 317; J. 1888, 682). — III, 532.
9) 2-Keto-4,5-Diisobutyl-2,3-Dihydroimidazol. Sm. 182—183° (B. 31, 1223).
10) Dipiperidid d. Kohlensäure (Dipiperidylcarbamid). Sm. 42—43°; Sd. 296—298° (A. 237, 250). — IV, 13.
- C₁₁H₂₀OCl₂** 1) Dihydrochlorid d. Verb. C₁₁H₁₈O (aus Pinen). Sm. 74° (B. 32, 58).
- C₁₁H₂₀OBr₂** 1) Dihydrobromid d. Verb. C₁₁H₁₈O (aus Pinen). Sm. 77° (B. 32, 58).
2) Verbindung (aus Diäthylloxeton). Sm. 35° (A. 256, 145). — I, 1020.
- C₁₁H₂₀OS₂** 1) Menthylxanthogensäure. Fl. Na, Cu (B. 23, 213; Ph. Ch. 14, 397). — III, 467.
- C₁₁H₂₀O₃N₂** C 62,2 — H 9,4 — O 15,1 — N 13,2 — M. G. 212.
1) Harnstoff d. Amidoborneol. Sm. 177° (B. 31, 1904).
- C₁₁H₂₀O₂Br₂** 1) Dibromundekylensäure. Sm. 38° (B. 11, 1413). — I, 523.
- C₁₁H₂₀O₃N₃** C 57,9 — H 8,8 — O 21,0 — N 12,3 — M. G. 228.
1) Amid d. Phoronsäure. Sm. oberh. 300° (B. 14, 1079). — I, 1398.
- C₁₁H₂₀O₄N₂** C 54,1 — H 8,2 — O 26,2 — N 11,5 — M. G. 244.
1) Verbindung (aus d. Verb. C₇H₁₅O₃N₃). Fl. (A. 244, 249). — I, 1349.
- C₁₁H₂₀O₅N₆** C 39,8 — H 6,0 — O 28,9 — N 25,3 — M. G. 332.
1) Verbindung (aus Albumin). 2HCl, Ag₂ (B. 24, 428). — IV, 1586.
- C₁₁H₂₀N₂S** 1) 2-Merkapto-4,5-Diisobutylimidazol. Sm. noch nicht bei 290° (B. 31, 1223).
- C₁₁H₂₀N₃Cl** 1) Chloräthylat d. 6-Amido-5-Methyl-2,4-Diäthyl-1,3-Diazin (Ch. d. Kyanäthin). 2 + PtCl₄ (J. pr. [2] 22, 266). — IV, 1133.
- C₁₁H₂₀N₃J** 1) Jodäthylat d. 6-Amido-5-Methyl-2,4-Diäthyl-1,3-Diazin (J. d. Kyanäthin). Sm. 45°; Sd. 259—261° (J. pr. [2] 22, 266; [2] 26, 345). — IV, 1133.

C₁₁H₂₁ON

C 72,1 — H 11,4 — O 8,7 — N 7,7 — M. G. 183.

- 1) **2-Formylamido-4-Isopropyl-1-Methylhexahydrobenzol.** Sm. 61—62° (A. 277, 138). — IV, 43.
- 2) **4-Keto-2,2-Dimethyl-6-Isobutylhexahydropyridin** (Isovaleryldiacetonamin). Sm. 21—22°. (2HCl, PtCl₄), Oxalat (A. 227, 367). — I, 982.
- 3) **4-Keto-2,2,6,6-Tetramethyl-1-Aethylhexahydropyridin** (Aethyltri-acetonamin). Fl. (2HCl, PtCl₄) (B. 28 [2] 160).
- 4) **Methylpulegonamin.** (2HCl, PtCl₄) (A. 262, 16). — III, 510.
- 5) **Amid d. α-Deken-α-Carbonsäure?** (A. d. Undekylensäure). Sm. 84,5 bis 85,5° (B. 31, 2349).
- 6) **Amid d. Undekanaphtensäure.** Sm. 126—127° (J. r. 19, 157). — I, 1250.
- 7) **Camphelylamid d. Essigsäure.** Sm. 82° (G. 23 [2] 502).
- 8) **d-Menthylamid d. Ameisensäure.** Sm. 117,5°; Sd. 180—183°_{18—20} (A. 276, 309). — IV, 43.
- 9) **l-Menthylamid d. Ameisensäure.** Sm. 102—103° (A. 276, 303). — IV, 42.

C₁₁H₂₁ON₂

C 62,6 — H 9,9 — O 7,6 — N 19,9 — M. G. 211.

- 1) **5-Semicarbazon-3-Isopropyl-1-Methylhexahydrobenzol.** Sm. 176 bis 177° (A. 297, 172).
- 2) **2-Semicarbazon-1,3-Diäthylhexahydrobenzol.** Sm. 168—169° (B. 30, 1542).
- 3) **Semicarbazon d. Carvanon.** Sm. 173° (Soc. 73, 858).
- 4) **Semicarbazon d. d-Citronellal.** Sm. 82,5° (84°) (B. 30, 34; 31, 3307).
- 5) **Semicarbazon d. l-Citronellal.** Sm. 96° (B. 30, 37).
- 6) **Semicarbazon d. Menthocitronellal.** Sm. 89° (A. 296, 133).
- 7) **Semicarbazon d. Dihydroisocampher.** Sm. 162° (G. 26 [2] 41). — III, 476.
- 8) **Semicarbazon d. α-Menthon.** Sm. 180° (Bl. [3] 19, 789).
- 9) **Semicarbazon d. l-Menthon.** Sm. 184—184,5° (Bl. [3] 19, 790).
- 10) **Semicarbazon d. act. Tetrahydrocarvon.** Sm. 185—187° (194—195°) (A. 287, 378; B. 28, 1601). — III, 484.
- 11) **Semicarbazon d. i-Tetrahydrocarvon.** α-Modif. Sm. 174°; β-Modif. Sm. unterh. 174°; γ-Modif. Sm. 135—140° (B. 28, 1962). — III, 484.
- 12) **Semicarbazon d. Tetrahydrocarvon** (3-Semicarbazon-1,1,4-Trimethyl-R-Heptamethylen). Sm. 191° (B. 31, 2072).
- 13) **Semicarbazon d. Thujamenthon.** Sm. 178° (A. 286, 105; B. 28, 1958). — III, 485.

C₁₁H₂₁O₂N

C 66,3 — H 10,5 — O 16,1 — N 7,0 — M. G. 199.

- 1) **β-Keto-γ-Oximidoundekan.** Sm. 56° (58°) (J. pr. [2] 50, 373).
- 2) **Aethylester d. β-Amido-γ-Methyl-β-Hepten-γ-Carbonsäure** (Ae. d. β-Amido-α-Isoamylcrotonsäure). Sm. 50° (A. 257, 351). — I, 1208.
- 3) **Aethylester d. α-[1-Hexahydropyridyl]buttersäure.** Sd. 222—223°₇₅₂ (B. 31, 2842).
- 4) **Aethylester d. α-[1-Hexahydropyridyl]isobuttersäure.** Sd. 217°₇₅₀ (B. 31, 2842).
- 5) **Aethylester d. 2-Propylhexahydropyridin-1-Carbonsäure** (Conylurethan). Sd. 245° (B. 15, 1947). — IV, 33.
- 6) **Aethylester d. Cincholoipon.** HCl, (HCl, AuCl₃) (M. 16, 177). — III, 844.
- 7) **Aethylester d. Amidolauronsäure.** H₂SO₄ (Am. 18, 686).
- 8) **Amidoformiat d. Menthol.** Sm. 165° (A. ch. [6] 7, 464). — III, 467.

C₁₁H₂₁O₂N₂

C 58,1 — H 9,2 — O 14,1 — N 18,5 — M. G. 227.

- 1) **Semicarbazon d. Oxytetrahydrocarvon.** Sm. 139° (B. 28, 1590).
- 2) **Semicarbazon d. Terpenon C₁₀H₁₆O** (aus Bisnitrosotetrahydrocarvon). Sm. 222—223° (B. 29, 35). — III, 511.

C₁₁H₂₁O₂Br

- 1) **β-Bromdekan-β-Carbonsäure.** Sm. 35° (B. 19, 2226). — I, 488.

C₁₁H₂₁O₂J

- 1) **β-Joddekan-β-Carbonsäure.** Sm. 24° (B. 19, 2226). — I, 491.

C₁₁H₂₁O₂N

C 61,4 — H 9,8 — O 22,3 — N 6,5 — M. G. 215.

- 1) **ε-Oximidodekan-α-Carbonsäure?** (Undekaoximsäure). Fl. Ag (B. 28, 1449).
- 2) **4-Oxy-1,2,2,6,6-Pentamethylhexahydropyridin-4-Carbonsäure** (C. 1898 [2] 1081).

- $C_{11}H_{21}O_3N$ 3) Aethylester d. Oxyheptinaminsäure. Sm. 87° (A. ch. [5] 20, 494).
4) Nitril d. Trioxyessigtripropyläthersäure. Sd. 216—219° (A. 229, 179). — I, 1480.
- $C_{11}H_{21}O_3N_3$ C 54,3 — H 8,6 — O 19,7 — N 17,3 — M. G. 243.
1) Semicarbazon d. 1-Ketoterpin. Sm. 184—185° (B. 31, 3215).
2) ϵ -Semicarbazon- β -Dimethylheptan- α -Carbonsäure. Sm. 152° (B. 29, 27).
3) ϵ -Semicarbazon- β -Isopropylhexan- α -Carbonsäure. Sm. 152—153° (B. 29, 31).
4) Semicarbazon d. Säure $C_{10}H_{16}O_3$ (aus Tetrahydroeucarvon). Sm. 191° (B. 31, 2073).
5) Semicarbazon d. Säure $C_{10}H_{16}O_3$ (aus Thujameuthon). Sm. 174,5° (B. 30, 427).
- $C_{11}H_{21}O_4N$ C 57,1 — H 9,1 — O 27,7 — N 6,1 — M. G. 231.
1) Verbindung (aus Chrysanthemin). + $AuCl_3$ (G. 21, 535). — III, 862.
- $C_{11}H_{21}NS$ 1) Aethyläther d. 4-Merkapto-2,2,6,6-Tetramethyl-1,2,3,6-Tetrahydropyridin. Fl. HCl (B. 31, 3150).
- $C_{11}H_{21}N_2J$ 1) Jodmethylat d. 1-Methyl-2-Hexylimidazol. Sm. 123—124° (M. 8, 221). — IV, 531.
- $C_{11}H_{21}N_3S$ 1) Piperidylamid d. Piperidin-1-Thiocarbonsäure. Sm. 85,5° (A. 221, 307). — IV, 481.
- $C_{11}H_{23}ON_3$ C 66,7 — H 11,1 — O 8,1 — N 14,1 — M. G. 198.
1) 2-Methyl-5-Isopropylhexahydrophenylharnstoff. Sm. 193—194° (A. 277, 140). — IV, 43.
2) d-Tetrahydrocarvylharnstoff. Sm. 201—203° (A. 287, 379). — IV, 41.
3) d-Menthylharnstoff. Sm. 155—156° (A. 300, 284).
4) l-Menthylharnstoff. Sm. 134—136° (A. 300, 279).
5) Methyl-l-Menthylnitrosamin. Sd. 145—146° (A. 300, 280).
- $C_{11}H_{23}ON_4$ C 58,4 — H 9,7 — O 7,1 — N 24,8 — M. G. 226.
1) 3-Semicarbazon-4-Amido-4-Isopropyl-1-Methylhexahydrobenzol (Amidomenthonsemicarbazon). Sm. 80° (B. 31, 1480).
- $C_{11}H_{23}OS_2$ 1) Isoamylester d. Oxydithioameisenisoamyläthersäure (l. d. Isoamylxanthogensäure) (A. 64, 327—328). — I, 886.
2) Isoamylester d. Merkaptothiolameisenisoamyläthersäure (Diisoamylester d. Dithiolkohlensäure). Sd. 281° (B. 1, 169). — I, 887.
- $C_{11}H_{23}O_2N_2$ C 61,7 — H 10,3 — O 14,9 — N 12,1 — M. G. 214.
1) $\beta\gamma$ -Dioximidoundekan. Sm. 162° (J. pr. [2] 50, 373).
2) $\beta\delta$ -Dioximido- $\gamma\eta$ -Dimethylnonan. Sm. 95—96° (Soc. 59, 589). — I, 1034.
- $C_{11}H_{23}O_4N_2$ C 53,7 — H 8,9 — O 26,0 — N 11,4 — M. G. 246.
1) Diäthylester d. Isoamylidendi[Amidoameisensäure]. Sm. 126° (B. 7, 633—634). — I, 1258.
- $C_{11}H_{23}O_4S_2$ 1) 1,1-Diäthylsulfon-R-Heptamethylen. Sm. 136—138° (B. 31, 339).
2) 3,3-Diäthylsulfon-1-Methylhexahydrobenzol. Sm. 104—105° (B. 31, 339).
- $C_{11}H_{23}O_6S_2$ 1) Aethylester d. β -Diäthylsulfon- α -Methylbuttersäure. Sm. 79° (A. 259, 370). — I, 898.
- $C_{11}H_{23}O_6S_3$ 1) Tetraäthyltrimethylentrisulfon. Sm. 175° (B. 25, 244). — I, 998.
- $C_{11}H_{23}NCl$ 1) Chlormethylat d. 1,2,5-Trimethyl-3-Allyltetrahydropyrrol. 2 + $PtCl_4$, + $AuCl_3$ (A. 278, 19). — IV, 55.
2) Chlormethylat d. 1-Methyldekahydrochinolin. 2 + $PtCl_4$ (Sm. 247° u. Zers.) (B. 27, 1467). — IV, 55.
- $C_{11}H_{23}NJ$ 1) Jodmethylat d. 1,2,5-Trimethyl-3-Allyltetrahydropyrrol (A. 278, 18). — IV, 55.
2) Jodmethylat d. 1-Methyldekahydrochinolin. Sm. 260° (B. 27, 1468). — IV, 55.
- $C_{11}H_{23}N_2S_2$ 1) Carbovaleraldin. Sm. 115,5—117° (109—109,5°) (A. 168, 237; 222, 311; B. 4, 469). — II, 951.
- $C_{11}H_{23}N_4S$ 1) ϵ -Dipiperidylthioharnstoff. Sm. 181° (A. 221, 306). — IV, 480.
- $C_{11}H_{23}ON$ C 71,3 — H 12,4 — O 8,6 — N 7,6 — M. G. 185.
1) ζ -Dimethylamido- δ -Oxy- β -Dimethyl- α -Hepten. Sd. 204—206° (C. 1898 [2] 157).
2) α -Diisobutylamido- β -Ketopropan. Sd. 206—207°. HCl , (2 HCl , $PtCl_4$) (HCl , $AuCl_3$), HBr , HI (B. 29, 869).

- $C_{11}H_{23}ON$ 3) β -Oximidoundekan (Methylnonylketoxim). Sm. 42° (M. 5, 242). — II, 1031.
 4) labil.-4-Oxy-2,2-Dimethyl-6-Isobutylhexahydropyridin (Isovalerdi-acetonalkamin). Sm. $92-93^\circ$. HCl (C. 1898 [2] 1190).
 5) Amid d. Undekylsäure $C_{11}H_{23}O_2$ (aus Harzessenz). Sm. $80-81^\circ$ (B. 20, 1023). — I, 1249.
 6) Diäthylamid d. Hexan- α -Carbonsäure (D. d. Oenanthsäure). Sd. 257,5 bis 258,5₇₀₃ (R. 6, 249). — I, 1248.
- $C_{11}H_{23}O_2N$ C 65,7 — H 11,4 — O 15,9 — N 7,0 — M. G. 201.
 1) α -Nitroundekan. Fl. (Am. 21, 237).
 2) Diäthyläther d. 1- β -Dioxyäthyl]hexahydropyridin (Piperidoacetal). Sd. 219-221 $^\circ$. HCl, (HCl, AuCl₃), (2 HCl, PtCl₄), HBr, Pikrat (B. 27, 2017; 28, 1247). — IV, 22.
 3) Tripropylamidoessigsäure (Acetyltripropylbetaïn) (Bl. [3] 9, 237; B. 30, 1512).
- $C_{11}H_{23}O_3N_2$ C 35,0 — H 6,1 — O 25,5 — N 33,4 — M. G. 377.
 1) Guanidinsalz d. Bernsteinsäuremonoguanid (J. pr. [2] 49, 39).
- $C_{11}H_{23}N_3S$ 1) Diisovalerthioharnstoffammoniak. Sm. $120-121^\circ$. Pikrat, + AgNO₃ (Soc. 61, 513). — I, 1330.
- $C_{11}H_{23}N_4J$ 1) Jodamylat d. Hexamethylentetramin. Sm. 156° . + J₂ (Bl. [3] 13, 356).
 $C_{11}H_{23}N_4J_4$ 1) Jodamylat d. Hexamethylentetramintrijodid? Sm. 127° (Bl. [3] 13, 357).
- $C_{11}H_{24}ON_2$ C 66,0 — H 12,0 — O 8,0 — N 14,0 — M. G. 200.
 1) sym. tert. Diamylharnstoff. subl. (A. 139, 330). — I, 1300.
 2) sym. Diisoamylharnstoff. Sm. $65-66^\circ$ ($37-39^\circ$); Sd. 270° . HNO₃ (B. 12, 1331; Soc. 67, 564). — I, 1300.
- $C_{11}H_{24}O_2N_4$ C 54,1 — H 9,8 — O 13,1 — N 23,0 — M. G. 244.
 1) α -Diureidononan. Sm. 190° (C. 1897 [2] 849).
- $C_{11}H_{24}O_2Si$ 1) Essigäther d. Tripropylsilicol. Sd. 212-216 $^\circ$ (B. 14, 1875). — I, 1520.
- $C_{11}H_{24}O_4S_2$ 1) $\gamma\gamma$ -Di[Isopropylsulfon]pentan (Diisopropylsulfondiäthylmethan). Sm. 97° (B. 23, 3227). — I, 997.
 2) $\beta\beta$ -Di[Isobutylsulfon]propan. Sm. 64° (B. 23, 3228). — I, 994.
- $C_{11}H_{24}O_5N_{10}$ C 35,1 — H 6,4 — O 21,3 — N 37,2 — M. G. 376.
 1) Base (aus Fleisch) (Bl. 48, 20). — III, 883.
- $C_{11}H_{24}O_6S_2$ 1) α -Glykoheptoseäthylmerkaptal. Sm. $152-154^\circ$ (B. 27, 678).
- $C_{11}H_{24}NCl$ 1) Chlormethylat d. Dimethylconiin. 2 + PtCl₄ (B. 14, 710). — IV, 33.
 2) Chloräthylat d. Methylconiin. + 3 HgCl₂, 2 + PtCl₄, + AuCl₃ (A. 89, 143). — IV, 33.
- $C_{11}H_{24}NJ$ 1) Jodmethylat d. 1,2,3,4,5-Pentamethylhexahydropyridin. Sm. 262° u. Zers. (B. 21, 2861). — IV, 41.
 2) Jodmethylat d. Dimethylconiin (B. 14, 709). — IV, 33.
 3) Jodäthylat d. Methylconiin (A. 89, 137). — IV, 33.
- $C_{11}H_{24}N_2S$ 1) s-Diisoamylthioharnstoff. Sm. $72-73^\circ$ (Soc. 63, 322). — I, 1321.
 2) uns-Diisoamylthioharnstoff. Sm. $208-209^\circ$ (G. 19, 423; B. 26, 2506). — I, 1321.
- $C_{11}H_{24}N_2Se$ 1) uns-Diisoamylselenharnstoff. Sm. $171-172^\circ$ u. Zers. (G. 19, 424). — I, 1331.
- $C_{11}H_{24}J_5S_2$ 1) Dijodäthylat d. Dimerkaptomethandiäthyläther + 2 Molec. Jodoform. Sm. 125° (C. 1898 [2] 524).
- $C_{11}H_{25}ON$ C 70,6 — H 13,4 — O 8,5 — N 7,5 — M. G. 187.
 1) Diisoamylamidooxymethan. Fl. (Bl. [3] 13, 158).
 2) Methyläthylconiin. Fl. (A. 89, 138). — IV, 33.
- $C_{11}H_{25}NS_2$ 1) Isoundekylamidodithioameisensäure. Isoundekylaminsalz. Sm. 66° (G. 24 [2] 281).
- $C_{11}H_{25}ClS$ 1) Methyldiamylsulfinchlorid. + 2 HgCl₂ (B. 31, 2286).
- $C_{11}H_{26}ON_2$ C 65,3 — H 12,9 — O 7,9 — N 13,9 — M. G. 202.
 1) $\beta\gamma$ -Di[Diäthylamido]- α -Oxypropan. (HCl, AuCl₃) (B. 17, 511). — I, 1174.
 2) $\alpha\gamma$ -Di[Diäthylamido]- β -Oxypropan. Sd. 234,5 $^\circ$. (2 HCl, 2 AuCl₃), (2 HCl, PtCl₄) (B. 17, 511; Bl. 42, 261). — I, 1176.
- $C_{11}H_{26}O_4Si$ 1) Kieselsäuretriäthylisoamylester. Sd. $216-225^\circ$ (A. ch. [4] 9, 17). — I, 347.

- $C_{11}H_{16}O_6N_2$ C 46,8 — H 9,2 — O 34,0 — N 9,9 — M. G. 282.
 1) Verbindung (aus Albumin). — IV, 1587.
- $C_{11}H_{20}NCl$ 1) Trimethyl-norm. Oktylammoniumchlorid. 2 + $PtCl_4$, + $AuCl_3$ (A. 298, 146).
 2) Triäthylisoamylammoniumchlorid. 2 + $PtCl_4$ (A. 78, 279). — I, 1135.
- $C_{11}H_{20}NJ$ 1) Trimethyl-norm.-Oktylammoniumjodid. Sm. 139—141° (A. 298, 145, 146).
 2) Trimethyl-sec. Oktylammoniumjodid (B. 15, 1294; M. 3, 175).
 3) Triäthylisoamylammoniumjodid (A. 78, 279). — I, 1135.
 4) Jodmethylat d. Dimethyldihydroconiin. Sm. 190° (A. 298, 145).
- $C_{11}H_{20}ClP$ 1) Triäthylisoamylphosphoniumchlorid. 2 + $PtCl_4$ (Soc. 53, 721). — I, 1505.
- $C_{11}H_{20}JP$ 1) Triäthylisoamylphosphoniumjodid (A. 104, 27). — I, 1505.
- $C_{11}H_{20}Cl_2P_2$ 1) Trimethyläthylentriäthylphosphoniumchlorid. 2 + $PtCl_4$ (J. 1860, 329; A. Spl. 1, 280). — I, 1506.
- $C_{11}H_{20}Br_2P_2$ 1) Trimethyläthylentriäthyldiphosphoniumbromid (J. 1860, 329). — I, 1506.

C_{11} -Gruppe mit vier Elementen.

- $C_{11}H_5O_5ClBr$ 1) 3-Chlor-3,5-Dibrom-1,2,4-Triketo-1,2,3,4-Tetrahydronaphtalin-7-Carbonsäure. Sm. 253° (A. 293, 153).
- $C_{11}H_5O_5Cl_2Br$ 1) 3,3-Dichlor-5-Brom-1,2,4-Triketo-1,2,3,4-Tetrahydronaphtalin-7-Carbonsäure + H_2O . Sm. oberh. 160° (A. 293, 140).
- $C_{11}H_5O_5Cl_2Br_2$ 1) 2,3-Dichlor-2,4-Dibrom-1-Keto-2,3-Dihydroinden-6-Carbonsäure. Sm. 205—206° (A. 293, 161).
- $C_{11}H_5O_5Cl_2Br_2$ 1) 3,4-Dichlor-3,5-Dibrom-1,2-Diketo-1,2,3,4-Tetrahydronaphtalin-7-Carbonsäure + H_2O . Sm. 150° u. Zers. (A. 293, 155).
- $C_{11}H_5O_5ClBr$ 1) 2-Chlor-8-Brom-3-Oxy-1,4-Naphtochinon-6-Carbonsäure. Sm. oberh. 290°. + $C_2H_4O_2$ (A. 293, 158).
- $C_{11}H_5O_5N_2Cl_2$ 1) 5,8-Dichlor- β -Dinitronaphtalin-2-Carbonsäure. Sm. 283°. Ca + $6H_2O$ (J. pr. [2] 43, 423). — II, 1458.
- $C_{11}H_5O_5N_2Cl$ 1) 5-[oder 8]Chlor- β -Trinitronaphtalin-2-Carbonsäure. Sm. 260 bis 261°. Ca + $2H_2O$ (J. pr. [2] 43, 416). — II, 1458.
- $C_{11}H_5ONCl_2$ 1) 1,8-Anhydrid d. β -Dichlor-8-Amidonaphtalin-1-Carbonsäure. Sm. 264—265° (J. pr. [2] 38, 174). — II, 1451.
- $C_{11}H_5ONBr_2$ 1) 1,8-Anhydrid d. β -Dibrom-8-Amidonaphtalin-1-Carbonsäure. Sm. 268—270° (J. pr. [2] 38, 177). — II, 1451.
- $C_{11}H_5O_4NCl_2$ 1) 5,8-Dichlor- β -Nitronaphtalin-1-Carbonsäure. Sm. 165° (J. pr. [2] 38, 255). — II, 1450.
- $C_{11}H_5O_5N_2Cl$ 1) 5-[oder 8-]Chlor- β -Dinitronaphtalin-2-Carbonsäure. Sm. 243° (J. pr. [2] 43, 415). — II, 1458.
- $C_{11}H_5O_5Cl_2Br$ 1) 2,2-Dichlor-4-Brom-1-Oxy-3-Keto-2,3-Dihydroinden-1,6-Dicarbonsäure + $3H_2O$. Sm. 160°; Zers. bei 215° (A. 293, 142).
- $C_{11}H_5ONCl$ 1) 1,8-Anhydrid d. 5-Chlor-8-Amidonaphtalin-1-Carbonsäure. Sm. 270° (265°) (J. pr. [2] 38, 173, 277). — II, 1451.
- $C_{11}H_5ONCl_3$ 1) 2,3,5-Trichlor-4-Keto-1-Phenyl-1,4-Dihydropyridin. Sm. 245° (A. 267, 28). — IV, 117.
- $C_{11}H_5ONCl_3$ 1) Pentachlor- β -Phenylamido-2-Keto-2,3-Dihydro-R-Penten. Sm. 194—196° (B. 21, 2728). — II, 447.
- $C_{11}H_5ONBr$ 1) 1,8-Anhydrid d. 4-Brom-8-Amidonaphtalin-1-Carbonsäure. Sm. 257° (J. pr. [2] 38, 173). — II, 1451.
- $C_{11}H_5OBr_2S$ 1) 4,5-Dibrom-2-Benzoylthiophen. Sm. 80° (B. 26, 2458). — III, 767.
- $C_{11}H_5O_2NCl_3$ 1) Acetat d. 5,7,8-Trichlor-6-Oxychinolin. Sm. 139° (A. 264, 216). — IV, 277.
 2) Acetat d. 5,6,7-Trichlor-8-Oxychinolin. Sm. 172—173° (B. 21, 2982). — IV, 277.
 3) Verbindung (aus Amidobenzol u. Tetrachlordiketopenten). Sm. 143° (B. 24, 921). — II, 406.
- $C_{11}H_5O_2NCl_3$ 1) 3,3,5,5,6-Pentachlor-2,4-Diketo-1-Phenylhexahydropyridin. Sm. 147° (A. 267, 35). — IV, 120.

- $C_{11}H_6O_2NCl_3$ 2) Phenylamid d. β -Trichloracetyl- $\alpha\beta$ -Dichlorakrylsäure. Sm. 182 bis 183° (B. 25, 2231). — II, 406.
- $C_{11}H_6O_2Cl_5P$ 1) Dichlorid d. 2-Trichlormethylnaphtyl-1-Phosphorsäure. Sm. 115° (B. 21, 1186). — II, 1688.
- $C_{11}H_6O_2Cl_3P$ 1) 1,2,2-Trichlorid d. 1-Carboxylnaphtyl-2-Phosphorsäure. Sm. 38° (B. 22, 392). — II, 1690.
2) 2,3,3-Trichlorid d. 2-Carboxylnaphtyl-3-Phosphorsäure. Sm. 63° (B. 26, 667). — II, 1691.
- $C_{11}H_6O_2NCl$ 1) 5-Chlor-8-Nitronaphtalin-1-Carbonsäure. Sm. 224—225° u. Zers. $Ca + 3H_2O$ (J. pr. [2] 38, 170). — II, 1449.
2) 8-Chlor- β -Nitronaphtalin-1-Carbonsäure. Sm. 227° (J. pr. [2] 38, 253). — II, 1450.
3) 5-[oder 8-]Chlor- β -Nitronaphtalin-2-Carbonsäure. Sm. 271°. $Ca + 5H_2O$ (J. pr. [2] 43, 414). — II, 1458.
4) Acetat d. 7-Chlor-6-Oxy-5,8-Diketo-5,8-Dihydrochinolin. Sm. 176—177° u. Zers. (A. 290, 336). — IV, 272.
- $C_{11}H_6O_2NBr$ 1) 5-Brom-8-Nitronaphtalin-1-Carbonsäure. Sm. 260° (J. pr. [2] 38, 173). — II, 1450.
- $C_{11}H_6O_2N_2Br$ 1) β -Dibrom-1-Phenylpyrazol-3,4-Dicarbonensäure. Sm. 197—199° u. Zers. (G. 23 [1] 358). — IV, 544.
- $C_{11}H_6O_2Cl_2Br$ 1) 2,3-Dichlor-2,4-Dibrom-1-Oxy-2,3-Dihydroinden-1,6-Dicarbonensäure. Sm. 242° u. Zers. (A. 293, 159).
- $C_{11}H_7ONCl_2$ 1) 3,5-Dichlor-2-Oxy-4-Keto-1-Phenyl-1,4-Dihydropyridin. Sm. 192°. Ag (A. 267, 34). — IV, 120.
2) Amid d. 5,8-Dichlornaphtalin-2-Carbonsäure. Sm. 218° (J. pr. [2] 43, 419). — II, 1456.
- $C_{11}H_7ONCl_4$ 1) 3,4,5,5-Tetrachlor-2-Keto-1-[4-Methylphenyl]-2,5-Dihydropyrrol (Dichlormalein-p-Toluöldichlorid). Sm. 156°; Sd. 205°, (A. 295, 44).
- $C_{11}H_7ONCl_6$ 1) $\alpha\beta\epsilon\epsilon$ -Hexachlor- γ -Phenylamido- δ -Keto- β -Penten. Sm. 134° (B. 25, 2696). — II, 447.
- $C_{11}H_7ONS$ 1) 1-Oxy- α -Naphthiazol. Sm. 235—236°. Na (B. 26, 2366). — II, 871.
2) 2-Merkapto- α -Naphtoxazol. Sm. 259—260° (B. 22, 3241). — II, 865.
3) 2-Merkapto- β -Naphtoxazol. Sm. 248—249° (B. 21, 417). — II, 885.
- $C_{11}H_7ON_2Cl$ 1) Verbindung (aus 1,2-Diamidobenzol u. 2,4-Dichlor-1,3-Diketo-2,3-Dihydro-R-Penten). Sm. 160—165° u. Zers. (B. 26, 518). — IV, 564.
- $C_{11}H_7O_2NCl_2$ 1) Acetat d. 5,7-Dichlor-6-Oxychinolin. Sm. 130° (A. 264, 214). — IV, 277.
2) Acetat d. 5,7-Dichlor-8-Oxychinolin. Sm. 97—98° (B. 21, 2981). — IV, 277.
3) 4-Methylphenylimid d. Dichlormaleinsäure. Sm. 193° (A. 295, 47).
- $C_{11}H_7O_2NCl_4$ 1) Phenylamid d. β -Dichloracetyl- $\alpha\beta$ -Dichlorakrylsäure? Sm. 162° (B. 24, 921). — II, 406.
- $C_{11}H_7O_2NBr$ 1) 4-Bromphenylimid d. Bromcitronensäure. Sm. 178° (M. 8, 402). — II, 418.
- $C_{11}H_7O_2NBr_2$ 1) Oxyessig- β -Dibrom-8-Chinolyäthersäure. Sm. 203° u. Zers. (M. 18, 42). — IV, 275.
- $C_{11}H_7O_2NS$ 1) 1-Nitril d. Naphtalin-1-Carbonsäure- β -Sulfonsäure. Ba (B. 16, 1251). — II, 1453.
- $C_{11}H_7O_4NBr_2$ 1) $\alpha\gamma$ -Dibrom- α -[4-Nitrophenyl]- $\alpha\gamma$ -Butadien- δ -Carbonsäure. Sm. 242 bis 244°. Cu (A. 253, 368). — II, 1442.
- $C_{11}H_7O_4N_2Br$ 1) 4-Brom-1-Phenylpyrazol-3,5-Dicarbonensäure. Sm. 244° u. Zers. $(NH_4)_2$, Pb (B. 23, 1450). — IV, 544.
- $C_{11}H_7O_4ClBr_2$ 1) Chlordibromlimettin. Sm. 202° (See. 57, 324; 61, 348). — III, 636.
- $C_{11}H_8ONCl$ 1) Amid d. 5-Chlornaphtalin-1-Carbonsäure. Sm. 239° (J. pr. [2] 38, 148). — II, 1447.
2) Amid d. 5-[oder 8]Chlornaphtalin-2-Carbonsäure. Sm. 186—187° (J. pr. [2] 43, 412). — II, 1456.
- $C_{11}H_8ONCl_3$ 1) 4,5,5-Trichlor-2-Keto-3-Methyl-1-Phenyl-2,5-Dihydropyrrol (Chlorcitronanilidichlorid). Sm. 103° (A. 295, 56).
2) Chinolinchloral + H_2O . Sm. 63—65° (66°). $(2 + 3PtCl_4 + 2H_2O)$ (B. 16, 882; A. 273, 368). — IV, 253.
- $C_{11}H_8ONCl_5$ 1) $\alpha\alpha\beta\epsilon\epsilon$ -Pentachlor- γ -Phenylamido- δ -Keto- β -Penten. Sm. 89° (B. 25, 2693). — II, 447.

- $C_{11}H_9ONBr$ 1) Amid d. *p*-Bromnaphtalin-1-Carbonsäure. Sm. 240–241° (*B.* 9, 1518). — II, 1447.
- $C_{11}H_9O_4NCl$ 1) 3-Chlor-2-Methylamido-1,4-Naphtochinon. Sm. 150° (*B.* 15, 485). — III, 377.
 2) 3-Chlor-4-Methylimido-2-Oxy-1-Keto-1,4-Dihydronaphtalin? Sm. 200° (*B.* 20, 2893). — III, 390.
 3) Acetat d. 5-Chlor-6-Oxychinolin. Sm. 102° (*A.* 264, 213). — IV, 276.
 4) 5-Chlor-8-Amidonaphtalin-1-Carbonsäure (*J. pr.* [2] 38, 172). — II, 1451.
 5) 8-Chlor-*p*-Amidonaphtalin-1-Carbonsäure. Sm. 210–285°? (*J. pr.* [2] 38, 254). — II, 1451.
 6) 8-Chlor-2-Methylchinolin-3-Carbonsäure. Sm. 216° (*J. pr.* [2] 56, 384).
 7) Phenylimid d. γ -Chlorpropen- $\beta\gamma$ -Dicarbonsäure (Ph. d. Chloreitrakonsäure). Sm. 135°; Sd. 190°₁₉ (*A.* 295, 58).
 8) 4-Chlorphenylimid d. Citrakonsäure. Sm. 114,5° (*M.* 8, 400). — II, 418.
- $C_{11}H_9O_4NBr$ 1) Phenylimid d. Bromcitrakonsäure. Sm. 144,5–145,5° (*Am.* 9, 191). — II, 418.
 2) 4-Methylphenylimid d. Brommaleinsäure. Sm. 144,5° (*A.* 292, 235).
- $C_{11}H_9O_4NJ$ 1) 4-Jodphenylimid d. Citrakonsäure (*A.* 77, 289). — II, 418.
- $C_{11}H_9O_4N_2S$ 1) Cyanamid d. Naphtalin-1-Sulfonsäure + H_2O . Na, Ag (*J. pr.* [2] 41, 107). — II, 202.
 2) Cyanamid d. Naphtalin-2-Sulfonsäure + H_2O . Na + H_2O , Ba + 3 H_2O , Ag (*J. pr.* [2] 41, 111). — II, 202.
 3) β -Rhodanäthylimid d. Benzol-1,2-Dicarbonsäure. Sm. 108° (*B.* 24, 2131). — II, 1802.
- $C_{11}H_9O_4N_2Se$ 1) β -Selencyanäthylimid d. Benzol-1,2-Dicarbonsäure. Sm. 124 bis 125° (*B.* 24, 2133). — II, 1802.
- $C_{11}H_9O_4N_3Br_3$ 1) Aethylester d. 2,4,6-Tribromphenylhydrazoncyanessigsäure. Sm. 141° (*J. pr.* [2] 52, 166). — IV, 721.
 2) Aethylester d. 2,4,6-Tribromphenylazocyanessigsäure. Sm. 134° (*J. pr.* [2] 52, 166). — IV, 721.
- $C_{11}H_9O_5NBr$ 1) Bromtarkonin + 2 H_2O . Sm. 235–238° u. Zers. HCl + 2 H_2O , (2 HCl , $PtCl_4$), HBr + 2 H_2O (*A.* 210, 84; 212, 197; *B.* 14, 311; *Soc.* 32, 535). — III, 918.
 2) Methyläther d. 2-Brom-4-Nitro-1-Oxynaphtalin. Sm. 114–115° (*Soc.* 47, 501). — II, 864.
 3) Methyläther d. 6-Brom-1-Nitro-2-Oxynaphtalin. Sm. 152° (*C.* 1897 [1] 239).
- $C_{11}H_9O_5NBr_3$ 1) Verbindung (aus d. Diäthylester d. $\alpha\gamma$ -Dicyan- β -[2-Oxyphenyl]propau- $\alpha\gamma$ -Dicarbonsäure). Sm. 125–128° (*J. pr.* [2] 50, 27). — II, 1957.
- $C_{11}H_9O_5NJ$ 1) Jodtarkonin + H_2O . HCl + 2 H_2O (*A.* 245, 319). — III, 919.
- $C_{11}H_9O_5Cl_2S$ 1) Methylester d. 1,6-Dichlornaphtalin-4-Sulfonsäure. Sm. 138° (*B.* 24, 3477). — II, 209.
- $C_{11}H_9O_4NBr_3$ 1) $\beta\gamma\delta$ -Tribrom- δ -[4-Nitrophenyl]- α -Buten- α -Carbonsäure. Sm. 205 bis 206°. Na + 2 H_2O (*A.* 253, 360, 363). — II, 1431.
- $C_{11}H_9O_4ClBr$ 1) Methylester d. 2-Chlor-2-Brom-3-Oxy-1-Keto-2,3-Dihydroinden-3-Carbonsäure. Sm. 134–135° (*B.* 21, 2386). — II, 1866.
- $C_{11}H_9ONS$ 1) 2 [oder 3]-(α -Oximidobenzyl)thiophen. α -Derivat Sm. 91–92°; β -Derivat Sm. 113–114° (*B.* 17, 791; 24, 59, 60). — III, 767.
 2) Phenylamid d. Thiophen-2-Carbonsäure. Sm. 140° (*B.* 18, 2340). — III, 754.
- $C_{11}H_9ON_2Cl$ 1) 4-Chlor-5-Imido-2-Keto-3-Methyl-1-Phenyl-2,5-Dihydropyrrol (Chloreitrakonimidoanil). Sm. 116° (*A.* 295, 61).
 2) 4-Chlor-3-Keto-6-Methyl-2-Phenyl-2,3-Dihydro-1,2-Diazin. Sm. 136–137° (*A.* 253, 50). — IV, 821.
- $C_{11}H_9ON_2Cl_3$ 1) 1-[$\gamma\gamma\gamma$ -Trichlor- β -Oxypropyl]-2,3-Benzdiazin. Sm. 180° u. Zers. (*B.* 30, 3034). — IV, 941.
 2) Aethyläther d. *p*-Trichlor-4-Oxy-2-Methyl-1,3-Benzdiazin. Sm. 75–76° (*J. pr.* [2] 42, 355). — IV, 901.
- $C_{11}H_9ON_2Br$ 1) 4-Bromacetyl-1-Phenylpyrazol. Sm. 131–132°. — IV, 550.

- $C_{11}H_9ON_2Br$ 2) 5-Brom-6-Oxy-4-Methyl-2-Phenyl-1,3-Diazin. Sm. 260° (PINNER, Imidoäther 250). — IV, 957.
 3) 6-Brom-5-Acetylamidochinolin. Sm. 104–105° (B. 15, 1921). — IV, 911.
 4) 8-Brom-5-Acetylamidochinolin. Sm. 250° (J. pr. [2] 53, 411). — IV, 911.
 5) 7-Brom-6-Acetylamidochinolin. Sm. 165°. HBr (J. pr. [2] 53, 123). — IV, 913.
 6) 5-Brom-8-Acetylamidochinolin. Sm. 140° (J. pr. [2] 53, 404). — IV, 914.
- $C_{11}H_9O_2NCl_2$ 1) 2-Aethyläther d. 5,7-Dichlor-2,8-Dioxychinolin. Sm. 150–151° (B. 21, 2985). — IV, 289.
 2) $\beta\gamma$ -Dichlorpropylimid d. Benzol-1,2-Dicarbonsäure. Sm. 93° (B. 23, 1000). — II, 1802.
 3) Verbindung (aus d. Phenylimid d. Bernsteinsäure). Sm. 91° (A. 263, 162). — II, 413.
- $C_{11}H_9O_2NBr_2$ 1) Dibromhydrastinin. Sm. 125° (B. 22, 488). — III, 106.
 2) $\beta\gamma$ -Dibrompropylimid d. Benzol-1,2-Dicarbonsäure. Sm. 113 bis 114° (B. 23, 1000). — II, 1802.
- $C_{11}H_9O_2NS$ 1) 4-Methyl-2-Phenylthiazol-5-Carbonsäure. Sm. 202–203° (A. 259, 237). — IV, 355.
- $C_{11}H_9O_2NSe$ 1) 4-Methyl-2-Phenylselenazol-5-Carbonsäure. Sm. 206–207°. Ag (A. 250, 318). — IV, 366.
- $C_{11}H_9O_2N_3Br$ 1) Aethylester d. 2,4-Dibromphenylhydrazoncyanessigsäure. Sm. 166° (J. pr. [2] 49, 341). — IV, 1455.
 2) Aethylester d. 2,5-Dibromphenylazocyanessigsäure. Sm. 172° (J. pr. [2] 52, 165). — IV, 721.
 3) Aethylester d. 2,5-Dibromphenylhydrazoncyanessigsäure. Sm. 144° (J. pr. [2] 52, 164). — IV, 721.
- $C_{11}H_9O_3NBr_2$ 1) Nitril d. 3,4,5-Trioxy-1-[$\alpha\beta$ -Dibromäthyl]benzol-5-Methyläther-3,4-Methylenäther-2-Carbonsäure. Sm. 140° (A. 254, 339). — II, 1951.
- $C_{11}H_9O_3ClS$ 1) Methylester d. 1-Chlornaphtalin-4-Sulfonsäure. Sm. 83°. — II, 205.
 2) Methylester d. 1-Chlornaphtalin-8-Sulfonsäure. Sm. 70° (B. 23, 963). — II, 205.
 3) Methylester d. 2-Chlornaphtalin-6-Sulfonsäure. Sm. 89° (Bl. 45, 184). — II, 206.
 4) Methylester d. 2-Chlornaphtalin-7-Sulfonsäure. Sm. 89° (B. 25, 2483). — II, 206.
 5) Methylester d. 2-Chlornaphtalin-8-Sulfonsäure. Sm. 115° (Bl. 45, 184). — II, 206.
 6) Chlorid d. 2-Oxynaphtalinmethyläther-6-Sulfonsäure. Sm. 93° (C. 1895 [1] 1064).
 7) Chlorid d. 2-Oxynaphtalinmethyläther-8-Sulfonsäure. Sm. 137° (C. 1895 [1] 1064).
- $C_{11}H_9O_3BrS$ 1) Methylester d. 1-Bromnaphtalin-5-Sulfonsäure. Sm. 77°. — II, 210.
- $C_{11}H_9O_3JS$ 1) Methylester d. 1-Jodnaphtalin-5-Sulfonsäure. Sm. 59° (B. 22, 2821). — II, 211.
- $C_{11}H_9O_3FS$ 1) Methylester d. 1-Fluornaphtalin-5-Sulfonsäure. Sm. 118° (B. 22, 1845). — II, 204.
- $C_{11}H_9O_4NBr_2$ 1) Aethylester d. $\alpha\beta$ -Dibrom- β -[4-Nitrophenyl]akrylsäure. Sm. 85 bis 86° (A. 212, 157). — II, 1416.
- $C_{11}H_9O_4NBr_4$ 1) $\alpha\beta\gamma\delta$ -Tetrabrom- δ -[4-Nitrophenyl]valeriansäure. Sm. 254° u. Zers. (A. 253, 359). — II, 1393.
- $C_{11}H_9O_4NS$ 1) 2,4-Diketo-3-Phenyltetrahydrothiazol-5-Methylcarbonsäure. Sm. 146–147°. Ag (A. 280, 243).
- $C_{11}H_9O_5NCl_2$ 1) Methylester d. 1-[$\alpha\beta$ -Dichlor- β -Nitroäthyl]benzol-4-Ketocarbon-säure. Sm. 139° (A. 268, 280). — II, 1660.
- $C_{11}H_9O_5NS$ 1) Methylester d. 1-Nitronaphtalin-4-Sulfonsäure. Sm. 117° (B. 23, 960). — II, 212.
 2) Methylester d. 1-Nitronaphtalin-5-Sulfonsäure. Sm. 117,5° (A. 275, 248). — II, 212.
 3) Methylester d. 1-Nitronaphtalin-8-Sulfonsäure. Sm. 124° (A. 275, 244). — II, 214.

- $C_{11}H_9O_5N_4Cl$ 1) Acetylderivat d. Base $C_9H_7O_4N_4Cl$. Sm. 156—157° (B. 31, 1400).
- $C_{11}H_9O_6NCl_2$ 1) 1-[$\beta\beta$ -Dichlor- β -Nitro- α -Methoxyläthyl]benzol-2-Ketocarbonsäure. Sm. 116°. Ca, Ag (A. 278, 191). — II, 1782.
- $C_{11}H_9O_6NS$ 1) 3-Amido-5-Oxynaphtalin-2-Carbonsäure-7-Sulfonsäure (B. 26, 1121). — II, 1689.
- $C_{11}H_9O_6NS_2$ 1) 3-Amidonaphtalin-2-Carbonsäure-5,7-Disulfonsäure (B. 26, 1120). — II, 1460.
- $C_{11}H_{10}ONCl$ 1) 2-Chlor-3-Dimethylamido-1-Ketoinden. Sm. 140° (B. 20, 1270). — III, 169.
- 2) 2-Chlor-4-Oxy-3-Aethylchinolin. Sm. 248° u. Zers. (B. 20, 1236; 21, 300). — IV, 326.
- 3) Methyläther d. 4-Chlor-6-Oxy-2-Methylchinolin. Sm. 100°; Sd. 295—302° (B. 21, 1651). — IV, 312.
- 4) Aethyläther d. 3-Chlor-2-Oxychinolin (B. 15, 2684). — IV, 275.
- 5) Aethyläther d. 4-Chlor-2-Oxychinolin. Sm. 43°; Sd. 270° (B. 15, 2684). — IV, 275.
- 6) Aethyläther d. 3-Chlor-1-Oxyisochinolin. Sm. 37—37,5° (B. 19, 2359). — IV, 304.
- $C_{11}H_{10}ONBr$ 1) Methyläther d. 6-Brom-1-Amido-2-Oxynaphtalin. Sm. 73° (C. 1897 [1] 239).
- 2) 4-Brom-2-Keto-1-Aethyl-1,2-Dihydrochinolin. Sm. 116° (J. pr. [2] 45, 166). — IV, 285.
- 3) 2-Brom-2-Keto-1,4-Dimethyl-1,2-Dihydrochinolin. Sm. 172° (A. 236, 110). — IV, 317.
- 4) Aethyläther d. 5-Brom-6-Oxychinolin. Sm. 70—75° (J. pr. [2] 48, 28). — IV, 280.
- 5) Aethyläther d. 5-Brom-8-Oxychinolin. Sm. 55°. (2HCl, PtCl₄ + H₂O) (J. pr. [2] 56, 390).
- $C_{11}H_{10}ON_2Br$ 1) Tetrabromid d. 6-Oxy-4-Methyl-2-Phenyl-1,3-Diazin. Sm. 245° u. Zers. (PINNER, Imidoäther 250). — IV, 957.
- $C_{11}H_{10}ON_2S$ 1) α -Oxy-1-Naphtylharnstoff. Sm. 116° (B. 24, 382). — II, 610.
- 2) 2-Acetylamido-4-Phenylthiazol. Sm. 208° (A. 249, 39). — IV, 916.
- 3) 2-Thiocarbonyl-4-Keto-3-Allyl-1,2,3,4-Tetrahydro-1,3-Benzdiazin. Sm. 198—199° u. Zers. (J. pr. [2] 44, 415). — II, 1247.
- $C_{11}H_{10}ON_2S$ 1) 2-Allylimido-3-Nitroso-4-Phenyl-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 95° (B. 27, 630). — IV, 1158.
- $C_{11}H_{10}O_2NCl$ 1) Hydrastoninchlorid + H₂O. + HgCl₂, 2 + PtCl₄, + AuCl₃. — II, 2051.
- 2) Chlormethylat d. Chinolin-4-Carbonsäure. Sm. 243° (A. 270, 347). — IV, 346.
- 3) Chlorid d. Pseudo-Itakonphenylaminsäure (A. 254, 147). — II, 417.
- 4) 4-Methylphenylimid d. Chlorbernsteinsäure. Sm. 156—158° (A. 279, 136).
- $C_{11}H_{10}O_2NBr$ 1) β -Brompropylimid d. Benzol-1,2-Dicarbonsäure. Sm. 105° (B. 24, 2627). — II, 1802.
- 2) γ -Brompropylimid d. Benzol-1,2-Dicarbonsäure. Sm. 72—73° (B. 21, 2671; 30, 2505). — II, 1802.
- $C_{11}H_{10}O_2NJ$ 1) Hydrastoninjodid. — II, 2051.
- 2) Jodmethylat d. 6,7-Dioxyisochinolin-6,7-Methylenäther. Sm. 244° (A. 286, 16). — IV, 304.
- 3) Jodmethylat d. Chinolin-4-Carbonsäure. Sm. 224° (A. 270, 346). — IV, 346.
- 4) Jodmethylat d. Chinolin-8-Carbonsäure (B. 15, 197). — IV, 351.
- 5) γ -Jodpropylimid d. Benzol-1,2-Dicarbonsäure. Sm. 88° (B. 30, 2504).
- $C_{11}H_{10}O_2NJ_2$ 1) Hydrastonintrijodid. — II, 2051.
- $C_{11}H_{10}O_2N_2Br_2$ 1) 2-Imido-4-Keto-5-[$\alpha\beta$ -Dibrom- β -Phenyläthyl]tetrahydrooxazol. Sm. 250° u. Zers. (B. 22, 693). — II, 1656.
- 2) 4-[$\alpha\beta$ -Dibrom- β -Phenyläthyl]-2,5-Diketotetrahydroimidazol. Sm. 198—200° (B. 22, 693). — II, 1655.
- 3) 2-Dibrom-1-Aethylisindazol-3-Methylcarbonsäure. Sm. 196° (A. 221, 288). — IV, 892.
- $C_{11}H_{10}O_2N_2S$ 1) 4-Diacetylamidophenylsenföl. Sm. 195° (J. pr. [2] 50, 409). — I, 592.

- C₁₁H₁₀O₂N₂S** 2) **2-Thiocarbonyl-4,5-Diketo-1-Aethyl-3-Phenyltetrahydroimidazol** (Aethylphenylthioparabansäure). Sm. 174° (B. 31, 138).
- C₁₁H₁₀O₂N₂Br** 1) **Aethylester d. 3-Bromphenylazocyanessigsäure**. Sm. 153° (J. pr. [2] 52, 163). — IV, 721.
2) **Aethylester d. 3-Bromphenylhydrazoncyanessigsäure**. Sm. 102° (J. pr. [2] 52, 161). — IV, 721.
- C₁₁H₁₀O₃NCl** 1) **Chlormethylat d. 6-Oxychinolin-4-Carbonsäure**. Sm. 295° (A. 282, 94). — IV, 361.
2) **Phenylmonamid d. γ-Chlorpropen-βγ-Dicarbonsäure** (Ph. d. Chlorcitronensäure). Ag (A. 295, 58).
- C₁₁H₁₀O₃NBr** 1) **Methylenäther d. γ-Oximido-α-[β-Brom-3,4-Dioxyphenyl]-α-Buten**. Sm. 210° u. Zers. (B. 24, 2595). — III, 163.
2) **Methylbromtarkoninsäure + 2H₂O**. Sm. 223°. Na, Ba, Cu, HCl, (2HCl, PtCl₄) (A. 212, 177). — III, 212.
3) **3-Brom-4-Methoxyphenylimid d. Bernsteinsäure** (G. 28 [2] 204).
- C₁₁H₁₀O₃NJ** 1) **Jodmethylat d. 6-Oxychinolin-4-Carbonsäure**. Sm. 302° (A. 282, 93). — IV, 361.
- C₁₁H₁₀O₄NCl** 1) **Methylester d. Phenoxylmucochloresäureoxim**. Sm. 156—160° (u. 162—166°) (Am. 19, 637).
2) **Aethylester d. β-[5-Chlor-2-Nitrophenyl]akrylsäure**. Sm. 62° (A. 262, 155). — II, 1416.
- C₁₁H₁₀O₄NBr** 1) **Lakton d. γ-[β-Brom-β-Oxy-δ-[2-Nitrophenyl]-valeriansäure**. Sm. 146° (A. 253, 372). — II, 1590.
2) **Methylester d. Phenoxylmucobromsäureoxim**. Sm. 150—165° (168—170°) (Am. 19, 631).
3) **Aethylester d. α-Brom-β-[4-Nitrophenyl]akrylsäure** (vom Sm. 146°). Sm. 63° (A. 212, 132; J. 1881, 808). — II, 1416.
4) **Aethylester d. isom. α-Brom-β-[4-Nitrophenyl]akrylsäure**. Sm. 93° (A. 212, 132). — II, 1416.
- C₁₁H₁₀O₅NCl** 1) **Aethylester d. α-[5-Chlor-2-Nitrophenyl]äthanoxyd-β-Carbonsäure**. Sm. 110° (A. 262, 151). — II, 1640.
- C₁₁H₁₀O₆NCl** 1) **1-[β-Chlor-β-Nitro-α-Methoxyläthyl]benzol-2-Ketocarbonsäure**. Sm. 189° u. Zers. (A. 278, 202). — II, 1782.
2) **Methylester d. 1-[β-Chlor-β-Nitro-α-Oxyäthyl]benzol-2-Ketocarbonsäure**. Sm. 125—131° (A. 268, 285). — II, 1782.
3) **1-Methyläther d. 2-Chlor-2-Nitro-4-Keto-1,3,3-Trioxo-1,2,3,4-Tetrahydronaphtalin**. Sm. 137° (A. 278, 201). — III, 322.
- C₁₁H₁₁ONCl₂** 1) **3,3-Dichlor-2-Keto-1-Propyl-2,3-Dihydroindol**. Sm. 67° (B. 30, 2816).
- C₁₁H₁₁ONBr₂** 1) **3,3-Dibrom-2-Keto-1-Propyl-2,3-Dihydroindol**. Sm. 97° (B. 30, 2816).
2) **β-Dibrom-2-Keto-1,3,3-Trimethyl-2,3-Dihydroindol**. Sm. 126° (127°) (M. 17, 268, 276; 18, 538; B. 29, 2467). — IV, 226.
3) **Aethyläther d. 8-Oxychinolindibromid**. HBr (J. pr. [2] 58, 391).
- C₁₁H₁₁ONS** 1) **2-Keto-3-Aethyl-4-Phenyl-2,3-Dihydrothiazol**. Sm. 71° (A. 259, 250). — IV, 306.
- C₁₁H₁₁ON₂Cl** 1) **3-Chlor-5-Keto-4,4-Dimethyl-1-Phenyl-4,5-Dihydropyrazol**. Sd. 170—172° (B. 31, 3013).
2) **Methyläther d. 5-Chlor-3-Oxy-4-Methyl-1-Phenylpyrazol**. Sm. 108—109° (B. 31, 3012).
- C₁₁H₁₁ON₂Cl₂** 1) **2,5-Dimethylbenzimidazol + Chloral + 1/2(1)H₂O** (A. 273, 368). — IV, 880.
- C₁₁H₁₁ON₂Br** 1) **4-Brom-3-Keto-1,5-Dimethyl-2-Phenyl-2,3-Dihydropyrazol** (Bromantipyrin). Sm. 117° (A. 238, 216). — IV, 510.
- C₁₁H₁₁ON₂J** 1) **Verbindung (aus Antipyrin)**. Sm. 160° (B. 18, 1617). — IV, 502.
- C₁₁H₁₁ON₂S** 1) **3-Acetyl-2-Phenylimido-5-Methyl-2,3-Dihydro-1,3,4-Thiodiazol**. Sm. 148° (B. 27, 621). — IV, 1107.
- C₁₁H₁₁O₂NBr₂** 1) **3,5-Dibrom-2-Methylphenylimid d. Essigsäure**. Sm. 88° (J. pr. [2] 38, 290). — II, 462.
2) **2,6-Dibrom-4-Methylphenylimid d. Essigsäure**. Sm. 101—101,5° (B. 27, 99). — II, 493.
- C₁₁H₁₁O₂NBr₄** 1) **γδ-Dibrom-δ-[β-Dibrom-2-Amidophenyl]valeriansäure**. Sm. 167° u. Zers. (B. 20, 379). — II, 1393.

- C₁₁H₁₁O₂NS** 1) 2,4-Diketo-3-[2-Methylphenyl]tetrahydro-1,3-Thiazin. Sm. 147°.
— II, 464.
2) 2,4-Diketo-3-[4-Methylphenyl]tetrahydro-1,3-Thiazin. Sm. 153°.
— II, 496.
3) Methylamid d. Naphtalin-2-Sulfonsäure. Sm. 107° (R. 16, 182).
4) β -Merkaptopropylimid d. Benzol-1,2-Dicarbonsäure. Sm. 88°
(B. 24, 2628). — II, 1803.
5) γ -Merkaptopropylimid d. Benzol-1,2-Dicarbonsäure. Sm. 46—48°
(B. 23, 88). — II, 1803.
- C₁₁H₁₁O₂N₂Br** 1) Bromäthylat d. 5[oder 8]-Nitroisochinolin. Sm. 219—220° (M. 14,
154). — IV, 302.
2) ρ -Brom-1-Aethylisochinazol-3-Methylcarbonsäure. Sm. 173° u. Zers.
(A. 221, 288). — IV, 892.
- C₁₁H₁₁O₂N₂J** 1) Jodmethylat d. 5-Nitro-6-Methylchinolin. Sm. 189—190° (B. 23,
3657). — IV, 319.
- C₁₁H₁₁O₂NCl₂** 1) Äthylester d. 2,4-Dichlorbenzoylamidoessigsäure. Fl. (A. 122,
139). — II, 1187.
- C₁₁H₁₁O₂NBr₂** 1) Phenylmonamid d. Citradibrombernsteinsäure. Sm. 146° (A.
292, 236).
2) 4-Methylphenylmonamid d. $\alpha\beta$ -Dibrombernsteinsäure. Sm. 153°
(A. 292, 235).
3) Dibrom-2-Methylphenylamid d. Acetoxylessigsäure. Sm. 172°
(J. pr. [2] 38, 291). — II, 466.
- C₁₁H₁₁O₂NS** 1) 4-Äthylchinolin- ρ -Sulfonsäure. Sm. noch nicht bei 315° (B. 19,
3001). — IV, 327.
2) 2,4-Dimethylchinolin- ρ -Sulfonsäure. Sm. noch nicht bei 300°
(J. pr. [2] 33, 408). — IV, 329.
3) 5,8-Dimethylchinolin-6-Sulfonsäure. K, Ba + 1(2)H₂O (B. 21,
3157). — IV, 331.
4) 5,8-Dimethylchinolin-7-Sulfonsäure. K + H₂O, Ba + H₂O (B. 21,
3156). — IV, 331.
5) 6,8-Dimethylchinolin- ρ -Sulfonsäure. Sm. 165—166° (B. 17, 2716).
— IV, 331.
6) Äthylester d. Chinolin-6-Sulfonsäure + 2H₂O. + HgCl₂. (+ Br₂,
KBr), (+ J₂, KJ) (B. 18, 366; 19, 921). — IV, 292.
7) Äthylester d. Chinolin-7-Sulfonsäure. Sm. 275° (J. pr. [2] 37,
263). — IV, 293.
8) Äthylester d. Chinolin-8-Sulfonsäure. Sm. 73° (A. 282, 133;
B. 19, 925). — IV, 293.
9) Äthylester d. β -[4-Thionylamidophenyl]akrylsäure. Sm. 95°; Sd.
235—240°_{90—100} (B. 28, 594).
10) Amid d. 2-Oxynaphtalinmethyläther-6-Sulfonsäure. Sm. 199°
(C. 1895 [1] 1064).
11) Amid d. 2-Oxynaphtalinmethyläther-8-Sulfonsäure. Sm. 153°
(C. 1895 [1] 1064).
- C₁₁H₁₁O₂N₂Br** 1) 4-[β -Brom- α -Oxy- β -Phenyläthyl]-2,5-Diketotetrahydroimidazol.
Sm. 223° u. Zers. (B. 22, 694). — II, 1655.
- C₁₁H₁₁O₂NCl₂** 1) Diäthylester d. 2,6-Dichlorpyridin-3,5-Dicarbonsäure. Sm. 75
bis 76° (A. 262, 129). — IV, 166.
- C₁₁H₁₁O₂NBr₂** 1) $\beta\gamma$ -[oder $\beta\delta$]-Dibrom- δ -[4-Nitrophenyl]valeriansäure. Sm. 146 bis
147° (A. 253, 369). — II, 1393.
2) Äthylester d. $\alpha\beta$ -Dibrom- β -[2-Nitrophenyl]propionsäure. Sm.
71° (A. 212, 129; J. 1880, 865). — II, 1362.
3) Äthylester d. $\alpha\beta$ -Dibrom- β -[4-Nitrophenyl]propionsäure. Sm.
110—111° (B. 13, 2258; A. 212, 129, 154; J. 1880, 864). — II, 1363.
- C₁₁H₁₁O₂NS** 1) 2-Oxy-3,4-Dimethylchinolin- ρ -Sulfonsäure. Ba (A. 245, 359). —
IV, 330.
2) Succinylamid d. 1-Methylbenzol-4-Sulfonsäure (Z. 1870, 580). —
II, 132.
- C₁₁H₁₁O₂N₂Br** 1) Dimethyläther d. 4-Methyl-5- ρ -Brom-3,4-Dioxyphenyl]-1,2,3,6-
Dioxdiazin. Sm. bei 153° (G. 24 [2] 9). — II, 976.
2) 2-Brom-6-Nitro-4-Methylphenylimid d. Essigsäure. Sm. 79° (B.
27, 100). — II, 493.

- $C_{11}H_{11}O_4Br_2J$ 1) Diacetat d. 3,5-Dibrom-2-Jodoso-1-Methylbenzol. Sm. 66,5° (Soc. 73, 692).
- $C_{11}H_{11}O_5NCl_2$ 1) Methylester d. 1-[$\beta\beta$ -Dichlor- β -Nitro- α -Methoxyläthyl]benzol-2-Carbonsäure. Sm. 89° (A. 278, 196). — II, 1580.
- $C_{11}H_{11}O_5NS$ 1) γ -[1,2-Phtalyl]amidopropan- α -Sulfonsäure + $1\frac{1}{2}H_2O$ (o-Phtalyl-homotaurin). Sm. 101—108° (B. 27, 2173). — II, 1803.
2) Aethylester d. Benzol-1-Carbonsäure-2-Sulfonsäure-1,2-Imid-N-Methylcarbonsäure. Sm. 104° (B. 30, 1267).
- $C_{11}H_{11}O_5N_2S$ 1) Aethylester d. 4-Sulfophenylhydrazoncyanessigsäure. Ag (J. pr. [2] 52, 175). — IV, 721.
- $C_{11}H_{11}O_5NS_2$ 1) Merkaptoessig-2-Nitrobenzylidenäthersäure (o-Nitrobenzyliden-dithioglykolsäure). Sm. 122—123° (B. 21, 479). — III, 19.
2) Merkaptoessig-3-Nitrobenzylidenäthersäure. Sm. 129—130° (B. 21, 480). — III, 19.
3) Merkaptoessig-4-Nitrobenzylidenäthersäure. Sm. 161—162° (B. 21, 480). — III, 19.
- $C_{11}H_{11}NClBr$ 1) Chloräthylat d. 6-Bromchinolin. Sm. 145° (J. pr. [2] 49, 526). — IV, 258.
2) β -Bromäthylechlorid d. Chinolin. 2 + $PtCl_4$ (B. 14, 1350). — IV, 252.
- $C_{11}H_{11}NBrJ$ 1) Jodäthylat d. 6-Bromchinolin. Sm. 194° u. Zers. (J. pr. [2] 49, 526). — IV, 258.
- $C_{11}H_{11}ONCl$ 1) 2-Chlor-5-Methylphenylamido-1-Keto-2,3-Dihydro-R-Penten. Sm. 126—127° (B. 23, 1481). — II, 447.
2) Aethyläther d. γ -Chlor- γ -Oximido- α -Phenylpropen (B. 22, 2397). — II, 1409.
3) Chlormethylat d. 4-Oxy-2-Methylchinolin + H_2O . Sm. 217° (wasserfrei). (2 + $PtCl_4$) (B. 22, 74). — IV, 311.
4) Chlormethylat d. 6-Oxychinolin-6-Methyläther + H_2O . Zers. bei 234° (J. pr. [2] 56, 439).
5) β -Oxychloräthylat d. Chinolin. + $6HgCl_2$, 2 + $PtCl_4$, + $AuCl_3$ (Bl. 37, 194; 38, 536). — IV, 251.
- $C_{11}H_{11}ONBr$ 1) Bromäthylat d. 6-Oxychinolin. Zers. bei 240—245° (J. pr. [2] 43, 525). — IV, 271.
2) Bromäthylat d. 8-Oxychinolin + $1\frac{1}{2}H_2O$. Sm. 72° (166° wasserfrei) (J. pr. [2] 47, 426; [2] 54, 6). — IV, 273.
3) Bromäthylat d. 8-Oxyisochinolin + $2H_2O$. Sm. 200° (wasserfrei) (J. pr. [2] 52, 13). — IV, 303.
4) Bromacetyl-[2-Methylphenyl]amidoessigsäure. Sm. 124° (J. pr. [2] 38, 305). — II, 469.
5) β -Bromäthylamid d. β -Phenylakrylsäure. Sm. 90—91° (B. 24, 3225). — II, 1407.
- $C_{11}H_{11}ONJ$ 1) Jodmethylat d. 4-Oxy-2-Methylchinolin + H_2O . Sm. 201° (wasserfrei) (B. 22, 73). — IV, 311.
2) Jodmethylat d. 6-Oxychinolin-6-Methyläther + H_2O . Sm. 235° u. Zers. (M. 6, 766; J. pr. [2] 56, 438). — IV, 271.
3) Jodmethylat d. 8-Oxychinolin-8-Methyläther + H_2O . Sm. 160° u. Zers. (J. pr. [2] 42, 228; [2] 54, 11). — IV, 273.
4) Jodmethylat d. 7-Oxyisochinolin-7-Methyläther. Sm. 196—197° (A. 286, 14). — IV, 303.
5) Jodäthylat d. 8-Oxyisochinolin + $2H_2O$. Sm. 275° (wasserfrei) (J. pr. [2] 52, 14). — IV, 303.
- $C_{11}H_{11}ON_2Cl_2$ 1) Dichlorcytisin. HCl , ($2HCl$, $PtCl_4$), (HCl , $AuCl_3$), HBr + $\frac{1}{2}H_2O$ (C. 1897 [2] 556).
- $C_{11}H_{11}ON_2Br_2$ 1) Dibromcytisin. Sm. 63°. ($2HCl$, $PtCl_4$), (HCl , $AuCl_3$), HBr , (HBr + Br_2), HNO_3 (B. 27 [2] 510). — III, 879.
2) 3,4-Dibrom-5-Keto-2,3-Dimethyl-1-Phenyltetrahydropyrazol (Antipyrinbromid). Sm. bei 150° (A. 238, 215). — IV, 510.
- $C_{11}H_{11}ON_2S$ 1) 2-Aethylimido-4-Keto-3-Phenyltetrahydrothiazol (Aethylphenylthiohydantoïn). Fl. (B. 31, 137).
2) 2-Phenylimido-4-Keto-5-Aethyltetrahydrothiazol. Sm. 148—149° (Soc. 71, 635).
3) 2-[β -Phenyläthyl]imido-4-Ketotetrahydrothiazol. HCl (B. 19, 1823). — II, 539.

- C₁₁H₁₁ON₂S** 4) 2-2-Methylphenyl]imido-4-Keto-5-Methyltetrahydrothiasol. Sm. 72–73° (Soc. 71, 634).
 5) 2-[Methylphenylamido]-4-Keto-5-Methyl-4,5-Dihydrothiasol. Sm. 129–130° (Soc. 71, 635).
 6) 2-Thiocarbonyl-5-Keto-4,4-Dimethyl-1-Phenyltetrahydroimidazol. Sm. 67° (B. 24, 3283). — II, 404.
 7) 2-Thiocarbonyl-5-Keto-4-Methyl-1-[2-Methylphenyl]tetrahydroimidazol. Sm. 198° (B. 24, 3281). — II, 471.
 8) 2-Thiocarbonyl-5-Keto-4-Methyl-1-[4-Methylphenyl]tetrahydroimidazol. Sm. 197° (B. 17, 427). — II, 500.
- C₁₁H₁₁ON₂S₂** 1) Acetylderivat d. 2-Thiocarbonyl-4-Phenyltetrahydro-1,3,4-Thio-diazin. HCl (B. 27, 2517). — IV, 685.
- C₁₁H₁₁ON₂Br** 1) Bromid d. Verb. C₁₁H₁₁ON₂ (aus Phenylamidoguanidin). Zers. bei 220–222° (G. 21 [1] 336). — IV, 1222.
- C₁₁H₁₁O₂NCl** 1) Oxyäthylechlorid d. 8-(p)-Oxychinolin. 2 + PtCl₄ (Bl. 40, 341). — IV, 274.
- C₁₁H₁₁O₂NCl₂** 1) Verbindung (aus Benzolcarbonsäureamid u. Butyrylchloral). Sm. 132° u. 146° (B. 25, 1690). — II, 1159.
- C₁₁H₁₁O₂NBr** 1) 2-Brom-4-Methylphenylimid d. Essigsäure. Sm. 75–75,5° (B. 27, 98). — II, 493.
- C₁₁H₁₁O₂N₂Br** 1) 3,4-Dibrom-4-Oxy-5-Keto-2,3-Dimethyl-1-Phenyltetrahydropyrazol. Sm. 218–220° (A. 293, 53). — IV, 513.
- C₁₁H₁₁O₂N₂S** 1) α-Allylphenylthioharnstoff-3-Carbonsäure. Sm. 189° u. Zers. (B. 17, 431). — II, 1263.
- C₁₁H₁₁O₂N₂S** 1) α-[3-Nitrobenzyliden]amido-β-Allylthioharnstoff. Sm. 163° (B. 27, 626). — III, 40.
- C₁₁H₁₁O₂ClJ** 1) Aethylester d. β-Chlor-α-Jod-β-Phenylpropionsäure. Sm. 69–70° (A. 289, 273).
- C₁₁H₁₁O₂NCl** 1) α-Benzenylchloroximbuttersäure. Sm. 77° (B. 29, 2656).
 2) α-Benzenylchloroximisobuttersäure. Sm. 81° (B. 28, 1377).
 3) Chloracetyl-2-Methylphenylamidoessigsäure. Sm. 116–117° (J. pr. [2] 38, 304). — II, 469.
 4) Aethylester d. Chlorformylphenylamidoessigsäure. Sm. 60° (B. 31, 509).
 5) Acetat d. 4-Chlor-6-Acetylamido-3-Oxy-1-Methylbenzol. Sm. 162° (A. 303, 20).
 6) Phenylmonamid d. Chlorbernsteinsäuremonomethylester. Sm. 101–103° (R. 17, 201).
- C₁₁H₁₁O₂NBr** 1) α-Benzenylbromoximbuttersäure. Sm. 68,5° (B. 29, 2657).
 2) α-Benzenylbromoximisobuttersäure. Sm. 80°. HBr (B. 28, 1377).
 3) β-[3-Brom-4-Acetylamidophenyl]propionsäure. Sm. 159,5–160,5° (B. 15, 2293). — II, 1366.
 4) Brenzwein-4-Bromphenylaminsäure. Sm. 158–158,5° (165°) (A. 248, 276; B. 21, 1383; 22, 2295). — II, 415.
 5) Acetat d. 4-Brom-6-Acetylamido-3-Oxy-1-Methylbenzol. Sm. 171–172° (A. 303, 29).
- C₁₁H₁₂O₂N₂S** 1) 3,5-Dimethyl-1-Phenylpyrazol-1'-Sulfonsäure + H₂O. Na (A. 278, 297). — IV, 524.
 2) 7-Amido-2,8-Dimethylechinolin-5-Sulfonsäure + 2H₂O. Na, K, Ca, Ba + 4H₂O, Pb, Cu + H₂O, Ag (A. 274, 354). — IV, 939.
- C₁₁H₁₂O₂NBr** 1) Aethylester d. α-Brom-β-Nitro-β-Phenylpropionsäure. Fl. (Am. 13, 204). — II, 1362.
 2) Aethylester d. β-Brom-β-4-Nitrophenyl]propionsäure. Sm. 80 bis 81° (B. 16, 3003). — II, 1362.
- C₁₁H₁₂O₂N₂S** 1) 3-Keto-1,5-Dimethyl-2-Phenyl-2,3-Dihydropyrazol-2'-(p)-Sulfonsäure (Antipyrinsulfonsäure). Ba (B. 25, 1951). — IV, 737.
 2) 5-Keto-3,4-Dimethyl-1-Phenyl-4,5-Dihydropyrazol-p-Sulfonsäure. Sm. noch nicht bei 300° (Am. 16, 439). — IV, 522.
- C₁₁H₁₂O₂NCl** 1) Methylester d. 1-[β-Chlor-β-Nitro-α-Methoxyläthyl]benzol-2-Carbonsäure. Sm. 111° (A. 268, 287). — II, 1579.
 2) Aethylester d. β-Oxy-β-[5-Chlor-2-Nitrophenyl]propionsäure. Sm. 48° (A. 262, 162). — II, 1575.
- C₁₁H₁₂O₂NBr** 1) Aethylester d. β-Oxy-β-[5-Brom-2-Nitrophenyl]propionsäure. Sm. 74,5° (A. 284, 153). — II, 1576.

- $C_{11}H_{12}O_5JS$ 1) α -Acetylamido- α -[4-Jodphenyl]sulfonpropionsäure. Sm. 169—170° u. Zers. (H. 16, 534). — II, 794.
- $C_{11}H_{11}O_5NJ$ 1) Diacetat d. 6-Jodoso-3-Nitro-1-Methylbenzol. Sm. 135° (Soc. 73, 694).
- $C_{11}H_{13}ONBr_2$ 1) Amid d. 2,5-Dibrom-4-Isopropylphenylelessigsäure. Sm. 153° (G. 21 [1] 58). — II, 1395.
- $C_{11}H_{13}ONS$ 1) 4-Methyläther d. 2-[4-Oxyphenyl]-5,6-Dihydro-1,3-Pentiazol. Sm. 46°. (2 HCl, PtCl₄), Pikrat (B. 27, 2160). — II, 1541.
- $C_{11}H_{13}ON_2Br$ 1) Bromcytisin. HCl + 2H₂O, (2HCl, PtCl₄ + H₂O), (HCl, AuCl₃), HBr + 1½ H₂O, Nitrat, Tartrat (C. 1897 [2] 555).
- 2) Äethyläther d. p-Brom-p-Oxy-1-Phenyl-4,5-Dihydropyrazol. Sm. 65—66° (A. 239, 199). — IV, 487.
- $C_{11}H_{13}ON_2S$ 1) α -Benzoylamido- β -Allylthioharnstoff. Sm. 171° (B. 27, 629). — II, 1173.
- 2) α -[2-Oxybenzyliden]amido- β -Allylthioharnstoff. Sm. 149—150° (B. 27, 626). — III, 76.
- $C_{11}H_{13}ON_2S_2$ 1) Acetyl-4-Methylphenylthiobiuret. Sm. 166° u. Zers. (B. 17, 586). — II, 500.
- $C_{11}H_{13}O_2NCl_2$ 1) Äthylester d. 4-Methylphenylamidodichloressigsäure. Sm. 59 bis 60° (A. 184, 287). — II, 501.
- $C_{11}H_{13}O_2NBr_2$ 1) δ -[p-Dibrom-2-Amidophenyl]valeriansäure + H₂O. Sm. 96° (Zers. 223° wasserfrei) (B. 20, 381). — II, 1393.
- $C_{11}H_{13}O_2NS_2$ 1) 4-Acetylamidophenylester d. Äethylxanthogensäure. Sm. 151° (J. pr. [2] 41, 202). — II, 799.
- $C_{11}H_{13}O_2N_2Cl$ 1) 1-[4-Chlor-2-Nitrophenyl]hexahydropyridin. Sm. 51° (B. 21, 2283). — IV, 2.
- 2) Äthylester d. α -[2-Chlorphenyl]hydrazonpropionsäure. Sm. 68° (Soc. 63, 868). — IV, 688.
- 3) Äthylester d. α -[3-Chlorphenyl]hydrazonpropionsäure. Sm. 82° (Soc. 63, 871). — IV, 682.
- 4) Äthylester d. α -[4-Chlorphenyl]hydrazonpropionsäure. Sm. 138° (Soc. 63, 871). — IV, 682.
- $C_{11}H_{13}O_2N_2Cl_2$ 1) Verbindung (aus Chloral u. 2,4-Dimethylbenzenylamidoxim). Sm. 112° (B. 22, 2447). — II, 1376.
- $C_{11}H_{13}O_2N_2Br$ 1) p-Brom-2,4-Di[Acetylamido]-1-Methylbenzol (A. 153, 133; B. 3, 220). — IV, 602.
- 2) 5-Brom-3,4-Di[Acetylamido]-1-Methylbenzol. Sm. 222—223° (B. 23, 1049). — IV, 613.
- $C_{11}H_{13}O_2NCl_2$ 1) 3,6-Dichlor-5-Isoamylamido-2-Oxy-1,4-Benzochinon. Sm. 186 bis 187° (188°). Ba + 2H₂O, Ag + 2H₂O, Amylaminsalz (Sm. 181—182°) (B. 30, 529; Am. 20, 411).
- $C_{11}H_{13}O_2NS$ 1) s-Allyl-Oximidobenzylthioharnstoff. Sm. 71° (B. 24, 399). — II, 1205.
- 2) Phenylmerkaptursäure (α -Acetylamido- α -Phenylmerkaptopropionsäure). Sm. 142—143° (H. 5, 335; B. 15, 1731). — II, 789.
- 3) 2-Methylphenylcarbaminthiomilchsäure. Sm. 149,5°. — II, 464.
- 4) 4-Methylphenylcarbaminthiomilchsäure. Sm. 154°. — II, 496.
- 5) Thidiglykol-[4-Methylphenyl]aminsäure. Sm. 95° (A. 273, 70). — II, 500.
- 6) Benzylester d. Carboxyäthylamidothioameisensäure. Sm. 66—67° (Soc. 69, 334).
- $C_{11}H_{13}O_2N_2Br$ 1) 2-Nitrophenylamid d. α -Bromisovaleriansäure. Sm. 52,5° (B. 31, 3238).
- 2) 3-Nitrophenylamid d. α -Bromisovaleriansäure. Sm. 107° (B. 31, 3238).
- 3) 4-Nitrophenylamid d. α -Bromisovaleriansäure. Sm. 183° (B. 31, 3238).
- $C_{11}H_{13}O_4NCl_2$ 1) Diäthyläther d. 3,6-Dichlor-2-Nitro-1-Dioxymethylbenzol. Sm. 98—99° (B. 31, 547).
- $C_{11}H_{13}O_4N_2Br$ 1) 6-Brom-p-Dinitro-3-Pseudobutyl-1-Methylbenzol. Fl. (B. 27, 1620).
- $C_{11}H_{13}O_5NS$ 1) α -Acetylamido- α -Phenylsulfonpropionsäure. Sm. 183°. Ba + ½ H₂O, Ag (H. 16, 536). — II, 789.
- 2) Säure (aus 4-Toluolsulfonsäure u. Succinylchlorid). Ag₂ (Z. 1870, 581). — II, 132.

- C₁₁H₁₃O₆NS** 1) Trimethylester d. Benzol-1,2-Dicarbonsäure-3-Sulfonsäure. Sm. 143,5—144,5° (*Am.* 6, 276). — II, 1825.
2) Verbindung (aus Glutaminsäure u. Benzolsulfonsäurechlorid) (*B.* 23, 3197). — II, 116.
- C₁₁H₁₃O₇NS** 1) Diäthylester d. 4-Nitrobenzol-1-Carbonsäure-2-Sulfonsäure. Sm. 65—66° (*Am.* 11, 192). — II, 1305.
- C₁₁H₁₃O₇N₂S** 1) Alloxan-Methylamidobenzoldisulfit (*A.* 248, 148). — II, 325.
- C₁₁H₁₃N₂BrS** 1) 5-Brom-2-Methylphenylamido-4,5-Dihydro-1,3-Thiazin. HBr (*Soc.* 69, 30).
2) 5-Brom-2-[2-Methylphenyl]amido-4,5-Dihydro-1,3-Thiazin. Sm. 134,5—135,5° (*Soc.* 69, 28).
3) 5-Brom-2-[4-Methylphenyl]amido-4,5-Dihydro-1,3-Thiazin. Sm. 124—125° (*Soc.* 69, 27).
- C₁₁H₁₃N₂JS** 1) Methyläther d. 2-Merkapto-1-Phenylimidazol-3-Jodmethylat. Sm. 177° (*B.* 22, 575). — IV, 503.
- C₁₁H₁₄ONCl** 1) β -Chlorpropylamid d. 1-Methylbenzol-2-Carbonsäure. Sm. 84° (*B.* 26, 1324). — II, 1330.
2) β -Chlorpropylamid d. 1-Methylbenzol-4-Carbonsäure. Sm. 77 bis 78° (*B.* 26, 1327). — II, 1341.
3) γ -Chlorbutylamid d. Benzolcarbonsäure. Fl. (*B.* 29, 1428).
4) Phenylamid d. δ -Chlorbutan- β -Carbonsäure. Sm. 106° (*Soc.* 69, 175).
5) 2-Methylphenylamid d. α -Chlorisobuttersäure. Sm. 56—59° (*A.* 279, 116).
6) 4-Methylphenylamid d. α -Chlorisobuttersäure. Sm. 70° (*A.* 279, 117).
- C₁₁H₁₄ONCl₃** 1) Aethyläther d. $\beta\beta$ -Trichlor- α -[4-Methylphenyl]amido- α -Oxyäthan. Sm. 76—77° (*A.* 173, 280). — II, 511.
- C₁₁H₁₄ONBr** 1) Bromcyanampher. Sm. 75° (*J.* 1878, 644). — III, 497.
2) Aethyläther d. β -Brom-8-Oxy-1,2,3,4-Tetrahydrochinolin. Sm. 44,5°. Pikrat (*B.* 17, 760). — IV, 199.
3) β -Brompropylamid d. Phenylelessigsäure. Sm. 45—46° (*B.* 24, 3223). — II, 1311.
4) γ -Brompropylamid d. Phenylelessigsäure. Sm. 43—44° (*B.* 24, 3224). — II, 1311.
5) β -Brompropylamid d. 1-Methylbenzol-2-Carbonsäure. Sm. 85—86° (*B.* 26, 1323). — II, 1330.
6) β -Brompropylamid d. 1-Methylbenzol-4-Carbonsäure. Sm. 74° (*B.* 26, 1326). — II, 1341.
7) β -Brombutylamid d. Benzolcarbonsäure (*B.* 28, 3115).
8) Phenylamid d. α -Bromisovaleriansäure. Sm. 116° (*B.* 30, 2318; 31, 2854).
9) Methylphenylamid d. α -Brombuttersäure. Sd. 170—180°₁₀ (*B.* 30, 3177).
10) 2-Methylphenylamid d. α -Brombuttersäure. Sm. 109° (*B.* 25, 2924). — II, 463.
11) 3-Methylphenylamid d. α -Brombuttersäure. Sm. 79° (*B.* 31, 3237).
12) 4-Methylphenylamid d. α -Brombuttersäure. Sm. 125° (*B.* 25, 2925). — II, 493.
13) Benzylamid d. α -Brombuttersäure. Sm. 74° (*B.* 31, 3236).
14) Methylphenylamid d. α -Bromisobuttersäure. Sm. 44° (*B.* 30, 3177).
15) 2-Methylphenylamid d. α -Bromisobuttersäure. Sm. 63° (*B.* 25, 2928). — II, 463.
16) 3-Methylphenylamid d. α -Bromisobuttersäure. Sm. 91° (*B.* 31, 3237).
17) 4-Methylphenylamid d. α -Bromisobuttersäure. Sm. 90° (*B.* 25, 2929). — II, 493.
18) Benzylamid d. α -Bromisobuttersäure. Sm. 72° (*B.* 31, 3236).
19) Aethylphenylamid d. α -Brompropionsäure. Fl. (*B.* 30, 3180).
20) 2,4-Dimethylphenylamid d. α -Brompropionsäure. Sm. 166° (*B.* 31, 3237).
- C₁₁H₁₄ONF** 1) β -Fluor-2,4,5-Trimethylphenylamid d. Essigsäure. Sm. 118° (*B.* 26, 1113). — II, 551.
- C₁₁H₁₄ON₂S** 1) Benzyläther d. β -Oxy- α -Allylthioharnstoff. Sm. 57—58° (*A.* 298, 129).

- $C_{11}H_{14}ON_2S$ 2) s-Isobutyrylphenylthioharnstoff. Sm. 128,5—129,5° (Soc. 69, 862).
 3) s-Propionyl-2-Methylphenylthioharnstoff. Sm. 143—144° (Soc. 69, 858).
 4) s-Propionyl-3-Methylphenylthioharnstoff. Sm. 86—87° (Soc. 69, 858).
 5) s-Propionyl-4-Methylphenylthioharnstoff. Sm. 127,5—128,5° (Soc. 69, 858).
 6) α -Propionylamido- α -Methylphenylamidomerkaptomethan (n-Propionylpseudomethylphenylthioharnstoff). Sm. 68—69° (Soc. 69, 859).
- $C_{11}H_{14}O_2NCl$ 1) Aethylester d. α -[2-Chlorphenyl]amidopropionsäure. Sd. 280 bis 285° (B. 30, 2760).
 2) Aethylester d. α -[3-Chlorphenyl]amidopropionsäure. Sm. 40,3°; Sd. 288—294° (B. 30, 2762).
 3) Aethylester d. α -[4-Chlorphenyl]amidopropionsäure. Sd. 300 bis 306° (B. 30, 2763).
- $C_{11}H_{14}O_2NBr$ 4) 3-Diäthylamidophenylester d. Chlorameisensäure. Fl. (B. 29, 507).
 1) 6-Brom-2-Nitro-3-Pseudobutyl-1-Methylbenzol. Fl. (B. 27, 1622).
 2) 5-Brom-4-Oxy-3-Oximidomethyl-1-tert. Butylbenzol. Sm. 163° (Ann. 16, 644). — III, 91.
 3) Aethyläther d. 4-[α -Brompropionylamido]-1-Oxybenzol. Sm. 138° (B. 31, 3246).
 4) β -Brompropylamid d. 4-Methoxybenzoylamidoessigsäure. Sm. 85° (B. 27, 2155). — II, 1530.
 5) γ -Brompropylamid d. 4-Methoxybenzoylamidoessigsäure. Sm. 77,5° (B. 27, 2155). — II, 1530.
- $C_{11}H_{14}O_2N_2Cl$ 1) Dichlorpilocarpin. Fl. HCl (J. 1885, 1724). — III, 924.
 $C_{11}H_{14}O_2N_2Br$ 1) Dibrompilocarpin (Bl. 42, 296). — III, 925.
- $C_{11}H_{14}O_2N_2S$ 1) O-Aethyläther-S-Amidoformylmethyläther d. Phenylimidooxymerkaptomethan (Phenylthiourethanacetamid). Sm. 93—94° (G. 28 [1] 365).
 2) α -[β -4-Methylphenylthioharnstoff]propionsäure. K (B. 17, 427). — II, 499.
 3) Aethylester d. α -[2-Methylphenyl]thioharnstoff- β -Carbonsäure. Sm. 152,5° (Soc. 69, 327).
 4) Aethylester d. α -[4-Methylphenyl]thioharnstoff- β -Carbonsäure. Sm. 148—149° (Soc. 69, 328).
 5) Aethylester d. α -Benzylthioharnstoff- β -Carbonsäure. Sm. 106,5 bis 107,5° (Soc. 69, 327).
- $C_{11}H_{14}O_2N_3Cl$ 1) 1-[2-Chlor-2-Nitro-4-Amidophenyl]hexahydropyridin. Sm. 111,5° (B. 21, 2284). — IV, 587.
- $C_{11}H_{14}O_2N_2S$ 1) Säure (aus 4-Toluolsulfonsäureamid). Sm. 180° (Z. 1870, 580). — II, 132.
- $C_{11}H_{14}O_4ClP$ 1) Trimethylphenylphosphoniumchlorid-2,4-Dicarbonsäure. 2 + $PtCl_4$ (B. 31, 2922). — IV, 1677.
- $C_{11}H_{14}O_3N_2S$ 1) 2-Nitroso-1,2,4-Trimethylbenzol-5-Sulfonamidoessigsäure. Sm. 180° (B. 27 [2] 888).
 2) 2,4-Di[Acetylamido]phenylester d. Methansulfonsäure. Sm. 236 bis 237° u. ger. Zers. (J. pr. [2] 48, 249). — II, 722.
- $C_{11}H_{14}O_3N_2S$ 1) 3-Nitro-5-Acetylamido-1,2,4-Trimethylbenzol-6-Sulfonsäure. Sm. bei 230° u. Zers. (B. 20, 970). — II, 584.
 2) 2-Nitro-1,2,4-Trimethylbenzol-5-Sulfonamidoessigsäure. Sm. 155° (B. 27 [2] 888).
- $C_{11}H_{14}O_3N_2S$ 1) 2,4-Dinitro-3-Isobutyl-1-Methylbenzol-6-Sulfonsäure. $Na + 3H_2O$, $Ba + 7H_2O$ (B. 25, 787). — II, 158.
- $C_{11}H_{14}O_3N_2S_2$ 1) 1-Methylbenzol-2,4-Di[Sulfonamidoessigsäure]. Sm. 185° (B. 27 [2] 888).
- $C_{11}H_{14}NCIS$ 1) Chlormethylat d. 2-Phenyl-5,6-Dihydro-1,3-Thiazin. 2 + $PtCl_4$ (B. 26, 1080). — II, 1293.
- $C_{11}H_{14}NJS$ 1) Jodmethylat d. 2-Phenyl-5,6-Dihydro-1,3-Thiazin. Sm. 184° (B. 26, 1080). — II, 1293.
- $C_{11}H_{14}NJS_2$ 1) Jodmethylverbindung d. 2-Methylphenylamidodithioameisensäureäthylester. Sm. 151° (B. 15, 1318). — II, 464.
 2) Jodmethylverbindung d. 4-Methylphenylamidodithioameisensäureäthylester. Sm. 107° (B. 15, 1315). — II, 497.

- $C_{11}H_{14}N_2BrS$ 1) α -Allyl- β -[2-Brom-4-Methylphenyl]amidothioharnstoff. Sm. 136,5° (Soc. 73, 177). — IV, 806.
- $C_{11}H_{15}ONS$ 1) Methyläthyläther d. 2-Methylphenylimidomerkaptooxymethan. Fl. (B. 13, 1577; A. 207, 163). — II, 464.
2) Methyläthyläther d. 4-Methylphenylimidomerkaptooxymethan. Sd. oberh. 250° (B. 13, 1577; A. 207, 193). — II, 496.
3) Diäthyläther d. Phenylimidomerkaptooxymethan. Sm. 29,5—30,5°; Sd. 278—280° u. ger. Zers. (A. 207, 149). — II, 384.
4) Aethylester d. Aethylphenylamidothioameisensäure. Sm. 18°; Sd. 143,6°₁₂ (B. 21, 104). — II, 385.
5) Isobutylester d. Phenylamidothioameisensäure. Sm. 75° (B. 5, 977). — II, 384.
- $C_{11}H_{15}ONS_2$ 1) 4-Dimethylamidophenylester d. Aethylxanthogensäure. Sm. 54,5° (J. pr. [2] 41, 206). — II, 799.
- $C_{11}H_{15}ON_3S$ 1) Base (aus Acetallylphenylthiosemicarbazid). HCl (B. 27, 184). — II, 444.
- $C_{11}H_{15}OS_2P$ 1) Benzoat d. Diäthylidithiophosphinsäure. Sm. 54° (B. 25, 2442). — II, 1291.
- $C_{11}H_{15}O_2NS$ 1) Piperidid d. Benzolsulfonsäure. Sm. 93—94° (92°) (B. 24, 3689; A. 265, 182; R. 15, 72). — IV, 15.
- $C_{11}H_{15}O_2N_2J$ 1) Jodpilocarpin (J. 1885, 1724). — III, 925.
2) Jodäthylat d. 1-[α -Hydrazonäthyl]benzol-2-Carbonsäure. Sm. 188 bis 189° u. Zers. (B. 26, 706). — II, 1647.
- $C_{11}H_{15}O_2ClS$ 1) Chlorid d. Pentamethylbenzolsulfonsäure. Sm. 82° (B. 20, 900). — II, 159.
- $C_{11}H_{15}O_3NS$ 1) Methylbetain d. 1-Methyl-1,2,3,4-Tetrahydrochinolin-8-Sulfonsäure. Sm. 251° (J. pr. [2] 55, 100). — IV, 196.
2) α -Aethylacetonamid d. Benzolsulfonsäure. Sm. 121° (B. 27, 1038).
- $C_{11}H_{15}O_3N_2S$ 1) 1-Phenylazohexahydropyridin-1'-Sulfonsäure. Na, Ag (A. 235, 270). — IV, 1580.
- $C_{11}H_{15}O_3BrS$ 1) *p*-Brom-3-Pseudobutyl-1-Methylbenzol-6-Sulfonsäure. Na, Pb (B. 27, 1623).
- $C_{11}H_{15}O_4NS$ 1) δ -Phenylsulfonamidovaleriansäure. Sm. 97°. Ba, Zn + 2H₂O, Cu, Ag (B. 24, 3699). — II, 115.
2) 1,2,4-Trimethylbenzol-5-Sulfonamidoessigsäure. Sm. 125° (B. 27 [2] 888).
- $C_{11}H_{15}O_4N_2Br$ 1) 4-Bromphenylhydrazon d. α -Arabinose. Sm. 165° (cor.) (B. 26, 740; 27, 2491). — IV, 790.
2) 4-Bromphenylhydrazon d. Ribose. Sm. 164—165° u. Zers. (B. 24, 4221). — IV, 790.
- $C_{11}H_{15}O_6ClS_2$ 1) Diäthylsulfon-Phenylsulfonchlormethan. Sm. 130° (B. 25, 363). — II, 780.
- $C_{11}H_{15}O_6BrS_2$ 1) Diäthylsulfon-Phenylsulfonbrommethan. Sm. 135° (B. 25, 364). — II, 781.
- $C_{11}H_{16}ONJ$ 1) Aethenyläther d. Trimethyl-2-Oxyphenylammoniumjodid (B. 32, 736).
2) Jodäthylat d. 3-Butyrylpyridin. Sm. 192° (B. 24, 2541). — IV, 184.
3) Jodmethylat d. 8-Oxy-1-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 215—216° (B. 19, 1041). — IV, 199.
4) Jodmethylat d. 3,4-Dimethyl-3,4-Dihydro-1,4-Benzoxazin (J. d. Dimethylphenmorpholin). Sm. 170° (B. 31, 755).
- $C_{11}H_{16}O_2NCl$ 1) Aethylester d. α -Phenyl-4-Chlorphenylamidoessigsäure. Sm. 87,8° (B. 30, 2763).
- $C_{11}H_{16}O_2N_2S$ 1) Verbindung (aus α -Acetallylphenylthioharnstoff). Sm. 94°. (2HCl, PtCl₄), Pikrat (B. 22, 577). — II, 444.
- $C_{11}H_{16}O_2ClP$ 1) Trimethyl-4-Methylphenylphosphoniumchlorid- α -Carbonsäure. Sm. 172° u. Zers. 2 + PtCl₄ (A. 293, 289). — IV, 1673.
2) Trimethyl-4-Methylphenylphosphoniumchlorid-2-Carbonsäure. 2 + PtCl₄ (B. 31, 2921). — IV, 1676.
- $C_{11}H_{16}O_2NP$ 1) Diäthyl-*p*-Nitro-4-Methylphenylphosphinoxid. Fl. + HgCl₂ (A. 293, 290). — IV, 1671.
- $C_{11}H_{16}O_3N_2S$ 1) Zimmtaldehyd-Aethylenthionaminsäure. Sm. 165° u. Zers. (B. 30, 1013).

- $C_{11}H_{16}O_5N_2S$ 2) Amid d. 1,2,4-Trimethylbenzol-5-Sulfonamidoessigsäure. Sm. 167° (B. 27 [2] 888).
- $C_{11}H_{16}O_4N_2S$ 1) Isoamylnitramid d. Benzolsulfonsäure. Sm. 46,5° (C. 1897 [2] 848).
- $C_{11}H_{16}O_5NP$ 1) Diäthylester d. 3-Nitro-4-Methylphenylphosphinsäure. Fl. (A. 293, 272). — IV, 1670.
- $C_{11}H_{16}NS_2P$ 1) Dimethyl-*p*-Dimethylamidophenylphosphin + Schwefelkohlenstoff. Sm. 162° (A. 260, 23). — IV, 1654.
- $C_{11}H_{17}ONS$ 1) 2 [oder 3]-[α -Oximidoheptyl]thiophen. Sm. 49° (B. 19, 665). — III, 766.
- $C_{11}H_{17}ON_2Cl$ 1) Kyanconiin + Acetylchlorid (J. pr. [2] 26, 339). — IV, 828.
- $C_{11}H_{17}ON_2J$ 1) Trimethyl-4-Acetylamidophenylammoniumjodid. Sm. 226° (B. 30, 2860).
- $C_{11}H_{17}ON_2J$ 1) Jodäthylat d. Diäthylhypoxanthin (H. 18, 432). — III, 968.
- $C_{11}H_{17}O_3NS$ 1) Amid d. 4-Butyl-1-Methylbenzol-*p*-Sulfonsäure. Sm. 113° (B. 16, 2565). — II, 158.
- 2) Amid d. 3-Pseudobutylbenzol-*p*-Sulfonsäure. Sm. 94–95° (74 bis 75°) (B. 16, 2562; 24, 2834; 27, 1607). — II, 158.
- 3) Amid d. 4-Propyl-1-Aethylbenzol-2-Sulfonsäure. Sm. 112–113° (B. 23, 3085). — II, 159.
- 4) Amid d. 4-Propyl-1-Aethylbenzol-3-Sulfonsäure. Sm. 108° (B. 23, 3085; 24, 459). — II, 159.
- 5) Amid d. 4-Propyl-1,2-Dimethylbenzol-*p*-Sulfonsäure. Sm. 123 bis 124° (B. 23, 2349). — II, 158.
- 6) Amid d. 4-Propyl-1,3-Dimethylbenzol-*p*-Sulfonsäure. Sm. 102° (B. 23, 2350). — II, 158.
- 7) Amid d. 2-Propyl-1,4-Dimethylbenzol-*p*-Sulfonsäure. Sm. 124,5° (B. 23, 2350). — II, 158.
- 8) Amid d. 4-Isopropyl-1,3-Dimethylbenzol-*p*-Sulfonsäure. Sm. 163° (B. 23, 2351). — II, 158.
- 9) Amid d. 5-Aethyl-1,2,4-Trimethylbenzol- α -Sulfonsäure. Sm. 153° (B. 25, 1531). — II, 159.
- 10) Amid d. 5-Aethyl-1,2,4-Trimethylbenzol- β -Sulfonsäure. Sm. 86° (B. 25, 1533). — II, 159.
- 11) Amid d. Pentamethylbenzolsulfonsäure. Sm. 186° (B. 20, 900). — II, 159.
- 12) Amid d. α -Laurolsulfonsäure. Sm. 127° (B. 16, 627).
- 13) Amid d. β -Laurolsulfonsäure (B. 16, 628).
- 14) Amid d. Sulfonsäure d. Kohlenwasserstoffe $C_{11}H_{16}$. Sm. 64° (B. 12, 1241).
- 15) Dimethylamid d. 1,2,4-Trimethylbenzol-5-Sulfonsäure. Sm. 115 bis 116° (R. 16, 418).
- 16) Dimethylamid d. 1,3,5-Trimethylbenzol-2-Sulfonsäure. Sm. 45° (R. 16, 415).
- 17) Aethylamid d. 1,2,4-Trimethylbenzol-5-Sulfonsäure. Sm. 88° (R. 16, 420).
- 18) Aethylamid d. 1,3,5-Trimethylbenzol-2-Sulfonsäure. Sm. 75° (R. 16, 416).
- 19) Diäthylamid d. 1-Methylbenzol-4-Sulfonsäure. Sm. 60° (B. 31, 3262).
- 20) Isoamylamid d. Benzolsulfonsäure. Fl. (C. 1897 [2] 848).
- $C_{11}H_{17}O_3N_2Cl$ 1) 6-Oxykyanconiin + Acetylchlorid (J. pr. [2] 22, 272). — IV, 829.
- 2) Chlormethylat d. Pilocarpidin. 2 + $PtCl_4$ + $4H_2O$ (C. 1897 [1] 476). — III, 925.
- 3) Chlormethylat d. isom. Pilocarpidin. + $AuCl_3$ (Bl. 48, 233). — III, 926.
- $C_{11}H_{17}O_3N_2J$ 1) Jodmethylat d. Pilocarpidin. Sm. 108° (C. 1897 [1] 476, 1214; Bl. [3] 17, 563). — III, 925.
- 2) Jodmethylat d. isom. Pilocarpidin (Bl. 48, 233). — III, 926.
- $C_{11}H_{17}O_3NS$ 1) Aceton-Aethylanilindisulfit (B. 21, 1909). — II, 332.
- 2) Aceton-Dimethylanilindisulfit (B. 21, 1908). — II, 328.
- 3) 4-Diäthylamido-1-Methylbenzol-2-Sulfonsäure + H_2O . K + $2H_2O$, Ca + $3H_2O$, Ba + $4H_2O$ (J. pr. [2] 48, 54). — II, 581.
- 4) 4-Diäthylamido-1-Methylbenzol-3-Sulfonsäure + H_2O . Sm. 243°. K + $1\frac{1}{2}H_2O$ (J. pr. [2] 48, 47). — II, 581.

- C₁₁H₁₇O₃NS** 5) Benzaldehydisobutylthionaminsäure. Sm. 116—117°. Anilinsalz (A. 274, 196). — III, 6.
6) Amid d. 4-Oxy-1,3-Dimethylbenzolpropyläther-6-Sulfonsäure. Sm. 146° (Am. 19, 390).
- C₁₁H₁₇O₄N₂Cl** 1) Imidazol-1-Methylcarbonsäureäthylester + Chloressigsäureäthylester. Sm. 196—197°. 2 + PtCl₄ (A. 271, 32). — IV, 502.
- C₁₁H₁₇O₃NS** 1) Verbindung (aus Benzolsulfonsäure u. δ-Amidovaleriansäure). Sm. 107° (B. 24, 3692). — II, 112.
- C₁₁H₁₇ClJP** 1) Methyldiäthyl-4-Chlorphenylphosphoniumjodid. Sm. 97—98° (A. 293, 236). — IV, 1655.
- C₁₁H₁₇BrJP** 1) Methyldiäthyl-4-Bromphenylphosphoniumjodid. Sm. 135° (A. 293, 246). — IV, 1655.
- C₁₁H₁₅ONCl** 1) Dimethyloxyäthyl-[4-Methylphenyl]ammoniumchlorid. 2 + PtCl₄ + AuCl₃ (A. 173, 135). — II, 504.
2) 2-Aethyläther d. Trimethyl-2-Oxyphenylammoniumchlorid. 2 + PtCl₄ (A. 293, 34).
- C₁₁H₁₅ONJ** 1) Dimethyloxyäthyl-[4-Methylphenyl]ammoniumjodid. Fl. (A. 173, 135). — II, 504.
2) 2-Aethyläther d. Trimethyl-2-Oxyphenylammoniumjodid. Zers. bei 230—235° (J. pr. [2] 42, 451; A. 293, 34). — II, 703.
- C₁₁H₁₅OCIP** 1) Dimethyl-β-Oxyäthyl-4-Methylphenylphosphoniumchlorid. 2 + PtCl₄ (J. 1883, 1308). — IV, 1671.
- C₁₁H₁₅O₂NCl** 1) Dimethyläther d. Trimethyl-2,5-Dioxyphenylammoniumchlorid. Sm. 172°. 2 + PtCl₄ (B. 17, 2122). — II, 947.
- C₁₁H₁₅O₂NBr** 1) β-Diäthoxylbromäthylat d. Pyridin (Muscarinpyridindiäthylätherbromid). 2 + PtBr₄ (B. [3] 3, 859). — IV, 183.
2) Verbindung (aus N-Aethyldibromdihydromerocinchonäthylester). HBr (B. 30, 1337).
- C₁₁H₁₅O₂NJ** 1) Jodmethylat d. Anhydroecgoninmethylbetaïn. Sm. 195—196° (B. 21, 3042; 26, 327; 27, 2449). — II, 1132.
2) Dimethyläther d. Trimethyl-2,5-Dioxyphenylammoniumjodid. Sm. 202° (B. 17, 2122). — II, 947.
- C₁₁H₁₅O₂NP** 1) Diäthylester d. 3-Amido-4-Methylphenylphosphinsäure. Fl. (A. 293, 275). — IV, 1670.
2) 2-Methylphenylamid d. Phosphorsäurediäthylester. Sm. 95° (B. 27, 2578).
3) 4-Methylphenylamid d. Phosphorsäurediäthylester. Sm. 98° (B. 27, 2578).
- C₁₁H₁₅O₂N₂S₂** 1) 2-Diäthylamido-5-Amido-1-Methylbenzol-2-Thionsulfonsäure. Sm. 210—215° (B. 25, 3139). — II, 826.
- C₁₁H₁₅NJP₂** 1) Trimethyl-2-Dimethylamidophenylphosphoniumjodid. Sm. 264° (A. 260, 24). — IV, 1654.
- C₁₁H₂₀ON₂Cl** 1) Semicarbid d. Chlormenthon. Sm. 171—173° (B. 28, 1588). — III, 480.
- C₁₁H₂₀O₂NCl** 1) Methylalkoholat d. Limonennitrosylchlorid. Sm. 139° (A. 245, 266). — III, 525.
- C₁₁H₂₀O₂NCl** 1) Chlormethylat d. α-Ecgoninmethylester. + AuCl₃ (B. 29, 2223). — III, 872.
- C₁₁H₂₀O₂NJ** 1) Jodmethylat d. α-Ecgoninmethylester. Sm. 201—202° (B. 29, 2222). — III, 872.
- C₁₁H₂₀O₂NCl** 1) Chlormethylat d. i-Tropinsäuredimethylester. + AuCl₃ (B. 28, 3280). — III, 793.
2) Chlormethylat d. d-Tropinsäuredimethylester. + AuCl₃ (B. 28, 3281). — III, 793.
3) Chlormethylat d. i-Methyltropinsäuremonomethylester. + AuCl₃ (B. 28, 3286). — III, 794.
- C₁₁H₂₀O₄NJ** 1) Jodmethylat d. d-Tropinsäuredimethylester. Sm. 176—177° u. Zers. (B. 28, 3280; 31, 1548). — III, 793.
2) Jodmethylat d. i-Tropinsäuredimethylester + 1/2 H₂O. Sm. 171 bis 172° u. Zers. (B. 28, 3279). — III, 793.
- C₁₁H₂₁O₄N₂Cl** 1) Diäthylester d. Chlorisoamylidendi[Amidoameisensäure]. Sm. 130° (B. 7, 634). — I, 1258.
- C₁₁H₂₂ONJ** 1) Jodmethylat d. Amidoborneol. Zers. oberh. 270° (B. 31, 1904).

- $C_{11}H_{11}O_2NCl$ 1) Chlormethylat d. Methylcincholoipon. + $AuCl_3$ (*M.* 9, 817). — III, 844.
 2) Aethylesterchlorid d. Aethylpiperidinbetaïn. 2 + $PtCl_4$ (*J. pr.* [2] 43, 372). — IV, 20.
- $C_{11}H_{11}O_2N_2S_2$ 1) Xanthogenamid-Isovaleraldehyd. Sm. 108° (*B.* 7, 1083). — I, 1260.
- $C_{11}H_{11}NClS$ 1) Chlorid d. Diamylamidothioameisensäure. Sd. 165—170°₁₈ (*B.* 26, 1686).
- $C_{11}H_{11}O_2N_2J$ 1) Aethyltri[β -Oximidopropyl]ammoniumjodid. Zers. bei 236° (*B.* 31, 2398).
- $C_{11}H_{11}O_7N_2S_2$ 1) Dihydrodisulfonsäurederivat d. Citralsemicarbazon. Na₂ (*B.* 31, 3318).
- $C_{11}H_{11}ONCl$ 1) Chlormethylat d. Oxydimethylconiïn. 2 + $PtCl_4$ (*B.* 18, 117). — IV, 38.
 2) Chlormethylat d. 2-[β -Oxyäthyl]-1-Propylhexahydropyridin. + 6 $HgCl_2$, 2 + $PtCl_4$ (*A.* 301, 141).
 3) Chlormethylat d. 2-[β -Oxyäthyl]-1-Isopropylhexahydropyridin. + 6 $HgCl_2$, 2 + $PtCl_4$ (*A.* 301, 142).
 4) Chlormethylat d. 2-Methyl-3-[α -Oxyäthyl]-1-Aethylhexahydropyridin. + 4½ $HgCl_2$ + 2 H_2O (*A.* 304, 68).
 5) Chloräthylat d. 2-[β -Oxyäthyl]-1-Aethylhexahydropyridin. 2 + $PtCl_4$ (*A.* 301, 138).
 6) Chloräthylat d. 3-Oxymethyl-2-Methyl-1-Aethylhexahydropyridin. + 6 $HgCl_2$, 2 + $PtCl_4$, + $AuCl_3$ (*A.* 304, 60).
 7) Aldehyd d. Tripropylammoniumchloridessigsäure. Sm. 95—96°. 2 + $PtCl_4$ + 4 H_2O , + $AuCl_3$ (*B.* 30, 1511).
- $C_{11}H_{11}ONJ$ 1) Jodmethylat d. Oxydimethylconiïn (*B.* 18, 117). — IV, 38.
 2) Jodäthylat d. 3-Oxymethyl-2-Methyl-1-Aethylhexahydropyridin (*A.* 304, 60).
- $C_{11}H_{11}O_2NCl$ 1) Tripropylammoniumchloridessigsäure. Sm. 184°. 2 + $PtCl_4$ + 2 H_2O , + $AuCl_3$ (*B.* 30, 1512).
- $C_{11}H_{11}O_2NJ$ 1) Diäthyläther d. Dimethyl- $\beta\beta$ -Dioxyäthylpropylammoniumjodid (*B.* 30, 1513).
 2) Diäthyläther d. Methyl-diäthyl- $\beta\beta$ -Dioxyäthylammoniumjodid. Sm. 62° (*B.* 30, 1506).
- $C_{11}H_{11}O_2NZn$ 1) Verbindung (aus Zinkäthyl u. Nitropropan) (*J. r.* 21, 44). — I, 1523.
 2) Verbindung (aus Zinkäthyl u. Nitroisopropan) (*J. r.* 21, 46). — I, 1523.
- $C_{11}H_{11}NCl_4P$ 1) Trimethyläthylentriäthylphosphammoniumchlorid. 2 + $PtCl_4$ (*A. Spl.* 1, 303). — I, 1507.
- $C_{11}H_{11}NBr_3P$ 1) Trimethyläthylentriäthylphosphammoniumbromid (*A. Spl.* 1, 303). — I, 1507.

C_{11} -Gruppe mit fünf Elementen.

- $C_{11}H_7ONBr_2S$ 1) 4,5-Dibrom-2-[α -Oximidobenzyl]thiophen. Sm. 176° (*B.* 26, 2459). — III, 767.
- $C_{11}H_{10}O_2NCl_4P$ 1) Verbindung (aus Bernsteinsäure-4-Methylphenylimid). Sm. 237° (*A.* 295, 46).
- $C_{11}H_{10}O_2NClS$ 1) Aethylester d. 5-Chlorchinolin-8-Sulfonsäure. Sm. 85° (*J. pr.* [2] 48, 266). — IV, 294.
- $C_{11}H_{10}O_2NBrS$ 1) Aethylester d. 2-Bromchinolin-8-Sulfonsäure. Sm. 135° (*J. pr.* [2] 41, 47). — IV, 296.
 2) Aethylester d. 3-Bromchinolin-5-Sulfonsäure. Sm. 125° (*J. pr.* [2] 40, 453). — IV, 295.
 3) Aethylester d. 3-Bromchinolin-8-Sulfonsäure. Sm. 100° (*J. pr.* [2] 40, 450). — IV, 295.
 4) Aethylester d. 5-Bromchinolin-6-Sulfonsäure. Sm. 130° (*J. pr.* [2] 40, 459). — IV, 295.
 5) Aethylester d. 5-Bromchinolin-8-Sulfonsäure. Sm. 110° (*J. pr.* [2] 40, 457). — IV, 295.
 6) Aethylester d. 6-Bromchinolin-8-Sulfonsäure. Sm. 139° (*J. pr.* [2] 40, 462). — IV, 296.

- $C_{11}H_{10}O_3NBrS$ 7) Aethylester d. *p*-Bromchinolin-8-Sulfonsäure. Sm. 98° (*J. pr.* [2] 37, 268). — IV, 296.
- $C_{11}H_{11}ON_2ClJ_2$ 1) Verbindung (aus Antipyrin). Sm. 142° (*B.* 18, 1617). — IV, 509.
- $C_{11}H_{11}ONClBr$ 1) Aethyläther d. γ -Chlor- $\alpha\beta$ -Dibrom- γ -Oximidopropylbenzol (*B.* 22, 2397). — II, 1360.
- $C_{11}H_{12}O_2NCIS$ 1) 4-Chlorphenylmerkaptursäure. Sm. 153—154° (*B.* 12, 1096; *H.* 8, 191). — II, 792.
- $C_{11}H_{12}O_2NBrS$ 1) 4-Bromphenylmerkaptursäure. Sm. 152—153°. NH_4 , $Mg + 9H_2O$, $Ba + 2H_2O$ (*H.* 5, 311; *B.* 12, 806, 1094; 15, 1732; 18, 261). — II, 793.
- $C_{11}H_{12}O_2NJS$ 1) 4-Jodphenylmerkaptursäure. Sm. 152—153°. $Ba + 2H_2O$, Ag (*H.* 20, 586).
- $C_{11}H_{12}O_2NCIS$ 1) α -Acetylamido- α -[4-Chlorphenyl]sulfonpropionsäure. Sm. 177° u. Zers. $Ba + 1\frac{1}{2}H_2O$, Ag (*H.* 16, 527). — II, 792.
- $C_{11}H_{12}O_2NBrS$ 1) α -Acetylamido- α -[4-Bromphenyl]sulfonpropionsäure. Sm. 170 bis 171°. $Ba + 4H_2O$, Ag (*H.* 16, 533). — II, 794.
- $C_{11}H_{12}ON_2Br_2J$ 1) Jodmethylat d. Dibromkotinin. Sm. 175° u. Zers. (*B.* 26, 297). — IV, 859.
- $C_{11}H_{13}O_2N_2BrS$ 1) Amid d. α -Acetylamido- α -Merkaptopropion-4-Bromphenyläthersäure. Sm. 174° (*H.* 20, 437).
- $C_{11}H_{13}O_2N_2BrS$ 1) *p*-Brom-1,2,4-Trimethylbenzol-5-Sulfonnitrosamidoessigsäure (*B.* 27 [2] 888).
- $C_{11}H_{14}ONJS$ 1) Jodmethylat d. Methyläther d. 2-Thiocarbonyl-3-[2-Oxyphenyl]tetrahydrothiazol. Sm. bei 141° (*B.* 21, 1867). — II, 710.
- $C_{11}H_{14}O_2NBrS$ 1) Methylbetain d. 6-Brom-1-Methyl-1,2,3,4-Tetrahydrochinolin-8-Sulfonsäure. Sm. 253° (*J. pr.* [2] 55, 111). — IV, 196.
- $C_{11}H_{14}O_4NCIS$ 1) *p*-Chlor-1,2,4-Trimethylbenzol-5-Sulfonamidoessigsäure. Sm. 150° (*B.* 27 [2] 888).
- $C_{11}H_{14}O_4NBrS$ 1) *p*-Brom-1,2,4-Trimethylbenzol-5-Sulfonamidoessigsäure. Sm. 170° (*B.* 27 [2] 888).
- $C_{11}H_{14}ONSP$ 1) 2,4,5-Trimethylphenylimid d. Thiophosphorsäuremonoäthylester (Sulfophosphazopseudocumoläthylester). Sm. 201° (*B.* 28, 1246).
- $C_{11}H_{16}O_2NJS$ 1) Jodmethylat d. 1,2,3,4-Tetrahydrochinolin-8-Sulfonsäuremethylester (*J. pr.* [2] 55, 99). — IV, 196.

C_{12} -Gruppe mit einem Element.

- $C_{12}H_8$ 1) Hartit = $(C_{12}H_8)_n$. Sm. 74° (*Berz. J.* 22, 214; *J.* 1856, 889; 1869, 1248). — III, 565.
- $C_{12}H_8$ C 94,7 — H 5,3 — M. G. 152.
- 1) Acenaphtylen. Sm. 92—93°; Sd. 265—275° u. Zers. Pikrat (*B.* 6, 753; 7, 1092; 26, 2354). — II, 244.
- 2) 1-Naphtyläthin (1-Naphtylacetylen). Sd. 143—144°. Ag , $Ag + AgNO_3$ (*Bl.* [3] 6, 386; [3] 7, 648). — II, 244.
- 3) 2-Naphtyläthin. Sm. 36°. Ag (*Bl.* [3] 7, 648). — II, 244.
- 4) Petrocin = $(C_{12}H_8)_n$. Sm. 101—102°. Pikrat (*A. ch.* [5] 17, 43).
- $C_{12}H_{10}$ C 93,5 — H 6,5 — M. G. 154.
- 1) Acenaphten. Sm. 95°; Sd. 277,5°. K , Pikrat, $+ 2CrO_2Cl_2$. Lit. bedeutend. — II, 227.
- 2) Biphenyl (Phenylbenzol). Sm. 70,5°; Sd. 254°. Lit. bedeutend. — II, 222.
- $C_{12}H_{12}$ C 92,3 — H 7,7 — M. G. 156.
- 1) *p*-Dihydrobiphenyl. Sm. 66—66,5° (*A.* 289, 168).
- 2) *p*-Dihydrobiphenyl. Sd. 247—249° (*B.* 21, 843). — II, 222.
- 3) 1-Aethylnaphtalin. Sd. 257—259,5° (251—252°). Pikrat (Sm. 98°) (*A.* 155, 118; *B.* 13, 1671; *M.* 2, 20). — II, 218.
- 4) 2-Aethylnaphtalin. Sd. 251°. Pikrat (Sm. 71°) (*G.* 11, 265, 439; *B.* 17, 1179). — II, 219.
- 5) 1,4-Dimethylnaphtalin. Sd. 262—264°₇₅₁. Pikrat Sm. 139° (*B.* 13, 1516, 1517; 16, 428; 28 [2] 619; *G.* 12, 147, 410; 13, 393; 15, 84; 26 [1] 18, 563). — II, 219.
- 6) isom. Dimethylnaphtalin. Sd. 264—266°. Pikrat (Sm. 118°) (*A.* 211, 365). — II, 218.

- C₁₁H₁₁** 7) 2-Dimethylnaphtalin? Sm. 67—69° (Soc. 69, 298).
 8) Guajen. Sm. 97—98° (M. 1, 603, 619). — II, 219.
- C₁₁H₁₄** 9) Kohlenwasserstoff. Sd. 270° (Z. 1867, 714).
 C 91,1 — H 8,9 — M. G. 158.
 1) Tetrahydroacenaphten. Sd. 249,5°₁₁₈ (B. 20, 3077). — II, 227.
 2) 2-Tetrahydrobiphenyl. Sd. 244,8°₁₁₈ (B. 21, 845). — II, 222.
 3) Butenylstyrol. Sd. 248—249° (Soc. 35, 141). — II, 176.
 4) Kohlenwasserstoff (aus Petroleum). Sd. 240—245° (A. 234, 111; B. 15, 733; 20, 601). — II, 176.
 C 90,0 — H 10,0 — M. G. 160.
- C₁₁H₁₆** 1) Phenylisohexylen (A. 218, 395). — II, 172.
 2) α-[4-Isopropylphenyl]propen (Allylisopropylbenzol). Sd. 229—230° (J. 1877, 380). — II, 172.
 3) Kohlenwasserstoff (aus Alantolsäurelaktone). Sd. 132°₁₀ (A. 285, 378).
 4) Kohlenwasserstoff (aus Benzolkalium u. Aethylbromid). Sd. 222° (B. 9, 12). — II, 172.
 C 88,9 — H 11,1 — M. G. 162.
- C₁₁H₁₈** 1) norm. Hexylbenzol. Sd. 207—208° (B. 26 [2] 692; Bl. [3] 9, 688).
 2) ε-Phenyl-β-Methylpentan (Isohexylbenzol; Caprylbenzol). Sd. 214 bis 215° (A. 171, 223; 218, 391). — II, 36.
 3) 2-Isoamyl-1-Methylbenzol. Sd. 203—205° (B. 9, 503). — II, 36.
 4) 3-Isoamyl-1-Methylbenzol. Sd. 207—209° (Bl. 42, 213). — II, 36.
 5) 4-Isoamyl-1-Methylbenzol. Sd. 213° (A. 141, 162). — II, 36.
 6) 2-Pseudobutyl-1-Aethylbenzol. Sd. 205—206° (B. 24, 2842; 27, 1612). — II, 36.
 7) 5-Pseudobutyl-1,3-Dimethylbenzol. Sd. 200—202°₁₄₇ (B. 24, 2840; 25, 791; 27, 1606; Bl. [3] 19, 889). — II, 37.
 8) 1,4-Dipropylbenzol. Sd. 220—221°_{145,5} (B. 11, 1863; 24, 769; A. 216, 223; G. 21, 22). — II, 36.
 9) 4-Isopropyl-1-Propylbenzol. Sd. 211—213°₁₅₄ (B. 10, 1746; 24, 771; G. 21, 5). — II, 36.
 10) 1,2-Diisopropylbenzol. Sd. 209° (B. 23, 3142; Bl. 43, 320). — II, 36.
 11) 1,3-Diisopropylbenzol. Sd. 204° (B. 23, 3142; Bl. [3] 9, 224). — II, 36.
 12) 4-Isopropyl-2-Aethyl-1-Methylbenzol. Sd. 205° (C. 1896 [2] 92; Bl. [3] 17, 912).
 13) 2-Propyl-1,3,5-Trimethylbenzol. Sd. 220—221° (B. 28, 2461).
 14) 1,3,5-Triäthylbenzol. Sd. 217—220° (214—218°) (B. 7, 1435; Bl. 31, 540; 34, 635). — II, 36.
 15) Hexamethylbenzol. subl. Sm. 164°; Sd. 264°. Pikrat (Sm. 170°) (J. 1878, 388, 389; 1882, 371; B. 5, 721; 12, 322; 13, 1729; 18, 339; 19, 1211; 20, 901; A. ch. [6] 1, 467; [6] 10, 417; J. r. 13, 392; Bl. 28, 147, 529). — II, 37.
 16) 1,4-Dimethyl-2-Hexahydronaphtalin (G. 15, 81). — II, 219.
 17) α-Paracoten. Sd. 160° (A. 199, 77).
 18) Kohlenwasserstoff (aus Alantolsäurelaktone). Sd. 122°₁₀ (A. 285, 381).
 19) Kohlenwasserstoff (aus Betulin). Sd. 250—255° (B. 12, 9).
 20) Kohlenwasserstoff (aus Campher). Sd. 185—190° (Bl. 32, 301). — II, 37.
 21) Kohlenwasserstoff (aus Steinkohlen). Sd. 215° (Z. 1866, 223). — II, 37.
 C 87,8 — H 12,2 — M. G. 164.
- C₁₁H₂₀** 1) Acenaphtenperhydrür. Sd. 235—236° (B. 22, 781). — II, 227.
 2) Dekahydrobiphenyl? Sd. 225° (A. 183, 356). — II, 223.
 3) 2,7-Dimethyloktahydronaphtalin? Sd. 210—215° (Soc. 63, 337).
 4) Aethylcamphen. Sd. 197,9—199,9°₁₄₉ (A. 197, 133). — III, 536.
 5) Kohlenwasserstoff (aus Aceton). Sd. 170—180° (A. 140, 301). — I, 139.
 6) Kohlenwasserstoff (aus Dimethylallylcarbinol). Sd. 196—198° (J. pr. [2] 27, 380; [2] 30, 213; [2] 34, 473; B. 18, 1222). — I, 139.
 7) Kohlenwasserstoff (aus Theeröl). Sd. 210° (A. 139, 245).
 C 86,8 — H 13,2 — M. G. 166.
- C₁₁H₂₂** 1) α-Dodekin (Dekylacetylen). Sd. 95—97°₁₅. Ag + AgNO₃ (B. 25, 2250).
 2) β-Dodekin (s-Methylnonylacetylen). Sm. —9°; Sd. 105°₁₅ (B. 17, 1372; 25, 2250). — I, 137.

- C₁₁H₁₁** 3) Kohlenwasserstoff (aus Anethol). Sd. 210—212° (*B.* 9, 725). — I, 137.
 4) Kohlenwasserstoff (aus Diallyldihydrojodid). Sd. 190—200° (*Bl.* 2, 164). — I, 137.
 5) Kohlenwasserstoff (aus Jodhexahydrobenzol). Sd. 205—210° (*B.* 30, 388 Anm.).
- C₁₂H₂₄** 6) Kohlenwasserstoff (aus Steinöl). Sd. 190° (*Berz. J.* 21, 473). — I, 137.
 C 85,7 — H 14,3 — M. G. 168.
 1) α -Dodeken (norm. Duodekylen). Sm. 31°; Sd. 96°₁₅ (*B.* 16, 3020). — I, 124.
 2) $\beta\delta\delta$ -Trimethyl- γ -tert. Butyl- β -Penten (Triisobutylen). Sd. 177,5 bis 178,5° (*A.* 196, 119; *B.* 6, 561; *J. r.* 10, 238; 11, 198; *Bl.* [3] 2, 482; [3] 7, 584; *A. ch.* [6] 19, 394; *Soc.* 37, 239). — I, 124.
 3) Dodekanaphten. Sd. 197° (*J. r.* 15, 338). — II, 16.
 4) Dodeken (Dihexylen). Sd. 193—197° u. 196—199° (*A.* 195, 262). — I, 124.
 5) Dodeken (aus Fischthran). Sd. 212,6° (*Z.* 1868, 230). — I, 124.
 6) Dodeken (aus Petroleum). Sd. 212—214°₇₄₅ (*Am.* 19, 470, 484; *Z.* 1868, 231). — I, 124.
 C 84,7 — H 15,3 — M. G. 170.
- C₁₂H₂₆** 1) Dodekan (norm. Dihexyl). Sd. 201° (214,5°) (*A.* 161, 277; *B.* 13, 792; 15, 1698; *Am.* 21, 217). — I, 105.
 2) Dodekan (aus Petroleum). Sd. 214—216°₇₆₉ (*Am.* 19, 439, 456, 484).
- C₁₂Cl₁₀** 1) Perchlorbiphenyl. Sm. noch nicht bei 270° (*B.* 9, 1491; 12, 677; 16, 883, 2871). — II, 223.

C₁₂-Gruppe mit zwei Elementen.

- C₁₂H₄O₃** C 73,4 — H 2,0 — O 24,5 — M. G. 196.
 1) Verbindung (aus Acetylen) (*B.* 30, 762).
- C₁₂H₆Cl₂** 1) Pentachlorbiphenyl. Sm. 179°; Sd. über 360° (*A.* 207, 342; *B.* 9, 130). — II, 223.
- C₁₂H₆O₂** C 79,1 — H 3,3 — O 17,6 — M. G. 182.
 1) 7,8-Acenaphtenchinon. Sm. 261°. + NaHSO₃ + 2H₂O (*A.* 276, 4) — III, 403.
- C₁₂H₆O₃** C 72,7 — H 3,0 — O 24,3 — M. G. 198.
 1) Anhydrid d. Naphtalin-1,2-Dicarbonsäure. Sm. 165° (*B.* 25, 2477). — II, 1878.
 2) Anhydrid d. Naphtalin-1,8-Dicarbonsäure. Sm. 274° (266°) (*A.* 172, 267; *A. ch.* [6] 23, 228; *G.* 25 [1] 247; *B.* 28, 360). — II, 1879.
 3) Verbindung (aus Gusseisen) (*B.* 15, 946, 947).
- C₁₂H₆O₄** C 67,3 — H 2,8 — O 29,9 — M. G. 214.
 1) Bichinon. Sm. 186—187° u. Zers. (*M.* 5, 603). — II, 1038.
- C₁₂H₆O₇** C 55,0 — H 2,3 — O 42,7 — M. G. 262.
 1) Glaukomelansäure? K₂ + H₂O (*A.* 45, 138). — II, 2049.
- C₁₂H₆O₉** C 49,0 — H 2,0 — O 49,0 — M. G. 294.
 1) Thiophaninsäure + H₂O. Sm. 264° (*B.* 30, 364; *J. pr.* [2] 58, 494).
- C₁₂H₆O₁₂** C 42,1 — H 1,7 — O 56,2 — M. G. 342.
 1) Benzolhexacarbonsäure (Mellithsäure). Sm. 286—288° u. Druck. Salze meist bek. Lit. bedeutend. — II, 2104.
 2) Thiophansäure + H₂O. Sm. 242°. K₂ + 4H₂O, Ba + 5H₂O, Pb + H₂O (*B.* 30, 364; *J. pr.* [2] 58, 490).
- C₁₂H₆N₂** C 80,9 — H 3,4 — N 15,7 — M. G. 178.
 1) Nitril d. Naphtalin-1,2-Dicarbonsäure. Sm. 190° (*B.* 25, 2475). — II, 1879.
 2) Nitril d. Naphtalin-1,5-Dicarbonsäure. Sm. 266—267° (*G.* 26 [1] 91).
 3) Nitril d. isom. α -Naphtalin- β -Dicarbonsäure. Sm. 267—268° (263°) (*B.* 9, 604). — II, 1880.
 4) Nitril d. isom. β -Naphtalin- β -Dicarbonsäure. Sm. 296—297° (*B.* 9, 604). — II, 1880.
 5) Nitril d. isom. γ -Naphtalin- β -Dicarbonsäure. Sm. 204° (*A.* 152, 309). — II, 1881.

- $C_{12}H_9N_2$ 6) Nitril d. isom. β -Naphtalin- β -Dicarbonsäure. Sm. 236° (A. [152](#), [308](#)). — II, 1881.
- 7) Nitril d. isom. ϵ -Naphtalin- β -Dicarbonsäure. Sm. 170° (A. [152](#), [308](#)). — II, 1881.
- $C_{12}H_6Br_2$ 1) Dibromacenaphtylen (B. [7](#), [1094](#)). — II, [244](#).
- $C_{12}H_5Br_4$ 1) Tetrabromacenaphten. Sm. 161–162° u. Zers. (Soc. [55](#), [581](#)). — II, [227](#).
- 2) β -Tetrabrombiphenyl. Sm. 189° (Soc. [65](#), [56](#)).
- $C_{12}H_7Br$ 1) Bromacenaphtylen. Fl. (B. [7](#), [1094](#)). — II, [244](#).
- $C_{12}H_7Br_3$ 1) Tribromacenaphten. Sm. 88–90° (Soc. [55](#), [581](#)). — II, [227](#).
- 2) Tribrombiphenyl. Sm. 90° (Soc. [47](#), [587](#)). — II, [224](#).
- $C_{12}H_7J_3$ 1) 2,5,4'-Trijodbiphenyl. Sm. 124–125° (A. [303](#), [334](#)).
- $C_{12}H_8O$ C [85,7](#) — H [4,7](#) — O [9,5](#) — M. G. [168](#).
- 1) α -Naphtofuran. Fl. Pikrat (B. [30](#), 1703; [31](#), [601](#) Anm.).
- 2) β -Naphtofuran. Sm. 65° (60–61°); Sd. 280°. Pikrat (B. [30](#), 1439, 1702; [31](#), [601](#) Anm.).
- 3) Biphenylenoxyd. Sm. 86–87° (80–81°); Sd. 287–288°. Pikrat (A. [138](#), [375](#); [159](#), [211](#); [174](#), [190](#); [264](#), [189](#); B. [7](#), [398](#); [15](#), [1121](#); [18](#), 1720; [25](#), 2746; [29](#), 1876; M. [2](#), [14](#); [3](#), [133](#); [4](#), [128](#); J. pr. [2](#) [25](#), [45](#)). — II, [991](#).
- 4) 8-Ketoacenaphten. Sm. 121° (119–119,5°). Pikrat (A. [276](#), [12](#); [290](#), [197](#); Soc. [55](#), [578](#)). — III, [178](#).
- C [78,3](#) — H [4,3](#) — O [17,4](#) — M. G. [184](#).
- $C_{12}H_8O_2$ 1) 2-Keto- α -Naphtofuran. Sm. 91–92° (B. [30](#), 1468).
- 2) Verbindung (aus Acetessigsäureäthylester u. Phtalsäureanhydrid). Sm. 209–211° (B. [14](#), [927](#)).
- C [72,0](#) — H [4,0](#) — O [24,0](#) — M. G. [200](#).
- $C_{12}H_8O_3$ 1) 2-Acetyl-1,4-Naphtochinon. Sm. 78° u. Zers. (B. [28](#), 1950). — III, [398](#).
- 2) $\alpha\beta$ -Diketo- β -(2-Furanyl)- α -Phenyläthan (Benzfural). Sm. 41° (A. [211](#), [229](#)). — III, [729](#).
- 3) Naphtalin-1-Ketocarbonsäure (1-Naphtoylameisensäure). Sm. 113,5° (107–108° u. Zers.). Ca + $4\frac{1}{2}H_2O$, Ba + $4\frac{1}{2}H_2O$, Ag (B. [15](#), 3066; [16](#), [640](#); [19](#), 3180; C. [1896](#) [2](#) [382](#); Bl. [3](#) [17](#), [302](#)). — II, [1693](#).
- 4) Naphtalin-2-Ketocarbonsäure (C. [1896](#) [2](#) [382](#)).
- 5) 8-Aldehyd d. Naphtalin-1,8-Dicarbonsäure (Naphtalaldehydsäure). Sm. 167–168° u. Zers. Ca (A. [276](#), [13](#)). — II, [1694](#).
- C [66,7](#) — H [3,7](#) — O [29,6](#) — M. G. [216](#).
- $C_{12}H_8O_4$ 1) Bergapten. Sm. 188° (A. [31](#), [70](#), [320](#); M. [12](#), [380](#)). — II, [2014](#).
- 2) Bichinhydron (M. [5](#), [602](#)). — II, [1038](#).
- 3) Paracotoïn. Sm. 152° (149°) (A. [199](#), [31](#); [282](#), [206](#); G. [23](#) [2](#) [195](#); B. [27](#), [424](#)). — III, [640](#).
- 4) Naphtalin-1,2-Dicarbonsäure. Sm. 175°. NaH + $4H_2O$, KH + $4H_2O$, Ca + H_2O , Ba, BaH + $8H_2O$, Cu (B. [25](#), 2475). — II, [1878](#).
- 5) Naphtalin-1,5-Dicarbonsäure. Sm. noch nicht bei 286°. (NH₄)₂, Ca + $2H_2O$, Ba + $3H_2O$, Ag₂ (G. [26](#) [1](#) [92](#)).
- 6) Naphtalin-1,8-Dicarbonsäure (Naphtalsäure). (NH₄)₂ + C₂H₅O, Na₂, K₂ + C₂H₅O, Ca + H_2O , Ba + H_2O , Al₂ + H_2O (A. [172](#), [266](#); [240](#), [180](#); B. [20](#), [243](#); [25](#), [653](#); [28](#), [360](#); A. ch. [6](#) [23](#), [227](#)). — II, [1879](#).
- 7) isom. α -Naphtalin- β -Dicarbonsäure. Sm. über 300° u. Zers. Ca + $4H_2O$, Ag₂ (B. [9](#), [606](#)). — II, [1880](#).
- 8) isom. β -Naphtalin- β -Dicarbonsäure. Sm. oberh. 300°. K₂ + $\frac{1}{2}H_2O$, Ca + $3\frac{1}{2}H_2O$, Ag₂ (B. [9](#), [606](#)). — II, [1880](#).
- 9) isom. γ -Naphtalin- β -Dicarbonsäure. Sm. noch nicht bei 240°. Ba + $2H_2O$ (A. [152](#), [309](#)). — II, [1880](#).
- 10) isom. δ -Naphtalin- β -Dicarbonsäure (A. [152](#), [308](#)). — II, [1881](#).
- 11) isom. ϵ -Naphtalin- β -Dicarbonsäure (A. [152](#), [308](#)). — II, [1881](#).
- 12) isom. ζ -Naphtalin- β -Dicarbonsäure. Sm. 250–253°. Pb (J. pr. [2](#) [37](#), [8](#)). — II, [1881](#).
- 13) l-Aldehyd d. 2-Oxynaphtalin-1,3-Dicarbonsäure. Sm. 170° (C. [1896](#) [2](#) [836](#)).
- 14) Methylester d. 1,2-Naphtochinon-3-Carbonsäure. Sm. 139–140° (B. [27](#), 2623; [28](#), 3096). — II, [1878](#).
- 15) Acetat d. 5-Oxy-1,4-Naphtochinon. Sm. 154–155° u. Zers. (B. [18](#), [206](#); [20](#), [940](#)). — III, [380](#).

- C₁₂H₆O₅** C 62,1 — H 3,4 — O 34,5 — M. G. 232.
 1) Paramorin (B. 8, 605). — III, 684.
 2) *p*-[2-Furanyl]benzol-1,3-Dicarbonsäure (Furfurisophtalsäure). Sm. bei 290° u. Zers. (B. 24, 1752). — III, 719.
 3) α ,2-Lakton d. α -Oxy- γ -Keto- α -Phenyl- α -Buten- β ,3-Dicarbonsäure (Phthalylacetessigsäure) (B. 16, 651; A. 236, 185). — II, 2018.
 4) Verbindung (aus d. Trimethyläther d. ?-Trioxybenzol). Sm. 200° (B. 24, 2611). — II, 1023.
- C₁₂H₆O₄** C 58,1 — H 3,2 — O 38,7 — M. G. 248.
 1) Tetraoxybiphenylchinon (B. 9, 1887). — II, 1042.
 2) *p*-Dioxynaphtalin-*p*-Dicarbonsäure. Sm. 162°. Na + 5½ H₂O, Na₂ + 6 H₂O, Ba + 2 H₂O, Ag₂ (J. pr. [2] 37, 5). — II, 2020.
 3) Verbindung (aus Benzol-1,2-Dicarbonsäurediäthylester). Sm. 120° (B. 27, 113). — II, 2020.
- C₁₂H₈N₂** C 80,0 — H 4,4 — N 15,6 — M. G. 180.
 1) 5,10-Naphtdiazin (Phenazin; Azophenylen). Sm. 170—171°; Sd. oberh. 360°. HCl, (HCl, 2 HgCl₂), (2 HCl, PtCl₄), (HCl, AuCl₃), HBr, HJ, Pikrat, + Cl₂, + Br₂, + Hg(NO₃)₂, + AgNO₃ (A. 168, 1; 266, 254; 292, 260; B. 8, 39, 600; 10, 1303; 15, 2332; 19, 2207, 3257; 22, 358; 23, 1856; 25, 3205; 26, 383; 27, 153; J. r. 6, 248). — IV, 1000.
 2) 1,4-Naphtisodiazin (Naphtochinoxalin). Sm. 62° (B. 23, 1394). — IV, 999.
 3) 1,10-Naphtisodiazin + H₂O (α -Phenanthrolin). Sm. 102° (117° wasserfrei). (2 HCl, PtCl₄), H₂Cr₂O₇, + CuCl₂ + H₂O, + CuSO₄ (M. 19, 666).
 4) 4,7-Naphtisodiazin + 4 H₂O (Pseudophenanthrolin). Sm. 173° wasserfrei. HCl + 2 H₂O, 2 HCl, (2 HCl, PtCl₄ + 2½ H₂O), 2 HBr, (2 HBr, Br₂), (HJ, J₂), H₂Cr₂O₇ + 2½ H₂O (M. 4, 570; B. 15, 896; 19, 2377; 24, 2623; J. pr. [2] 38, 393). — IV, 999.
 5) 4,10-Naphtisodiazin + 2 H₂O (Phenanthrolin). Sm. 65,5° (78—78,5° wasserfrei); Sd. oberh. 360°. HCl + H₂O, 2 HCl + H₂O, (2 HCl, PtCl₄ + H₂O), HBr + ½ H₂O, HNO₃, H₂CrO₄, Pikrat (B. 15, 895; 16, 675; 22, 252; 29, 707; M. 3, 571; 5, 532). — IV, 998.
 6) Phenazon (α -Diphenylenazon). Sm. 156°; Sd. oberh. 360°. (2 HCl, PtCl₄), Pikrat (B. 24, 3085; 29, 2272). — IV, 1403.
- C₁₂H₈N₆** C 61,0 — H 3,4 — N 35,6 — M. G. 236.
 1) Tetrazobiphenylimid. Sm. 127° (J. 1864, 436). — IV, 1332.
- C₁₂H₈Cl₂** 1) 4,4'-Dichlorbiphenyl. Sm. 148°; Sd. 315° (A. 189, 138, 145; 207, 339; J. 1866, 463; B. 30, 2801). — II, 223.
- C₁₂H₈Br₂** 1) $\alpha\beta$ -Dibrom- α -[1-Naphtyl]äthen (Bl. [3] 6, 385). — II, 228.
 2) 4,4'-Dibrombiphenyl. Sm. 164°; Sd. 355—360° (A. 132, 204; 189, 138; 203, 123; J. 1866, 463; Soc. 47, 588). — II, 223.
 3) Acenaphtylendibromid. Sm. 121—123° (B. 7, 1093). — II, 244.
- C₁₂H₈Br₄** 1) 2-[$\alpha\alpha\beta\beta$ -Tetrabromäthyl]naphtalin. Sm. 80° (Bl. [3] 7, 649). — II, 219.
- C₁₂H₈Br₂** 1) Dibromacenaphtenbromid (B. 7, 1095). — II, 227.
- C₁₂H₈J₂** 1) 4,4'-Dijodbiphenyl. Sm. 202° (A. 207, 333). — II, 224.
- C₁₂H₈F₂** 1) 4,4'-Difluorbiphenyl. Sm. 88—89°; Sd. 254—255° (A. 235, 271; 243, 234; C. 1898 [1] 857, 1224). — II, 223.
- C₁₂H₈S** 1) Biphenylensulfid. Sm. 97°; Sd. 332—333° (A. 156, 333; 174, 185). — II, 991.
- C₁₂H₈S₂** 1) Diphenylendisulfid (Thianthren). Sm. 154—155° (157,5—158,5°); Sd. 364—366° (353—354°) (A. 149, 252; 179, 178; A. ch. [6] 1, 530; [6] 14, 438; B. 22, 910; 29, 435; Bl. 31, 464; [3] 15, 409, 1038). — II, 913.
 2) Diphenylenisodisulfid. Sm. 295° (Bl. [3] 17, 600).
- C₁₂H₈S₃** 1) *p*-Dithiänylthiophen. Sm. 147°; Sd. 357° (Bl. [3] 6, 194). — III, 769.
- C₁₂H₈Se₂** 1) Diphenylendiselenid (Selenanthren). Sm. 180—181°; Sd. 223°_{III} (B. 29, 443).
- C₁₂H₈Si** 1) Siliciumdi[1,2-Phenylen] (J. 1889, 1943). — IV, 1702.
- C₁₂H₈N** C 86,2 — H 5,4 — N 8,4 — M. G. 167.
 1) Carbazol (Diphenylimid). Sm. 238°; Sd. 338°. K, Pikrat (A. 163, 343; 167, 125; 174, 180; 191, 296; 202, 19; 291, 16; B. 12, 1978; 16, 2875; 20, 233; 21, 3300; 24, 200, 306; 26, 1703; M. 7, 611). — IV, 389.
 2) α -Naphtindol. Sm. 174—175°. ½ HCl (A. 239, 234). — IV, 389.
 3) β -Naphtindol. Sm. 39—40° (B. 31, 251).
 4) $\beta\beta$ -Naphtindol. Sd. oberh. 360°. Pikrat (A. 236, 177). — IV, 389.

- C₁₂H₉N** 5) Nitril d. 1-Naphtylelessigsäure. Sd. oberh. 300° (B. 16, 642). — II, 1460.
- C₁₂H₉N₃** 6) Nitril d. 2-Naphtylelessigsäure. Sm. 79–81° (B. 29, 2373).
C 73,9 — H 4,6 — N 21,5 — M. G. 195.
- 1) 1-[1-Naphtyl]-1,2,4-Triazol. Sm. 99°. (2HCl, PtCl₄), 2 + PtCl₄ (G. 26 [2] 422). — IV, 1100.
- 2) 1-[2-Naphtyl]-1,2,4-Triazol. Sm. 111°. (2HCl, PtCl₄), 2 + PtCl₄ (G. 26 [2] 424). — IV, 1100.
- 3) 1-Phenyl-1,2,3-Benzotriazol. Sm. 89–90° (B. 23, 1843). — IV, 1143.
- 4) 2-Phenyl-2,1,3-Benzotriazol. Sm. 109° (B. 21, 1633; 25, 901). — IV, 1143.
- 5) 2-Amido-5,10-Naphtdiazin (2-Amidophenazin). Sm. 265° (274°). (2HCl, PtCl₄ + 2 $\frac{1}{2}$ H₂O) (B. 22, 357; 28, 2976; 29, 1874). — IV, 1177.
- 6) Nitril d. 1,3,5-Trimethylbenzol-2,4,6-Tricarbonsäure. Sm. 165° (A. 278, 222). — II, 2015.
C 51,6 — H 3,2 — N 45,2 — M. G. 279.
- C₁₂H₉N₃** 1) Verbindung (aus 6-Amido-1,2,3-Benzotriazol). Sm. oberh. 300° (B. 26, 2958). — IV, 1259.
- C₁₂H₉Cl** 1) 2-Chlorbiphenyl. Sm. 34°; Sd. 267–268° (A. 189, 144). — II, 223.
- 2) 3-Chlorbiphenyl. Sm. 89° (J. pr. [2] 6, 106). — II, 223.
- 3) 4-Chlorbiphenyl. Sm. 75,5°; Sd. 282° (A. 174, 209; 189, 145; B. 29, 465). — II, 223.
- 4) α -Chlor- α -[1-Naphtyl]äthen. Sd. 184°_{50–60} (Bl. [3] 6, 385). — II, 228.
- 5) α -Chlor- α -[2-Naphtyl]äthen. Sm. 52–53° (Bl. [3] 7, 648). — II, 228.
- C₁₂H₉Br** 1) Bromacenaphten. Sm. 52–53° (B. 7, 1095). — II, 227.
- 2) 2-Brombiphenyl. Sd. 296–298° (A. 207, 353). — II, 223.
- 3) 4-Brombiphenyl. Sm. 89° (90°); Sd. 310° (i. D.) (A. 174, 207; B. 28, 406; 29, 470). — II, 223.
- C₁₂H₉Br₃** 1) β -Tribrom-1-Aethylnaphtalin. Sm. 127° (B. 13, 1672). — II, 219.
- 2) β -Tribrom-1,4-Dimethylnaphtalin. Sm. 228° (B. 13, 1517; 16, 428). — II, 219.
- 3) β -Tribrom-1,4-Dimethylnaphtalin. Sm. 145–147° (G. 12, 410). — II, 219.
- C₁₂H₉J₃** 1) 4-Joddiphenyljodoniumjodid. Sm. 144° u. Zers. (B. 27, 428).
C 84,7 — H 5,9 — O 9,4 — M. G. 170.
- C₁₂H₁₀O** 1) 2-Oxybiphenyl. Sm. 53° (A. 284, 319).
- 2) 4-Oxybiphenyl. Sm. 160–162° (164–165°); Sd. 305–308° (J. r. 5, 52; A. 209, 348; 257, 101; 284, 324; B. 23, 3708). — II, 894.
- 3) Diphenyläther. Sm. 28°; Sd. 252–253° (A. 90, 209; 159, 191; B. 3, 747; 14, 189; 15, 359, 1124; 23, 3708; Soc. 41, 8; J. pr. [2] 28, 201, 306; M. 17, 67). — II, 656.
- 4) Methyl-2-Naphtylketon. Sd. 295–296°. Pikrat (Bl. [3] 7, 647; [3] 15, 59; B. 19, 2898, 3180; A. ch. [6] 12, 334). — III, 173.
- 5) Methyl-2-Naphtylketon. Sm. 51–52° (53°); Sd. 300–301° (B. 19, 3180; 22, 2561; A. ch. [6] 12, 334; Bl. [3] 7, 649; [3] 15, 61; [3] 17, 313). — III, 174.
- C₁₂H₁₀O₂** C 77,4 — H 5,4 — O 17,2 — M. G. 186.
- 1) 7,8-Dioxyacenaphten. Sm. 204–205° (Soc. 55, 578; A. 290, 205). — II, 1099.
- 2) 2,2'-Dioxybiphenyl. Sm. 98° (Soc. 43, 168; A. 261, 332). — II, 987.
- 3) 3,3'-Dioxybiphenyl. Sm. 123,5° (A. 156, 98; B. 11, 1334; 27, 2108). — II, 987.
- 4) isom. [3,3'-Dioxybiphenyl. Sm. 190° (B. 11, 1336). — II, 987.
- 5) 4,4'-Dioxybiphenyl. Sm. 272° (A. 207, 334; J. 1866, 461; Z. 1871, 261; B. 9, 130; 22, 335; 30, 2849; J. r. 23, 508). — II, 987.
- 6) isom. Dioxybiphenyl. Sm. 161°; Sd. 342° (A. 207, 357; 210, 193; B. 13, 2234; J. pr. [2] 8, 46; M. 1, 668). — II, 990.
- 7) 4-Oxydiphenyläther. Sm. 84–85° (B. 29, 2085).
- 8) Methyl-1-Oxy-2-Naphtylketon. Sm. 103°; Sd. 325° u. ger. Zers. (B. 21, 321; 25, 3534; 28, 1946; 30, 1466). — III, 174.
- 9) Methyl-4-Oxy-2-Naphtylketon. Sm. 173–174° (B. 21, 635; A. 254, 197; 275, 292). — III, 175.
- 10) Guajenchinon. Sm. 121–122° (M. 1, 604). — III, 398.
- 11) 2,6-Dimethyl-m- β -Benzdifuran. Sm. 27°; Sd. 270°₁₂₀ (B. 19, 2933; 20, 1337). — III, 733.

- C₁₁H₁₀O₂**
- 12) 2,3-Dimethyl-p- α -Benzdifuran. Sm. 108° (B. 20, 1337). — III, 733.
 - 13) 1-Naphtylessigsäure. Sm. 131°. Ag (B. 16, 641). — II, 1460.
 - 14) 2-Naphtylessigsäure. Sm. 137,5—139°. Ag (B. 29, 2373).
 - 15) Aldehyd d. 2-Oxynaphtalinmethyläther-1-Carbonsäure. Sm. 84°; Sd. 200—261°₁₁ (Bl. [3] 17, 310).
 - 16) Aldehyd d. 4-Oxynaphtalinmethyläther-1-Carbonsäure. Sm. 34° (Bl. [3] 17, 307).
 - 17) Methylester d. Naphtalin-2-Carbonsäure. Sm. 77°; Sd. 290° (A. 180, 319; J. pr. [2] 40, 347). — II, 1453.
 - 18) 1-Naphtylester d. Essigsäure. Sm. 46° (49°) (A. 152, 288; 208, 248; 209, 150; B. 2, 131; 13, 2420; 14, 1601). — II, 858.
 - 19) 2-Naphtylester d. Essigsäure. Sm. 70° (A. 152, 288; 209, 150; 301, 112; B. 2, 131; 14, 1602). — II, 877.
- C₁₂H₁₀O₂**
- C 71,3 — H 4,9 — O 23,8 — M. G. 202.
- 1) Trioxybiphenyl. Sm. 180° (B. 16, 1103).
 - 2) Trioxybiphenyl. Sm. 205° (B. 16, 1103).
 - 3) 3,3'-Dioxydiphenyläther (Resorcinäther). Pb (A. 164, 122; B. 6, 447; 9, 182, 308; 10, 976, 1464; 28 [2] 780; M. 5, 191). — II, 917.
 - 4) 4,4'-Dioxydiphenyläther. Sm. 160—161° (Bl. 28, 276; B. 30, 739). — II, 940.
 - 5) 2-Propionyl-1,3-Diketo-2,3-Dihydroinden. Sm. 103°. Na (B. 27, 109). — III, 316.
 - 6) Benzfuroin. Sm. 137—139° (A. 211, 228; B. 13, 1339). — III, 726.
 - 7) Äthyläther d. 2-Oxy-1,4-Naphtochinon. Sm. 126—127° (B. 14, 1900). — III, 381.
 - 8) α -Oxy- α -(1-Naphtyl)essigsäure. Sm. 91—93° (80—81°) (B. 16, 641; 22, 2152; 24, 549). — II, 1692.
 - 9) α -Oxy- α -(2-Naphtyl)essigsäure. Sm. 158° (B. 24, 547). — II, 1692.
 - 10) Oxyessig-1-Naphtyläthersäure. Sm. 190°. Salze meist bekannt (G. 16, 438). — II, 858.
 - 11) Oxyessig-2-Naphtyläthersäure. Sm. 151—152°. NH₄, K, Mg + 3H₂O, Ba + 3H₂O (G. 16, 441). — II, 878.
 - 12) 4-Oxynaphtalinmethyläther-1-Carbonsäure. Sm. 230° (Bl. [3] 17, 308).
 - 13) 1-Oxynaphtalinmethyläther-2-Carbonsäure. Sm. 127°. Ca, Ag (M. 15, 735). — II, 1687.
 - 14) 1-Keto-3-Phenyl-1,4-Dihydrobenzol-5-Carbonsäure. Sm. 113—114° (B. 16, 2869; 17, 916). — II, 1693.
 - 15) 1-Keto-4-Phenyl-2,3-Dihydro-R-Penten-3-Carbonsäure (Phenuvinsäure). Sm. 144—145°. Ag (A. 250, 220; Soc. 59, 193). — II, 1693.
 - 16) 2-Methyl-5-Phenylfuran-3-Carbonsäure. Sm. 180—181°. NH₄, K + xH₂O (B. 17, 69, 917, 2762, 2764). — III, 712.
 - 17) Säure (aus Phenol) (G. 17, 103). — II, 649.
 - 18) Anhydrid d. 1,2,3,4-Tetrahydronaphtalin-1,8-Dicarbonsäure. Sm. 119,5° (B. 27, 2695). — II, 1871.
 - 19) Anhydrid d. 1,2,3,4-Tetrahydronaphtalin-2,3-Dicarbonsäure. Sm. 184° (B. 17, 450). — II, 1871.
 - 20) Aldehyd d. α -[3,4-Dioxyphenylmethylenäther]- $\alpha\gamma$ -Butadien- δ -Carbonsäure. Sm. 89—90° (B. 28, 1368). — III, 107.
 - 21) Methylester d. 1-Oxynaphtalin-2-Carbonsäure. Sm. 78° (B. 20, 2700). — II, 1687.
 - 22) Methylester d. 2-Oxynaphtalin-1-Carbonsäure. Sm. 76° (B. 20, 2702). — II, 1690.
 - 23) Benzoat d. 2-Oxymethylfuran. Sd. 270—275° (A. 272, 301). — III, 697.
 - 24) Verbindung (aus Phenylessigsäurechlorid u. Natriummalonsäurediäthylester). Sm. 114—117° (B. 29, 1987).
- C 66,1 — H 4,6 — O 29,3 — M. G. 218.
- 1) 1,2,1',2'-Tetraoxybiphenyl. Sm. 84° (B. 11, 1336). — II, 1036.
 - 2) 1,3,1',3'-Tetraoxybiphenyl + 2H₂O. Sm. 310° (B. 12, 505; 28 [2] 780; M. 1, 355; 5, 177; 11, 422; 18, 356). — II, 1036.
 - 3) 1,4,1',4'-Tetraoxybiphenyl. Sm. 237° u. Zers. (M. 5, 600). — II, 1037.
 - 4) Baphtin (J. 1876, 896). — III, 620.
 - 5) Baptigenetin. Sm. 148° (C. 1897 [2] 709, 1077).
 - 6) Sappanin + 2H₂O (Phenol) (B. 5, 572; 12, 506). — II, 1038.

$C_{12}H_{10}O_4$

- 7) Resoreinchinon (Verb. aus 1,4-Benzochinon u. 1,3-Dioxybenzol). Sm. bei 90° u. Zers. (A. 215, 136). — III, 344.
- 8) Chinhydron (Verb. aus 1,4-Benzochinon u. 1,4-Dioxybenzol). Sm. 171° (A. 51, 153; 200, 248; 215, 130; B. 10, 1614, 2003; 12, 1500, 1979; 24, 1341; Am. 14, 574; A. ch. [6] 7, 204; G. 24 [2] 382; C. 1896 [1] 804). — III, 344.
- 9) Dehydrodiacetylresacetophenon. Sm. 182° (B. 25, 1302). — III, 136.
- 10) 7-Acetat d. 7-Oxy-4-Methyl-1,2-Benzpyron. Sm. 150° (B. 16, 2124). — II, 1780.
- 11) 7-Acetat d. 7-Oxy-5-Methyl-1,2-Benzpyron (A. d. Homooxycumarin). Sm. 126° (B. 12, 1002). — II, 1781.
- 12) α -[3,4-Dioxyphenyl]- $\alpha\gamma$ -Butadien-3,4-Methylenäther- δ -Carbonsäure (Piperinsäure). Sm. 216—217°. NH_4 , Na, K, Ba, Ag (A. 105, 319; 118, 280; 24, 115; 152, 27; J. 1857, 413; B. 23, 2375; 27, 2959; 28, 1190). — II, 1869.
- 13) α -Phenyl- $\alpha\gamma$ -Butadien- $\delta\delta$ -Dicarbonsäure (Cinnamylidenmalonsäure). α -Modif. Sm. 208° u. Zers.; β -Modif. Sm. gegen 180° u. Zers. (Soc. 49, 365; B. 28, 1438; 31, 2617). — II, 1876.
- 14) Benzol-1,2-Di[Aethenyl- β -Carbonsäure] (o-Phenylendiakrylsäure). Sm. oberh. 300°. Ag_2 (Soc. 53, 15). — II, 1876.
- 15) Benzol-1,4-Di[Aethenyl- β -Carbonsäure]. Sm. noch nicht bei 300°. Ag_2 (A. 231, 377). — II, 1876.
- 16) 2-Dihydronaphtalin-1,8-Dicarbonsäure. Sm. 199° u. Zers. (B. 22, 859). — II, 1876.
- 17) 1,2-Benzpyron-3-[Aethyl- α -Carbonsäure] (o-Cumarinpropionsäure). Sm. 171°. $Ca + 5H_2O$, $Ba + 3H_2O$, Ag (A. 255, 285). — II, 1966.
- 18) Benzoyltetrinsäure. Sm. 128° (132°) (Am. 17, 794; A. 291, 237 Anm.).
- 19) Benzfurilsäure (A. 211, 231). — III, 714.
- 20) $\alpha\gamma$ -Lakton d. γ -Oxy- γ -Phenyl- α -Buten- $\alpha\beta$ -Dicarbonsäure (γ -Methylphenylakonsäure). Sm. 178—179°. Ca , Ag (A. 282, 298). — II, 1966.
- 21) Anhydrid d. Phenyloxymaleinäthyläthersäure. Sm. 97—98° (A. 282, 81). — II, 1961.
- 22) Anhydrid d. α -Keto- α -Phenylbutan- $\gamma\delta$ -Dicarbonsäure. Sm. 147 bis 148° (J. pr. [2] 53, 313).
- 23) Methylester d. 3,4-Dioxynaphtalin-2-Carbonsäure. Sm. 99° (95 bis 96°) (B. 27, 2624; 28, 3093). — II, 1875.
- 24) Aethylester d. 1,2-Benzpyron-3-Carbonsäure. Sm. 94° (B. 31, 2593).
- 25) Aethylester d. 1,3-Diketo-2,3-Dihydroinden-2-Carbonsäure. Sm. 75—78°. $Na + H_2O$, Cu (A. 246, 349). — II, 1874.

 $C_{12}H_{10}O_5$

- 1) Phloroglucid + $2H_2O$ (A. 172, 358; 185, 118; J. 1865, 594; B. 7, 891; M. 15, 703; 19, 380). — II, 1020.
- 2) Cascarin (B. 25 [2] 730, 858). — III, 627.
- 3) Melassinsäure (A. 30, 77). — I, 1109.
- 4) 7-Oxy-3-Methyl-1,2-Benzpyron-4-Methylcarbonsäure ($\alpha\beta$ -Dimethylumbelliferoncarbonsäurelakton). Sm. 186—188° (B. 24, 4103). — II, 2015.
- 5) Paracotoinsäure. Sm. 108°. Ca , Ba , Pb (A. 199, 38). — III, 640.
- 6) Säure (aus Phtalid). Sm. 121—122° (B. 20, 2062). — II, 1556.
- 7) α ,2-Lakton d. α -Oxy- β -Keto- α -Phenyläthan- β ,2-Dicarbonsäure- β -Aethylester (Aethylester d. Hydrophalyloxalsäure). Sm. 120—121°. Na (A. 246, 342). — II, 2012.
- 8) Anhydrid d. α -Phenylpropan- $\beta\beta\gamma$ -Tricarbonsäure. Sm. 99° (A. 256, 92). — II, 2015.
- 9) Anhydrid d. β -Phenylpropan- β ,2,4-Tricarbonsäure (A. d. Ioni-regentricarbonsäure). Sm. 214° (B. 26, 2686). — II, 2015.
- 10) Anhydrid d. α -[2-Acetoxyphenyl]äthan- $\alpha\beta$ -Dicarbonsäure. Sm. 90° (A. 293, 369).
- 11) Aldehyd d. Di[2-Methyl-4-Furanyl]äther-5,5'-Dicarbonsäure (Methylfurfuroxyd). Sm. 112° (B. 28 [2] 787).
- 12) Methylester d. 6-Methoxyl-1,2-Benzpyron-4-Carbonsäure (M. d. Methoxyloxycumarin- β -Carbonsäure). Sm. 131—132° (G. 24 [2] 498). — II, 2012.

- C₁₂H₁₀O₅** 13) **Aethylester d. 6-Oxy-1,2-Benzpyron-4-Carbonsäure** (Ae. d. m-Oxy-cumarin- β -Carbonsäure). Sm. 177—178° (180—182°) (G. 24 [2] 492). — II, 2012.
- 14) **Diäthylester d. β -Ketohehexan- γ , δ -Dicarbonsäure**. Sd. 160°₁₉ (B. 30, 2047).
- 15) **Acetat d. β -Oxy- α -Keto- α β -Di[2-Furanyl]äthan** (A. d. Furoin). Sm. 76—77° (A. 211, 221; B. 13, 1336). — III, 728.
- C₁₂H₁₀O₆** 16) **Diacetat d. Verbindung C₈H₆O₆**. Sm. 159° (Ann. 5, 350). — II, 919.
C 57,6 — H 4,0 — O 38,4 — M. G. 250.
- 1) α -Hexaoxybiphenyl (A. 169, 241; M. 3, 650). — II, 1041.
- 2) β -Hexaoxybiphenyl. Zers. bei 250° (B. 12, 1244). — II, 1043.
- 3) γ -Hexaoxybiphenyl. Zers. bei 230° (B. 12, 1249; M. 1, 673). — II, 1043.
- 4) δ -Hexaoxybiphenyl. Sm. 290° u. Zers. (M. 5, 597). — II, 1043.
- 5) **Oxychinhydron** (M. 5, 595). — II, 1018.
- 6) **Corticinsäure** (J. 1868, 806). — II, 2019.
- 7) **1-Phenyl-R-Trimethylen-2,3,3-Tricarbonsäure + 4H₂O**. Sm. 188° (wasserfrei). K (B. 25, 1153). — II, 2018.
- 8) **α ,2-Lakton d. 4,5-Diox-1-[α -Oxy- β -Acetoxyläthyl]benzol-4,5-Methylenäther-2-Carbonsäure**. Sm. 115°. — II, 1992.
- 9) **α ,2-Lakton d. α -Oxy- β -Acetoxyl- α -Phenyläthan- β ,2-Dicarbonsäure**. Sm. 189—190° (187°). Ag (B. 25, 407, 895; 27, 198 Ann.). — II, 2006.
- 10) **β ,2-Lakton d. β -Oxy- β -Phenylpropan- α , γ ,2-Tricarbonsäure** (Phthalyl-diessigsäure). Sm. 158°. Ba + 2H₂O, Ag₂ (A. 242, 81). — II, 2047.
C 54,1 — H 3,7 — O 42,1 — M. G. 266.
- C₁₂H₁₀O₇** 1) **5,6,7-Triox-1,2-Benzpyron-5,7-Dimethyläther-4-Carbonsäure + 2H₂O**. Sm. 248—250° (G. 25 [2] 368).
- 2) **α , α ²-Lakton d. α -Oxy- α -[2,4,6-Trioxyphenyl]äthen- α ², β -Dicarbonsäure- β -Aethylester**. Sm. 188° (Soc. 71, 1110).
- 3) **1,3-Dimethylester d. Benzol-1,3-Dicarbonsäure-2-Ketocarbonsäure**. Sm. 154—156° (A. 290, 210).
C 51,1 — H 3,5 — O 45,4 — M. G. 282.
- C₁₂H₁₀O₈** 1) **5-Acetoxyl-1-Methylbenzol-2,3,4-Tricarbonsäure**. Sm. 137—143° (B. 30, 1742).
- 2) **1,4-Dimethylester d. Benzol-1,2,3,4-Tetracarbonsäure**. Sm. 176 bis 177°. Ag₂ (B. 27, 1591). — II, 2073.
- 3) **Triacetat d. 2,3,5-Triox-1,4-Benzochinon** (B. 12, 2043). — III, 354.
- 4) **Verbindung** (aus 2,5-Diacetyl-1,4-Diketohehexahydrobenzol-3,6-Dicarbonsäure). Sm. 251—252° u. Zers. (B. 25, 332). — II, 2071.
- C₁₂H₁₀N₂** C 79,1 — H 5,5 — N 15,4 — M. G. 182.
- 1) **Azobenzol**. Sm. 68°; Sd. 293°. + C₆H₆, 2 + 3HCl, 2 + 3HBr, (HBr, Br₂), + Br₂. Lit. bedeutend. — IV, 1347.
- 2) **o-Biphenylenhydrazin**. HCl (B. 24, 3086). — IV, 993.
- 3) **2-Amidocarbazol**. Sm. 238° (B. 24, 306). — IV, 991.
- 4) **3-Amidocarbazol**. Sm. 246—248° u. Zers. (2HCl, PtCl₄) (G. 21 [2] 381; B. 31, 1697). — IV, 991.
- 5) **1-Methyl- β -Naphtimidazol**. Fl. HCl (B. 25, 2715). — IV, 991.
- 6) **2-Methyl- β -Naphtimidazol**. Sm. 168°. + Methylalkohol (Sm. 75°). HCl + 2H₂O, (2HCl, PtCl₄ + 3H₂O), H₂SO₄, Chromat, Pikrat (B. 14, 1794; 18, 2161; 19, 799; 20, 1249, 2472; A. 211, 67). — IV, 992.
- 7) **2-Methyl- β -Naphtimidazol**. Sm. 168° (B. 27, 764). — IV, 992.
- 8) **5,10-Dihydro-5,10-Naphtdiazin** (5,10-Dihydrophenazin) (A. 168, 8; 292, 258). — IV, 993.
- 9) **Phenylchinondiimid**. + 3CH₂O (Sm. 208°) (A. 255, 193). — IV, 838.
C 68,6 — H 4,7 — N 26,7 — M. G. 210.
- C₁₂H₁₀N₄** 1) **peri-Naphtylendihydrazimethylen**. Sm. 192° (C. 1899 [1] 114).
- 2) **1-Methyl-5-[2-Naphtyl]-1,2,3,4-Tetrazol**. Sm. 112° (B. 30, 1882; A. 298, 39). — IV, 1278.
- 3) **1-[4-Amidophenyl]-1,2,3-Benzotriazol**. Sm. 134,5° (B. 28, 2978). — IV, 1259.
- 4) **5-Amido-1-Phenyl-1,2,3-Benzotriazol**. Sm. 159°. (2HCl, PtCl₄) (B. 28, 2972). — IV, 1259.
- 5) **5-Amido-2-Phenyl-2,1,3-Benzotriazol**. Sm. 183°. (2HCl, PtCl₄) (B. 25, 899; J. pr. [2] 46, 131). — IV, 1257.

- $C_{12}H_{10}N_4$ 6) 2,3-Diamido-5,10-Naphtdiazin. subl. $HCl + H_2O$, $H_2SO_4 + 3H_2O$ (A. 173, 60; 224, 358; J. pr. [2] 3, 144; B. 22, 356; 23, 844, 2789; 28, 349). — IV, 1281.
- 7) 2,8-Diamido-5,10-Naphtdiazin. Sm. 280°. (2HCl, $PtCl_4 + H_2O$), HNO_3 , Pikrat (B. 23, 1854). — IV, 1281.
- 8) Diamidodiphenylenazon + $2H_2O$. Sm. 267° u. Zers. (B. 24, 3087). — IV, 1285.
- $C_{12}H_{10}Cl_2$ 1) 2-Dichlor-1-Aethylnaphtalin. Sd. 185°₄₀ (B. [3] 7, 647). — II, 218.
- 2) 3,5-Dichlor-1-Phenyl-1,4-Dihydrobenzol. Sd. 178—179° u. ger. Zers. (B. 27, 2341).
- $C_{12}H_{10}Br_2$ 1) 1- $\alpha\beta$ -Dibromäthyl]naphtalin. Sm. 168° (B. 22, 2158). — II, 218.
- $C_{12}H_{10}Br_6$ 1) Acenaphtenhexabromid (Z. 1867, 714).
- $C_{12}H_{10}J_2$ 1) Diphenyljodoniumjodid. Sm. 175—176° u. Zers. (182°) (B. 27, 506; 29, 1574 Anm., 2008; 30, 57; 31, 918).
- $C_{12}H_{10}J_4$ 1) Diphenyljodoniumtrijodid. Sm. 138° (140°) (B. 27, 1594; 29, 2008).
- $C_{12}H_{10}S$ 1) Diphenylsulfid. Sd. 292—294° (292,5°; 296°₇₆₀) (A. 140, 288; 174, 185; Z. 1867, 195; B. 7, 385; 15, 1683; 23, 2471; 26, 2815; 27, 1596, 1771; 28, 2320). — II, 802.
- 2) 2-Merkaptobiphenyl. Sm. 110—111°. Pb (B. 13, 386). — II, 895.
- $C_{12}H_{10}S_2$ 1) Diphenyldisulfid. Sm. 60—61°; Sd. 310°. Lit. bedeutend. — II, 815.
- 2) 4,4'-Dimerkaptobiphenyl. Sm. 176° (B. 13, 390; J. pr. [2] 41, 212). — II, 982.
- $C_{12}H_{10}S_3$ 1) Diphenyltrisulfid. Sd. 300—325° (B. 27, 1596).
- $C_{12}H_{10}S_4$ 1) Diphenyltetrasulfid. Fl. (J. pr. [2] 37, 208). — II, 818.
- $C_{12}H_{10}S_6$ 1) Diphenylhexasulfid (B. 23, 3370). — II, 818.
- $C_{12}H_{10}P_2$ 1) Phosphobenzol. Sm. 149—150° (B. 10, 812; 14, 913). — IV, 1646.
- $C_{12}H_{10}As_2$ 1) Arsenobenzol. Sm. 196° (B. 14, 912; 15, 1952). — IV, 1683.
- $C_{12}H_{10}Hg$ 1) Quecksilberdiphenyl. Sm. 120°; Sd. oberh. 300° u. Zers. (A. 154, 93; 194, 148; B. 12, 564; 16, 1626; J. pr. [2] 29, 136; Soc. 73, 790; G. 24 [1] 312). — IV, 1703.
- $C_{12}H_{10}Mg$ 1) Magnesiumdiphenyl (A. 261, 72; 276, 138; 282, 320). — IV, 1703.
- $C_{12}H_{10}Se$ 1) Diphenylselenid. Sd. 301—302° (B. 26, 2817; 27, 1761, 1770; 29, 426, 430; A. ch. [6] 20, 223). — II, 818.
- $C_{12}H_{10}Se_2$ 1) Diphenyldiselenid. Sm. 63,5°; Sd. 202—203°₁₁ (A. ch. [6] 20, 228; B. 27, 1762; 29, 431). — II, 812.
- $C_{12}H_{10}Te$ 1) Diphenyltellurid. Sd. 312—320° u. Zers. (B. 27, 1769). — II, 812.
- $C_{12}H_{11}O_3$ 1) Chekenin = $(C_{12}H_{11}O_3)_n$. Sm. 224—225° (B. 21 [2] 841). — III, 627.
- $C_{12}H_{11}N$ C 85,2 — H 6,5 — N 8,3 — M. G. 169.
- 1) Diphenylamin (Phenylamidobenzol). Sd. 54°; Sd. 310°. K, HCl, HBr. Lit. bedeutend. — II, 337.
- 2) 2-Amidobiphenyl. Sm. 45,5° (44—45°); Sd. 299°. HCl, (2HCl + $PtCl_4 + 4H_2O$), HNO_3 , H_2SO_4 (A. 209, 351; 260, 235; 279, 266; B. 8, 872; 25, 1973). — II, 632.
- 3) 4-Amidobiphenyl (Xenylamin). Sm. 53° (51°; 48—49°); Sd. 302° (322°). HCl, (2HCl, $PtCl_4 + 2H_2O$), HNO_3 , H_2SO_4 , Oxalat (J. 1862, 344; 1863, 1; A. 174, 212; 209, 342; 260, 233; 279, 266 Anm.; B. 7, 171; 23, 3706; M. 17, 399). — II, 633.
- 4) 2-Amidoacenaphten. Sm. 108°. HCl, (HCl, $SnCl_4$), (2HCl, $PtCl_4$), Pikrat (B. 21, 1456). — II, 634.
- 5) 1-Benzylpyridin. (2HCl, $PtCl_4$) (B. 14, 1505; J. pr. [2] 41, 345). — IV, 110.
- 6) 2-Methyl-6-Phenylpyridin. Sd. 280—281°. (HCl, $AuCl_3$), (2HCl, $PtCl_4 + H_2O$), Pikrat (B. 28, 1727). — IV, 378.
- 7) 2-Allylchinolin. Sd. 249—253°. (2HCl, $PtCl_4$) (B. 20, 2043). — IV, 377.
- C 73,1 — H 5,6 — N 21,3 — M. G. 197.
- 1) Diazoamidobenzol. Sm. 96°. (2HCl, $PtCl_4$), Na, Ag. Lit. bedeutend. — IV, 1560.
- 2) isom. Diazoamidobenzol? Sm. 80° (J. pr. [2] 55, 550). — IV, 1560.
- 3) Benzolsyndiazophenylamid? (Bisdiazobenzolanilid). Zers. bei 75° (B. 27, 1862, 2596).
- 4) 2-Amidoazobenzol. Sm. 123° (M. 8, 61). — IV, 1354.
- 5) 3-Amidoazobenzol. Sm. 56—57° (Soc. 67, 928). — IV, 1354.
- 6) 4-Amidoazobenzol. Sm. 125—126°; Sd. oberh. 360° + C_6H_6 , HCl, (2HCl, $PtCl_4$), HBr, HNO_3 , H_2SO_4 , Oxalat, AgOH, + $HgCl_2$ (Z. 1866,

- 132, 689; *J.* 1861, 496; 1882, 369; *A.* 127, 346; *B.* 5, 480; 16, 1102; 17, 396; 19, 1954; 30, 1415; 31, 2850; *Soc.* 43, 113; 47, 920). — *IV*, 1354.
- C₁₂H₁₁N₃**
- 7) *α*-Benzyliden-*β*-[3-Pyridyl]hydrazin. Sm. 163—164° (*B.* 31, 2496).
 - 8) 5-Amido-2-Methyl-*β*-Naphthimidazol. 2HCl + 1/2(1 1/2)H₂O, (2HCl, ZnCl₂ + 1 1/2 H₂O), (2HCl, PtCl₄), HNO₃, H₂SO₄ + 1/2 H₂O, Pikrat (*B.* 31, 1175; *Soc.* 51, 692). — *IV*, 1172.
 - 9) 2,7-Diamidocarbazol. Zers. bei 200°. H₂SO₄ (*B.* 23, 3267). — *IV*, 1172.
 - 10) 3,6-Diamidocarbazol. Sm. noch nicht bei 290°. H₂SO₄ (*B.* 22 [2] 177; 25, 131). — *IV*, 1172.
- C₁₂H₁₁N₅**
- 11) Diamidocarbazol. Zers. oberh. 260° (*C.* 1896 [2] 490). C 64,0 — H 4,9 — N 31,1 — M. G. 225.
 - 1) Benzyladenin. Sm. 259°. HCl, H₂SO₄ + 5H₂O, Pikrat (*H.* 13, 395; 18, 424, 453). — *IV*, 1320.
 - 2) Bisdiazobenzolamid (*A.* 137, 83; *B.* 27, 899; 28, 171).
 - 3) 3,5-Diimido-1-(2-Naphtyl)tetrahydro-1,2,4-Triazol (2-Naphtylguanazol). Sm. 199°. HCl + 3H₂O, (2HCl, PtCl₄) (*G.* 24 [1] 488). — *IV*, 1313.
 - 4) *p*-Triamido-5,10-Naphtdiazin. Zers. oberh. 100°. 2HNO₃ + 2H₂O (*B.* 22, 857). — *IV*, 1326.
- C₁₂H₁₁Br**
- 1) Bromdihydrobiphenyl. Fl. (*B.* 21, 845). — *II*, 222.
 - 2) *p*-Bromäthylnaphtalin (*A.* 166, 136).
- C₁₂H₁₁Br₃**
- 1) Tribromtetrahydrobiphenyl. Fl. (*B.* 21, 845). — *II*, 222.
- C₁₂H₁₁P**
- 1) Diphenylphosphin. Sd. 280°. HCl, (2HCl, PtCl₄), HJ (*B.* 15, 801; 21, 1508). — *IV*, 1656.
- C₁₂H₁₃O**
- C 83,7 — H 6,9 — O 9,3 — M. G. 172.
 - 1) *p*-Oxy-*p*-Äthylnaphtalin. Sm. 98° (*G.* 11, 439). — *II*, 894.
 - 2) 2-Oxy-1,4-Dimethylnaphtalin. Sm. 135—136°; Sd. 315—316°₇₆₀; subl. bei 100° (*B.* 12, 1575; 16, 428; 28 [2] 117, 619; 31, 1675; *G.* 12, 406; 25 [1] 545). — *II*, 894.
 - 3) Äthyläther d. 1-Oxynaphtalin. Sd. 272° (280,7°) (*A.* 152, 286; *B.* 15, 1428; *Am.* 13, 157). — *II*, 857.
 - 4) Äthyläther d. 2-Oxynaphtalin. Sm. 37°; Sd. 274—275° (*A.* 152, 287; *B.* 15, 1428; 19, 1819; *Am.* 13, 162; *Bl.* [3] 19, 367). — *II*, 876.
 - 5) *α*-Phenyl-*β*-Furyläthan. Sd. 241° (*B.* 23, 2847). — *III*, 694.
 - 6) *s*-Keto-*α*-Phenyl-*α*-*γ*-Hexadien. Sm. 68° (*B.* 18, 2321). — *III*, 172.
 - 7) 2-Keto-1-Benzyliden-*R*-Pentamethylen. Sm. 68° (*B.* 29, 1838).
 - 8) 1-Keto-2-Isopropyliden-2,3-Dihydroinden. Sm. 102—103° (*Soc.* 65, 500). — *III*, 173.
- C₁₂H₁₃O₂**
- C 76,6 — H 6,4 — O 17,0 — M. G. 188.
 - 1) Dimethyläther d. 2,7-Dioxynaphtalin. Sm. 134° (*B.* 14, 2209). — *II*, 984.
 - 2) 6-Oxy-4-Keto-2-Phenyl-1,2,3,4-Tetrahydrobenzol (3,5-Diketo-1-Phenylhexahydrobenzol; Phenyl-dihydroresorcin) Sm. 187—188° (184°) u. Zers. Na, Ca, Pb, Ag (*B.* 27, 2056, 2127, 2340; 31, 2771; *J. pr.* [2] 43, 391; *A.* 294, 302). — *III*, 279.
 - 3) 3-Oxy-2-Keto-1,4-Dimethyl-2,3-Dihydronaphtalin. Sm. 104—105° (*G.* 26 [1] 21).
 - 4) 1,3-Diketo-2,6-Dimethyl-1,2,3,4-Tetrahydronaphtalin. Sm. 95° (*Bl.* [3] 3, 128). — *III*, 279.
 - 5) *β*-Acetyl-*γ*-Keto-*α*-Phenyl-*α*-Buten (Benzylidenacetylaceton). Sd. 203 bis 205°₄₀ (*A.* 281, 80). — *III*, 279.
 - 6) *α*-Phenyl-*α*-*δ*-Pentadien-*ε*-Carbonsäure (Cinnamenylcrotonsäure). Sm. 157—158° (*J.* 1877, 792). — *II*, 1444.
 - 7) Isovaleriancumarin (Imm. Anhydrid d. Isovaleriancumarsäure). Sm. 54°; Sd. 301° u. Zers. (*A.* 147, 235). — *II*, 1666.
 - 8) Lakton d. *β*-Oxy-*δ*-Phenyl-*β*-Penten-*ε*-Carbonsäure. Sd. 177—180°₃₃ (*A.* 294, 324).
 - 9) Lakton d. *α*-Oxy-*α*-Phenyl-*γ*-Methyl-*α*-Buten-2-Carbonsäure (iso-Butylidenphtalid). Sm. 97° (*B.* 29, 1439).
 - 10) Lakton d. *γ*-Oxy-*β*-Benzyl-*β*-Buten-*α*-Carbonsäure (Benzylangelikalakton). Fl. (*A.* 254, 209). — *II*, 1667.
 - 11) Methylester d. 3-Methylinden-2-Carbonsäure. Sm. 78° (*A.* 247, 159). — *II*, 1443.

- $C_{11}H_{12}O_2$ 12) Verbindung (aus 2-Oxy-1,4-Dimethylnaphtalin). Sm. $104,5^\circ$ (B. 16, 428; C. 1895 [1] 431). — II, 824.
- $C_{11}H_{12}O_3$ 13) Verbindung (aus Pyroguajacin). Sm. 202° (M. 1, 606). — III, 645.
C 70,6 — H 5,9 — O 23,5 — M. G. 204.
- 1) β -Oxy- δ -Keto- γ -Benzoyl- β -Penten. Sm. 35° ; Sd. 167°_{22} . Cu (A. 277, 60, 68, 200; 291, 63, 99). — III, 315.
 - 2) β -[1-Naphtyl]äther d. $\alpha\alpha\beta$ -Trioxyäthan. Sm. 86° (B. 30, 1703).
 - 3) β -[2-Naphtyl]äther d. $\alpha\alpha\beta$ -Trioxyäthan. Sm. 87° (B. 30, 1701).
 - 4) ?-Triacetylbenzol. Sm. 162 — 163° (B. 21, 1145; A. 297, 27). — III, 315.
 - 5) Methyläther d. 6-Oxy-1,3-Diketo-1,2,3,4-Tetrahydronaphtalin (Dehydroacetylisomethylpäonol). Sm. 126° (B. 25, 1288). — III, 143.
 - 6) Acetat d. γ -Oxy- α -Keto- α -Phenyl- β -Buten. Sd. 170°_{22} (A. 277, 62). — III, 262.
 - 7) Flemingin. Sm. 171 — 172° (Soc. 73, 661).
 - 8) Homoflemingin. Sm. 165 — 166° (Soc. 73, 664).
 - 9) δ -Benzoyl- α -Buten- δ -Carbonsäure (Allylbenzoylessigsäure). Sm. 122 bis 125° (B. 16, 2132; Soc. 45, 185). — II, 1682.
 - 10) β -Acetyl- α -Phenylpropen- γ -Carbonsäure (Benzallävulinsäure). Sm. 125° . Mg, Ca + $3\frac{1}{2}H_2O$, Ba + $5H_2O$, Cd + $2H_2O$, Ag (A. 254, 187; B. 23, 74). — II, 1683.
 - 11) 2-Benzoyl-1-Methyl-R-Trimethylen-2-Carbonsäure. Sm. 128 — 129° (Soc. 61, 83). — II, 1684.
 - 12) 6-Phenyldehydrohexon-5-Carbonsäure. Sm. 142 — 144° u. Zers. Ag (Soc. 51, 728; 57, 308). — II, 1683.
 - 13) Anhydrid d. 1-Methylbenzol-3-Carbonsäure-4-[Isopropyl- α -Carbonsäure] (A. d. Jonegendicarbonsäure). Sm. 105° (B. 26, 2695). — II, 1858.
 - 14) Angelikabenzolcarbonsäureanhydrid. Fl. (A. 86, 260). — II, 1158.
 - 15) Äthylester d. 2-Methylbenzfuran-1-Carbonsäure (Ä. d. β -Methylcumarilsäure). Sm. 51° ; Sd. 290° (B. 19, 1292). — II, 1676.
 - 16) Verbindung (aus Kamala). Sm. unter 100° (Soc. 63, 985). — III, 671.
 - 17) Harz (aus Waras von Flemingia congesta). Sm. 162 — 167° (Soc. 73, 663).
C 65,5 — H 5,4 — O 29,1 — M. G. 220.
- $C_{11}H_{12}O_4$
- 1) $\alpha\delta$ -Diketo- α -Phenylpentan- γ -Carbonsäure (α -Acetyl- β -Benzoylpropionsäure; Acetophenonacetylessigsäure). Sm. 130 — 140° (B. 16, 2866; 17, 2764). — II, 1869.
 - 2) α -Phenyl- α -Buten- $\beta\delta$ -Dicarbonsäure (Benzalglutarsäure). Sm. 175° (177°). Ca + H_2O , Ba + H_2O , Ag₂ (A. 252, 338; B. 31, 2004). — II, 1870.
 - 3) δ -Phenyl- α -Buten- $\alpha\gamma$ -Dicarbonsäure (Benzylglutakonsäure). Sm. 149 bis 150° (152 — 153°). Ba, Ag₂ (A. 222, 261; Soc. 63, 259; Ph. Ch. 8, 501; J. pr. [2] 54, 369; [2] 58, 428). — II, 1870.
 - 4) δ -Phenyl- α -Buten- $\delta\delta$ -Dicarbonsäure (Phenylallylmalonsäure). Sm. 145° . Ca + $\frac{1}{2}H_2O$, Ag (B. 29, 2600).
 - 5) β -Phenyl- β -Buten- $\gamma\delta$ -Dicarbonsäure (γ -Methylphenylitakonsäure). Sm. 161 — 163° u. Zers. Ba, Ag₂ (A. 282, 288). — II, 1870.
 - 6) Methylphenylitakonsäure. Sm. 142 — 143° . Ag₂ (A. 282, 299). — II, 1870.
 - 7) 2-Tetrahydronaphtalin-1,5-Dicarbonsäure. Sm. $237,5$ — $238,5^\circ$. Ca + $2H_2O$, Ba + H_2O (G. 26 [1] 111).
 - 8) 1,2,3,4-Tetrahydronaphtalin-1,8-Dicarbonsäure. Zers. bei 185° . Ba (B. 27, 2694). — II, 1871.
 - 9) 1,2,3,4-Tetrahydronaphtalin-2,3-Dicarbonsäure. Sm. 199° . Ag₂ (B. 17, 450). — II, 1870.
 - 10) α -Acetoxyl- γ -Phenylcrotonsäure. Sm. 118° (B. 24, 4077). — II, 1658.
 - 11) 1-Acetoxyl-2,3-Dihydroinden-3-Carbonsäure. Sm. 100 — 120° ? (A. 283, 353).
 - 12) α -[3,4-Dioxyphenyl]- α -Buten-3,4-Methylenäther- β -Carbonsäure. Sm. 120 — 160° . Ag (B. 14, 786). — II, 1784.
 - 13) α -[3,4-Dioxyphenyl]- β -Buten-3,4-Methylenäther- δ -Carbonsäure (α -Hydropiperinsäure). Sm. 78° (75 — 76°). NH₄, K, Ca + $2H_2O$, Ba, Ag (A. 124, 115; 152, 56; 159, 140; 216, 172; 227, 32; B. 14, 788; 20, 415). — II, 1783.
 - 14) Oxyessig-2-[γ -Keto- α -Butenyl]phenyläthersäure (Phenoxyessigsäure-Akrylsäuremethylketon). Sm. 108° (B. 19, 3050). — III, 162.

- C₁₁H₁₁O₄**
- 15) Oxyessig-3-[γ -Keto- α -Butenyl]phenyläthersäure. Sm. 122° (B. 19, 3050). — III, 162.
 - 16) Oxyessig-4-[γ -Keto- α -Butenyl]phenyläthersäure. Sm. 177—178° (B. 19, 3050). — III, 162.
 - 17) β -Hydropiperinsäure. Sm. 130—131°. NH₄, Ca (A. 216, 171; 227, 42). — II, 1784.
 - 18) $\alpha\gamma$ -Lakton d. γ -Oxy- α -Phenylbutan- $\alpha\beta$ -Dicarbonsäure (Phenylvalerolaktocarbonsäure). Sm. 167,5°. Ca (B. 18, 791). — II, 1958.
 - 19) $\alpha\gamma$ -Lakton d. α -Oxy- α -Phenylbutan- $\beta\gamma$ -Dicarbonsäure (α -Methylphenylparakonsäure). Sm. 177°. Ca + H₂O, Ba + H₂O, Ag (A. 216, 119; 255, 259; B. 14, 1825). — II, 1958.
 - 20) $\alpha\delta$ -Lakton d. α -Oxy- α -Phenylbutan- $\beta\delta$ -Dicarbonsäure. Sm. 161° (B. 31, 2002).
 - 21) $\beta\delta$ -Lakton d. β -Oxy- β -Phenylbutan- $\gamma\delta$ -Dicarbonsäure (γ -Methylphenylparakonsäure). Sm. 123—124°. Ca, Ag (A. 282, 295). — II, 1959.
 - 22) 2, β -Lakton d. α -[2-Oxyphenyl]butan- $\beta\gamma$ -Dicarbonsäure (A. 255, 289). — II, 1959.
 - 23) $\alpha\gamma$ -Lakton d. α -Oxy- β -Methyl- α -Phenylpropan- $\beta\gamma$ -Dicarbonsäure (β -Methylphenylparakonsäure). Sm. 124,5°. Ca + 2H₂O, Ba, Ag (A. 255, 265). — II, 1959.
 - 24) $\beta\delta$ -Lakton d. β -Oxy- α -[3,4-Dioxyphenyl]butan-3,4-Methylenäther- δ -Carbonsäure (Piperhydrolakton) (A. 227, 38). — II, 1931.
 - 25) Methylester d. β -Acetoxyl- α -Phenylakrylsäure. Sd. 176°_{16–17} (A. 281, 398). — II, 1640.
 - 26) Methylester d. 4 [oder 5]-Oxy-1,6 [oder 1,3]-Dimethylbenzofuran-2-Carbonsäure. Sm. 185° (A. 283, 254). — III, 732.
 - 27) Dimethylester d. α -Phenyläthen- $\beta\beta$ -Dicarbonsäure (D. d. Benzylidenmalonsäure). Sm. 41°; Sd. 210—215°₆₀ (B. 27, 289). — II, 1863.
 - 28) Aethylester d. β -[3,4-Dioxyphenyl]akryl-3,4-Methylenäthersäure. Sm. 65—68°; Sd. 317° u. Zers. (Bl. [3] 17, 616).
 - 29) Aethylester d. β -Benzoxylakrylsäure. Sm. 35°; Sd. 208—209°₅₀ (B. 25, 1048, 1785; J. pr. [2] 50, 142). — II, 1154.
 - 30) Aethylester d. $\alpha\gamma$ -Diketo- α -Phenylpropan- γ -Carbonsäure (Ae. d. Benzoylbrenztraubensäure). Sm. 43° (B. 20, 2184; 30, 955; Soc. 61, 864). — II, 1862.
 - 31) 1-Aethylester d. Benzol-1-Carbonsäure-4-[Aethenyl- β -Carbonsäure] (Ae. d. p-Zimmtcarbonsäure). Sm. 220° (A. 231, 369). — II, 1865.
 - 32) Aethylester d. 4-Oxy-1-Methylbenzofuran-2-Carbonsäure. Sm. 137° (B. 21, 3005; J. pr. [2] 45, 80; A. 283, 246, 268). — III, 731.
 - 33) Aethylester d. 5-Oxy-2-Methylbenzofuran-1-Carbonsäure (Ae. d. m-Oxymethylcumarilsäure). Sm. 178° (B. 19, 2928). — III, 731.
- C₁₁H₁₁O₅**
- C 61,0 — H 5,1 — O 33,9 — M. G. 236.
- 1) Isorottlerin. Sm. 198—199° (Soc. 63, 988). — III, 671
 - 2) Murrayetin. Sm. 110° (Z. 1869, 317). — III, 598.
 - 3) Dimethyläther d. Fraxetin. Sm. 103—104° (G. 21 [2] 453). — III, 583.
 - 4) Dimethyläther d. ?-Dioxy-4-Methyl-1,2-Benzpyron (D. d. ?-Dioxy-4-Methylcumarin). Sm. 191—191,5° (G. 23 [2] 609). — II, 2007.
 - 5) Trimethyläther d. 5,6,7-Trioxyl-1,2-Benzpyron. Sm. 74—75° (G. 25 [2] 371).
 - 6) Pyrousninsäure (oder C₉H₅O₄). Sm. 195—197° u. Zers. (J. 1875, 615; B. 8, 1461; 15, 2241; G. 12, 242). — II, 2058.
 - 7) β -[3-Methoxyl-4-Acetoxylphenyl]akrylsäure (Acetferulasäure). Sm. 196—197° (B. 11, 647). — II, 1778.
 - 8) β -[3-Acetoxyl-4-Methoxylphenyl]akrylsäure (Acetisoferulasäure). Sm. 199° (B. 14, 963). — II, 1778.
 - 9) β -Keto- α -[3,4-Dioxyphenyl]butan-3,4-Methylenäther- δ -Carbonsäure (Piperketonsäure). Sm. 84°. Ca, Ag (A. 227, 33). — II, 1957.
 - 10) γ -Keto- α -Phenylbutan- $\alpha\beta$ -Dicarbonsäure (Phenylacetbernsteinsäure). Sm. 120—121°. K₂ (B. 14, 430; 17, 71). — II, 1965.
 - 11) α -Keto- α -Phenylbutan- $\gamma\delta$ -Dicarbonsäure (Phenacylbernsteinsäure). Sm. 156—157° (J. pr. [2] 53, 313).
 - 12) β -Oxy- α -Phenyläthenäthyläther- $\alpha\beta$ -Dicarbonsäure (Phenylloxymaleinäthyläthersäure). (NH₄)₂, Na₂, Ba + H₂O (A. 282, 82). — II, 1961.

- C₁₂H₁₁O₅**
- 13) Säure (aus Eugetinmethyläthersäure). Sm. 162—163° (*Bl.* 32, 3). — II, 1966.
 - 14) Anhydrid d. 3,5-Dioxybensoldiäthyläther-1,2-Dicarbonsäure. Sm. 130° (*A.* 296, 358).
 - 15) Lakton d. $\beta\gamma$ -Dioxy- α -[3,4-Dioxyphenyl]butan-3,4-Methylenäther- δ -Carbonsäure (Oxypiperhydrolakton). Sm. 104,5° (*B.* 20, 416). — II, 1993.
 - 16) Lakton d. $\alpha\gamma$ -Dioxy- α -Phenylbutan- $\alpha\gamma$ -Dicarbonsäure. α -Derivat Sm. 174—175°, Ag; β -Derivat Sm. 163°, Ag (*B.* 25, 2729). — II, 2008.
 - 17) α ,2-Lakton d. α -Oxy-4-Aethoxylphenylmethan- α ,2-Dicarbonsäure- α -Methylester. Sm. 79—80° (*A.* 296, 354).
 - 18) Aethylester d. 3,5-Dioxy-2-Methylbensfuran-1-Carbonsäure. Sm. 242° (*B.* 19, 2934). — III, 731.
 - 19) Diacetat d. Methyl-2,4-Dioxyphenylketon. Sm. 38° (*B.* 29, 1754; 30, 298).
 - 20) Diacetat d. Methyl-2,5-Dioxyphenylketon. Sm. 68° (*B.* 31, 1216).
 - 21) Diacetat d. Methyl-3,4-Dioxyphenylketon. Sm. 87° (*J. r.* 25, 157). — III, 138.
- C₁₁H₁₁O₆**
- 22) Monobenzoat d. Holzgummi (*C.* 1895 [1] 373.
C 57,1 — H 4,8 — O 38,1 — M. G. 252.
 - 1) Dextrose-Phloroglucid. Zers. bei 200° (*B.* 28, 25).
 - 2) Monacetat d. ρ -Trioxy-1,4-Diacetylbenzol (M. d. Gallodiacetophenon). Sm. 207—209° (*Bl.* [3] 6, 154). — III, 272.
 - 3) Triacetat d. 1,2,3-Trioxybenzol. Sm. 160° (*A.* 107, 244, 245; 301, 107). — II, 1012.
 - 4) Triacetat d. 1,2,4-Trioxybenzol. Sm. 96,5° (96,5—97°) (*M.* 5, 593; *B.* 31, 1247). — II, 1017.
 - 5) Triacetat d. 1,3,5-Trioxybenzol. Sm. 104—106° (*A.* 119, 201; *M.* 6, 888; 19, 376). — II, 1019.
 - 6) Acetylopiansäure. Sm. 120—121° (*B.* 19, 2287). — II, 1941.
 - 7) 3,4-Diacetoxylphenylessigsäure. Sm. 89—90° (*B.* 11, 658). — II, 1749.
 - 8) α -[2,3,4,5-Tetraoxyphenyl]äthen- ρ -Dimethyläther- ρ -Methylenäther- β -Carbonsäure (Apionakrylsäure). Sm. 196° (*B.* 22, 2485). — II, 2004.
 - 9) δ -Oxy- α -Keto- α -Phenylbutan- $\gamma\delta$ -Dicarbonsäure (Acetophenyläpfelsäure). Sm. 172°. Ag₂ (*Soc.* 69, 1385).
 - 10) α -Phenylpropan- $\beta\beta\gamma$ -Tricarbonsäure. Sm. 168,5° (*B.* 23, 653; *Ph. Ch.* 10, 574). — II, 2015.
 - 11) isom. ρ - α -Phenylpropan- $\beta\beta\gamma$ -Tricarbonsäure. Ca₃ + 6 $\frac{1}{2}$ H₂O, Ba₃ + 2 $\frac{1}{2}$ H₂O, Ag₂ (*A.* 256, 92). — II, 2014.
 - 12) β -Phenylpropan- β ,2,4-Tricarbonsäure (Joniregentricarbonsäure) (*B.* 26, 2685, 2698; 31, 874). — II, 2015.
 - 13) Säure (aus Dopplerit). Ca (*B.* 15, 2963; *M.* 3, 767).
 - 14) α ,2-Lakton d. α -Oxy- α -[3,4-Dioxyphenyl]äthan-3,4-Dimethyläther- β ,2-Dicarbonsäure (Mekoninessigsäure). Sm. 167°. Ca, Ag (*B.* 19, 2290; *M.* 17, 116). — II, 2044.
 - 15) α ,2-Lakton d. α -Oxy- α -[3,4-Dioxyphenyl]äthan- β ,2-Dicarbonsäure- β -Aethylester (Aethylester d. Normekoninessigsäure). Sm. 131° (*B.* 19, 2294). — II, 2044.
 - 16) α ,2-Lakton d. α -Oxy-4,6-Dimethoxylphenylmethan- α ,2-Dicarbonsäure- α -Methylester. Sm. 142—143° (*A.* 296, 354).
 - 17) Dimethylester d. 2-Acetoxybenzol-1,4-Dicarbonsäure. Sm. 76° (*B.* 10, 147). — II, 1938.
 - 18) Trimethylester d. Benzol-1,2,3-Tricarbonsäure. Sm. 100° (*B.* 29, 1401; *A.* 290, 227).
 - 19) Trimethylester d. Benzol-1,3,5-Tricarbonsäure. Sm. 143° (*B.* 20, 539; *J. pr.* [2] 40, 351; *C.* 1898 [2] 473). — II, 2011.
- C₁₁H₁₁O₇**
- C 53,7 — H 4,4 — O 41,8 — M. G. 268.
 - 1) β -Oxy- β -Phenylpropan- α , γ ,2-Tricarbonsäure. Fl. (*A.* 242, 80). — II, 2047.
 - 2) Methylester d. 2,3,4,5-Tetraoxybenzol- ρ -Dimethyläther- ρ -Methylenäther-1-Ketocarbonsäure (M. d. Apionylglyoxylsäure) (*G.* 21 [2] 182). — II, 2044.

$C_{13}H_{12}O_3$

C 50,7 — H 4,2 — O 45,1 — M. G. 284.

- 1) 2,5-Diacetyl-1,4-Diketohexahydrobenzol-3,6-Dicarbonsäure? Zers. bei 246°. NH_4 , Ba , $+ 2BaO + 4H_2O$ (B. 25, 327). — II, 2071.
- 2) Aethylester d. Diacetyloxykomensäure. Sm. 75° (J. pr. [2] 24, 287). — II, 1991.
- 3) Diäthylester d. 2,5-Dioxy-1,4-Benzochinon-3,6-Dicarbonsäure. Sm. 151°. $Na_2 + 2H_2O$, $Mg + \frac{1}{2}H_2O$, $Mn + \frac{1}{2}H_2O$, $Ag_2 + \frac{1}{2}H_2O$ (B. 19, 27, 2385; 20, 1311; 22, 1286; Ph. Ch. 1, 49). — II, 2069.
- 4) polym. Aethylenester d. Fumarsäure. Sm. 109—110° (A. 280, 188).
- 5) isom. polym. Aethylenester d. Fumarsäure. Sm. 90—92° (A. 280, 195).
- 6) polym. Aethylenester d. Maleinsäure (A. 280, 191).

 $C_{13}H_{12}O_9$

C 48,0 — H 4,0 — O 48,0 — M. G. 300.

- 1) Oxyessig-1,2,3-Trioxypheyläthersäure. Sm. 198°. $K + H_2O$, K_2 (J. pr. [2] 19, 396). — II, 1012.
- 2) $\alpha\gamma$ -Lakton d. α -Oxy- δ -Keto- α -Buten- $\alpha\beta\gamma\delta$ -Tetracarbonsäure- $\beta\delta$ -Diäthylester. Sm. 170—171° u. Zers. Na_2 (A. 285, 30).
- 3) Trimethylester d. 1,2,3-Trioxypheyl-1,2,3-Trikohlensäure. Fl. (B. 28, 1875).

 $C_{13}H_{12}O_{12}$

C 41,4 — H 3,4 — O 55,2 — M. G. 348.

- 1) Hydromellithsäure. Pb_3 , Ag_6 (A. Spl. 7, 15; B. 14, 2241; 28, 1272; J. pr. [2] 43, 542). — II, 2104.
- 2) Isohydromellithsäure. Pb_3 (A. Spl. 7, 43; B. 28, 1273). — II, 2104.

 $C_{12}H_{12}O_{14}$

C 37,9 — H 3,1 — O 59,0 — M. G. 380.

- 1) Säure (aus Zucker) (B. 28 [2] 327).

 $C_{13}H_{12}N_2$

C 78,3 — H 6,5 — N 15,2 — M. G. 184.

- 1) 2-Amidodiphenylamin. Sm. 79—80° (B. 22, 3287; 23, 1842; C. 1898 [2] 342). — IV, 555.
- 2) 4-Amidodiphenylamin. Sm. 66—67° (75%). Sd. bei 354° (im H-Strom). H_2SO_4 (B. 12, 1401; 18, 692; 20, 2480; 21, 2614; A. 243, 280; 255, 189). — IV, 583.
- 3) 2,2'-Diamidobiphenyl. Sm. 81° (B. 24, 198). — IV, 958.
- 4) 2,4'-Diamidobiphenyl. Sm. 45°; Sd. 363°. HCl , $2HCl$, H_2SO_4 (B. 9, 547; 14, 613; A. 207, 330, 354; 210, 193; J. 1882, 551; Ph. Ch. 3, 236; A. ch. [6] 18, 171; M. 6, 547). — IV, 959.
- 5) 3,3'-Diamidobiphenyl. ($2HCl$, $PtCl_4$), H_2SO_4 (B. 20, 1028). — IV, 960.
- 6) 4,4'-Diamidobiphenyl (Benzidin). Sm. 122°; Sd. oberh. 360° u. Zers. HCl , $2HCl$, ($2HCl$, $PtCl_4$), H_2SO_4 , H_2CrO_4 , Oxalat, Citrat. Lit. bedeutend. — IV, 960.
- 7) Isobenzidin. Sm. 125°. $2HCl$ (B. 19, 421). — IV, 970.
- 8) p-Diamidobiphenyl. Sd. oberh. 360° (A. 210, 193). — IV, 959.
- 9) 1-Naphtyläthanamidin. HCl (B. 11, 1758). — II, 604.
- 10) s-Diphenylhydrazin (Hydrazobenzol). Sm. 131° (J. 1863, 424; Z. 1867, 33; 1868, 497; A. 142, 365; G. 17, 256; J. r. 14, 225; A. ch. [6] 18, 187; C. 1898 [2] 775; Ph. Ch. 2, 557; Soc. 73, 793; Bl. 45, 188; B. 17, 1184; J. pr. [2] 54, 65). — IV, 1495.
- 11) uns-Diphenylhydrazin. Sm. 34,5°; Sd. 220°₄₀₋₅₀. HCl , H_2SO_4 , Amidosulfonat (A. 190, 174; 258, 244; B. 26, 2060; 28, 3166; J. pr. [2] 54, 172). — IV, 660.
- 12) 2-Hydrazidobiphenyl (2-Biphenylhydrazin). Sm. 38°. HCl , ($2HCl$, $SnCl_2$) (A. 279, 267). — IV, 970.
- 13) 4-Hydrazidobiphenyl. Sm. 135—136°. HCl (B. 27, 3105). — IV, 970.
- 14) 2-Naphtylhydrazonäthan. Sm. 128—129° (A. 236, 175). — IV, 930.
- 15) p-Diamidoacenaphten. $2HCl$, $2HJ$ (B. 21, 1459). — IV, 971.
- 16) 2,2'-Dimethyl-4,4'-Bipyridyl. Sm. 37—38° (84° wasserfrei); Sd. 303 bis 306°. $2HCl$, ($2HCl$, $6HgCl_2$), ($2HCl$, $PtCl_4$), ($2HCl$, $2AuCl_3$), Pikrat (J. pr. [2] 42, 430; B. 21, 2931). — IV, 970.
- 17) 3,3'-Dimethyl-4,4'-Bipyridyl. Sm. 125°; Sd. 293°. $2HCl$, ($2HCl$, $4HgCl_2$), ($2HCl$, $PtCl_4$), ($2HCl$, $AuCl_3$), Pikrat, $+ PtCl_4$ (J. pr. [2] 48, 2). — IV, 971.
- 18) 4,6-Dimethyl-2-Phenyl-1,3-Diazin. Sm. 83°; Sd. 276° (B. 26, 2124). — IV, 971.
- 19) Verbindung (aus Acetanilid). Sm. 130—132° (B. 22, 2599). — II, 362.

- C₁₂H₁₂N₄** C 67,9 — H 5,7 — N 26,4 — M. G. 212.
 1) **2,4-Diamidoazobenzol** (Chrysoïdin). Sm. 117,5° (110°). HCl, (2HCl, PtCl₄), HNO₃ (B. 10, 213, 388, 654; Soc. 51, 179). — IV, 1359.
 2) **3,3'-Diamidoazobenzol**. Sm. 154–156° (150–151°). HCl, (2HCl, PtCl₄), 2HBr, 2HNO₃, Oxalat (B. 30, 2938; Soc. 69, 10; A. 229, 341; 251, 193). — IV, 1360.
 3) **4,4'-Diamidoazobenzol** (Azoanilin). Sm. 241°. 2HCl, (2HCl, PtCl₄) (Am. 5, 283; B. 17, 345; 20, 3016). — IV, 1361.
 4) Nitril d. **5-Isopropyl-1-Phenyl-1,2,4-Triazol-3-Carbonsäure**. Sm. 76–77° (B. 27, 1965). — IV, 1118.
 5) Verbindung (aus Diazobenzolchlorid). Sm. 71° (B. 26, 1588). — IV, 1519.
- C₁₃H₁₃N₆** C 60,0 — H 5,0 — N 35,0 — M. G. 240.
 1) **2,3,7,8-Tetraamido-5,10-Naphtdiazin** (Tetraamidophenazin). 2HNO₃ + 2H₂O (B. 22, 448). — IV, 1244.
- C₁₂H₁₂Cl₆** 1) Hexa[Chlormethyl]benzol. Sm. 269° (Bl. 46, 197). — II, 56.
 2) **p-Trichlormethyl-p-Tri[Chlormethyl]-p-Dimethylbenzol**. Sm. 147° (Bl. 48, 198). — II, 56.
- C₁₂H₁₂Br₂** 1) Dibromtetrahydrobiphenyl. Fl. (B. 21, 843). — II, 222.
 2) Dihydroacenaphtendibromid. Sm. 138° (B. 21, 840). — II, 227.
- C₁₂H₁₂Br₄** 1) Hexa[Brommethyl]benzol. Sm. 227° (255°) (B. 13, 1732; A. ch. [6] 1, 468). — II, 72.
- C₁₂H₁₂S** 2) **1,4-Dimethylnaphtalinhexabromid?** Sm. 184° (G. 12, 410). — II, 219.
 1) Aethyläther d. 1-Merkaptonaphtalin. Sd. 167–167,5°₁₅ (B. 22, 823). — II, 867.
 2) Aethyläther d. 2-Merkaptonaphtalin. Sm. 16°; Sd. 170,5°₁₅ (B. 22, 824). — II, 887.
- C₁₃H₁₃N** C 84,2 — H 7,6 — N 8,2 — M. G. 171.
 1) **2-Amido-1,4-Dimethylnaphtalin**. Sm. 74°; Sd. 333°₇₄₅. HCl, (2HCl, PtCl₄), H₂SO₄ (B. 28 [2] 117, 619; G. 25 [1] 58; 26 [1] 14).
 2) 1-Aethylamidonaphtalin. HCl, HBr, HJ (A. 99, 117; 101, 90; B. 11, 1761; 12, 1312). — II, 598.
 3) 2-Aethylamidonaphtalin. Sd. 315–316°. HCl (B. 17, 2668; 22, 1297; 25, 2312; 26, 193). — II, 601.
 4) 1-Dimethylamidonaphtalin. Sd. 274,5°_{III}. (2HCl, PtCl₄) (B. 11, 643; 12, 2035; 13, 1348; 21, 3124; 22, 1315). — II, 598.
 5) 2-Dimethylamidonaphtalin. Sm. 46°; Sd. 305°. (2HCl, PtCl₄) (B. 13, 2054). — II, 601.
 6) **2,5-Dimethyl-1-Phenylpyrrol**. Sm. 51–52°; Sd. 244°₇₅₆ (A. 236, 305). — IV, 72.
 7) 2-Methyl-1-Allylindol. Fl. (B. 26, 2178). — IV, 221.
 8) 2-Propylchinolin. Fl. HCl, (2HCl, PtCl₄ + 2H₂O) (C. 1897 [1] 242). — IV, 334.
 9) 4-Propylchinolin. Fl. (2HCl, PtCl₄), Pikrat (B. 31, 2376).
 10) isom. 4-Propylchinolin. Fl. (2HCl, PtCl₄ + 1/2 H₂O), Pikrat (B. 31, 2375).
 11) 2-Isopropylchinolin. Sd. 255°. (2HCl, PtCl₄ + 2H₂O), Pikrat (B. 20, 1909; 32, 227; A. 242, 299). — IV, 334.
 12) 3-Isopropylchinolin. Sm. 10°; Sd. 275–280°₇₁₅. (2HCl, PtCl₄), H₂Cr₂O₇, Pikrat (B. 18, 3383). — IV, 334.
 13) 7-Isopropylchinolin (Cumochinolin). Fl. (2HCl, PtCl₄ + 2H₂O), Pikrat (B. 19, 267). — IV, 334.
 14) 3-Methyl-2-Aethylchinolin. Sm. 56°; Sd. 268–269°₁₁. (2HCl, PtCl₄ + 2H₂O), Chromat, Pikrat (B. 17, 1714; 25, 1755; 28, 2815). — IV, 335.
 15) 6-Methyl-2-Aethylchinolin. Sm. 59–60°; Sd. 270°₁₁₈. (2HCl, PtCl₄), Pikrat (B. 18, 3395). — IV, 335.
 16) 4-Methyl-3-Aethylchinolin. (2HCl, PtCl₄), Pikrat (B. 31, 2150).
 17) **2,3,4-Trimethylchinolin**. Sm. 65°; Sd. 285°. (2HCl, PtCl₄) (Bl. 49, 91). — IV, 335.
 18) **2,3,6-Trimethylchinolin**. Sm. 86–87°; Sd. 285°. (2HCl, PtCl₄ + 2H₂O) (B. 23, 2268). — IV, 336.
 19) **2,4,6-Trimethylchinolin** + H₂O. Sm. 63–64°; Sd. 277–278°. HCl + 2H₂O, (2HCl, PtCl₄ + 2H₂O), H₂SO₄ + H₂O, H₂Cr₂O₇, Pikrat (J. pr. [2] 38, 41; Bl. 49, 91). — IV, 336.

- C₁₁H₁₁N** 20) **2,6,7-Trimethylchinolin.** (2HCl, PtCl₄) (B. 17, 1158; J. 1884, 790). — IV, 336.
- 21) **2,6,8-Trimethylchinolin.** Sm. 46°; Sd. 260°₁₁₉. HCl. (2HCl, PtCl₄ + 2H₂O), HNO₃, H₂SO₄ + H₂O, H₂Cr₂O₇, Pikrat (B. 20, 32; 29, 1472). — IV, 336.
- 22) **5,6,8-Trimethylchinolin.** Sm. 43°; Sd. 285—287°. (2HCl, PtCl₄ + 2H₂O), HNO₃, H₂SO₄ (B. 18, 376). — IV, 337.
- 23) **9-Trimethylchinolin.** Sd. 270—280°. (2HCl, PtCl₄ + 2H₂O) (B. 18, 3352). — IV, 337.
- 24) **3-Propylisochinolin.** Sd. 271°₁₀₀. (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 29, 2398). — IV, 337.
- 25) **3-Isopropylisochinolin.** Sd. 264—266°₁₁₁. (2HCl, PtCl₄) (B. 30, 893). — IV, 338.
- 26) **Fluorolin.** Fl. (2HCl, PtCl₄ + 2H₂O) (A. 271, 98). — IV, 339.
- 27) **Tetrahirolin.** Fl. (Z. 1867, 429). — IV, 343.
- 28) **1,2,3,4-Tetrahydrocarbazol.** Sm. 120° (114°); Sd. 325—330°. Pikrat (A. 163, 358; 278, 105; J. pr. [2] 38, 67; B. 26, 2006). — IV, 339.
- C₁₁H₁₁N₃** C 72,4 — H 6,5 — N 21,1 — M. G. 199.
- 1) **2,4-Diamidodiphenylamin.** Sm. 130° (B. 28, 2970). — IV, 1122.
- 2) **2,4'-Diamidodiphenylamin.** Fl. 2HCl, (2HCl, PtCl₄) (B. 12, 1402; 19, 424). — IV, 1169.
- 3) **4,4'-Diamidodiphenylamin.** Sm. 158°. (2HCl, PtCl₄), H₂SO₄ (B. 11, 1098; 12, 1402; 16, 474; 18, 2576; A. 303, 365). — IV, 1168.
- 4) **2,4,4'-Triamidobiphenyl.** Sm. 134°. 3HCl (B. 23, 798). — IV, 1169.
- 5) **2-[α-Phenylhydrazonäthyl]pyrrol.** Sm. 146—147° (B. 17, 2946). — IV, 98.
- 6) **2-Imido-6-Benzyl-4-Methyl-2,5-Dihydro-1,3-Diazin + 1/2 H₂O** (Phenylacetylacetonguanidin). Sm. 108° (J. pr. [2] 49, 516). — III, 273.
- 7) **β-[5-Chinoly]hydrazonpropan.** Sm. 138—140° (Soc. 61, 787). — IV, 1161.
- C₁₁H₁₁N₅** C 63,4 — H 5,7 — N 30,8 — M. G. 227.
- 1) **2,4,3'-Triamidoazobenzol** (Vesuvium; Bismarekbraun). Sm. 144° (137°). + 1/2 C₆H₆, 2HCl + H₂O, (2HCl, PtCl₄) (Z. 1867, 278; B. 30, 2113, 2204; 31, 190; Soc. 51, 180). — IV, 1363.
- C₁₁H₁₁Br₂** 1) **Tetrahydrobrombiphenyldibromid.** Sm. 134° (B. 21, 844). — II, 222.
- C₁₁H₁₁O** C 82,7 — H 8,0 — O 9,2 — M. G. 174.
- 1) **7-Oxy-5,8-Dimethyl-1,2-Dihydronaphtalin.** Sm. 113° (111—112°) (G. 13, 390; 25 [2] 295; B. 26, 2507). — II, 555.
- 2) **2-Propionyl-2,3-Dihydroinden.** Sm. 28°; Sd. 188—190°₈₀ (Soc. 65, 243). — III, 167.
- 3) **γ-Keto-α-Phenyl-β-Methyl-α-Penten** (Benzylidendiäthylketon). Sm. 31°; Sd. 163°₁₀ (B. 29, 1352; A. 294, 296).
- C₁₁H₁₄O₂** C 75,8 — H 7,4 — O 16,8 — M. G. 190.
- 1) **γ-Keto-α-[2-Oxyphenyl]-α-Hexen** (o-Propylcumarketon). Sm. 116° (B. 29, 376). — III, 166.
- 2) **α-Oxy-γ-Keto-β-Phenyl-δ-Methyl-α-Penten** (Oxymethylenbenzylisopropylketon). Fl. (B. 28, 699). — III, 167.
- 3) **3-Methyläther-4-Aethyläther d. α-[3,4-Dioxyphenyl]propin.** Sm. 71° (B. 29, 680).
- 4) **αγ-Diketo-α-Phenylhexan.** Sd. 174°₁₄ (B. 20, 2181). — III, 273.
- 5) **γε-Diketo-ε-Phenyl-β-Methylpentan.** Sd. 170°₂₆ (B. 20, 2181). — III, 273.
- 6) **αγ-Diketo-α-Phenyl-β-Aethylbutan.** Sd. 265—270° (B. 21, 1152). — III, 273.
- 7) **1,2-Dipropionylbenzol?** (Diäthylphtalylketon). Sm. 54°; Sd. 250° (A. 143, 262; Bl. 51, 167; J. 1882, 366; B. 17, 818). — III, 273.
- 8) **1,4-Dipropionylbenzol.** Sm. 220° (B. 19, 1850). — III, 273.
- 9) **2,4-Diacetyl-1,3-Dimethylbenzol.** Sm. 108°; Sd. 306° (B. 29, 2566).
- 10) **β-4-Isopropylphenyl]akrylsäure** (4-Cumenylakrylsäure). Sm. 157 bis 158°. Ca, Sr + 2H₂O, Ag (J. 1877, 790; Soc. 31, 388; B. 19, 255; 22, 2268; 31, 2615). — II, 1433.
- 11) **Lakton d. δ-Oxy-β-Phenylpentan-α-Carbonsäure.** Sd. 190—192°₁₀ (A. 294, 329).

- C₁₃H₁₄O₂**
- 12) Lakton d. γ -Oxy- β -Benzylvaleriansäure. Sm. 86° (A. 254, 215). — II, 1593.
 - 13) Lakton d. 1-[α -Oxyamyl]benzol-2-Carbonsäure. Sd. 177—178°₁₈ (B. 30, 1430).
 - 14) Lakton d. 1-[α -Oxy- α -Aethylpropyl]benzol-2-Carbonsäure (Diäthylphthalid). Sd. 210—214°₂₁₀ (A. 248, 67; C. 1897 [1] 1164). — II, 1593.
 - 15) Aethylester d. β -[2-Methylphenyl]akrylsäure. Sd. 250—257° (B. 25, 2103). — II, 1427.
 - 16) norm. Propylester d. β -Phenylakrylsäure. Sd. 283—284° (285,1°) (B. 11, 1220; A. 221, 76). — II, 1406.
 - 17) Acetat d. 2-Oxy-1,2,3,4-Tetrahydronaphtalin. Sd. 169°₄ (B. 23, 209). — II, 855.
 - 18) Acetat d. Oxybutenylbenzol. Sd. 223—230° (J. 1876, 398). — II, 1070.
 - 19) Acetat d. δ -Oxy- δ -Phenyl- α -Buten. Sd. 239—240° (Bl. [3] 9, 601). — II, 1071.
 - 20) Verbindung (aus ?-Nitroso-2-Keto-3-Benzylhexahydropyridin). Fl. (B. 23, 3698). — II, 1397.
- C₁₂H₁₄O₂**
- 21) Amylenverbindung d. Benzoylsuperoxyd (J. 1870, 686).
C 69,9 — H 6,8 — O 23,3 — M. G. 206.
 - 1) Myristicin. Sm. 30,2°; Sd. 142—149°₁₀ (B. 23, 1806). — III, 638.
 - 2) Siarositannol. K + H₂O (B. 26 [2] 679). — III, 554.
 - 3) Aethyläther d. $\alpha\gamma$ -Diketo- α -[2-Oxyphenyl]butan (o-Aethoxybenzoyl-aceton). Sm. 58° (B. 27, 3036). — III, 271.
 - 4) Jonegenalid. Sm. 175° (B. 26, 2696). — II, 1684.
 - 5) α -[2-Methoxylphenyl]- α -Buten- β -Carbonsäure (α -o-Butyrcumarmethyläthersäure). Sm. 88°. Ba, Ag (Soc. 39, 435, 451). — II, 1662.
 - 6) isom. α -[2-Methoxylphenyl]- α -Buten- β -Carbonsäure. Sm. 105°. Ba, Ag (J. 1877, 793; Soc. 39, 437). — II, 1662.
 - 7) α -[4-Methoxylphenyl]- α -Buten- β -Carbonsäure (p-Butyrcumarmethyläthersäure). Sm. 123—124° (129,5—131°) (J. 1877, 792; Bl. [3] 17, 414). — II, 1663.
 - 8) α -[2-Aethoxylphenyl]propen- β -Carbonsäure. Sm. 133° (Soc. 39, 429). — II, 1654.
 - 9) α -[3-Aethoxylphenyl]propen- β -Carbonsäure. Sm. 80° (B. 28, 2002).
 - 10) β -[2-Oxy-4-Isopropylphenyl]akrylsäure (o-Oxycumenylakrylsäure). Sm. 176° (B. 19, 268). — II, 1667.
 - 11) β -[3-Oxy-4-Isopropylphenyl]akrylsäure (m-Oxycumenylakrylsäure). Sm. 205—206° (B. 19, 417). — II, 1667.
 - 12) α -Keto- α -Phenylpentan- γ -Carbonsäure. Sm. 83° (Bl. [3] 17, 410).
 - 13) δ -Keto- β -Phenylpentan- α -Carbonsäure (γ -Acetyl- β -Phenylbuttersäure). Sm. 83—84°. Ba, Ag + $\frac{1}{2}$ H₂O (J. pr. [2] 43, 393; B. 27, 2057; 31, 763; A. 294, 322). — II, 1667.
 - 14) γ -Keto- β -Benzylbutan- α -Carbonsäure (β -Acetyl- γ -Phenylbuttersäure). Sm. 98—99°. Sd. 230—235°₁₀. Ca + 3 H₂O (A. 254, 202). — II, 1667.
 - 15) β -[p-Aethylbenzoyl]propionsäure. Sm. 90° (B. 28, 3217).
 - 16) β -Benzoyl- α -Aethylpropionsäure. Sm. 81—83°. Ca + H₂O (B. 21, 3456). — II, 1667.
 - 17) β -[2,4-Dimethylbenzoyl]propionsäure. Sm. 108° (106°). Na + 4 H₂O, K + 4 H₂O, Ba + 3 H₂O, Pb, Ag (B. 20, 1376; 28, 3216). — II, 1668.
 - 18) β -[2,5-Dimethylbenzoyl]propionsäure. Sm. 84° (62°) (B. 20, 1378; 28, 3216). — II, 1668.
 - 19) β -[3,4-Dimethylbenzoyl]propionsäure. Sm. 105° (B. 28, 3216).
 - 20) 1-[α -Ketoisoamyl]benzol-2-Carbonsäure. Sm. 88° (B. 29, 1440).
 - 21) 1-Pseudobutylbenzol-4-Ketocarbonsäure (Bl. [3] 19, 74).
 - 22) 1-Methyl-3-Propylbenzol-4-Ketocarbonsäure. Fl. Ca + 2 H₂O, Ba + H₂O (J. pr. [2] 46, 493). — II, 1668.
 - 23) 1-Methyl-4-Propylbenzol-3-Ketocarbonsäure. Fl. Ca + 2 H₂O, Ba + H₂O, Ag (B. 19, 233; J. pr. [2] 42, 512; [2] 43, 533). — II, 1668.
 - 24) 1-Methyl-4-Isopropylbenzol-2[oder 3]-Ketocarbonsäure. Fl. (C. 1896 [2] 92).
 - 25) 1,2,3,4-Tetramethylbenzol-5-Ketocarbonsäure. Fl. Ca + H₂O, Ba + 4 H₂O, Cu + 3 H₂O, Ag (J. pr. [2] 38, 232). — II, 1668.
 - 26) 1,2,3,5-Tetramethylbenzol-4-Ketocarbonsäure. Fl. Na + 5 H₂O, Ca + 3 H₂O, Ba + 5 H₂O, Cu + 5 H₂O, Ag (B. 20, 3099). — II, 1668.

- C₁₁H₁₄O₂**
- 27) **1,2,4,5-Tetramethylbenzol-3-Ketocarbonsäure.** Sm. 124°. K + 5H₂O, Ca + 9H₂O, Ba + 3H₂O, Ag (B. 20, 3102). — II, 1668.
 - 28) **Säure** (aus Malonsäureäthylesterbenzylidenacetessigester). Sm. 85—86° (B. 27, 2342). — II, 2048.
 - 29) **Säure** (aus Sorbinöl). Ba (B. 27, 349).
 - 30) **Gem. Anhydrid d. Isovaleriansäure u. Benzolcarbonsäure.** Fl. (A. 84, 108). — II, 1158.
 - 31) **Gem. Anhydrid d. Essigsäure u. 1-Isopropylbenzol-4-Carbonsäure.** Fl. (A. 87, 82). — II, 1385.
 - 32) **$\alpha\gamma$ -Lakton d. $\alpha\delta$ -Dioxy- α -Phenylpentan- γ -Carbonsäure.** Fl. (B. 17, 69). — II, 1770.
 - 33) **Aldehyd d. 5-Oxy-4-Isopropyl-1-Methylbenzol-2,6-Dicarbonsäure.** Sm. 79—80° (B. 16, 2104). — III, 107.
 - 34) **Methylester d. α -[2-Methoxyphenyl]propen- β -Carbonsäure.** Sd. 274—275° (Soc. 39, 429). — II, 1654.
 - 35) **Methylester d. isom. α -[2-Methoxyphenyl]propen- β -Carbonsäure.** Sd. 286° (Soc. 39, 429). — II, 1654.
 - 36) **Methylester d. 1,3,5-Trimethylbenzol-2-Ketocarbonsäure.** Sd. 273 bis 275° (B. 24, 3543; 27, 1587). — II, 1666.
 - 37) **Äthylester d. β -[4-Methoxyphenyl]akrylsäure.** Sm. 48—49°; Sd. 245°₁₂₅ (315°) (A. 294, 295; Bl. [3] 17, 511).
 - 38) **Äthylester d. 4-Oxybenzyläther-1-Carbonsäure.** Sm. 109°; Sd. 260° (G. 12, 451; B. 16, 796). — II, 1526.
 - 39) **Äthylester d. α -Benzoylpropionsäure.** Sd. 235°₃₀₀ (Soc. 49, 156). — II, 1658.
 - 40) **Äthylester d. β -Benzoylpropionsäure.** Sm. 30—32° (18—19,5°); Sd. 192,5°₃₃ (A. ch. [5] 26, 435; B. 17, 2115; A. 299, 62). — II, 1658.
 - 41) **Äthylester d. 2-Methylbenzoylessigsäure.** Fl. (B. 22 [2] 439; J. 1890, 1435). — II, 1660.
 - 42) **Äthylester d. β -Keto- α -Phenylpropan- α -Carbonsäure.** Sd. 145 bis 147°₁₁ (B. 31, 3162).
 - 43) **Äthylester d. 1,3-Dimethylbenzol-4-Ketocarbonsäure.** Sm. 50°; Sd. 175°₁₀ (Bl. [3] 17, 368).
 - 44) **Äthylester d. 1,4-Dimethylbenzol-2-Ketocarbonsäure.** Sd. 155 bis 156°₁₀ (Bl. [3] 17, 940).
 - 45) **Isobutylester d. Benzolketocarbonsäure.** Sd. 170—174°₉₉ (B. 12, 629). — II, 1597.
 - 46) **4-Acetat d. 3,4-Dioxy-1-Allylbenzol-3-Methyläther.** Sm. 30—31° (29°); Sd. 270° (B. 10, 202; J. pr. [2] 56, 147). — II, 975.
 - 47) **4-Acetat d. 3,4-Dioxy-1-Propenylbenzol-3-Methyläther.** Sm. 79—80°; Sd. 282—283° (B. 24, 2873; Ph. Ch. 10, 421). — II, 980.
 - 48) **Acetat d. β -Oxy- α -Keto- α -Phenylbutan.** Sd. 164—170°_{25—30} (Bl. [3] 17, 957).
 - 49) **Acetat d. β -Oxy- α -Keto- α -Phenyl- β -Methylpropan.** Sd. 135—140°_{15—20} (Bl. [3] 17, 957).
 - 50) **Benzoat d. ϵ -Oxy- β -Ketopentan.** Sd. 296—298° (B. 22, 1206). — II, 1141.
- C₁₁H₁₄O₄**
- 51) **Verbindung** (aus Dihydroresorcin) (A. 278, 30). — II, 906.
C 64,8 — H 6,3 — O 28,8 — M. G. 222.
 - 1) **Apiol** (3,4 [oder 4,5]-Methylen-2,5-[oder 2,3]-Dimethyläther d. 2,3,4,5-Tetraoxy-1-Allylbenzol). Sm. 30°; Sd. 294° (A. 6, 301; B. 9, 1477; 21, 913; 23, 862; Ph. Ch. 10, 415). — II, 1034.
 - 2) **isom. Apiol** (aus Dillöl). Sd. 285° (B. 29, 1800).
 - 3) **Isoapiol** (3,4-[oder 4,5]-Methylen-2,5-[oder 2,3]-Dimethyläther d. 2,3,4,5-Tetraoxy-1-Propenylbenzol). Sm. 55—56°; Sd. 303—304° (B. 21, 1621; 23, 862; Ph. Ch. 10, 415). — II, 1034.
 - 4) **isom. Isoapiol** (aus Dillöl). Sm. 44°; Sd. 296° u. ger. Zers. (B. 29, 1801, 1804).
 - 5) **Diglycidäther d. 1,2-Dioxybenzol.** Sm. 83—84° (B. 24, 2149). — II, 909.
 - 6) **β -[4-Äthoxylbenzoyl]propionsäure.** Sm. 138—139° (B. 32, 404).
 - 7) **Oxyessig-2-Methoxyl-4-Allylphenyläthersäure.** Sm. 80—81° (75°; 94°). Na + 1½ H₂O (J. pr. [2] 21, 158; G. 23 [1] 553; B. 28, 1870; Bl. [3] 17, 361). — II, 975.

- $C_{12}H_{14}O_4$
- 8) Oxyessig-[2-Methoxyl-4-Propenylphenyl]äthersäure. Sm. 116° (92 bis 94°) (G. 23 [1] 553). — II, 280.
 - 9) δ-[2-Dioxyphenyl]valerianmethylenäthersäure (Piperhydronsäure). Sm. 96°. Ca + H_2O (A. 216, 178). — II, 1769.
 - 10) α-[2-Dioxyphenyl]butanmethylenäther-β-Carbonsäure. Fl. (B. 14, 787). — II, 1770.
 - 11) β-[2,4-Dioxyphenyl]propen-2,4-Dimethyläther-α-Carbonsäure. Sm. 145°. Ag (B. 17, 2133). — II, 1780.
 - 12) α-[3,4-Dioxyphenyl]propen-3,4-Dimethyläther-β-Carbonsäure (Methylhomofenylsäure). Sm. 140–141°. Ag (B. 15, 2071). — II, 1781.
 - 13) 4,5-Dioxy-1-Allylbenzol-4,5-Dimethyläther-3-Carbonsäure (Methyläthereugetinsäure). Sm. 180° (J. 1879, 520; B. 10, 237). — II, 1782.
 - 14) Para-α-Phenylbutan-βγ-Dicarbonsäure. Sm. 159–160° (B. 23, 1942; Ph. Ch. 8, 464). — II, 1858.
 - 15) Meso-α-Phenylbutan-βγ-Dicarbonsäure (s-Methylbenzylbernsteinsäure). Sm. 138° (B. 23, 1942; Ph. Ch. 8, 464). — II, 1858.
 - 16) α-Phenylbutan-βδ-Dicarbonsäure (α-Benzylglutarsäure). Ca + $\frac{1}{2}H_2O$, Ba + $2\frac{1}{2}H_2O$, Ag₂ (A. 282, 342). — II, 1857.
 - 17) α-Phenylbutan-β,2-Dicarbonsäure. Sm. 140–141,5° (B. 31, 2888).
 - 18) β-Phenylbutan-αγ-Dicarbonsäure. Sm. 122° (Am. 20, 516).
 - 19) 1-Isobutylbenzol-3,5-Dicarbonsäure. Sm. 269°. Ca + $2H_2O$, Ba + $3H_2O$, Ag₂ (B. 23, 2381; 24, 1749). — II, 1858.
 - 20) 1,2,3,4-Tetramethylbenzol-5,6-Dicarbonsäure (Prehnitoldicarbonsäure). Sm. 249°. Ba + $2H_2O$ (B. 22, 1216). — II, 1859.
 - 21) 1-Methylbenzol-3-Carbonsäure-4-[Isopropyl-α-Carbonsäure] (Jongendicarbonsäure). Sm. 130–131°. Ag₂ (B. 26, 2695). — II, 1858.
 - 22) Benzol-1,2-Di[Aethyl-β-Carbonsäure] (o-Phenylendipropionsäure). Sm. 160–162°. Ag₂ (Soc. 53, 18). — II, 1858.
 - 23) Benzol-1,3-Di[Aethyl-β-Carbonsäure]. Sm. 146–147°. Ag₂ (B. 21, 37). — II, 1858.
 - 24) Benzol-1,4-Di[Aethyl-β-Carbonsäure]. Sm. 223–224°. Ag₂ (B. 21, 40). — II, 1858.
 - 25) 1,2-Lakton d. 4,6-Dioxy-1-Oxymethylbenzol-4,6-Diäthyläther-2-Carbonsäure. Sm. 179° (A. 296, 355).
 - 26) 5[oder 6]-Aldehyd d. 3-Oxy-4-Propyl-1-Methylbenzol-2,5[oder 2,6]-Dicarbonsäure. Sm. 180–185°. Ag (B. 28, 2796).
 - 27) Methylester d. β-[2,4-Dioxyphenyl]akryl-2,4-Dimethyläthersäure. Sm. 87° (B. 15, 2080). — II, 1774.
 - 28) Methylester d. β-[3,4-Dioxyphenyl]akryl-3,4-Dimethyläthersäure. Sm. 64° (B. 14, 959). — II, 1777.
 - 29) Dimethylester d. 1,3-Dimethylbenzol-4,6-Dicarbonsäure. Sm. 76° (B. 19, 2509). — II, 1854.
 - 30) Dimethylester d. 1,4-Dimethylbenzol-2,5-Dicarbonsäure. Sm. 114°; Sd. 297° (B. 19, 2510). — II, 1854.
 - 31) Dimethylester d. Benzol-1,3-Di[Methylcarbonsäure]. Sd. 298–300° (G. 23 [2] 338). — II, 1852.
 - 32) Dimethylester d. Benzol-1,4-Di[Methylcarbonsäure]. Sm. 56,5–57° (B. 9, 1786). — II, 1852.
 - 33) Dimethylester d. Benzol-1-Carbonsäure-4-[Aethyl-α-Carbonsäure]. Fl. (G. 21 [1] 83). — II, 1853.
 - 34) Aethylester d. α-Benzoxylpropionsäure. Sd. 288° (A. 133, 272). — II, 1153.
 - 35) Aethylester d. 2-Oxybenzoylessigmethyläthersäure. Fl. (B. 25, 1306). — II, 1778.
 - 36) Aethylester d. 4-Oxybenzoylessigmethyläthersäure. Sd. 140–142°₁₀. Cu (C. 1897 [2] 616).
 - 37) Aethylester d. α-Acetoxyphenylessigsäure. Sm. 73,5–74° (A. 139, 302). — II, 1552.
 - 38) Aethylester d. 2,3,5-Trimethyl-1,4-Benzochinon-6-Carbonsäure. Sm. 51° (A. 237, 15). — II, 1783.
 - 39) Diäthylester d. Benzol-1,2-Dicarbonsäure. Sd. 288° (295° cor.) (A. 142, 344; B. 16, 861; J. pr. [2] 49, 240). — II, 1793.
 - 40) Diäthylester d. Benzol-1,3-Dicarbonsäure. Sd. 285° (A. 153, 284). — II, 1826.

- C₁₂H₁₄O₄** 41) Diäthylester d. Benzol-1,4-Dicarbonsäure. Sm. 44° (A. 121, 89; 132, 269; *J. pr.* [2] 54, 78). — II, 1832.
 42) Diacetat d. $\alpha\beta$ -Dioxyäthylbenzol. Sd. 274°₇₅₅ (B. 10, 1006; A. 216, 295). — II, 1098.
 43) Diacetat d. 1,2-Di[Oxymethyl]benzol. Sm. 37° (B. 12, 647). — II, 1096.
 44) Diacetat d. 1,4-Di[Oxymethyl]benzol. Sm. 47° (A. 155, 342). — II, 1097.
 45) Diacetat d. 4,6-Dioxy-1,3-Dimethylbenzol. Sm. 45°; Sd. 285—287° (B. 16, 1138). — II, 968.
- C₁₂H₁₄O₅** 46) Dipropionat d. 1,4-Dioxybenzol. Sm. 113° (A. 200, 246). — II, 941.
 C 60,5 — H 5,9 — O 33,6 — M. G. 238.
 1) δ -Oxybutanphenyläther- $\alpha\alpha$ -Dicarbonsäure. Sm. 75—80° (B. 25, 417). — II, 667.
 2) δ -Oxybutanphenyläther- $\beta\beta$ -Dicarbonsäure. Sm. 125° u. Zers. (*Soc.* 69, 171; C. 1895 [1] 825).
 3) γ -Oxy- α -Phenylbutan- $\alpha\beta$ -Dicarbonsäure. Ca, Ba, Ag₂ (B. 18, 791). — II, 1958.
 4) α -Oxy- α -Phenylbutan- $\beta\gamma$ -Dicarbonsäure (α -Methylphenylitamalsäure). Ca + 3 H₂O, Ba + 2 H₂O, Ag₂ (A. 216, 121; 255, 257). — II, 1958.
 5) α -[2-Oxyphenyl]butan- $\beta\gamma$ -Dicarbonsäure (α -Oxyphenyldimethylbernsteinsäure). Sm. 145—150°. Ca, Ba, Ag₂ (A. 255, 288). — II, 1959.
 6) α -Oxy- γ -Methyl- α -Phenylpropan- $\beta\gamma$ -Dicarbonsäure (β -Methylphenylitamalsäure). Ca + H₂O, Ba, Ag₂ (A. 255, 267). — II, 1959.
 7) α -Aethoxyl- α -Phenyläthan- $\beta\beta$ -Dicarbonsäure (β -Aethoxylbenzylmalonsäure). Sm. 120° u. Zers. Ba + 3 H₂O (B. 27, 291). — II, 1952.
 8) Aeskuletintrimethyläthersäure. Sm. 168° (B. 15, 2082). — II, 1950.
 9) β -Oxy- α -[3,4-Dioxyphenyl]butan-3,4-Methylenäther- δ -Carbonsäure (Oxypiperhydronsäure). Sm. 95°. Ba, Ag (A. 227, 38). — II, 1931.
 10) Methylsinapinsäure. Sm. 123,5—124° (C. 1897 [1] 822; B. 30, 2331).
 11) 2,4-Dioxybenzoldiäthyläther-1-Ketocarbonsäure. Sm. 127° (128 bis 130°). Na + 6 H₂O, Ba + 8 H₂O, Ag (M. 14, 43; 16, 620). — II, 1947.
 12) 1,2-Lakton d. 3,4-Dioxy-1-Dioxymethylbenzol-3,4-Dimethyläther-1-Aethyläther-2-Carbonsäure (Pseudoäthylester d. Opiansäure). Sm. 92,2° (A. 50, 5; 86, 194; M. 12, 74). — II, 1941.
 13) 1-Aldehyd d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure-2-Aethylester (Aethylester d. Opiansäure). Sm. 63,5—64,5° (M. 14, 311). — II, 1941.
 14) Dimethylester d. 4-Oxybenzoldiäthyläther-1,2-Dicarbonsäure. Sm. 44—45° (A. 286, 25). — II, 1936.
 15) Dimethylester d. Anemonsäure + 2 H₂O. Sm. 99—100° (109—111° wasserfrei) (M. 17, 287). — III, 619.
 16) Monäthylester d. Anemonsäure. Sm. 168—170° (M. 17, 290). — III, 619.
 17) Aethylester d. 1-Monobenzoylglycerinsäure. Sm. 62° (*Soc.* 69, 114).
 18) Aethylester d. 3,4-Dioxybenzoldimethyläther-1-Ketocarbonsäure. Sd. 205°₁₀ (Bl. [3] 17, 945).
 19) α -Monäthylester d. β -Oxy- α -Phenyläthan- $\alpha\beta$ -Dicarbonsäure. Fl. (A. 258, 80). — II, 1951.
 20) Diäthylester d. 2-Oxybenzol-1,3-Dicarbonsäure. Fl. (A. 208, 247). — II, 1936.
 21) Diäthylester d. 4-Oxybenzol-1,3-Dicarbonsäure. Sm. 58° (*J. pr.* [2] 14, 108; B. 11, 380). — II, 1937.
 22) Diäthylester d. 5-Oxybenzol-1,3-Dicarbonsäure. Sm. 103° (*J. pr.* [2] 25, 515; B. 13, 496; M. 1, 439). — II, 1937.
 23) Diäthylester d. α -[2-Furanyl]äthen- $\beta\beta$ -Dicarbonsäure (D. d. Furalmalonsäure). Sm. 41°; Sd. 293° u. ger. Zers. (B. 21, 1081; 27, 289 Anm.; 31, 2595). — III, 718.
 24) Diacetat d. 2-Methoxyl-1-Dioxymethylbenzol. Sm. 75° (A. 146, 372). — III, 67.
 25) Diacetat d. 1,3,5-Trioxymethylbenzolmonoäthyläther. Sm. 40—42° (M. 18, 747; 19, 378).
 C 56,7 — H 5,5 — O 37,8 — M. G. 254.
 1) 3-Acetoxy-4,5-Dioxybenzol-4,5-Dimethyläther-1-Methylcarbon-säure. Sm. 125° (B. 26, 2017). — II, 1927.

$C_{12}H_{14}O_6$

- 2) $\alpha\gamma$ -Dioxy- α -Phenylbutan- $\alpha\gamma$ -Dicarbonsäure. Sm. 168°. Ag₂ (B. 26, 2729). — II, 2008.
- 3) $\beta\gamma$ -Dioxy- α -[3,4-Dioxyphenyl]butan-3,4-Methylenäther- δ -Carbon-säure ($\beta\gamma$ -Dioxypiperhydronsäure). Sm. 123°. Ba, Ag (B. 20, 415). — II, 1992.
- 4) $\gamma\delta$ -Dioxy- α -[3,4-Dioxyphenyl]butan-3,4-Methylenäther- δ -Carbon-säure ($\alpha\beta$ -Dioxypiperhydronsäure). Sm. 165°. Ca + H₂O, Ag (B. 20, 419). — II, 1993.
- 5) 3,5-Dioxybenzoldiäthyläther-1,2-Dicarbonsäure. Sm. 182° (A. 296, 357).
- 6) Säure (aus Dopplerit) (B. 15, 2961; M. 3, 764).
- 7) Dimethylester d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbon-säure (D. d. Hemipinsäure). Sm. 61–62°; Sd. 207°_{16,5} (M. 16, 90). — II, 1995.
- 8) 1-Aethylester d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure (Ac. d. Hemipinsäure). Sm. 147,5–149° (M. 16, 112, 126). — II, 1995.
- 9) 2-Aethylester d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure + H₂O. Sm. 144–145° (M. 3, 370; 11, 539; 16, 105, 126; A. 86, 195). — II, 1995.
- 10) Monäthylester d. 4,5-Dioxybenzoldimethyläther-1,2-Dicarbon-säure. Sm. 127° (M. 12, 489). — II, 1999.
- 11) Diäthylester d. 4,5-Dioxybenzol-1,2-Dicarbonsäure. Sm. 152° (M. 12, 499). — II, 1999.
- 12) Diäthylester d. 2,3-Dioxybenzol-1,4-Dicarbonsäure. Sm. 89–90° (J. pr. [2] 44, 4).
- 13) Diäthylester d. 2,5-Dioxybenzol-1,4-Dicarbonsäure. Sm. 133 bis 133,5° (A. 211, 327; 219, 74; B. 16, 135; 19, 429, 2235; 20, 2810). — II, 2002.
- 14) Hydrat [P] d. Diäthylester d. 2,5-Dioxybenzol-1,4-Dicarbonsäure + 2H₂O. Sm. 113° (B. 20, 2800). — II, 2002.
- 15) Diäthylester d. 1,3-Phenylendikohlensäure. Sd. 298–302° (B. 13, 697; A. 226, 84). — II, 918.
- 16) Diäthylester d. 1,4-Phenylendikohlensäure. Sm. 101°; Sd. 310° (B. 13, 697; A. 226, 85). — II, 941.
- 17) Diacetat d. 1,2,3,4-Tetraoxybenzoldimethyläther (D. d. Apionol-dimethyläther). Sm. 144° (B. 22, 2484). — II, 1030.
- 18) isom. Diacetat d. Apionoldimethyläther. Sm. 85° (B. 29, 1807).
- 19) 2,5-Diacetat d. 1,2,3,5-Tetraoxybenzol-1,3-Dimethyläther. Sm. 128° (B. 11, 333; A. 276, 332). — II, 1031.

 $C_{12}H_{14}O_7$

- C 53,3 — H 5,2 — O 41,5 — M. G. 270.
- 1) Chinarothe (J. 1851, 412). — III, 586.
 - 2) Phenylglykuronsäure. Sm. 148° u. Zers. (J. Th. 1890, 206; B. 16, 1110). — II, 667.
 - 3) α -Oxy- α -[3,4-Dioxyphenyl]äthan-3,4-Dimethyläther- β ,2-Dicarbon-säure (Opianylelessigsäure). Ba, Ag₂ (B. 19, 2292). — II, 2044.
 - 4) Diäthylester d. 3,4,5-Trioxymethyläther-1,2-Dicarbonsäure (D. d. Carbo-gallussäure). Sm. 116,5° (J. pr. [2] 17, 164). — II, 2044.
 - 5) Diäthylester d. 2,4,6-Triketohexahydrobenzol-1,3-Dicarbonsäure. Sm. 100–101° (G. 26 [2] 378).
 - 6) Diäthylester d. Ketacetsäure. Sm. 140,5°. Na₂, Ca, Ba + H₂O, Cu₂ (B. 21, 2139; A. 269, 32). — I, 848.
 - 7) Dikohlensäureäthylester d. 1,2,3-Trioxymethyläther. Sm. 83° (A. 301, 109).

 $C_{12}H_{14}O_8$

- C 50,3 — H 4,9 — O 44,7 — M. G. 286.
- 1) Diäthylester d. Tetraoxybenzol-1,4-Dicarbonsäure. Sm. 178° (B. 19, 2389). — II, 2068.

 $C_{12}H_{14}O_9$

C 47,7 — H 4,6 — O 47,7 — M. G. 302.

- 1) Citromannitan (J. 1858, 436). — I, 840.
- 2) Verbindung (aus Gallussäure) + 2H₂O (C. 1895 [1] 210).

 $C_{12}H_{14}O_{10}$

C 45,3 — H 4,4 — O 50,3 — M. G. 318.

- 1) $\alpha\gamma$ -Diäthylester d. $\alpha\delta$ -Diketobutan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure + 3H₂O (D. d. Dioxalbernsteinsäure). Sm. 90–92°. Ba + H₂O (A. 285, 31).

 $C_{12}H_{14}O_{11}$

C 39,3 — H 3,8 — O 56,8 — M. G. 366.

- 1) Hexaglyoxalhydrat = (C₂H₂O₂)₆ + H₂O (A. 172, 3). — I, 966.

$C_{13}H_{14}N_2$

C 77,4 — H 7,5 — N 15,0 — M. G. 186.

- 1) 2-Aethylamido-1-Amidonaphtalin. Fl. (2HCl, PtCl₄) (B. 26, 193). — IV, 917.
- 2) 4-Amido-1-Aethylamidonaphtalin. Fl. 2HCl, Pikrat (B. 24, 2471; A. 243, 312). — IV, 921.
- 3) 4-Amido-1-Dimethylamidonaphtalin. Fl. (M. 16, 801; B. 21, 3125). — IV, 921.
- 4) 1-[β -Amidoäthyl]amidonaphtalin. Pikrat (B. 24, 2199). — II, 601.
- 5) uns-Aethyl-2-Naphtylhydrazin. Fl. HCl (A. 253, 33). — IV, 928.
- 6) 1-Phenylamido-2,5-Dimethylpyrrol. Sm. 90–92°; Sd. 270° (B. 18, 1568; 22, 170). — IV, 781.
- 7) 5-Propyl-1-Phenylpyrazol. Sd. 279–281° (B. 21, 1148). — IV, 526.
- 8) 4-Methyl-3-Aethyl-1-Phenylpyrazol. Sd. 282–284° (B. 22, 3276; Bl. [3] 4, 648; G. 24 [1] 279). — IV, 526.
- 9) 3-Isopropyl-4-Phenylpyrazol. Sm. 99–100°; Sd. 280°₃₆₀ (B. 28, 699). — IV, 942.
- 10) Bipikolin (Parapikolin aus Thierölpikolin). Sd. 310–320°. (2HCl, PtCl₄) (A. 105, 344; J. 1878, 440). — IV, 126.
- 11) Paranilin. Sm. 192°. HCl + H₂O, 2HCl + H₂O, (2HCl, PtCl₄), HNO₃, H₂SO₄ (J. 1862, 343). — IV, 943.
- 12) 5 oder 7-Amido-4-Methyl-3-Aethylchinolin. Sm. 84°. HJ (B. 31, 2147).
- 13) 2-Amidomethyläthylchinolin. Sd. 316° (Bl. [3] 1, 552). — IV, 942.
- 14) 5-Amido-2,4,8-Trimethylchinolin. Sm. 191°. HCl, (2HCl, PtCl₄) (B. 22 [2] 573). — IV, 942.
- 15) 4-Methyl-2-Propyl-1,3-Benzdiazin. Sd. 269–270°. Pikrat (B. 26, 1388). — IV, 942.
- 16) 4-Methyl-2-Isopropyl-1,3-Benzdiazin. Sd. 268–269°. (2HCl, PtCl₄), Pikrat (B. 26, 1390). — IV, 942.
- 17) 2,4-Dimethyl-5,6-Dihydro-peri-Chinolinazol. Sm. 110° (B. 24, 2051). — IV, 862.
- 18) 2,8-Dimethyl-5,6-Dihydro-peri-Chinolinazol. Sm. 163°; Sd. bei 360°. (2HCl, PtCl₄) (B. 24, 2072). — IV, 863.
- 19) Nitril d. γ -Phenylimidopentan- β -Carbonsäure. Sm. 48–50°. — II, 448.
- 20) Nitril d. α -Phenylimidopropylpropionsäure. Sd. 316° (Bl. [3] 1, 552). — II, 406.

 $C_{13}H_{14}N_4$

C 67,3 — H 6,5 — N 26,2 — M. G. 214.

- 1) 2,4,2',4'-Tetraamidobiphenyl. Sm. 166°. 4HCl (C. 1898 [2] 776; B. 23, 797). — IV, 1275.
- 2) 2,5,2',5'-Tetraamidobiphenyl. Sm. 168° (B. 25, 130). — IV, 1276.
- 3) 3,4,3',4'-Tetraamidobiphenyl. 4HCl + 2H₂O, H₂SO₄ (B. 20, 1025). — IV, 1276.
- 4) 2,2'-Dihydrazidobiphenyl. Sm. 110°. H₂SO₄ + 2H₂O (B. 29, 2270). — IV, 1276.
- 5) 4,4'-Dihydrazidobiphenyl. Sm. 165–167° u. Zers. 2HCl (A. 239, 208; B. 9, 891). — IV, 1276.
- 6) 3,3'-Diamido-s-Diphenylhydrazin. Sm. 152° (C. 1898 [2] 776; 1899 [1] 720).
- 7) 4,4'-Diamido-s-Diphenylhydrazin (Diphenin). Sm. 145°. 2HCl, 2HNO₃ (A. 75, 74; B. 5, 232). — IV, 1499.
- 8) 1-[4-Dimethylamidophenyl]azopyrrol. Sm. 159° (B. 19, 2257). — IV, 1483, 1581.
- 9) Verbindung (aus Dipropionitril). Sm. 151° (J. pr. [2] 52, 103).
- 10) isom. Verbindung (aus Dipropionitril). Sm. 149° (J. pr. [2] 52, 104).

 $C_{13}H_{14}N_8$

- 1) 1,4-Di[Imidoamidomethylhydrazon]-1,4-Dihydronaphtalin (α -Naphtochinonbisamidoguanidin). 2HNO₃, H₂SO₄ + H₂O (A. 302, 321). — IV, 1224.

 $C_{13}H_{14}Br_2$

- 1) Dibromhexahydrobiphenyl. Fl. (B. 21, 842). — II, 222.

 $C_{13}H_{15}N$

C 83,2 — H 8,7 — N 8,1 — M. G. 173.

- 1) Diallylamidobenzol. Sd. 243,5–244,5° (A. 214, 149). — II, 337.
- 2) 6-Amido-2-Isopropylinden. Sm. 84° (B. 22, 1841). — II, 591.
- 3) 6-Methyl-1-Phenyl-1,2,3,4-Tetrahydropyridin. (2HCl, PtCl₄), Pikrat (A. 289, 239). — IV, 50.
- 4) 1-Isobutylindol. Sd. 260° (B. 30, 2820).

C₁₂H₁₁N

- 5) 2,3-Dimethyl-1-Aethylindol. Sd. 280—282°. Pikrat (B. 21, 3363). — IV, 224.
- 6) 2,3,4,5-Tetramethylindol. Sd. 285° u. Zers. Pikrat (B. 22, 1923). — IV, 229.
- 7) 2-Methylen-1,3,3-Trimethyl-2,3-Dihydroindol (1,3,4-Trimethyl-1,2-Dihydrochinolin?). Sd. 243—244°₇₄₅. HCl + FeCl₃, HJ, H₂SO₄, Pikrat (B. 22, 1980; 23, 2303, 2630; 31, 612, 1497, 1943; A. 242, 353; G. 21, 318; 24 [2] 307; 27 [1] 79; 28 [2] 56, 427; 29 [1] 81). — IV, 228.
- 8) 3,3-Diäthylpseudoindol. Sd. 134—135°₃₀ (B. 31, 1488; G. 28 [2] 365).
- 9) 3-Methyl-1-Aethyl-1,2-Dihydrochinolin. Sd. 254—255°₇₅₀ (A. 242, 363). — IV, 226.
- 10) 1,2,4-Trimethyl-2-Dihydrochinolin. (2HCl, PtCl₄), HJ (B. 26, 1811; 27, 3077; 29, 2473; G. 24 [2] 191).
- 11) isom. 2-Trimethyldihydrochinolin. Sd. 244°₇₄₅ (A. 242, 364; B. 21, 125). — IV, 228.
- 12) 3,4,8,9-Tetrahydrojulol. Sm. 40°; Sd. 280° u. Zers. (2HCl, PtCl₄) (B. 25, 2802). — IV, 229.
- 13) Carbazolin. Sm. 99°; Sd. 296—297°. HCl, HBr, HJ (A. 163, 352). — IV, 229.
- 14) Nitril d. 1-Isoamylbenzol-4-Carbonsäure. Sd. 260—262° (B. 18, 1709). — II, 1397.
- 15) Nitril d. 2-Isobutyl-1-Methylbenzol-6-Carbonsäure. Sd. 242—244° (B. 17, 2343, 2345). — II, 1399.
- 16) Nitril d. 4-Isobutyl-1-Methylbenzol-2-Carbonsäure. Sm. 59—60°; Sd. 248—249° (B. 17, 2333, 2337). — II, 1399.
- 17) Nitril d. Pentamethylbenzolcarbonsäure. Sm. 168° (170°); Sd. 290 bis 292° (294—295°) (B. 18, 1825; 22, 1222). — II, 1400.
- 18) Pentamethylphenylisocyanid. Sm. 127—128° (B. 18, 1824). — II, 1400.
C 71,7 — H 7,4 — N 20,9 — M. G. 201.

C₁₂H₁₂N₂

- 1) 5-Amido-4-Methyl-3-Aethyl-1-Phenylpyrazol. Sm. 81°; Sd. 330° (Bl. 3, 647). — IV, 1111.
- 2) 5-Butyl-1-Phenyl-1,2,4-Triazol. Sd. 288—289°. (2HCl, PtCl₄), Pikrat, + HgCl₂ (B. 29, 2676; 30, 2435). — IV, 1111.
- 3) Tripyrrol. HCl, Pikrat (B. 21, 1478; 27, 477). — IV, 64.

C₁₂H₁₅Cl₃

- 1) 3,5,6-Trichlor-1,2,4-Triäthylbenzol. Sd. 291° (A. ch. 6, 493). — II, 56.

C₁₂H₁₅Br₃
C₁₂H₁₆O

- 1) 2-Tribrom-4-Isoamyl-1-Methylbenzol. Fl. (A. 141, 165). — II, 72.
C 81,8 — H 9,1 — O 9,1 — M. G. 176.
- 1) δ-Oxy-δ-Phenyl-α-Hexen. Sd. 238—242° (J. pr. 2, 57, 44).
- 2) Methyläther d. α-(4-Oxyphenyl)-γ-Methyl-α-Buten. Sd. 248—251° (Bl. 3, 17, 414).
- 3) Äthyläther d. 5-Oxy-1,2,3,4-Tetrahydronaphtalin. Sd. 259°₇₀₅ (B. 23, 217). — II, 854.
- 4) Phenyläther d. ε-Oxy-β-Hexen. Sd. 235—237° (C. 1899 [1] 248).
- 5) Phenyläther d. ζ-Oxy-β-Hexen. Sd. 243—246° (C. 1899 [1] 25, 248).
- 6) 2-[α-Oxypropyl]-2,3-Dihydroinden. Sm. 67°; Sd. 192°₈₀ (Soc. 65, 244). — II, 1071.
- 7) α-Keto-α-Phenyl-β-Aethylbutan (Diäthylacetophenon). Sd. 229—231°₇₁₀ (B. 16, 2131; Soc. 45, 185). — III, 155.
- 8) Isoamylphenylketon. Sd. 240—241°₇₂₀ (Soc. 49, 166). — III, 154.
- 9) Propyl-3-Aethylphenylketon. Sd. 150°₂₀ (B. 23 [2] 175). — III, 155.
- 10) Propyl-2,4-Dimethylphenylketon. Sd. 251° (J. pr. 2, 46, 474). — III, 155.
- 11) Propyl-2,5-Dimethylphenylketon. Sd. 249° (J. pr. 2, 46, 478). — III, 155.
- 12) Isopropyl-2,4-Dimethylphenylketon. Sd. 244—245° (J. pr. 2, 46, 482). — III, 155.
- 13) Isopropyl-2,5-Dimethylphenylketon. Sd. 239—240° (J. pr. 2, 46, 484). — III, 155.
- 14) Isopropyl-3,4-Dimethylphenylketon. Sd. 255—258° (J. pr. 2, 46, 484). — III, 155.
- 15) Methyl-4-Pseudobutylphenylketon. Sd. 136—138°₂₀ (Bl. 3, 19, 73).
- 16) Methyl-5-Propyl-2-Methylphenylketon. Sd. 249—250° (J. pr. 2, 42, 508; B. 19, 233). — III, 155.

$C_{11}H_{14}O$

- 17) Methyl-2-Propyl-4-Methylphenylketon. *Sd.* 248—252° (*J. pr.* [2] 46, 491). — III, 155.
- 18) Methyl-3-Propyl-4-Methylphenylketon. *Sd.* 256—260° (*J. pr.* [2] 47, 420). — III, 155.
- 19) Methyl-5-Isopropyl-2-Methylphenylketon. *Sd.* 240°₇₀₀ (*Bl.* [3] 17, 910).
- 20) Methyl-2,3,4,5-Tetramethylphenylketon. *Sd.* 258—260° (*J. pr.* [2] 38, 231). — III, 155.
- 21) Methyl-2,3,4,6-Tetramethylphenylketon. *Sd.* 253—255° (*B.* 20, 3068; 28, 3214; 29, 830). — III, 155.
- 22) Methyl-2,3,5,6-Tetramethylphenylketon. *Sm.* 73°; *Sd.* 255—260° (*B.* 20, 3101; 28, 3213; 29, 831, 847). — III, 156.
- 23) 2-Propyl-3,4-Dihydro-1,2-Cumaran. *Sd.* 255—257°₇₀₀ (*B.* 29, 377).
- 24) Aldehyd (aus Amyltoluol). 2 isom. Formen. *Sd.* 230—245° (*Bl.* 42, 287). — III, 57.

 $C_{11}H_{14}O_2$

- C* 75,0 — *H* 8,3 — *O* 16,7 — *M. G.* 192.
- 1) 3,5-Dioxy-1-Phenylhexahydrobenzol. *Sm.* 157° (*A.* 289, 167; *B.* 27, 2341). — II, 1099.
 - 2) Methylenäther d. $\alpha\gamma$ -Dioxy- α -Phenyl- $\beta\beta$ -Dimethylpropan. *Sm.* 39°; *Sd.* 135°₁₅ (*M.* 18, 607).
 - 3) 4-Methyläther- α -Aethyläther d. α -Oxy- α -[4-Oxyphenyl]propen. *Sd.* 258—260° (*B.* 29, 687).
 - 4) 3-Methyläther-4-Aethyläther d. 3,4-Dioxy-1-Propenylbenzol. *Sm.* 63° (*B.* 23, 860; 28, 2090).
 - 5) 3-Methyläther-4-Aethyläther d. 3,4-Dioxy-1-Allylbenzol. *Sd.* 254° (*A.* 108, 324; 158, 284; 179, 375; *B.* 23, 862). — II, 974.
 - 6) polym. Methyläthyläther d. 3,4-Dioxy-1-Allylbenzol. *Sm.* 125° (*A.* 179, 376). — II, 974.
 - 7) Isobutylidenäther d. $\alpha\beta$ -Dioxy- α -Phenyläthan. *Sd.* 126°₁₅ (*Bl.* [3] 21, 231).
 - 8) γ -Keto- α -[2-Oxyphenyl]hexan. *Sm.* 74—75° (*B.* 29, 376). — III, 154.
 - 9) Aethyläther d. Isopropyl-2-Oxyphenylketon. *Sm.* 41° (*B.* 23, 1206). — III, 150.
 - 10) Propylenäthylphenylketat. *Sd.* 235° (*B.* 17, 3016). — III, 140.
 - 11) γ -[2,4-Dimethylphenyl]buttersäure. *Sm.* 73°. *Na*, *K*, *Ca* + 4H₂O, *Ba* + 4H₂O (*J. pr.* [2] 46, 476). — II, 1399.
 - 12) γ -[2,5-Dimethylphenyl]buttersäure. *Sm.* 70°. *K*, *Ca* + 4H₂O, *Ba* + 4H₂O (*J. pr.* [2] 46, 479). — II, 1399.
 - 13) β -[4-Isopropylphenyl]propionsäure(4-Cumenylpropionsäure). *Sm.* 75,5°. *Ca*, *Ba*, *Ag* (*J.* 1877, 791; *B.* 19, 2773; 22, 2269). — II, 1397.
 - 14) 4-Methyl-3-Propylphenylelessigsäure (o-Cymylelessigsäure). *Fl.* *Ca* + H₂O, *Ba* + H₂O (*J. pr.* [2] 47, 425). — II, 1399.
 - 15) 2-Methyl-5-Isopropylphenylelessigsäure (p-Cymylelessigsäure). *Sm.* 70°. *Na* + 2H₂O, *K* + 1½H₂O, *Ca* + 4H₂O, *Ba* + 6H₂O, *Ag* (*J. pr.* [2] 42, 515). — II, 1399.
 - 16) 2,3,4,5-Tetramethylphenylelessigsäure. *Sm.* 125°. *Ca* + 3H₂O (*J. pr.* [2] 38, 234). — II, 1399.
 - 17) 1-Isoamylbenzol-4-Carbonsäure. *Sm.* 158°. *Ag* (*B.* 18, 1709). — II, 1397.
 - 18) 2-Isobutyl-1-Methylbenzol-6-Carbonsäure. *Sm.* 132°. *Ag* (*B.* 17, 2343, 2345). — II, 1399.
 - 19) 4-Isobutyl-1-Methylbenzol-2-Carbonsäure. *Sm.* 140°. *Ag* (*B.* 17, 2333, 2337). — II, 1398.
 - 20) 3-Pseudobutyl-1-Methylbenzol-5-Carbonsäure. *Sm.* 162° (*B.* 31, 1345).
 - 21) Pentamethylbenzolcarbonsäure. *Sm.* 210,5°. *Ca*, *Ba* + 2H₂O (*B.* 22, 1221). — II, 1399.
 - 22) Turmerinsäure. *Sm.* 34—35°. *Ca* + 3H₂O, *Zn*, *Ag* (*Am.* 6, 81). — II, 1400.
 - 23) Aldehyd d. 4-Oxy-1-tert. Butylbenzolmethyläther-3-Carbonsäure. *Sd.* 274—276°₇₈₅ (*Am.* 16, 640). — III, 91.
 - 24) Aldehyd d. 5-Oxy-4-Isopropyl-1-Methylbenzolmethyläther-2-Carbonsäure. *Sd.* 278° (*B.* 16, 2099). — III, 90.
 - 25) Methylester d. 4-Isopropylphenylelessigsäure. *Sd.* 255—257° (*G.* 21 [1] 54). — II, 1395.

$C_{12}H_{16}O_2$

- 26) Methylester d. 2,4,6-Trimethylphenylelessigsäure. Sd. 255—256° (B. 27, 1587). — II, 1396.
- 27) Methylester d. 1-Isobutylbenzol-4-Carbonsäure. Sd. 247° (B. 17, 1238). — II, 1394.
- 28) Methylester d. 1,2,3,4-Tetramethylbenzol-5-Carbonsäure. Sm. 36° (B. 30, 1280).
- 29) Methylester d. 1,2,4,5-Tetramethylbenzol-3-Carbonsäure. Sm. 59°; Sd. 268—269° (B. 22, 1223; 29, 2572; J. pr. [2] 52, 530). — II, 1397.
- 30) Aethylester d. 2,5-Dimethylphenylelessigsäure. Sd. 261,5° (C. 1897 [2] 411).
- 31) Aethylester d. 1-Isopropylbenzol-4-Carbonsäure. Sd. 240° (A. 38, 81). — II, 1385.
- 32) Aethylester d. α -Phenylpropan- β -Carbonsäure (C. 1897 [2] 797).
- 33) norm. Propylester d. β -Phenylpropionsäure. Sd. 262,1° (A. 221, 79). — II, 1357.
- 34) Isobutylester d. Phenylelessigsäure. Sd. 247° (Soc. 37, 483). — II, 1310.
- 35) tert. Butylcarbinolester d. Benzolcarbonsäure. Sd. 139—141° (A. ch. [6] 29, 372). — II, 1141.
- 36) β -Methylbutylester d. Benzolcarbonsäure. Sd. 253—254°₇₃₄ (Bl. [3] 15, 291).
- 37) Isamylester d. Benzolcarbonsäure. Sd. 260,7°₁₄₅₆ (A. 94, 311; 133, 209; B. 26, 1441; G. 24 [2] 164). — II, 1140.
- 38) Benzylester d. d-Butan- β -Carbonsäure. Sd. 246—250°₇₃₀ (Bl. [3] 15, 297).
- 39) Acetat d. 4-Oxy-1-tert. Butylbenzol. Sd. 245° (B. 14, 2187; A. 211, 246). — II, 765.
- 40) Acetat d. 3-Oxy- β -Propyl-1-Methylbenzol. Sd. 239—241°₇₄₃ (G. 12, 332). — II, 765.
- 41) Acetat d. 2-Oxy-4-Isopropyl-1-Methylbenzol. Sd. 245,8°₇₆₂ (B. 8, 71). — II, 767.
- 42) Acetat d. 3-Oxy-4-Isopropyl-1-Methylbenzol. Sd. 244,7°₇₆₁₄ (Bl. 25, 32; B. 8, 71). — II, 771.
- 43) Acetat d. 4-Isopropyl-1-Oxymethylbenzol. Sd. 250°₇₅₁. — II, 1066.
- 44) Acetat d. 5-Oxy-1,2,3,4-Tetramethylbenzol. Sm. 56—57° (B. 21, 907). — II, 775.
- 45) Acetat d. α -Oxy- β -[4-Methylphenyl]propan. Sd. 242—244° (G. 21, 85). — II, 1066.

 $C_{12}H_{16}O_3$

- C 69,2 — H 7,7 — O 23,1 — M. G. 208.
- 1) Trimethyläther d. α -[2,4,5-Trioxyphenyl]propen (Asaron). Sm. 59° (67°; 61°); Sd. 296° (A. 53, 156; B. 17, 1159, 1415; 21, 615; 23, 862; 32, 290; J. r. 19, 1; Ph. Ch. 10, 415). — II, 1026.
- 2) 3-Methyl-4-Aethyläther d. Aethyl-3,4-Dioxyphenylketon. Sm. 62° (56—57°); Sd. 155°₁₃ (B. 28, 2091, 2721). — III, 143.
- 3) Diäthyläther d. Methyl-2,4-Dioxyphenylketon. Sm. 74—75° (68°) (B. 23, 1207; 28, 2306; M. 15, 244, 438; J. pr. [2] 53, 40; C. 1895 [2] 592). — III, 135.
- 4) Diäthyläther d. Methyl-2,5-Dioxyphenylketon. Sm. 42° (B. 32, 328).
- 5) Diäthyläther d. Isoresacetophenon. Sm. 152° (J. pr. [2] 53, 39). — III, 137.
- 6) Aethyläther d. 3-Oxy-5-Isopropyl-2-Methyl-1,4-Benzochinon (J. pr. [2] 3, 60). — III, 368.
- 7) Methylenecamphercarbonsäure. Sm. 101—102°. Ag (A. 281, 389). — II, 1594.
- 8) 1-[α -Oxyamyl]benzol-2-Carbonsäure. Sm. 71—72°. Ag (B. 30, 1429).
- 9) δ -Oxy- β -Phenylpentan- α -Carbonsäure. Na, Ag (A. 294, 330).
- 10) δ -Oxy- δ -Phenyl- β -Methylbutan- γ -Carbonsäure. Sm. 107—108°. Na, Ag (C. 1897 [2] 349; 1898 [1] 884).
- 11) δ -Oxy- α -Benzylvaleriansäure. Ag (B. 24, 2447). — II, 1592.
- 12) γ -Oxy- β -Benzylvaleriansäure. Sm. 55—56°. Ca + 6H₂O (A. 254, 215). — II, 1593.
- 13) α -Oxy- α -[5-Isopropyl-2-Methylphenyl]essigsäure. Sm. 124°. Na, K, Ca + 2 $\frac{1}{2}$ H₂O, Ba + 3H₂O, Cu + 8H₂O, Ag (J. pr. [2] 42, 513; [2] 43, 534). — II, 1593.

- $C_{17}H_{16}O_3$
- 14) α -Oxy- α -[2,3,4,5-Tetramethylphenyl]essigsäure. Sm. 160°. K + 4 H₂O, Ca + 2½ H₂O, Ba + 3 H₂O (*J. pr.* [2] 38, 233). — II, 1593.
 - 15) α -Oxy- α -[2,3,4,6-Tetramethylphenyl]essigsäure. Sm. 156°. Na + 1½ H₂O, Ca + 8 H₂O, Ba + 3 H₂O (*B.* 20, 3100). — II, 1595.
 - 16) α -Oxy- α -[2,3,5,6-Tetramethylphenyl]essigsäure. Sm. 146°. Ca + 8 H₂O, Ba + 2 H₂O (*B.* 20, 3102). — II, 1595.
 - 17) δ -[p-Oxyphenylmethyläther]valeriansäure. Fl. Ba (*Soc.* 39, 438). — II, 1588.
 - 18) α -Methyl- δ -Oxyvalerianphenyläthersäure. Sm. 36°; Sd. 327° (*B.* 26, 2571). — II, 665.
 - 19) δ -Oxy-norm. Valerian-4-Methylphenyläthersäure. Sm. 96°; Sd. 325° (*B.* 25, 3046). — II, 749.
 - 20) Oxyessig-4-Isobutylphenyläthersäure. Sm. 86,5°. Mg + 5½ H₂O, Ba + ½ H₂O (*Am.* 19, 71).
 - 21) Oxyessig-[3-Methyl-6-Isopropylphenyl]äthersäure. Sm. 148°. Ba + 2 H₂O, Pb, Ag (*J. pr.* [2] 21, 159; *G.* 10, 342; *Bl.* [3] 17, 360). — II, 771.
 - 22) Oxyessig-[2-Methyl-5-Isopropylphenyl]äthersäure. Sm. 149°. Ba + 4 H₂O, Pb, Ag (*G.* 10, 345). — II, 767.
 - 23) α -Oxy- α -[4-Isopropylphenyl]essigmethyläthersäure. Sm. 52—53°. Na + 2 H₂O (*G.* 21 [1] 44). — II, 1592.
 - 24) 1-[p-Oxypropyl]benzoläthyläther-4-Carbonsäure? (*B.* 3, 478).
 - 25) 5-Oxy-4-Isopropyl-1-Methylbenzolmethyläther-2-Carbonsäure. Sm. 137°. Ag (*B.* 16, 2100; *A.* 244, 68). — II, 1589.
 - 26) Methylester d. α -Oxy- α -[4-Isopropylphenyl]essigsäure. Sm. 80° (*G.* 21 [1] 43). — II, 1592.
 - 27) Methylester d. α -Oxy- α -[2,4,6-Trimethylphenyl]essigsäure. Sm. 92° (*B.* 24, 3545). — II, 1592.
 - 28) Methylester d. 4-Oxy-1-Isobutylbenzol-3-Carbonsäure. Sm. 54°; Sd. 266° (*J. pr.* [2] 36, 394). — II, 1588.
 - 29) Methylester d. 6-Oxy-3-Isopropyl-1-Methylbenzol-5-Carbonsäure. Sm. 148° (*B.* 19, 1414). — II, 1590.
 - 30) Aethylester d. α -Oxybutterphenyläthersäure. Sd. 250—251°₇₄₈ (*B.* 29, 1421).
 - 31) Aethylester d. 2-Oxy-1-Isopropylbenzol-4-Carbonsäure. Sm. 73 bis 75° (*B.* 11, 1575). — II, 1582.
 - 32) 2-Aethoxylphenylester d. Buttersäure. Sd. 260° (*C.* 1899 [1] 706).
 - 33) Isämylester d. 2-Oxybenzol-1-Carbonsäure. Sd. 270° (*A.* 92, 313). — II, 1492.
 - 34) Isoamylphenylester d. Kohlensäure. Sd. 220°₇₆₀ (*Bl.* [3] 19, 770).
 - 35) 4-Acetat d. 3,4-Dioxy-1-Propylbenzol-3-Methyläther. Sd. 365° u. ger. Zers. (*M.* 4, 191). — II, 970.
- $C_{17}H_{16}O_4$
- 36) Verbindung (aus Isosafrol). Sd. 285° (*B.* 25, 1473). — II, 978.
C 64,3 — H 7,1 — O 28,6 — M. G. 224.
 - 1) 3,4 [oder 4,5]-Methylen-2,5 [oder 2,3]-Dimethyläther d. 2,3,4,5-Tetraoxy-1-Propylbenzol. Sm. 35°; Sd. 292° (*B.* 23, 2285). — II, 1034.
 - 2) 3,4-Methylenäther-1,1-Diäthyläther d. 3,4-Dioxy-1-Dioxymethylbenzol. Sd. 279—281° (*B.* 31, 1016).
 - 3) $\alpha\alpha$ -Diäthyläther- $\beta\beta$ -[1,2-Phenylen]äther d. $\alpha\alpha\beta\beta$ -Tetraoxyäthan. Sd. 150°₇₉ (*B.* 31, 598).
 - 4) α ,4-Dimethyläther-2-Aethyläther d. Oxymethyl-2,4-Dioxyphenylketon. Sm. 60—62° (*M.* 14, 41). — III, 139.
 - 5) Diäthyläther d. Oxymethyl-3,4-Dioxyphenylketon. Sm. 42—44° (*M.* 14, 41). — III, 139.
 - 6) Aspidinol. Sm. 143° (*C.* 1896 [2] 1037).
 - 7) $\alpha\delta$ -Dioxy- α -Phenylpentan- γ -Carbonsäure (*B.* 17, 69). — II, 1770.
 - 8) α -[3,4-Dioxyphenyl]propan-3,4-Dimethyläther- β -Carbonsäure. Sm. 58—59° (*B.* 15, 2072). — II, 1768.
 - 9) $\alpha\epsilon$ -Dioxypentan- α -Phenyläther- γ -Carbonsäure. Sm. 112°. Ag (*Soc.* 69, 170).
 - 10) Campheroxalsäure. Sm. 88° (*Soc.* 57, 653; *Am.* 19, 406; 20, 330; 21, 247). — I, 734.
 - 11) β -Acetylanhydrodigitsäure + H₂O. Sm. 170° (*B.* 27 [2] 883). — III, 582.

- C₁₂H₁₀O₄**
- 12) Dimethylester d. Säure C₁₀H₁₂O₄ (aus Isodehydracetsäureäthylester). Sm. 71° (A. [259](#), 163). — I, [734](#).
 - 13) Aethylester d. [3,6-Dioxy-1,2,4-Trimethylbenzol-5-Carbonsäure](#). Sm. 109° (A. [237](#), 151). — II, 1768.
 - 14) Aethylester d. Cantharsäure. Sd. bei 300° (B. [11](#), 2122). — III, [624](#).
 - 15) Butylester d. 2-Methoxyphenylkohlenensäure. Sd. 195—210°_{340—60} (Bl. [3](#) [19](#), 892).
 - 16) Amylester d. 2-Oxyphenylkohlenensäure. Sm. 53° (A. [300](#), 142).
 - 17) 5-Acetat d. [1,3,5-Trioxybenzol-1,3-Diäthyläther](#). Sm. 54—55° (M. [19](#), 378).
- C₁₂H₁₀O₅**
- C [60,0](#) — H [6,7](#) — O [33,3](#) — M. G. [240](#).
- 1) Benzylidenarabit. Sm. 152° (cor.) (B. [27](#), 1535). — III, [9](#).
 - 2) Benzylarabinosid. Sm. 172—173° (B. [27](#), 2482). — II, [1050](#).
 - 3) [α-Oxy-2,4-Dioxyphenylessig-2,4-Diäthyläthersäure](#). Sm. 115°. Ag (M. [16](#), 625).
 - 4) Ketonsäure (aus d. α-Säure C₁₃H₁₄O₅ aus Santonsäure). Sm. 216°. Ba, Ag₂ (C. 1896 [2](#) [1114](#)).
 - 5) Anhydrid d. [π-Acetoxyecamphersäure](#). Sm. 86—87° (89—90°) (C. 1896 [2](#) [248](#); *Soc.* [69](#), 940).
 - 6) Aethylester d. [3,4,5-Trioxybenzol-4,5-Dimethyläther-1-Methylcarbonsäure](#). Fl. (B. [26](#), 2017). — II, 1927.
 - 7) Aethylester d. [α-\[2-Furanyläthan-αβ-Dicarbonsäure](#). Sd. 199,5 bis 200°₇₉ (B. [31](#), 1120).
 - 8) Diäthylester d. 2-Methylfuran-3-Carbonsäure-5-Methylcarbon-säure. Sd. 300—305° (A. [250](#), 186). — III, [717](#).
 - 9) Diäthylester d. [2,5-Dimethylfuran-3,4-Dicarbonsäure](#). Sd. 284° (B. [17](#), 2866; [22](#), [153](#); [30](#), 1995). — III, [716](#).
 - 10) Isoamylester d. [3,4,5-Trioxybenzol-1-Carbonsäure](#). Sm. 139° (A. [159](#), 35). — II, 1921.
 - 11) 4-Aethylcarbonat d. [3,4,5-Trioxy-1-Methylbenzol-3,5-Dimethyläther](#). Sm. 111—113° (M. [19](#), 562).
- C₁₂H₁₀O₆**
- C [56,3](#) — H [6,2](#) — O [37,5](#) — M. G. [256](#).
- 1) Phenolylglykosid. Sm. 171—172° (A. [1](#), 306). — II, [656](#).
 - 2) [w-Acetoxy-cis-π-Camphersäure](#). Sm. 123—124° (C. 1896 [2](#) [248](#); *Soc.* [69](#), 949).
 - 3) Diäthylester d. [βε-Diketo-γ-Hexen-γδ-Dicarbonsäure](#) (D. d. Diacetyl-fumarsäure). Sm. 95,5—96° (B. [18](#), 2636; [30](#), 1993; A. [253](#), 196). — I, [824](#).
 - 4) Diäthylester d. [1,4-Diketo-hexahydrobenzol-2,5-Dicarbonsäure](#) (D. d. Succinylbernsteinsäure). Sm. 128° (126—127°). Na₂, K, K₂, Mg + 2H₂O, Ca + H₂O, Ba + H₂O (A. [49](#), 186; [211](#), 306; [280](#), 186; B. [8](#), 1039; [16](#), 133; [17](#), 545; [19](#), 2229; [26](#), 2313; [30](#), 956). — I, [823](#).
 - 5) Triäthylester d. Propadien-ααγ-Tricarbonsäure. Sm. 107° (M. [17](#), 506).
 - 6) Verbindung (aus Apio). Sm. 122° (B. [21](#), 1623). — II, [1034](#).
- C₁₂H₁₀O₇**
- C [52,9](#) — H [5,9](#) — O [41,2](#) — M. G. [272](#).
- 1) Arbutin + ½ H₂O. Sm. 170° (165—166°) wasserfrei (A. [84](#), 357; [107](#), 228; [118](#), 292; [129](#), 203; [154](#), 237; [206](#), 159; B. [14](#), [304](#), 2099, 2559; J. 1870, 877; 1885, 1761; M. [4](#), 774). — III, [571](#).
 - 2) Pikroerythrin + 3 H₂O (einfach orsellinsaurer Erythrit). Sm. 158° (wasserfrei) (A. [61](#), [64](#); [68](#), 74; [117](#), 320; [139](#), 33). — II, 1752.
 - 3) Cholesterinsäure. K₃, Ca₃, Ba₃ + 6 H₂O, Ag + H₂O, Ag₃ (A. [57](#), 160; [58](#), 375; [62](#), 228; [194](#), 216; B. [6](#), 1287; [12](#), 1628). — II, 2040.
 - 4) Verbindung (aus Glykose u. [1,3-Dioxybenzol](#)) (B. [27](#), 1359). — II, [919](#).
- C₁₂H₁₀O₈**
- C [50,9](#) — H [5,6](#) — O [44,4](#) — M. G. [288](#).
- 1) Triacetylglukosan. Sm. 107—108° (Bl. [3](#) [11](#), 954).
 - 2) Triacetylcellulose (Z. 1869, 264). — I, [1077](#).
 - 3) Triacetyldextrin. Sm. 180° (Z. 1869, 264; B. [13](#), 267). — I, [1090](#).
 - 4) Triacetylglukogen (A. [160](#), 80). — I, [1091](#).
 - 5) Triacetyllichenin (J. 1873, 848). — I, [1099](#).
 - 6) Triacetylparagalaktan. Zers. bei 225° (H. [14](#), 237). — I, [1092](#).
 - 7) Triacetylstärke (Z. 1869, 264). — I, [1087](#).
 - 8) Acetylverbindung d. Lupeose. Sm. 101—102° (H. [11](#), 378). — I, [1059](#).
 - 9) Säure (aus Bromaceton) + H₂O. Ba [14](#), [204](#), 29. — I, [989](#).

- C₁₂H₁₆O_n**
- 10) Tetramethylester d. R-Trimethylen-1,2,3-Tricarbonsäure-1-Methylcarbonsäure. Sm. 67° (B. 27, 875). — I, 866.
 - 11) Diäthylester d. Anhydroäpfelsäure (aus Crassulaceen). Sd. 245—250°₂₀ (B. 31, 1445).
 - 12) polym. Aethylenester d. Bernsteinsäure. Sm. 88—90°; Sd. 212° (A. 115, 361; 280, 177, 200; J. pr. [2] 20, 207; A. ch. [3] 67, 269).
 - 13) Verbindung (aus Glykose u. 1,2,3-Trioxymethylbenzol) (B. 27, 1362). — II, 1012.
- C₁₂H₁₆N₂**
- C 76,6 — H 8,5 — N 14,9 — M. G. 188.
- 1) 1-Phenylhydrazonhexahydrobenzol. Sm. 74—77° u. Zers. (A. 278, 105). — IV, 769.
 - 2) 3,5,5-Trimethyl-1-Phenyl-4,5-Dihdropyrazol. Fl. (2HCl, PtCl₄) (A. 239, 202). — IV, 769.
 - 3) 2,5-Dimethyl-1-[4-Methylphenyl]-4,5-Dihydroimidazol. Sd. 145°₁₁ (B. 28, 1667, 1669). — IV, 490.
 - 4) 1-Benzylidenamido-hexahydro-pyridin. Sm. 62—63° (A. 221, 304). — IV, 481.
 - 5) 5-Methyl-2-Isobutylbenzimidazol. Sm. 145—146° (A. 209, 365). — IV, 888.
 - 6) 2-Aethyl-1-Propylbenzimidazol. Sd. 304,5°₇₃₀. HJ + H₂O (B. 27, 2189; Ph. Ch. 22, 391). — IV, 879.
 - 7) 2,4,5,6,7-Pentamethylbenzimidazol. HCl + 2H₂O (B. 21, 906). — IV, 888.
 - 8) Oktohydro-α-Chinochinolin. Fl. (B. 28, 128). — IV, 888.
 - 9) Nitril d. α-Phenylamidocaprinsäure. Sm. 67°; Sd. 210—230° (B. 25, 2046). — II, 436.
- C₁₂H₁₆Cl₂**
- 1) 1,4-Dichlor-p-Triäthylbenzol (Gemisch). Sd. 270—276° (A. ch. [6] 6, 483). — II, 55.
- C₁₂H₁₆Br₂**
- 1) αβ-Dibromisohexylbenzol. Sm. 79—80° (A. 218, 395). — II, 172.
 - 2) p-Dibrom-1,4-Dipropylbenzol. Sm. 48° (A. 216, 227). — II, 71.
 - 3) p-Isopropyl-1-[αβ-norm. Dibrompropyl]benzol. Sm. 59° (J. 1877, 380). — II, 172.
 - 4) p-Dibrom-4-Isopropyl-1-Propylbenzol. Fl. (G. 21, 9). — II, 71.
 - 5) 4,6-Dibrom-2-Propyl-1,3,5-Trimethylbenzol. Sm. 56° (B. 28, 2460).
- C₁₂H₁₇N**
- C 82,3 — H 9,7 — N 8,0 — M. G. 175.
- 1) Isoamylimidomethylbenzol (Isoamylbenzylidenamin). Fl. (A. 140, 94). — III, 28.
 - 2) 4-Isoamylidenamido-1-Methylbenzol. Sm. 99° (B. 25, 2049). — II, 511.
 - 3) 2-Aethylamido-1,2,3,4-Tetrahydronaphtalin. Sd. 267°₁₃₁. HCl, (2HCl, PtCl₄), HNO₃, HNO₂, H₂CO₃, Acetat, Pikrat (B. 22, 1297). — II, 589.
 - 4) 5-Aethylamido-1,2,3,4-Tetrahydronaphtalin. Sd. 286—287°₇₁₇. HCl + xH₂O, (2HCl, PtCl₄) (B. 22, 1312). — II, 586.
 - 5) 6-Aethylamido-1,2,3,4-Tetrahydronaphtalin. Sd. 291,5°₇₂₄. HCl, (2HCl, PtCl₄) (B. 21, 1304). — II, 589.
 - 6) 2-Dimethylamido-1,2,3,4-Tetrahydronaphtalin. Sd. 166,5°₂₂ (B. 22, 1309). — II, 588.
 - 7) 5-Dimethylamido-1,2,3,4-Tetrahydronaphtalin. Sd. 261—262°₇₂₁. (2HCl, PtCl₄) (B. 22, 1315). — II, 586.
 - 8) 6-Dimethylamido-1,2,3,4-Tetrahydronaphtalin. Sd. 287°₇₁₈. (2HCl, PtCl₄) (B. 22, 1306). — II, 588.
 - 9) 1-Benzylhexahydropyridin. Sd. 245°. (2HCl, PtCl₄) (B. 15, 423; 32, 74). — IV, 9.
 - 10) 3-Benzylhexahydropyridin. Fl. (2HCl, PtCl₄), (HCl, AuCl₃) (B. 24, 2448). — IV, 209.
 - 11) 1-[4-Methylphenyl]hexahydropyridin. Sd. 262°. (2HCl, PtCl₄ + 2H₂O) (B. 24, 2099). — IV, 9.
 - 12) 2-Methyl-1-Phenylhexahydropyridin. Sd. 256,5—257°₇₁₉. HCl, (2HCl, PtCl₄), Pikrat (A. 289, 245). — IV, 27.
 - 13) 2-Methyl-6-Phenylhexahydropyridin. Sd. 257—259°. (HCl, AuCl₃) (B. 28, 1729). — IV, 209.
 - 14) 1-Isobutyl-1,3-Dihydroisindol. Fl. (2HCl, PtCl₄) (B. 29, 1441). — IV, 209.

- C₁₃H₁₇N** 15) 2-Propyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 258°. *HCl* (*C.* 1897 [1] 242). — IV, 209.
- 16) 2-Methyl-1-Aethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 256°. (2 *HCl*, *PtCl*₄) (*A.* 242, 321). — IV, 204.
- 17) 3-Methyl-2-Aethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 260—262°₇₁₈. *HCl* (*B.* 17, 1716). — IV, 209.
- 18) 1,2,4-Trimethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 250°₇₅₉. *Pikrat* (*B.* 29, 2468). — IV, 207.
- 19) 1,2,8-Trimethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 242—245° (*B.* 16, 2470). — IV, 208.
- 20) 1,4,4-Trimethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 239°₇₄₉. *HJ*, *Pikrat* (*B.* 22, 1981; 23, 2630; 29, 2473; *G.* 22 [2] 419; *A.* 242, 356). — IV, 208.
- 21) 2,6,8-Trimethyl-1,2,3,4-Tetrahydrochinolin. *Sd.* 200—250°. (2 *HCl*, *PtCl*₄) (*B.* 20, 34). — IV, 209.
- C₁₃H₁₇N₃** 22) Base (aus 2,5-Dimethylpyrrol). *Sm.* 74—75°. (2 *HCl*, *PtCl*₄) (*B.* 30, 1589). *C* 70,9 — *H* 8,4 — *N* 20,7 — *M. G.* 203.
- 1) Aethylallylphenylguanidin. *HCl*, + *HgCl*₂ + *H*₂*O* (*A.* 175, 42). — II, 348.
- 2) α-Amido-α-Cinnamylidenhydrazon-α-[2-Naphtyl]methan (*Cinnamyliden-2-Naphtenylhydrazidin*). *Sm.* 170°. *Pikrat* (*B.* 30, 1880).
- 3) 1-[4-Methylphenyl]azohexahydropyridin. *Sm.* 41° (*A.* 235, 245). — IV, 1580.
- C₁₃H₁₇Cl** 1) 2-Chlor-2-Triäthylbenzol (Gemisch). *Sd.* 248—252° (*A. ch.* [6] 6, 425). — II, 55.
- 2) Chlorhexamethylbenzol (Mellithylchlorid). *Sm.* 99°; *Sd.* bei 285° (*B.* 22, 1217). — II, 56.
- 3) Verbindung (aus Glycerin) (*B.* 18, 2931).
- C₁₃H₁₇Br** 1) 2-Brom-4-Isopropyl-1-[norm.]Propylbenzol. *Sd.* 265°_{789,8} (*G.* 21, 9). — II, 71.
- C₁₃H₁₅O** *C* 80,9 — *H* 10,1 — *O* 9,0 — *M. G.* 178.
- 1) α-Oxy-α-[2,4-Dimethylphenyl]butan. *Sd.* 270° (*J. pr.* [2] 46, 474). — II, 1067.
- 2) α-Oxy-α-[2,3,4,6-Tetramethylphenyl]äthan. *Sd.* oberh. 300° (*B.* 20, 3098). — II, 1067.
- 3) α-Oxy-α-[2,3,5,6-Tetramethylphenyl]äthan. *Sm.* 72° (*B.* 20, 3101). — II, 1067.
- 4) 2,3,4,5,6-Pentamethyl-1-Oxymethylbenzol. *Sm.* 160,5° (*B.* 22, 1217). — II, 1067.
- 5) Methyläther d. 4-Oxy-1-[tert.]Amylbenzol. *Sd.* 216—217° (240—241°) (*B.* 18, 1711; 26, 1646; 28, 407). — II, 775.
- 6) Methyläther d. 3-Oxy-2-Pseudobutyl-1-Methylbenzol. *Sd.* 222 bis 224° (*B.* 27, 1617). — II, 776.
- 7) Methyläther d. 6-Oxy-1,2,3,4,5-Pentamethylbenzol. *Sm.* 63—64° (*B.* 18, 1827). — II, 776.
- 8) Aethyläther d. 4-Oxy-1-tert. Butylbenzol. *Sd.* 241—242° (*B.* 14, 1843; 15, 1991; 23, 2419). — II, 765.
- 9) Aethyläther d. 4-Oxymethyl-1-Isopropylbenzol. *Sd.* 227° (*G.* 14, 282). — II, 1066.
- 10) Aethyläther d. 6-Oxy-3-Isopropyl-1-Methylbenzol. *Sd.* 224° (*B.* 19, 1413). — II, 766.
- 11) Aethyläther d. 2-Oxy-3-Isopropyl-1-Methylbenzol. *Sd.* 227,2 bis 229,2°₇₃₃ (*G.* 12, 552). — II, 766.
- 12) Aethyläther d. 2-Oxy-4-Isopropyl-1-Methylbenzol. *Sd.* 235° (*B.* 19, 13). — II, 767.
- 13) Aethyläther d. 3-Oxy-4-Isopropyl-1-Methylbenzol. *Sd.* 226,9° (*Z.* 1865, 532; 1869, 43; *B.* 19, 1820; *J. pr.* [2] 35, 26; *A.* 243, 48). — II, 770.
- 14) Aethyläther d. 2-Oxy-2-Tetramethylbenzol. *Sd.* 236—237° (*B.* 17, 1917). — II, 775.
- 15) Isoamyläther d. Benzylalkohol. *Sd.* 236,5—237°₇₄₈ (*G.* 17, 197). — II, 1048.
- 16) Benzyläther d. α-Oxy-β-Methylbutan. *Sd.* 231—232°_{733,4} (*Bl.* [2] 15, 305).

$C_{12}H_{18}O$

17) 2-Keto-1,1'-Bi[Hexahydrophenylen] (Bicyklo-hexen-hexanon). Fl. (B. 29, 2965).

18) 5-Keto-2,3' [oder 3,2']-Dimethyl-1,1'-Bi[R-Pentamethylen] (Bicyklo-Methylpenten Methylpentanon). Sd. 127°₁₃ (B. 29, 2965).19) Xyliton (Keton). Sd. 251—252° (120—122°₁₄) (P. 44, 404; 49, 301; 50, 275; B. 16, 586, 589; A. 299, 227). — I, 1013. $C_{12}H_{18}O_2$ 20) Verbindung (aus Aceton). Sd. 238—242° (B. 22, 1013). — I, 1022.
C 74,2 — H 9,3 — O 16,5 — M. G. 194.

1) 1,1'-Dioxy-5,5'-Dimethyl-2,3,2',3'-Tetrahydro-1,1'-R-Bipenten. Sd. 330° (B. 27, 1540).

2) Triäthylresorcin. Sm. 183—185° (M. 11, 307). — II, 916.

3) Dimethyläther d. 2,5-Dioxy-4-Isopropyl-1-Methylbenzol. Sd. 248 bis 250° (Bl. [3] 7, 33). — II, 971.

4) Dimethyläther d. 4-Isopropyl-1-Dioxymethylbenzol. Sd. 244—245° (B. 31, 1015).

5) Dimethyläther d. 2-Dioxymethyl-1,3,5-Trimethylbenzol. Sd. 242 bis 243°₇₄₁ (B. 31, 548).6) Diäthyläther d. 1,2-Di[Oxymethyl]benzol. Sd. 247—249°₇₂₀ (B. 17, 1825). — II, 1096.7) Diäthyläther d. 1,3-Di[Oxymethyl]benzol. Sd. 246—247°₇₁₂ (Soc. 53, 46). — II, 1097.8) Diäthyläther d. 1,3-Dioxy-P-Aethylbenzol. Sd. 146—151°₇₂₀ (M. 11, 299). — II, 967.

9) Diäthyläther d. 3,6-Dioxy-1,2-Dimethylbenzol. Sm. 68—69° (B. 23, 3252). — II, 967.

10) Diäthyläther d. 2,5-Dioxy-1,4-Dimethylbenzol. Sm. 111—112° (105 bis 106°) (B. 18, 2923; 23, 3251). — II, 969.

11) Dipropyläther d. 1,3-Dioxybenzol. Sd. 251° (B. 13, 1677; M. 1, 258). — II, 917.

12) Aethylisobutyläther d. 1,4-Dioxybenzol. Sm. 39° (M. 6, 910). — II, 940.

13) Monoisoamyläther d. 3,5-Dioxy-1-Methylbenzol (Z. 1867, 561). — II, 961.

14) Methylisoamyläther d. 1,3-Dioxybenzol. Sd. 236—237° (M. 5, 490). — II, 917.

15) Methylisoamyläther d. 1,4-Dioxybenzol. Sd. 234—237° (M. 6, 910). — II, 940.

16) Aethyläther-2,4-Dimethylphenyläther d. αβ-Dioxyäthan. Sd. 250 bis 253°₇₅₁ (B. 29, 2402).

17) Methyläther d. Oxymethylencampher. Sm. 40°; Sd. 262° (A. 281, 367; J. pr. [2] 50, 142). — III, 115.

18) Lakton d. 6-[α-Oxyamyl]-1,2,3,4-Tetrahydrobenzol-1-Carbonsäure (L. d. Sedanolsäure; Sedanolid). Sd. 185°₇ (B. 30, 497, 1419, 1423, 1427).

19) Acetat d. Anthemol. Sd. 234—236° (A. 195, 105). — I, 413.

 $C_{12}H_{18}O_3$

20) Acetat d. Sabinol. Sd. 222—224° (B. 31, 2029).

C 68,6 — H 8,6 — O 22,8 — M. G. 210.

1) γ,γ'-Trioxy-γ-Phenylhexan. Fl. (J. pr. [2] 57, 46).

2) Trimethyläther d. 3,4,5-Trioxy-1-Propylbenzol. Sd. 164° (B. 21, 2025). — II, 1024.

3) Diäthyläther d. β-Dioxyäthylphenyläther (Phenoxyacetal). Sd. 254 bis 256° (257°) (B. 24, 162; M. 15, 740). — II, 653.

4) Triäthyläther d. 1,2,3-Trioxybenzol. Sm. 39° (B. 11, 800; M. 2, 212). — II, 1011.

5) Triäthyläther d. 1,2,4-Trioxybenzol. Sm. 34° (B. 17, 2108; 20, 1133). — II, 1017.

6) Triäthyläther d. 1,3,5-Trioxybenzol. Sm. 43°; Sd. 175°₃₁ (A. 178, 97; M. 9, 218; B. 17, 2107). — II, 1019.

7) Triäthyläther d. 4-Oxy-1-Dioxymethylbenzol. Sd. 261—263° (B. 31, 1016).

8) 2,4,6-Triketo-1,3,5-Triäthylhexahydrobenzol. Sm. 107°; Sd. 216°₁₈ (Bl. [3] 11, 711). — III, 315.

9) 2,4,6-Triketo-1,1,3,3,5,5-Hexamethylhexahydrobenzol. Sm. 80°; Sd. 247,7° (M. 9, 1046; 10, 459; 11, 104). — II, 1025.

C₁₂H₁₈O₄

- 10) **1-Valeryl-1,2,3,4-Tetrahydrobenzol-6-Carbonsäure** (Sedanonsäure). Sm. 113°. Ag (B. 30, 499, 501, 1419, 1423, 1424).
- 11) **Säure** (aus Cedren). Sd. 220—230°. Ag (Bl. [3] 17, 487).
- 12) **Lakton d. Isocaprolaktoïdsäure** (Isocaprolaktoid). Sm. 106° (A. 228, 189). — I, 760.
- 13) **Lakton d. Dihexonsäure** (Dihexolakton). Sd. 300° u. Zers. (A. 256, 136). — I, 728.
- 14) **Lakton d. Diisohexonsäure** (Diisohexolakton). Sm. 103,8° (J. pr. [2] 48, 211).
- 15) **Anhydrid [?] d. δδ-Diketoundekan-ε-Carbonsäure** (A. d. Dibutyryl-buttersäure). Sm. 107°; Sd. 216°₁₄ (A. ch. [6] 12, 264). — I, 695.
- 16) **Methylester d. Camphocarbonsäure**. Sd. 155—160°₁₅ (Bl. [3] 7, 75). — I, 628.
- 17) **Aethylester d. δ-Acetyl-αζ-Heptadien-δ-Carbonsäure** (Ae. d. Diallyl-acetessigsäure). Sd. 239—241° (233—235°₇₅₇) (A. 201, 47, 77; J. pr. [2] 50, 137, 142). — I, 627.
- 18) **Acetat d. Oxyisocampher** (aus Borneol). Sm. 69°; Sd. 273,5° (M. 2, 227). — III, 497.
- 19) **Verbindung** (aus Campheroxalsäure). Sm. 75—76° (Soc. 57, 654). — I, 1025.

C₁₂H₁₈O₄

- C 63,7 — H 7,9 — O 28,3 — M. G. 226.
- 1) **5-Methyläther d. 2,4,6-Triketo-5-Oxy-1,1,3,3,5-Pentamethylhexahydrobenzol**. Sm. 62°; Sd. 240° (B. 26, 2035). — II, 1031.
 - 2) **Triäthyläther d. 1,2,3,5-Tetraoxybenzol**. Sm. 105° (B. 25, 724). — II, 1031.
 - 3) **αα-Diäthyläther-β-[2-Oxyphenyl]äther d. ααβ-Trioxyäthan**. Fl. (Bl. [3] 19, 761).
 - 4) **Dimethylcantharidin**. Sm. 81—82°; Sd. 296—298° (M. 18, 398).
 - 5) **Aethylester d. ζ-Keto-β-Methyl-β-Hepten-η-Ketocarbonsäure**. Sd. 164—165°₁₀. Cu (Bl. [3] 21, 88).
 - 6) **Aethylester d. Camphansäure**. Sm. 63°; Sd. 195—196° (A. 163, 335; B. 26, 1526). — I, 771.
 - 7) **Aethylester d. cis-π-Camphansäure**. Sm. 175° (C. 1896 [2] 248).
 - 8) **Diacetat d. δε-Dioxy-βζ-Oktadien**. Sd. 133—134°₁₁ (Bl. [3] 15, 390).
 - 9) **Cascarillin**. Sm. 205° (B. 6, 1051). — III, 626.

C₁₂H₁₈O₅

- C 59,5 — H 7,4 — O 33,1 — M. G. 242.
- 1) **Menthodicarbonsäure**. Sm. 128,5° u. Zers. (141°). Ag₂ (B. 24, 3396; G. 27 [2] 114). — I, 778.
 - 2) **Dimethylester d. Cantharidinsäure**. Sm. 91° (B. 19, 1083). — III, 622.
 - 3) **Dimethylester d. Isocantharidinsäure**. Sm. 81—82° (B. 24, 1999). — III, 625.
 - 4) **Diäthylester d. ε-Keto-β-Hexen-γδ-Dicarbonsäure**. Sd. 160—162°₁₆ (Soc. 69, 1392; 71, 324).
 - 5) **Diäthylester d. Methyldehydrohexondicarbonsäure**. Sd. 238—240°₁₅₀ (Soc. 51, 741). — I, 777.

C₁₂H₁₈O₆

- C 55,8 — H 7,0 — O 37,2 — M. G. 258.
- 1) **Dimethylester d. γζ-Diketooktan-αδ-Dicarbonsäure**. Sm. 98° (B. 28, 920; A. 294, 171).
 - 2) **Monäthylester d. βη-Diketooktan-γζ-Dicarbonsäure**. Fl. (Soc. 57, 215). — I, 821.
 - 3) **Diäthylester d. βε-Dioxy-βδ-Hexadien-γδ-Dicarbonsäure** (D. d. Diacetylbernsteinsäure). Fl. Na₂ (B. 18, 2636; A. 293, 89).
 - 4) **Diäthylester d. δδ-Dioxy-αγ-Butadienmonoäthyläther-αγ-Dicarbonsäure** (Triäthylester d. Isoakonitsäure). Sd. 248° (178—180°₂₀) (A. 222, 255; 285, 102; B. 22, 1426; 30, 960; 31, 2753). — I, 818.
 - 5) **Diäthylester d. 1,4-Dioxy-1,2,3,4-Tetrahydrobenzol-2,5-Dicarbonsäure**. Sm. 128° (B. 20, 2801). — II, 1990.
 - 6) **Diäthylester d. βε-Diketohehexan-αδ-Dicarbonsäure** (D. d. α-Acetyl-β-Oxyhydromuconsäure). Sm. 65°. Na (A. 266, 83). — I, 820.
 - 7) **Diäthylester d. βε-Diketohehexan-γδ-Dicarbonsäure** (β-D. d. Diacetylbernsteinsäure). Sm. 88° (B. 7, 892; 18, 2636; 25, 1724; 27, 1155; A. 201, 145; 266, 88; 278, 82; 293, 87; Am. 16, 583). — I, 820.
 - 8) **Diäthylester d. isom. βε-Diketohehexan-γδ-Dicarbonsäure** (γ-D. d. Diacetylbernsteinsäure). Sm. 68° (A. 293, 96).

- C₁₇H₁₉O₆** 9) Triäthylester d. R-Trimethylen-1,1,2-Tricarbonsäure. *Sd.* 276° (*B.* 17, 1186; *Am.* 9, 122). — I, 818.
- 10) Triäthylester d. Propen- $\alpha\beta\gamma$ -Tricarbonsäure (Tr. d. Akonitsäure). *Sd.* 275° (*A.* 34, 59; 235, 20; *B.* 12, 1655; 18, 1954; 30, 960; *J.* 1871, 597; *G.* 1, 248). — I, 817.
- 11) Triäthylester d. Propen- $\alpha\gamma\gamma$ -Tricarbonsäure (Tr. d. Isoakonitsäure). *Sd.* 195–230°₃₀ u. Zers. Na, Ba (*B.* 31, 2754; *J. pr.* [2] 58, 404).
- C₁₇H₁₉O₇** 12) Triäthylester d. Aceconitsäure. *Fl.* (*A.* 135, 308). — I, 819.
C 52,5 — H 6,5 — O 40,9 — M. G. 274.
- 1) Trimethylester d. γ -Keto- β -Methylpentan- $\beta\epsilon\epsilon$ -Tricarbonsäure. *Sd.* 300–320° u. Zers. (*B.* 30, 864).
- 2) Triäthylester d. α -Ketopropen- $\alpha\beta\gamma$ -Tricarbonsäure (Tr. d. Oxalbernsteinsäure). *Sd.* 155–156°_{18–18} (*B.* 22, 885; 27, 797; *A.* 285, 3). — I, 845.
- 3) Verbindung (aus Bromaceton). *Pb* (*A.* 204, 37). — I, 989.
- 4) Verbindung (aus Buttersäure) (*A.* 221, 59). — I, 287.
- 5) Verbindung (aus Glyoxylsäure u. Acetessigsäureäthylester). *Fl.* (*C.* 1896 [1] 797).
C 49,7 — H 6,2 — O 44,1 — M. G. 290.
- C₁₇H₁₉O₈** 1) Oktan- $\gamma\gamma\gamma$ -Tetracarbonsäure. Zers. bei 207–209°. *K₄, Ca₂ + 5H₂O, Ag₄* (*Soc.* 65, 1007).
- 2) Tetramethylester d. Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure. *Sm.* 75–76° (*B.* 27, 1123).
- 3) Tetramethylester d. isom. Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure. *Sm.* 63 bis 64° (*B.* 27, 1126).
- 4) Diäthylester d. Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure. *Sm.* 168° (*B.* 27, 1123).
- 5) Diäthylester d. h-Butan- $\alpha\beta\gamma\delta$ -Tetracarbonsäure. *Fl.* (*B.* 28, 887 Anm.).
- 6) Dimethyldiäthylester d. Aethan- $\alpha\alpha\beta\beta$ -Tetracarbonsäure. *Sd.* 200 bis 203°₁₈ (*Soc.* 67, 774).
- 7) Dimethylester d. Dipropionylweinsäure. *Sm.* 27–27,5°; *Sd.* 287 bis 289°₇₃₀ (*B.* 25 [2] 859; *Bl.* [3] 11, 310).
- 8) Diäthylester d. Diacetyl-d-Weinsäure. *Sm.* 67°; *Sd.* 291–292° (*A. Spl.* 5, 285; *A.* 129, 188; *B.* 14, 2790; 15, 2243; 20, 3366; 25 [2] 859; 26 [2] 751; *J.* 1882, 857; 1884, 465; *Bl.* [3] 11, 309; *Soc.* 51, 369; 73, 194). — I, 796.
- 9) Diäthylester d. Diacetyl-l-Weinsäure. *Sm.* 48° (*B.* 13, 1387). — I, 802.
- 10) Diäthylester d. Diacetyltraubensäure. *Sm.* 50,5°; *Sd.* 289° u. Zers. (*A. Spl.* 5, 286; *Soc.* 51, 368, 369). — I, 801.
- 11) Diäthylester d. Succinyldioxyessigsäure. *Sm.* 72,5° (*J. pr.* [2] 51, 361).
- 12) Diacetat d. Dulcitudimethylenäther. *Sm.* 258–260° (*A.* 299, 320).
- 13) Triacetat d. Quercit (*A. ch.* [5] 15, 43). — I, 416.
- 14) Tetracetat d. Erythrit. *Sm.* 85° (*B.* 26 [2] 315).
- 15) Tetracetat d. isom. Erythrit. *Sm.* 53° (*B.* 26 [2] 932).
C 47,1 — H 5,9 — O 47,0 — M. G. 306.
- C₁₇H₁₉O₉** 1) Caramelan. *PbO, 2PbO* (*J.* 1860, 506; 1862, 471; *A. ch.* [3] 52, 360). — I, 1106.
- 2) Glykosetriacetat (*Bl.* 12, 204). — I, 1048.
- 3) Zucker (aus Eichengerbsäure) (*A.* 145, 2). — III, 587.
- 4) Verbindung + H₂O (*J.* 1883, 1446). — I, 1104.
C 44,7 — H 5,6 — O 49,7 — M. G. 322.
- C₁₇H₁₉O₁₀** 1) Citrodiglycerin (*J.* 1858, 434). — I, 840.
- C₁₇H₁₉O₁₁** C 42,6 — H 5,3 — O 52,1 — M. G. 338.
- C₁₇H₁₉O₁₂** 1) Diäthylester d. Ditartrylsäure (*A.* 125, 139). — I, 797.
C 37,3 — H 4,6 — O 58,0 — M. G. 386.
- C₁₇H₁₉O₁₄** 1) Erythritweinsäure. *Ca + 3H₂O* (*A. ch.* [3] 54, 84). — I, 795.
- C₁₇H₁₉N₂** C 75,8 — H 9,5 — N 14,7 — M. G. 190.
- 1) γ -Methylphenylhydrazon- β -Methylbutan. *Sd.* 130–140°₄₀ (*B.* 31, 1497).
- 2) 1-[2-Amidobenzyl]hexahydropyridin. *Sm.* 82,5° (*A.* 259, 49). — IV, 629.
- 3) 1-[3-Amidobenzyl]hexahydropyridin. *Sm.* 112° (*A.* 259, 49). — IV, 639.

- $C_{12}H_{15}N_2$ 4) 1-[4-Amidobenzyl]hexahydropyridin. Sm. 87°. 2HCl (A. [259](#), [43](#)). — IV, [640](#).
- $C_{12}H_{15}N_4$ C [66,1](#) — H [8,2](#) — N [25,7](#) — M. G. [218](#).
- 1) Dioxaläthylin. Sd. oberh. 300°. (2HCl, PtCl₄) (A. [214](#), [297](#); B. [10](#), [1194](#)). — IV, [518](#).
- $C_{12}H_{19}O$ 1) Storesinol = (C₁₂H₁₉O)_n (B. [27](#) [[2](#)] [32](#)).
C [81,4](#) — H [10,7](#) — N [7,9](#) — M. G. [177](#).
- $C_{12}H_{19}N$ 1) Methylisoamylamidobenzol. Sd. 257°. (2HCl, PtCl₄), HJ (A. [79](#), [15](#); B. [14](#), [622](#)). — II, [336](#).
- 2) Dipropylamidobenzol. Sd. 240—242° ([245,4°](#)). (2HCl, PtCl₄) (A. [214](#), [168](#); M. [3](#), [711](#); J. [1883](#), [703](#); B. [15](#), [2140](#)). — II, [335](#).
- 3) Diisopropylamidobenzol. Sd. 221° (A. [214](#), [170](#)). — II, [335](#).
- 4) ?-Amido-4-Isopropyl-1-Propylbenzol. Sd. 260—265° (G. [21](#), [8](#)). — II, [565](#).
- 5) 4-Propylamido-1-Propylbenzol. Sd. 258—260°. H₂SO₄, Pikrat (B. [16](#), [109](#)). — II, [548](#).
- 6) 4-Isopropylamido-1-Isopropylbenzol. Sd. 245—250° (B. [16](#), [113](#)). — II, [550](#).
- 7) ?-Amido-5-Pseudobutyl-1,3-Dimethylbenzol. Sd. 255° (C. [1898](#) [[2](#)] [1232](#)).
- 8) 2-Diäthylamido-1,3-Dimethylbenzol. Sd. 220—221°. (2HCl, PtCl₄) (M. [19](#), [645](#)).
- 9) 4-Amido-2-Propyl-1,3,5-Trimethylbenzol. Fl. H₂SO₄ (B. [28](#), [2462](#)).
- 10) ?-Dimethylamido-?-Tetramethylbenzol. Sd. 236—238° (2HCl, PtCl₄) (B. [17](#), [1914](#)). — II, [563](#).
- 11) 6-Methylamido-1,2,3,4,5-Pentamethylbenzol. Sm. 60—61°. (2HCl, PtCl₄) (B. [18](#), [1824](#)). — II, [565](#).
- 12) Isoamylbenzylamin. Sd. 240°₇₄₅. (2HCl, PtCl₄) (A. [245](#), [283](#)). — II, [516](#).
- 13) Dimethyl-4-Isopropylbenzylamin? (B. [4](#), [747](#)). — II, [560](#).
- 14) Viridin. Sd. 351°. (2HCl, PtCl₄) (J. [1861](#), [502](#)). — IV, [140](#).
- 15) Base (aus d-Campheroxim). Sd. 206—207°. (2HCl, PtCl₄), HJ, Pikrat. — III, [500](#).
- 16) Base (aus Methyläthylakrolein). Sd. 230—235°. (2HCl, PtCl₄), (HCl, AuCl₃) (M. [9](#), [651](#)). — IV, [140](#).
- $C_{12}H_{19}P$ 1) Diäthyl-4-Aethylphenylphosphin. Sd. 268—270°. (2HCl, PtCl₄) (A. [293](#), [324](#)). — IV, [1674](#).
- 2) Diäthyl-2,4-Dimethylphenylphosphin. Sd. 260°. + CS₂ (B. [15](#), [2016](#)). — IV, [1676](#).
- $C_{12}H_{20}O$ C [80,0](#) — H [11,1](#) — O [8,9](#) — M. G. [180](#).
- 1) Matikocampher. Sm. 94° (B. [16](#), [2841](#)). — III, [513](#).
- 2) Aethylcampher. Sd. 226—229° (Z. [1866](#), [409](#); [1868](#), [298](#); B. [24](#), [3707](#); J. pr. [[2](#)] [31](#), [352](#)). — III, [512](#).
- 3) Myroxocerin. Sm. 95° (C. [1897](#) [[1](#)] [421](#)).
- 4) Succinoresinol. Sm. 275° (C. [1895](#) [[1](#)] [556](#)).
- 5) 5-Acetyl-1,1,2,2,4-Pentaäthyl-2,3-Dihydro-R-Penten (Desoxymesityloxyd). Sd. 213—217° (A. [140](#), [299](#); [180](#), [8](#); [296](#), [308](#); B. [29](#), [382](#)). — I, [1008](#).
- 6) Keton (aus Methyläthylketon). Sd. 248—253° (B. [16](#), [1582](#)). — I, [1014](#).
C [73,5](#) — H [10,2](#) — O [16,3](#) — M. G. [196](#).
- 1) β₂-Diketo-β-Methyl-γ-Aethyl-β-Nonen. Sd. 133—135°₁₅ (Bl. [[3](#)] [17](#), [751](#)).
- 2) Dixyliton (Keton). Sd. 310—320° (B. [15](#), [590](#)). — I, [1013](#).
- 3) Aescigenin (J. [1862](#), [492](#); [1867](#), [751](#)). — III, [613](#).
- 4) Säure (aus Laurinsäure). Sm. 30°; Sd. 182—185°₁₃ (B. [25](#), [487](#)).
- 5) Aethylester d. α-Campholensäure. Sd. 222—224° (B. [29](#), [3013](#); Bl. [[3](#)] [13](#), [843](#)).
- 6) Aethylester d. β-Campholensäure. Sd. 222—225° (B. [30](#), [247](#); Bl. [[3](#)] [13](#), [843](#)).
- 7) Propylester d. Isolauronsäure. Sd. 233—235° (Bl. [[3](#)] [15](#), [1196](#)).
- 8) Acetat d. 1-Oxy-4-Isopropyliden-1-Methylhexahydrobenzol. Sd. 110—120°₁₇ (B. [27](#), [443](#)). — III, [481](#).
- 9) Acetat d. Aurantiol. Sd. 102—106°₁₅ (B. [25](#), [1186](#)). — III, [468](#).
- 10) Acetat d. d-Borneol. Sm. 29°; Sd. 221° (227°) (A. [200](#), [352](#); B. [11](#), [456](#); [26](#) [[2](#)] [685](#); A. ch. [[5](#)] [14](#), [50](#); M. [2](#), [224](#); J. pr. [[2](#)] [49](#), [7](#)). — III, [470](#).

- C₁₂H₂₀O₂**
- 11) **Acetat d. 1-Borneol.** α -Modif. Sd. 95—105°₁₀; β -Modif. Sd. 115°₁₀ (A. ch. [6] 9, 518; [6] 15, 149, 166; [6] 16, 242; B. 31, 1775). — III, 472.
 - 12) **Acetat d. Isoborneol.** Sd. 107°₁₃ (J. pr. [2] 49, 7). — III, 473.
 - 13) **Acetat d. Camphenol.** Sd. 215° (A. ch. [6] 9, 509). — III, 473.
 - 14) **Acetat d. Coriandrol.** Sd. 234° (B. 14, 2493). — III, 475.
 - 15) **Acetat d. d-Fenchylalkohol.** Sd. 125—127°₅₀ (Bl. [3] 19, 414).
 - 16) **Acetat d. Geraniol (A. d. Rhodinol).** Sd. 242—245° (J. pr. [2] 49, 189; [2] 56, 15; Bl. [3] 11, 100; B. 27 [2] 47). — III, 477.
 - 17) **Acetat d. Lavendol.** Sd. 105—108°₁₁ (J. pr. [2] 45, 598; B. 25, 1187). — III, 477.
 - 18) **Acetat d. Licarhodol.** Sd. 135°_{21,5} (B. 26 [2] 490).
 - 19) **Acetat d. d-Licarhodol.** Sd. 119—120°₁₀ (Bl. [3] 17, 591).
 - 20) **Acetat d. l-Linalol.** Sd. 99—105°₁₅ (B. 25, 1184). — III, 478.
 - 21) **Acetat d. Nerolol.** Sd. 97—104°₁₅ (B. 26, 2712 Anm.). — III, 481.
 - 22) **Acetat d. Isopulegol.** Sd. 104—105°₁₀ (C. 1897 [2] 305).
 - 23) **Acetat d. Reuniol.** Sd. 124—125°₁₇ (J. pr. [2] 50, 475).
 - 24) **Acetat d. Terpeneol.** Sd. 140°₄₀ (A. ch. [6] 15, 153; [6] 16, 244). — III, 483.
- C₁₂H₂₀O₃**
- 25) **Verbindung (aus Glycerin).** Sd. bei 200° (B. 18, 2931).
C 67,9 — H 9,4 — O 22,6 — M. G. 212.
 - 1) **Triallyläther d. $\alpha\beta\gamma$ -Trioxypuran (Triallylglycerinäther).** Sd. 232° (A. 100, 361). — I, 313.
 - 2) **6- α -Oxyamyl-1,2,3,4-Tetrahydrobenzol-1-Carbonsäure (Sedanolsäure).** Sm. 88—89°. Ag (B. 30, 497, 1419, 1423, 1427).
 - 3) **Säure (aus Sedanonsäure).** Fl. Ag (B. 30, 1426).
 - 4) **Aethylester d. ζ -Keto- β -Methyl- β -Okten- θ -Carbonsäure.** Sd. 152 bis 154°₁₄ (Bl. [3] 17, 751).
 - 5) **Aethylester d. 2-Acetyl-1-Methylhexahydrobenzol-2-Carbonsäure.** Sd. 255—257° (Soc. 53, 212). — I, 625.
- C₁₂H₂₀O₄**
- 6) **Verbindung (aus d. Verbindung C₁₄H₂₆O₄).** Sm. 84,5° (A. 274, 53).
C 63,2 — H 8,8 — O 28,0 — M. G. 228.
 - 1) **$\beta\theta$ -Dimethylnonan- $\beta\epsilon$ - θ -Dioxyd- δ -Carbonsäure (Diisohexonsäure; Tetramethyloxetonecarbonsäure) + $\frac{1}{2}$ H₂O.** Sm. 81° (108° wasserfrei). Ca, Ba, Ag (J. pr. [2] 48, 213).
 - 2) **$\beta\epsilon$ -Dimethyl- γ -Hexen- $\gamma\delta$ -Dimethylcarbonsäure.** Sm. 117—119° (Bl. [3] 19, 200).
 - 3) **isom. $\beta\epsilon$ -Dimethyl- γ -Hexen- $\gamma\delta$ -Dimethylcarbonsäure.** Sm. 156 bis 158° (Bl. [3] 19, 200).
 - 4) **Dihexonsäure (Diäthyloxetonecarbonsäure).** Sm. 106°. Na, Ca, Ba, Ag (A. 256, 138). — I, 728.
 - 5) **Hydrocampherylessigsäure.** Sm. 141—142° (A. 257, 303). — I, 728.
 - 6) **$\beta\delta$ -Lakton d. δ -Oxydekan- $\beta\gamma$ -Dicarbonsäure (L. d. α -Methylhexylitaminsäure; α -Methylhexylparakonsäure).** Sm. 101,5°. Ca + 5 H₂O, Ba + 3 H₂O, Ag (A. 255, 126). — I, 760.
 - 7) **$\alpha\gamma$ -Lakton d. γ -Oxy- β -Methylnonan- $\alpha\beta$ -Dicarbonsäure (L. d. β -Methylhexylitaminsäure; β -Methylhexylparakonsäure).** Sm. 83° (A. 255, 138). — I, 760.
 - 8) **$\delta\zeta$ -Lakton d. ζ -Oxy- β -Methylheptan- $\delta\zeta$ -Dicarbonsäure- ζ -Aethylester.** Sd. 168°₁₇ (Soc. 73, 55).
 - 9) **Lakton d. Isocaprolaktoïdsäure + $\frac{1}{2}$ H₂O.** Sm. 79°. Ag₂ (A. 228, 189). — I, 760.
 - 10) **Dimethylester d. d-Campfersäure.** Sd. 264°₇₃₀. (B. 25, 1809; 25 [2] 665; 26 [2] 614). — I, 724.
 - 11) **Ortho-Monoäthylester d. d-Campfersäure.** Sm. 46—47,5°; Sd. 204°₁₄ (216—219°₅₀). Ag (A. ch. [2] 44, 151; B. 24, 3409, 3730; 25 [2] 107; 26, 285, 459; 26 [2] 87; R. 12, 23). — I, 725.
 - 12) **Allo-Monoäthylester d. d-Campfersäure.** Sm. 57°; Sd. 196,5°₁₃ (B. 25, 1802; 25 [2] 107; 26, 289). — I, 725.
 - 13) **Ortho-Monoäthylester d. i-Campfersäure.** Sm. 69—70° (B. 27, 2008).
 - 14) **Allo-Monoäthylester d. i-Campfersäure.** Sm. 95° (B. 27, 2008).
 - 15) **α -Monoäthylester d. d-Isocampfersäure.** Sm. 75°; Sd. 195—197°_{18—20} (B. 25 [2] 107). — I, 726.
 - 16) **β -Monoäthylester d. d-Isocampfersäure.** Fl. (B. 25 [2] 107). — I, 726.

C₁₂H₂₀O₄

- 17) Aethylester d. $\beta\beta$ -Diketononan- γ -Carbonsäure (Ac. d. $\alpha\epsilon$ -Diacetylcapronsäure). Sd. 238—240°₁₀₀ (Soc. 55, 333; 57, 26). — I, 694.
- 18) Aethylester d. $\delta\zeta$ -Diketo- β -Aethylheptan- γ -Carbonsäure. Fl. Cu, HgCl (B. 31, 2957).
- 19) Diäthylester d. α -Hexan- $\delta\delta$ -Dicarbonsäure (D. d. Allyläthylmalonsäure). Sd. 233° (B. 29, 1856, 1864).
- 20) Diäthylester d. β -Hexen- $\alpha\beta$ -Dicarbonsäure (D. d. Propylitakonsäure) (A. 256, 106). — I, 720.
- 21) Diäthylester d. δ -Methyl- α -Penten- $\alpha\alpha$ -Dicarbonsäure. Sd. 133 bis 135°₁₁ (Soc. 73, 1011).
- 22) Diäthylester d. β -Methyl- β -Penten- $\epsilon\epsilon$ -Dicarbonsäure. Sd. 140 bis 141°₂₀ (C. 1898 [2] 660).
- 23) Diäthylester d. $\beta\gamma$ -Dimethyl- α -Buten- $\alpha\gamma$ -Dicarbonsäure. Sd. 162°₄₀ (C. 1896 [2] 728; 1897 [1] 813).
- 24) Diäthylester d. 1-Methyl-R-Pentamethylen-2,2-Dicarbonsäure. Sd. 243—244° (Soc. 53, 193). — I, 721.
- 25) Diäthylester d. R-Pentamethylen-1-Methyldicarbonsäure (D. d. R-Pentamethenylmalonsäure). Sm. 137—138°₁₃ (B. 29, 1996).
- 26) Diäthylester d. Säure C₈H₁₂O₄ (aus α -Brombuttersäureäthylester). Sd. 250—253° (A. 208, 348). — I, 722.
- 27) Diisobutylester d. Fumarsäure. Sd. 170°₁₀₀ (Soc. 39, 354). — I, 699.
- 28) Diacetat d. Conylenglykol. Sd. 225° (A. 130, 298—299). — I, 270.
- 29) Dipropionat d. $\gamma\delta$ -Dioxy- γ -Hexen. Sd. 108—109°₁₀ (G. 25 [2] 49, 129). C 59,0 — H 8,2 — O 32,8 — M. G. 244.

C₁₂H₂₀O₅

- 1) Dimethylester d. Cinneolsäure. Sm. 31° (A. 258, 320). — I, 772.
- 2) Aethylester d. α -Acetoxyl- β -Keto- γ -Aethylpentan- γ -Carbonsäure. Sd. 255—265° (B. 31, 2954).
- 3) Diäthylester d. β -Ketohexan- $\gamma\delta$ -Dicarbonsäure (Diäthylester d. β -Aethylacetbernsteinsäure). Sd. 262° (A. 206, 311; Soc. 39, 337; B. 8, 1208; 29, 979). — I, 769.
- 4) Diäthylester d. β -Keto- γ -Methylpentan- $\gamma\delta$ -Dicarbonsäure (Diäthylester d. $\alpha\beta$ -Dimethylacetbernsteinsäure). Sd. 270° (A. 192, 142). — I, 770.
- 5) Diäthylester d. β -Keto- γ -Methylpentan- $\gamma\epsilon$ -Dicarbonsäure (Diäthylester d. α -Methylacetglutarsäure). Sd. 280—281° (A. 192, 133; 206, 311). — I, 769.
- 6) Diäthylester d. γ -Keto- β -Aethylbutan- $\alpha\beta$ -Dicarbonsäure (Diäthylester d. α -Aethylacetbernsteinsäure). Sd. 263—265° (A. 192, 146; 206, 311). — I, 770.
- 7) Diacetat d. $\zeta\delta$ -Dioxyoktan- $\beta\delta$ -Oxyd. Sd. 158—160°₂₀ (J. 1881, 515). — I, 272.
C 55,4 — H 7,7 — O 36,9 — M. G. 260.

C₁₂H₂₀O₆

- 1) Fruktosediaceton. Sm. 119—120° (B. 28, 1164).
- 2) isom. Fruktosediaceton. Sm. 97° (B. 28, 1165).
- 3) Glykosediaceton. Sm. 108° (B. 28, 1165).
- 4) Triäthylidenäther d. Mannit. Sm. 147°; subl. bei 90°; Sd. 285° u. Zers. (A. ch. [6] 22, 415). — I, 924.
- 5) Pikrolichenin (A. 1, 62; J. 1857, 515). — III, 642.
- 6) Trimethylester d. Camphoronsäure. Sd. 155°₁₂ (B. 28, 317; A. 292, 94).
- 7) Diäthylester d. Isobutyryläpfelsäure (B. 31, 1419).
- 8) Triäthylester d. Propan- $\alpha\alpha\beta$ -Tricarbonsäure. Sd. 270,3° (B. 13, 2165; 14, 615; 15, 1110; 17, 2783; 23, 634; 29, 1868; A. 214, 53). — I, 809.
- 9) Triäthylester d. Propan- $\alpha\alpha\gamma$ -Tricarbonsäure (Tr. d. Carboxylglutarsäure). Sd. 161°₁₂₋₁₃ (B. 24, 282; J. pr. [2] 58, 431). — I, 808.
- 10) Triäthylester d. Propan- $\alpha\beta\beta$ -Tricarbonsäure. Sd. 273,5° (B. 23, 635). — I, 809.
- 11) Triäthylester d. Propan- $\alpha\beta\gamma$ -Tricarbonsäure (Tr. d. Tricarballylsäure). Sd. 295—305° (A. 136, 273; J. 1865, 395). — I, 808.
- 12) Dipropylester d. α -Acetoxyläthan- $\alpha\beta$ -Dicarbonsäure (D. d. Acetäpfelsäure). Sd. 157°₁₂ (B. 18, 1952). — I, 743.
- 13) i- β -Methylbutylester d. d- $\alpha\beta$ -Diacetoxylpropionsäure. Sd. 156 bis 159° (Soc. 71, 265).
- 14) l- β -Methylbutylester d. d- $\alpha\beta$ -Diacetoxylpropionsäure. Sd. 152 bis 157° (Soc. 71, 262).

- C₁₂H₂₀O₆** 15) 1-β-Methylbutylester d. i-αβ-Diacetoxylpropionsäure. *Sd.* 163 bis 165°₁₂ (*Soc.* 71, 257).
 16) Triacetat d. αβδ-Trioxihexan. *Sd.* 273—276° (*Bl.* [3] 13, 122).
 17) Triacetat d. αβε-Trioxihexan. *Sd.* 192—196°₁₀₀ (*J. r.* 13, 355). — I, 416.
 18) Triacetat d. αβγ-Trioxo-β-Methylpentan. *Sd.* 270°_{745,6} (*M.* 4, 42). — I, 416.
 19) Triacetat d. βδε-Trioxo-β-Methylpentan. *Fl.* (*J. pr.* [2] 40, 401). — I, 416.
- C₁₂H₂₀O₇** 20) Verbindung (aus Campheroxalsäure). *Sm.* 92—93° (*Am.* 20, 330).
 C 52,2 — H 7,2 — O 40,6 — M. G. 276.
 1) Diacetat d. Aethylchinovose. *Sm.* 46—47°; *Sd.* 303° (*B.* 17, 873). — III, 575.
 2) Diäthylester d. d-Monobutrylweinsäure (*Bl.* [3] 13, 206).
 3) Triäthylester d. α-Oxypropan-αβγ-Tricarbonensäure (Tr. d. Isocitronensäure). *Sd.* bei 260° u. ger. Zers. (*A.* 285, 7).
 4) Triäthylester d. β-Oxypropan-αβγ-Tricarbonensäure (Triäthylester d. Citronensäure). *Sd.* 294° (*A.* 21, 267; 47, 195; 98, 68; *B.* 8, 867; 12, 1653; 18, 1953; *A. ch.* [6] 8, 139; *Soc.* 55, 237; 71, 458). — I, 839.
 C 49,3 — H 6,9 — O 43,8 — M. G. 292.
- C₁₂H₂₀O₈** 1) Drupose (*A.* 138, 7). — I, 1080.
 2) Triacetylglycid. *Sd.* 178—179°₄₀ (*J. pr.* [2] 55, 428).
 C 44,4 — H 6,2 — O 49,4 — M. G. 324.
- C₁₂H₂₀O₁₀** 1) Dextrin. *Lit.* bedeutend. — I, 1088.
 2) Lignocellulose (*Soc.* 41, 99).
 3) Inulin. *Sm.* 160° (178° wasserfrei). *Lit.* bedeutend. — I, 1095.
 4) Sinistrin + 1/2 H₂O. — IV, 1610.
 5) Thiergummi (*H.* 8, 122; 9, 367; *J. Th.* 1886, 33; *Fr.* 23, 601; 24, 640). — I, 1102.
 6) Verbindung (aus Cellulose) + 1/2 H₂O (*B.* 26, 1095).
 C 34,3 — H 4,7 — O 61,0 — M. G. 420.
- C₁₂H₂₀O₁₆** 1) Carmufelsäure (*J.* 1851, 431). — II, 2109.
 C 75,0 — H 10,4 — N 14,6 — M. G. 192.
- C₁₂H₂₀N₂** 1) α-Amido-γ-Phenylamido-β-Methylpentan. *Fl.* 2 + CS₂ (*G.* 22 [2] 368). — II, 345.
 2) 4-Amido-1-Isoamylamidomethylbenzol (Isoamyl-4-Amidobenzylamin). *Fl.* HCl (*B.* 30, 67). — IV, 639.
 3) 4-Dimethylamido-1-Diäthylamidobenzol. *Sd.* 263—265° (*M.* 4, 791). — IV, 583.
 4) 3,6-Dipropyl-2,5-Dimethyl-1,4-Diazin. *Sd.* 235—240° (220—230°). (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat, + AgNO₃ + H₂O (*B.* 14, 2160; 28, 2043). — IV, 832.
- C₁₂H₂₀S** 1) 2-Oktylthiophen. *Sd.* 257—259° (*B.* 19, 644). — III, 747.
- C₁₂H₂₀Si** 1) Siliciumtriäthylphenyl. *Sd.* 230° (*A.* 173, 159). — IV, 1701.
- C₁₂H₂₀Sn** 1) Zinntriäthylphenyl. *Sd.* 254° (*A.* 159, 251). — IV, 1713.
- C₁₂H₂₁N** C 80,4 — H 11,7 — N 7,8 — M. G. 179.
 1) Heptamethyl-1,2-Dihydropyridin? (HCl, AuCl₃) (*B.* 22, 2509). — IV, 76.
- C₁₂H₂₁N₃** C 69,6 — H 10,1 — N 20,3 — M. G. 207.
 1) Di[γ-Amidopropyl]phenylamin. 3HCl, (6HCl, 2PtCl₄) (*B.* 23, 1170). — II, 348.
 2) 1,2,4-Tri[Dimethylamido]benzol. *Sd.* 210°₁₃₆ (*B.* 30, 3117). — IV, 1122.
 3) 6-Amido-5-Aethyl-2,4-Dipropyl-1,3-Diazin (Kyanpropin). *Sm.* 115°. (2HCl, PtCl₄), 2 + Acetylchlorid (*J. pr.* [2] 37, 397; [2] 39, 247; [2] 53, 249). — IV, 1135.
 4) Nitril d. α-Imidodiisocapronsäure. *Sm.* 158—159° (*B.* 14, 1868; 20, 2357). — I, 952.
 C 79,1 — H 12,1 — O 8,8 — M. G. 182.
- C₁₂H₂₂O** 1) Diallyläther. *Sd.* 180° (*J.* 1864, 515; *A. ch.* [4] 3, 175). — I, 303.
 2) Hexenyläther. *Sd.* 116—118° (*A. ch.* [5] 27, 70). — I, 303.
 3) α-Aethyläther d. d-Borneol. *Sd.* 203—204° (204—204,5°) (*Z.* 1868, 481; *B.* 24, 3713, 3377). — III, 469.
 4) β-Aethyläther d. d-Borneol. *Sd.* 205—208° (*Bl.* 47, 490). — III, 469.

- C₁₁H₂₂O** 5) Aethyläther d. Isoborneol. *Sd.* 203—204° (*J. pr.* [2] 49, 9). — III, 473.
- 6) Aethyläther d. l-Linalol. *Sd.* bei 210° (*Bl.* [3] 9, 806). — III, 478.
- C₁₁H₂₂O₂** 7) Keton (aus Isovalerylchlorid). *Sd.* 217—219° (*A.* 188, 141). — I, 1010.
C 72,7 — H 11,1 — O 16,1 — M. G. 198.
- 1) $\epsilon\zeta$ -Dioxy- $\epsilon\zeta$ -Dimethyl- α -Dekadien (Methylbutallylpinakon). *Sd.* 264,5 bis 266,5°₁₀₀ (*J. r.* 19, 513). — II, 271.
- 2) $\beta\delta$ -Diketo- $\gamma\gamma$ -Dimethyldekan. *Sd.* 142,5—143,5°₁₈ (*R.* 16, 122).
- 3) Damolsäure. *Ba* (*A.* 77, 27, 31).
- 4) Amenylamylelessigsäure. *Fl.* (*A.* 218, 75). — I, 523.
- 5) Säure (aus Cochenillefett). *Fl.* (*M.* 6, 896). — I, 523.
- 6) Säure (aus Petroleum) (*B.* 24, 1810). — I, 523.
- 7) Methylester d. α -Deken- ρ -Carbonsäure. *Sd.* 248° (*B.* 23, 2357). — I, 523.
- 8) Aethylester d. Campholsäure. *Sd.* 220°₇₅₀ (*Bl.* [3] 11, 494). — I, 522.
- 9) Aethylester d. Isocampholsäure. *Sd.* 228—229° (*B.* 27 [2] 667; *Bl.* [3] 11, 607; [3] 13, 773).
- 10) Allyldipropylcarbinolester d. Essigsäure (Acetat d. δ Oxy- δ -Propyl- α -Hepten). *Sd.* 210°₇₅₁ (*A.* 196, 110). — I, 412.
- 11) α -Dekenylester d. Essigsäure (aus Naphta). *Sd.* 224—230° (*J. r.* 25, 384).
- 12) Dekenylester d. Essigsäure (aus Rosenöl). *Sd.* 235—236° (*J. pr.* [2] 48, 301).
- 13) Acetat d. cis-5-Oxy-3-Isopropyl-1-Methylhexahydrobenzol. *Sd.* 235—236°₇₀₂ (*A.* 297, 170).
- 14) Acetat d. trans-5-Oxy-3-Isopropyl-1-Methylhexahydrobenzol. *Sd.* 228° (*A.* 289, 147).
- 15) Acetat d. 4-Oxy-4-Isopropyl-1-Methylhexahydrobenzol. *Sd.* 223 bis 227° (*J. r.* 27, 480). — III, 468.
- 16) Acetat d. 4-Oxy-5-Aethyl-1,3-Dimethylhexahydrobenzol. *Sd.* 236 bis 239° (*J. pr.* [2] 48, 190; *J. r.* 25, 387; *C.* 1899 [1] 176).
- 17) Acetat d. d-Citronellol. *Sd.* 119—121°₁₅ (*B.* 29, 907). — III, 465.
- 18) Acetat d. Menthol. *Sd.* 227—228° (222—224°) (*A.* 120, 351; *J. r.* 27, 480). — III, 466.
- 19) Acetat d. δ -Oxy- α -Deken. *Sd.* 222—224° (*Bl.* [3] 11, 361; *B.* 27, 2436).
- 20) Acetat d. Dekenylalkohol (aus Terpinhydrojodid). *Sd.* 220—225° (*B.* 25, 697).
- 21) Isovalerat d. δ -Oxy- ϵ -Methyl- α -Hexen. *Sd.* 220—222° (*Bl.* [3] 15, 886).
- 22) Verbindung (aus Allylacetone). *Sd.* 254—262° (*J. r.* 13, 358). — I, 1009.
- 23) Verbindung (aus Isobuttersäurealdehyd), siehe C₇H₁₄O ϵ -Keto- β -Methyl- γ -Hexen. — I, 947.
C 67,3 — H 10,3 — O 22,4 — M. G. 214.
- C₁₁H₂₂O₃** 1) β -Keto- γ -Aethylnonan- η -Carbonsäure (ϵ -Acetyl- $\alpha\epsilon$ -Diäthylcapronsäure). *Sd.* 253—255°₇₁₀. *Ag* (*Soc.* 57, 36). — I, 612.
- 2) 1-[α -Oxyamyl]hexahydrobenzol-2-Carbonsäure. *Sm.* 131° (120°) (*B.* 30, 1425, 1428).
- 3) Lanolinsäure. *Sm.* 75—77°. *Ba* + H₂O (*G.* 25 [1] 47).
- 4) Anhydrid d. norm. Capronsäure. *Sd.* 241—243° u. *Zers.* (*A.* 86, 259; *B.* 25 [2] 637; *M.* 14, 91). — I, 463.
- 5) Anhydrid d. Diäthylelessigsäure. *Sd.* 230° (*B.* 23, 190). — I, 464.
- 6) Aethylester d. ζ -Oxy- $\beta\zeta$ -Dimethyl- β -Hepten- η -Carbonsäure. *Sd.* 125 bis 135°₇ (150°₂₅) (*C.* 1896 [1] 707; *B.* 31, 826).
- 7) Aethylester d. β -Ketodekan- γ -Carbonsäure (Ae. d. Hexylacetessigsäure). *Sd.* 247—249° (*B.* 16, 789).
- 8) Aethylester d. β -Keto- γ -Methyloktan- η -Carbonsäure (Ae. d. $\alpha\epsilon$ -Dimethyl- ϵ -Acetylcapronsäure). *Sd.* 182—183°₇₀ (*Soc.* 59, 584). — I, 612.
- 9) Aethylester d. ϵ -Keto- $\beta\zeta$ -Dimethylheptan- α -Carbonsäure (Ae. d. Oxymenthylsäure). *Sd.* 153—155°₂₅ (*A. ch.* [6] 7, 451; *B.* 29, 27). — I, 611.
- 10) Aethylester d. δ -Keto- $\beta\zeta$ -Dimethylheptan- γ -Carbonsäure (Ae. d. Isovalerylvaleriansäure). *Sd.* 232—234° (*Bl.* [3] 2, 343; *Z.* 1866, 464). — I, 611.
- 11) Aethylester d. β -Keto- γ -Propylhexan- γ -Carbonsäure (Ae. d. Dipropylacetessigsäure). *Sd.* 235—236° (*Am.* 3, 386). — I, 611.

- C₁₁H₂₂O₂** 12) Aethylester d. ϵ -Keto- β -Isopropylhexan- α -Carbonsäure. *Sd.* 143 bis 146¹⁷ (*B.* 29, 32).
 13) Aethylester d. ϵ -Keto- β -Methyl- δ -Aethylhexan- δ -Carbonsäure. *Sd.* 230—233¹⁰ (*Bl.* [3] 13, 183).
 14) Aethylester d. Diäthylpropionylpropionsäure? *Sd.* 250—255¹⁰ (*A.* 231, 200). — I, 611.
 15) Isobutylester d. β -Oxypropenisobutyläther- α -Carbonsäure. *Sd.* 249,8¹⁰ (*A.* 256, 218). — I, 590.
 16) Acetat d. Menthoglykol. *Sd.* 137—138¹⁰ (*C.* 1897 [2] 305).
 17) Acetat d. Terpin. *Sd.* 140—150¹⁰ (*A.* 129, 158). — III, 520.
 18) Isobutytrat d. α -Oxy- γ -Keto- $\beta\beta\delta$ -Trimethylpentan. *Sd.* 138¹⁷ (*M.* 19, 51).
C₁₂H₂₂O₄ C 62,6 — H 9,5 — O 27,8 — M. G. 230.
 1) Georetinsäure (oder C₁₂H₂₂O₄?). *Sm.* 82¹⁰ (*J.* 1852, 647). — I, 688.
 2) Dekan- $\alpha\alpha$ -Dicarbonsäure. *Sm.* 124,5—125,5¹⁰; *Sd.* 245¹⁰⁰ (*B.* 23, 2357). — I, 688.
 3) Dimethylester d. Oktan- $\alpha\beta$ -Dicarbonsäure (Dimethylester d. Sebacin-säure). *Sm.* 38¹⁰ (25,5¹⁰); *Sd.* 288¹⁰ u. Zers. (285¹⁰) (*J.* 1853, 430; 1876, 576). — I, 686.
 4) Monäthylester d. Oktan- $\alpha\beta$ -Dicarbonsäure (*M.* d. Sebacinsäure) (*J.* 1876, 577; *Soc.* 61, 713). — I, 686.
 5) Diäthylester d. Hexan- $\alpha\epsilon$ -Dicarbonsäure. *Sd.* 132—137¹⁰ (*A.* 295, 178).
 6) Diäthylester d. Hexan- $\alpha\zeta$ -Dicarbonsäure (*D.* d. Korksäure). *Sd.* 282 bis 286¹⁰ (*A.* 28, 259; *B.* 13, 1170; *Soc.* 45, 517). — I, 681.
 7) Diäthylester d. fum. Hexan- $\gamma\delta$ -Dicarbonsäure (*D.* d. fum. s-Diäthyl-bernsteinsäure). *Sd.* 235—237¹⁰ (*B.* 6, 31; 13, 481; *J. r.* 21, 381). — I, 682.
 8) Diäthylester d. mal. Hexan- $\gamma\delta$ -Dicarbonsäure (*D.* d. mal. s-Diäthyl-bernsteinsäure). *Sd.* 237—239¹⁰ (*B.* 6, 31; 13, 482; *J. r.* 21, 381). — I, 683.
 9) Diäthylester d. β -Methylpentan- $\alpha\epsilon$ -Dicarbonsäure. *Sd.* 150—166¹⁰ (*A.* 295, 180).
 10) Diäthylester d. β -Methylpentan- $\beta\delta$ -Dicarbonsäure (*D.* d. Trimethylglutarsäure). *Sd.* 230—231¹⁰ (*B.* 7, 321). — I, 684.
 11) Diäthylester d. β -Methylpentan- $\gamma\epsilon$ -Dicarbonsäure. *Sd.* 158—160¹⁰ (*C.* 1896 [2] 703; *Soc.* 69, 1496).
 12) Diäthylester d. β -Methylpentan- $\delta\delta$ -Dicarbonsäure. *Sd.* 230—235¹⁰ (*Soc.* 67, 510).
 13) Diäthylester d. β -Methylpentan- $\epsilon\epsilon$ -Dicarbonsäure (*D.* d. Isoamylmalonsäure). *Sd.* 240—242¹⁰ (*B.* 23, 1496; 28, 2627). — I, 683.
 14) Diäthylester d. γ -Methylpentan- $\alpha\epsilon$ -Dicarbonsäure. *Sd.* 160—167¹⁰ (*A.* 295, 185).
 15) Diäthylester d. $\beta\beta$ -Dimethylbutan- $\alpha\alpha$ -Dicarbonsäure (*D.* d. tert. Amylmalonsäure). *Sd.* 238¹⁰ (*B.* 28, 2628).
 16) Diäthylester d. $\beta\gamma$ -Dimethylbutan- $\beta\gamma$ -Dicarbonsäure. *Sd.* 218—220¹⁰ (*A.* 290, 41; 292, 180).
 17) Diäthylester d. β -Isopropylpropan- $\alpha\gamma$ -Dicarbonsäure. *Sd.* 250¹⁰ (*B.* 31, 2589).
 18) Isobutylester d. d- α -Butyroxylbuttersäure. *Sd.* 243—245¹⁰ (*Bl.* [3] 15, 490).
 19) Diisobutylester d. Aethan- $\alpha\beta$ -Dicarbonsäure. *Sd.* 264,8—265,8¹⁰ (*Soc.* 45, 519; *Ph. Ch.* 1, 382). — I, 656.
 20) Diisoamylester d. Oxalsäure. *Sd.* 265¹⁰ (*A. ch.* [3] 12, 309; *A.* 130, 200; *B.* 14, 940; *Ph. Ch.* 1, 381; *J.* 1854, 26). — I, 648.
 21) norm. Propyl-norm. Heptylester d. Oxalsäure. *Sd.* 284,4¹⁰ (*A.* 253, 297). — I, 648.
 22) Diacetat d. β -Dioxyoktan (aus Fuselölokten). *Sd.* 240—245¹⁰ (*A.* 128, 231). — I, 414.
 23) Diacetat d. isom. β -Dioxyoktan. *Sd.* 245—250¹⁰ (*A. Spl.* 3, 254). — I, 414.
 24) Diacetat d. $\gamma\delta$ -Dioxy- $\beta\epsilon$ -Dimethylhexan. *Sd.* 235¹⁰ (*M.* 4, 667). — I, 414.
 25) Diacetat d. $\alpha\gamma$ -Dioxy- $\beta\beta\delta$ -Trimethylpentan. *Sd.* 110—115¹⁰ (*Bl.* [3] 13, 1051).

- $C_{12}H_{22}O_4$ 26) Diisovalerat d. $\alpha\alpha$ -Dioxyäthan. Sd. 225° (A. 225, 280). — I, 926.
27) Diisovalerat d. $\alpha\beta$ -Dioxyäthan (Aethylenester d. Isovaleriansäure). Sd. 255° (A. 114, 124). — I, 428.
- $C_{12}H_{22}O_5$ 28) Verbindung (Aethylester). Sd. 250—253° (J. r. 12, 460).
C 58,5 — H 8,9 — O 32,5 — M. G. 246.
1) δ -Oxydekan- $\beta\gamma$ -Dicarbonsäure (α -Methylhexylitamalsäure). Ca + 2H₂O, Ba + 2H₂O (A. 255, 132). — I, 759.
2) γ -Oxy- β -Methylnonan- $\alpha\beta$ -Dicarbonsäure (β -Methylhexylitamalsäure). Ca, Ba + H₂O, Ag₂ (A. 255, 140). — I, 759.
3) Aethylester d. $\alpha\alpha$ -Dioxy- β -Keto- γ -Aethylpentandimethyläther- γ -Carbonsäure (Aethylester d. Dimethoxylacetdiäthylelessigsäure). Sd. 190 bis 200° (A. 231, 243). — I, 610.
4) Diäthylester d. γ -Oxy- $\beta\beta$ -Dimethylbutan- $\alpha\gamma$ -Dicarbonsäure. Sd. 160 bis 170°₆₀ (C. 1896 [2] 728).
5) Diäthylester d. β -Oxy- $\beta\gamma$ -Dimethylbutan- $\alpha\gamma$ -Dicarbonsäure. Sd. 165°₃₅ (C. 1896 [2] 728; Soc. 71, 1179, 1192).
6) Diäthylester d. α -Oxy- β -Isopropylpropan- $\alpha\gamma$ -Dicarbonsäure? (D. d. Diaterpensäure) (B. 10, 1660). — I, 756.
7) Diäthylester d. δ -Oxybutanäthyläther- $\alpha\alpha$ -Dicarbonsäure. Sd. 273° (Am. 19, 778).
8) Dipropylester d. d- α -Oxyäthanäthyläther- $\alpha\beta$ -Dicarbonsäure. Sd. 151°₁₆ (Soc. 67, 973).
9) Dipropylester d. l- α -Oxyäthanäthyläther- $\alpha\beta$ -Dicarbonsäure. Sd. 157 bis 158°₃₅ (Soc. 67, 973).
10) Dibutylester d. l-Aepfelsäure. Sd. 170°₁₅ (Soc. 69, 824).
11) Dibutyrat d. $\alpha\alpha$ -Dioxydiäthyläther. Sd. 235—240° (A. 226, 225). — I, 926.
12) Verbindung (aus Aethylglykolsäureäthylester). Sd. 270° (Z. 1867, 708).
C 54,9 — H 8,4 — O 36,6 — M. G. 262.
1) Diacetondulcit. Sm. 98°; Sd. 193—195°₁₅ (B. 28, 2533).
2) $\gamma\delta$ -Dioxy- $\beta\epsilon$ -Diketo- $\gamma\delta$ -Di[α -Oxyisopropyl]hexan? Sm. 123° (B. 28, 2268).
3) $\alpha\zeta$ -Dioxyhexandiäthyläther- $\alpha\zeta$ -Dicarbonsäure (Dioxykorkdiäthyläthersäure). Fl. Ag₂ (B. 18, 819; 28, 665). — I, 806.
4) Diäthylester d. i- $\alpha\beta$ -Dioxybernsteindiäthyläthersäure. Sd. 145 bis 148°₁₅ (M. 9, 446; J. pr. [2] 46, 235). — I, 800.
5) Diäthylester d. d- $\alpha\beta$ -Dioxybernsteinsäurediäthylester. Sd. 149 bis 151°₁₆ (Soc. 75, 158).
6) norm. Dibutylester d. d-Weinsäure. Sm. 21—22°; Sd. 208°₁₂ (Bl. [3] 11, 309).
7) Diisobutylester d. d-Weinsäure. Sm. 68°; Sd. 323—325° (B. 14, 2790; 15, 2242; J. 1882, 856). — I, 795.
- $C_{12}H_{22}O_7$ C 51,8 — H 7,9 — O 40,3 — M. G. 278.
1) Diacetat d. Tetraäthylenglykol. Sd. oberh. 320° (A. ch. [3] 67, 280; [3] 69, 338). — I, 413.
- $C_{12}H_{22}O_8$ C 49,0 — H 7,5 — O 43,5 — M. G. 294.
1) Verbindung (Zucker). Sm. 105° (B. 16, 935).
- $C_{12}H_{22}O_9$ C 46,4 — H 7,1 — O 46,4 — M. G. 310.
1) Acetessigesterglykose (A. 244, 27). — I, 1049.
2) Verbindung (aus Quercit). Sm. 228—230° (A. ch. [5] 15, 28). — I, 283.
- $C_{12}H_{22}O_{11}$ C 42,1 — H 6,4 — O 51,5 — M. G. 342.
1) Agavose (inact. Zucker) (Am. 14, 548; 17, 368). — I, 1059.
2) Cyclamose (Bl. 46, 305). — I, 1059.
3) Diglykose (Aethylglykosid) (J. 1874, 883; B. 26, 2402). — I, 1049.
4) Hefegummi (B. 27, 499, 925).
5) Hydrocellulose (Amyloid?) (B. 9, 65; Bl. 34, 507; D. 159, 218; A. ch. [5] 24, 337). — I, 1077.
6) Isomaltose (Gallisin). K, Ba + 3H₂O, Pb (B. 17, 1000, 2464; 23, 3689; 24, 304; 26, 2538, 2545; 28, 3024; H. 20, 251; Soc. 67, 704, 709, 739; C. 1896 [2] 891). — I, 1061.
7) β -Lävulin (B. 27, 65, 3525).
8) Lupeose (β -Galakton) (B. 25, 2213; 26 [2] 498; H. 11, 372). — I, 1059.
9) Maltose + H₂O. Lit. bedeutend. — I, 1059.
10) Melibiose (B. 22, 1681, 3122; 23, 1438; C. 1897 [1] 744). — I, 1061.

- C₁₂H₂₂O₁₁**
- 11) **Metarabin** (*J.* 1857, 496; 1860, 503—504; *B.* 6, 612; *J. pr.* [2] 11, 186).
 - 12) **Milchsucker** (Laktose). Sm. 203,5°. Lit. bedeutend. — *I*, 1061.
 - 13) **Pararabin**. Ba + 3½ H₂O, Pb (*B.* 8, 807). — *I*, 1102.
 - 14) **Pharbitose** (*C.* 1896 [2] 632).
 - 15) **Rohrzucker** (Saccharose). Sm. 160°. Lit. bedeutend. — *I*, 1064.
 - 16) **Trehalose** (Mykose) + 2H₂O. Sm. 100° (210° wasserfrei) (*A.* 1, 129; 106, 15; *J.* 1858, 486; 1873, 829; *A. ch.* [3] 55, 272; *J. pr.* [2] 45, 317; *B.* 26, 3094; 26 [2] 384; 28, 1431; *H.* 19, 70). — *I*, 1070.
 - 17) **Triticin** + H₂O (*J.* 1873, 832; *J. Th.* 1881, 69). — *I*, 1100.
 - 18) **Turanose**. Sm. 65—70°. Na (*J. r.* 21, 415). — *I*, 1070.
 - 19) **Verbindung** (aus Dextrose oder C₁₂H₂₀O₁₁). Sm. 110—115° (*A.* 271, 79). C 40,2 — H 6,1 — O 53,6 — M. G. 358.
- C₁₂H₂₂O₁₂**
- 1) **Galaktosidoglykonsäure**. Ca (*B.* 27, 2485).
 - 2) **Glykosidoglykonsäure**. Ca (*B.* 27, 2484).
 - 3) **Glycinsäure**. Na₂ + 4H₂O, Mg₂ + 3H₂O, Ca + 5H₂O, Ca₂ + H₂O, Ba₂ + 6H₂O, Pb₂, Al₂ + 3H₂O, Fe₂ + 6H₂O (*A.* 30, 76; 36, 259; *J.* 1858, 258 Anm.; 1870, 844). — *I*, 871.
 - 4) **Laktobionsäure**. Fl. Ca, Ba (*B.* 22, 361). — *I*, 871.
 - 5) **Maltobionsäure**. Fl. (*B.* 22, 1941). — *I*, 872.
- C₁₂H₂₂N₂**
- 1) **1-Propyl-2-Hexylimidazol**. Sd. 285—286°₃₅. (2HCl, PtCl₄) (*M.* 8, 222). — *IV*, 531.
 - 2) **2-Isobutyl-1-Isoamylimidazol**. Sd. 261—262°. (2HCl, PtCl₄) (*B.* 17, 1296). — *IV*, 530.
 - 3) **Dicapronitril**. Sd. 245°₃₀ (*J. pr.* [2] 39, 249). — *I*, 1466.
 - 4) **Verbindung** (aus d. Nitril d. Isobuttersäure). subl. bei 100°; Sm. 136 bis 137°. (2HCl, PtCl₄ + 2H₂O), 2 + AgNO₃ (*J. pr.* [2] 37, 400). — *I*, 1465.
- C₁₂H₂₂S**
- 1) **Hexylensulfid**. Sd. 168—170° (*B.* 16, 229; *A. ch.* [5] 27, 67). — *I*, 253.
- C₁₂H₂₃N**
- 1) **Nitril d. Laurinsäure**. Sm. 4°; Sd. 198°₁₀₀ (86—87°_{0,1}). 2 + HBr (*B.* 15, 1729; 19, 1441; 26, 2847; 29, 1318). — *I*, 1467.
 - 2) **Nitril d. isom. Laurinsäure**. Sm. 35° (*B.* 19, 1441). — *I*, 441.
- C₁₂H₂₃N₂**
- 1) **Tetraäthylsuccinimidin**. (2HCl, PtCl₄) (*B.* 23, 2930). — *I*, 1165.
- C₁₂H₂₃Cl**
- 1) **Chlordodeken** (aus Petroleum). Sd. 160—170°₈₀ (*Am.* 19, 472, 485).
- C₁₂H₂₄O**
- 1) **Lanolinalkohol**. Sm. 102—104° (*G.* 25 [1] 45).
 - 2) **Methyläther d. 5-Oxy-3-Isobutyl-1-Methylhexahydrobenzol**. Sd. 112° (*A.* 289, 150).
 - 3) **Aethyläther d. Menthol**. Sd. 211,5—212,5°₁₅₀ (*B.* 24, 3376, 3703). — *III*, 466.
 - 4) **Aethyldekyläther** (*A.* 144, 249).
 - 5) **β-Ketododekan** (Methyldekylketon). Sm. 21°; Sd. 246—247° (*B.* 15, 1708). — *I*, 1004.
 - 6) **Keton** (aus Methyl-β-Butylpinakon). Sd. 217—223° (*A.* 219, 311). — *I*, 1004.
 - 7) **Aldehyd d. Laurinsäure**. Sm. 44,5°; Sd. 142—143°₂₂ (*B.* 13, 1414). — *I*, 956.
- C₁₂H₂₄O₂**
- 1) **Laurinsäure**. Sm. 43,6°; Sd. 225°₁₀₀ (113—114°_{0,1}). Salze fast sämtlich bekannt. Lit. bedeutend. — *I*, 440.
 - 2) **Hordeïnsäure**. Sm. 60°. Ag (*J.* 1855, 513). — *I*, 441.
 - 3) **Säure** (aus Cacaobutter). Sm. 57,5° (*B.* 10, 2243; 16, 1104). — *I*, 441.
 - 4) **Methylester d. Umbellulsäure**. Sd. 244—246° (*Am.* 4, 206). — *I*, 440.
 - 5) **Methylester d. Methyltributylsäure**. Sd. 217—220° (*J. r.* 11, 210). — *I*, 440.
 - 6) **Aethylester d. Caprinsäure**. Sd. 243—245° (*A.* 118, 314). — *I*, 439.
 - 7) **norm. Butylester d. norm. Caprylsäure**. Sd. 240,5° (*A.* 233, 288). — *I*, 437.
 - 8) **β-Methylbutylester d. Oenanthsäure**. Sd. 232—235°₇₉ (*Bl.* [3] 15, 282).
 - 9) **sec. Butylcarbinolester d. γ-Methylpentan-α-Carbonsäure** (*C.* 1896 [1] 186).

- $C_{17}H_{34}O$ 10) norm. Hexylester d. norm. Capronsäure. *Sd.* 245,6° (*A.* 163, 197). — *I*, 432.
 11) Hexylester d. Methylpropylelessigsäure. *Sd.* 223,5°_{744,5} (*M.* 4, 36). — *I*, 434.
 12) Hexylester d. act. β -Methyläthylpropionsäure. *Sd.* 233—234°₇₆₆ (*R.* 5, 221). — *I*, 434.
 13) norm. Heptylester d. norm. Valeriansäure. *Sd.* 243,6° (*A.* 233, 277). — *I*, 426.
 14) norm. β Oktylester d. norm. Buttersäure. *Sd.* 242,2° (244—245°) (*A.* 166, 81; 233, 272). — *I*, 423.
 15) norm. Dekylester d. Essigsäure. *Sd.* 125—126°₁₅ (*B.* 16, 1717). — *I*, 411.
 16) isom. Dekylester d. Essigsäure. *Sd.* 228—235° (*Z.* 1870, 404). — *I*, 411.
 17) isom. Dekylester d. Essigsäure. *Sd.* 219,5° (*J.* 1864, 338). — *I*, 411.
 18) Verbindung (aus Dichlordiäthyläther). *Sd.* 200° (*A.* 178, 9).
- $C_{15}H_{30}O_2$ C 66,7 — H 11,1 — O 22,2 — M. G. 216.
 1) ϵ -Oxy- $\beta\beta$ -Dimethylnonan- ϵ -Carbonsäure (α -Oxydiisoamylelessigsäure). *Sm.* 122°. *Ba.* (*A.* 142, 14). — *I*, 578.
 2) Oxylaurinsäure. *Pb, Ag* (*C.* 1897 [1] 419).
 3) Triisobutyraldehyd (Paraisobutyraldehyd). *Sm.* 59—60°; *Sd.* 195,2°_{759,3}; *subl.* bei 70° (*B.* 5, 1052; 6, 1064, 1176; 12, 1749; 13, 592; *M.* 2, 616; *G.* 16, 431; 18, 87). — *I*, 946.
 4) Äthylester d. γ -Oxy- $\beta\delta$ -Dimethylpentanäthyläther- γ -Carbonsäure. *Sd.* 181—181,5° (*A.* 246, 149; 249, 56; 297, 96; *B.* 20, 3333). — *I*, 577.
 5) Oktylester d. 1- α -Oxybuttersäure. *Sd.* 255° (*C.* 1895 [1] 826; *Bl.* [3] 15, 485).
 6) α -Isobutyryl d. $\alpha\gamma$ -Dioxy- $\beta\beta\delta$ -Trimethylpentan. *Sd.* 250—252°₇₆₀ (136—138°₁₈) (*M.* 2, 623; 19, 31, 46; *Bl.* [3] 13, 1049).
- $C_{15}H_{30}O_4$ C 62,1 — H 10,3 — O 27,6 — M. G. 232.
 1) polym. Propionaldehyd = $(C_3H_6O)_n$ (*Am.* 16, 648).
- $C_{15}H_{30}N_2$ 2) Äthylester d. Lecasterinsäure. *Fl.* (*J. pr.* [2] 58, 497).
 C 73,4 — H 12,2 — N 14,3 — M. G. 196.
 1) $\alpha\beta$ -Di[Isoamylidenamido]äthan. *Sd.* 123—125°₂₀. (2HCl, PtCl₄) (*M.* 19, 615).
 2) 1,1'-Dimethyl-2,3'-Dipiperidyl. *Sd.* 265°. 2HCl, (2HCl, PtCl₄) (*B.* 25, 2792). — *IV*, 493.
 3) 3,3'-Dimethyl-4,4'-Dipiperidyl. *Sd.* 299—300°. 2HCl, (2HCl, 4HgCl₂), (2HCl, PtCl₄ + 2½ H₂O), (2HJ, CdJ₂) (*J. pr.* [2] 48, 14). — *IV*, 493.
 4) Dimethyldipiperidyl (aus Nikotin). *Sd.* 230—235°. (2HCl, 2HgCl₂), (2HCl, PtCl₄) (*B.* 19, 2595). — *IV*, 492.
 5) $\alpha\beta$ -Di[1-Hexahydropyridyl]äthan + 3H₂O. *Sm.* 4°; *Sd.* 263°. 2HCl, (2HCl, PtCl₄), 2HBr (*B.* 4, 739; 17, 155; *Ph. Ch.* 16, 218; *Bl.* [3] 21, 309). — *IV*, 10.
 6) Triisobutylidendiamin. *Sd.* über 150° (*A.* 211, 345; *B.* 14, 1746). — *I*, 947.
- $C_{15}H_{30}N_4$ C 64,3 — H 10,7 — N 25,0 — M. G. 224.
 1) Tricrotonylenamin + 6H₂O. 3HCl, (3HCl, PtCl₄), (4HCl, 3PtCl₄), (3HCl, AuCl₃ + 2H₂O), 3HNO₃ (*Bl.* 34, 486). — *I*, 959.
 2) Di[2-Methylpiperyl]tetrazon. *Sm.* 56—57° (*C.* 1896 [1] 1126).
 3) 2,5,2',5'-Tetramethyloktahydro-1,1'-Azopyrrol. *Sm.* 43° (*B.* 23, 1547). — *IV*, 1238.
- $C_{15}H_{30}Br_2$ 1) Dibromdekan. *Fl.* (*Sm.* —5°) (*B.* 17, 1371). — *I*, 180.
- $C_{17}H_{34}S$ 1) Verbindung (aus Asphalt). *Sd.* 96°. — *III*, 565.
- $C_{12}H_{25}N$ C 78,7 — H 13,7 — N 7,6 — M. G. 183.
 1) 5-[α -Amidoäthyl]-1,1,2,2,4-Pentamethyl-R-Pentamethylen. *Fl.* HCl, (2HCl, PtCl₄), HBr (*A.* 296, 319).
 2) 1-Äthylmenthylamin. *Sd.* 222—224°. HCl + H₂O, (HCl, HgCl₂), (2HCl, PtCl₄ + H₂O), HBr, HNO₃, HNO₂ (*J. r.* 27, 524). — *IV*, 42.
- $C_{12}H_{25}Cl$ 1) Chlordodekan (Duodekylchlorid). *Sd.* 242—245° (*J.* 1863, 530). — *I*, 157.
 2) Chlordodekan (aus Petroleum). *Sd.* 230—235° (*Am.* 19, 440, 485).
- $C_{12}H_{26}O$ C 77,4 — H 14,0 — O 8,6 — M. G. 186.
 1) α -Oxydodekan (norm. Dodekylalkohol). *Sm.* 24°; *Sd.* 143,5°₁₅ (*B.* 16, 1719). — *I*, 239.
 2) β -Oxydodekan (Dodekylalkohol). *Sd.* 265—275° (*Z.* 1870, 404). — *I*, 240.

- C₁₂H₂₆O** 3) norm. Butyläther d. α -Oxyoktan (norm. Butyl-norm. Oktyläther). *Sd.* 225,7° (*A.* 243, 9). — *I*, 300.
4) Isoamyläther d. sec. Oxyheptan (Isoamylheptyläther). *Sd.* 220—221° (*J.* 1853, 510). — *I*, 300.
5) sec. Hexyläther d. sec. β -Oxyhexan (Dihexyläther). *Sd.* 203,5—208,5° (*J.* 1863, 521). — *I*, 299.
- C₁₂H₂₆O₂** 6) isom. Dihexyläther. *Sd.* 218—221°₇₈₁ (*R.* 14, 46).
C 71,3 — H 12,9 — O 15,8 — M. G. 202.
1) $\delta\epsilon$ -Dioxy- $\delta\epsilon$ -Diäthylloktan (Aethylpropylpinakon). *Sd.* 254—255° (*Bl.* 25, 10). — *I*, 266.
2) $\delta\epsilon$ -Dioxy- $\gamma\delta\epsilon\zeta$ -Tetramethylloktan. *Sd.* 248—250° (*A.* 219, 310). — *I*, 266.
3) $\gamma\delta$ -Dioxy- $\beta\beta\gamma\delta\epsilon\epsilon$ -Hexamethylhexan. *Sm.* 69° (*J.* 1873, 340). — *I*, 267.
4) Alkohol (aus Isobutyraldehyd). *Sd.* 270—275° u. ger. Zers. (*Soc.* 43, 91). — *I*, 947.
5) Aethylisoamyläther d. $\delta\delta$ -Dioxy- β -Methylbutan. *Sd.* 200—210° (*Z.* 1866, 465). — *I*, 952.
6) Diisoamyläther d. $\alpha\alpha$ -Dioxyäthan. *Sd.* 210,8° (*J.* 1864, 485; *B.* 19, 3008). — *I*, 924.
- C₁₂H₂₆O₃** C 66,1 — H 11,9 — O 22,0 — M. G. 218.
1) $\alpha\beta$ -Diisobutyläther d. $\alpha\alpha\beta$ -Trioxy- β -Methylpropan. *Sd.* 122—125°₉₆ (*J. r.* 19, 441; *J. pr.* [2] 48, 236). — *I*, 965.
2) Dipropylisoamyläther d. Trioxymethan (Orthoameisensäuredipropylisoamyläther). *Sd.* 222—230° (*B.* 16, 1647). — *I*, 312.
3) Propyldiisobutyläther d. Trioxymethan (Orthoameisensäurepropyldiisobutyläther). *Sd.* 212—214° (*B.* 16, 1647). — *I*, 312.
4) Diisobutyläther d. $\alpha^1\alpha^2$ -Dioxydiäthyläther. *Sd.* 174—176° (*A.* 218, 30). — *I*, 924.
- C₁₂H₂₆O₅** C 57,6 — H 10,4 — O 32,0 — M. G. 250.
1) Triäthylidiglycerinäther. *Sd.* 290° (*A.* 119, 235; *A. ch.* [3] 67, 310). — *I*, 314.
- C₁₂H₂₆O₇** C 51,1 — H 9,2 — O 39,7 — M. G. 282.
1) Hexaäthylenglykol. *Sd.* 325°₉₅ (*A. ch.* [3] 67, 281). — *I*, 261.
- C₁₂H₂₆O₁₁** C 41,6 — H 7,5 — O 50,9 — M. G. 346.
1) Mannitäther (*A. ch.* [5] 2, 468). — *I*, 286.
- C₁₂H₂₆N₂** C 72,7 — H 13,1 — N 14,1 — M. G. 198.
1) uns-Aethylmenthylhydrazin. *Sd.* 243—246° u. Zers. HCl, (2HCl, PtCl₄ + H₂O) (*J. r.* 27, 534). — *IV*, 486.
2) Laurinamidin. HCl (*Sm.* 128—129°), (2HCl, PtCl₄) (*B.* 26, 2842).
- C₁₂H₂₆S** 1) Dihexylsulfid. *Sd.* 230° (*A.* 124, 291). — *I*, 363.
- C₁₂H₂₆S₂** 1) Diisoamyläther d. $\alpha\beta$ -Dimerkaptoäthan. *Sd.* 245—255° (*B.* 4, 717). — *I*, 353.
- C₁₂H₂₆Si** 1) Verbindung (aus Siliciumtetrapropyl). *Sd.* 206—210° (*A.* 222, 373). — *I*, 1521.
- C₁₂H₂₇N** C 77,8 — H 14,6 — N 7,6 — M. G. 185.
1) α -Amidododekan (Dodekylamin). *Sm.* 25°; *Sd.* 247—249°. HCl, (2HCl, PtCl₄) (*B.* 19, 1440; 23, 2363). — *I*, 1138.
2) α -Hexylamidoheptan (Dihexylamin). *Sd.* 190—195° (*J.* 1863, 528). — *I*, 1136.
3) α -Dibutylamidobutan (prim. Tributylamin). *Sd.* 211—215°₇₄₀ (*A.* 165, 113). — *I*, 1132.
4) α -Diisobutylamido- β -Methylpropan (Triisobutylamin). *Sd.* 184—186° (177—180°). HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (*B.* 3, 757; 11, 733; 12, 950; 17, 627; *A. ch.* [6] 13, 499, 548). — *I*, 1133.
- C₁₂H₂₇N₃** C 67,6 — H 12,7 — N 19,7 — M. G. 213.
1) Triäthylentriäthyltriamin. (6HCl, 3PtCl₄) (*J.* 1861, 517). — *I*, 1161.
2) R-Trimethylentripropyltriamin. *Sd.* 248° (*B.* 26 [2] 934; siehe auch *B.* 28, 937).
- C₁₂H₂₇P** 1) Triisobutylphosphin. *Sd.* 215° (*B.* 6, 296). — *I*, 1503.
- C₁₂H₂₇Al** 1) Aluminiumtriisobutyl. *Fl.* (*J.* 1873, 522). — *I*, 1526.
- C₁₂H₂₇Bi** 1) Wismuthtriisobutyl. *Sd.* 160—162°₇₄ u. Zers. (*B.* 21, 2038). — *I*, 1517.
- C₁₂H₂₈N₄** C 63,2 — H 12,3 — N 24,5 — M. G. 228.
1) Tetramethylentetraäthyltetramin. (2HCl, PtCl₄) (*B.* 7, 1253). — *I*, 1167.
- C₁₂H₂₈Si** 1) Siliciumtetrapropyl. *Sd.* 213° (*B.* 14, 1874; *A.* 222, 370). — *I*, 1520.
- C₁₂H₂₈Sn** 1) Zinntetrapropyl. *Sd.* 222—225° (*J.* 1873, 519). — *I*, 1529.

- $C_{12}H_{30}Pb_2$ 1) Bleitriäthyl. Fl. Salze meist bekannt (A. 88, 318; J. 1860, 380; B. 27 [2] 78; G. 24 [1] 42). — I, 1530.
- $C_{12}H_{30}Si_2$ 1) Siliciumhexaäthyl. Sd. 250—253° (A. ch. [5] 19, 401). — I, 1518.
- $C_{12}H_{30}Sn_2$ 1) Zinntriäthyl. Sd. 265—270° (A. Spl. 8, 63; A. 114, 244, 361; B. 3, 647). — I, 1528.
- $C_{12}H_{31}N_5$ C 58,8 — H 12,6 — N 28,6 — M. G. 245.
- 1) Tetra[Trimethylen]pentamin. (4HBr, AuBr₃) (M. 3, 848).
- $C_{12}O_2Cl_6$ 1) Verbindung (aus Hexachlorketodihydrobenzol) (B. 27, 550 Anm.).
- $C_{12}O_4Br_{10}$ 1) Dekabrom-1,3,1',3'-Tetraoxybiphenyl (M. 5, 179). — II, 1037.
- $C_{12}O_6Cl_6$ 1) Hexachlorid d. Benzolhexacarbonsäure. Sm. 190° (A. Spl. 7, 13; B. 10, 561). — II, 2105.
- $C_{12}O_8Cl_2$ 1) Oxychlorid d. Benzolhexacarbonsäure (B. 10, 561). — II, 2106.

C_{12} -Gruppe mit drei Elementen.

- $C_{12}HNCl_6$ 1) Oktochlorcarbazol. Sm. 275° (A. 202, 29). — IV, 391.
- $C_{12}HNBr_{10}$ 1) Dekabromdiphenylamin. Sm. noch nicht bei 310° (B. 9, 1512). — II, 338.
- $C_{12}H_2O_2Cl_6$ 1) Oktochlor-*p*-Dioxybiphenyl (unbek. Const.). Sm. 233,5—234,5° (B. 16, 884). — II, 990.
- $C_{12}H_2O_4Cl_6$ 1) Oktochlorchinhydron (A. 69, 329). — III, 345.
- $C_{12}H_2O_4Br_6$ 1) Verbindung (aus *p*-Tribrom-1,3-Benzochinon) (M. 1, 350; 4, 223). — II, 922.
- $C_{12}H_2NBr_7$ 1) Heptabromcarbazol. Sm. noch nicht bei 330° (G. 25 [2] 400). — IV, 391.
- $C_{12}H_2O_4Br_7$ 1) Verbindung (aus d. Benzolcarbonsäurephenylester). Sm. über 260° (J. pr. [2] 51, 213).
- $C_{12}H_3O_6N_3$ C 50,5 — H 1,1 — O 33,7 — N 14,7 — M. G. 285.
- 1) Trimid d. Benzolhexacarbonsäure. $Ag_3 + 3NH_3$ (A. 37, 268; C. 1898 [2] 858). — II, 2106.
- $C_{12}H_3NCl_6$ 1) Hexachlorcarbazol. Sm. 225° u. Zers. (A. 202, 28). — IV, 390.
- $C_{12}H_3NBr_8$ 1) Oktobromdiphenylamin. Sm. 302—305° (B. 9, 1512). — II, 338.
- $C_{12}H_4O_2Cl_4$ 1) *p*-Tetrachlor-4,4'-Biphenylchinon (B. 13, 227). — II, 988.
- $C_{12}H_4O_2Br_2$ 1) $\alpha\beta$ -Di[5-Brom-2-Furyl]- $\alpha\gamma$ -Butadiin (Dibromdifurfuracetylen). Sm. 126° (Am. 12, 319). — III, 693.
- 2) Verbindung (aus Dibromacenaphtendibromid). Sm. 126—129° (Soc. 55, 578). — II, 227.
- $C_{12}H_4O_2Br_4$ 1) Bromresochinon (A. 202, 122). — II, 1984.
- 2) *p*-Tetrabrom-4,4'-Biphenylchinon (B. 13, 226). — II, 988.
- $C_{12}H_4O_2Br_6$ 1) Hexabromphenochinon (A. 189, 134). — II, 675.
- $C_{12}H_4O_4N_2$ C 60,0 — H 1,7 — O 26,7 — N 11,6 — M. G. 240.
- 1) 1,2,3,4-Tetraketo-1,2,3,4-Tetrahydro-5,10-Naphtdiazin + 3H₂O (Dichinoylphenazin) (B. 21, 1228). — IV, 1022.
- $C_{12}H_4O_4Cl_4$ 1) Hexachlorchinhydron (A. 69, 323; 146, 27; J. pr. [1] 18, 419). — III, 345.
- 2) isom. Hexachlorchinhydron. Sm. 115—117° (Soc. 63, 1323). — III, 345.
- $C_{12}H_4O_4Br_6$ 1) Hexabrom-1,3,1',3'-Tetraoxybiphenyl (M. 1, 355). — II, 1036.
- $C_{12}H_4O_4J_4$ 1) Verbindung (aus Phenol) (B. 27 [2] 82).
- $C_{12}H_4O_6N_2$ C 47,4 — H 1,3 — O 42,1 — N 9,2 — M. G. 304.
- 1) 1,2,3,4-Diimid d. Benzolhexacarbonsäure + 2H₂O (Euchronsäure). Sm. oberh. 180° u. Zers. NH_4 , $(NH_4)_2$, Pb + 4H₂O, $Ag_4 + H_2O$ (A. 37, 273; 66, 49). — II, 2106.
- 2) 1,2,4,5-Diimid d. Benzolhexacarbonsäure + 2H₂O. Sm. noch nicht bei 295° (C. 1898 [2] 858).
- $C_{12}H_4O_{10}N_6$ C 29,5 — H 0,8 — O 52,4 — N 17,2 — M. G. 488.
- 1) Hexanitro-1,3,1',3'-Tetraoxybiphenyl (M. 5, 178). — II, 1037.
- $C_{12}H_4NBr_5$ 1) Pentabromcarbazol. Sm. 273—274° (G. 25 [2] 399). — IV, 391.
- $C_{12}H_4N_2Br_6$ 1) 2,4,6,2',4',6'-Hexabromazobenzol. Sm. 213° (B. 31, 564). — IV, 1349.
- $C_{12}H_5O_4Br_5$ 1) Pentabromsappanin (M. 1, 357). — II, 1038.
- $C_{12}H_5O_5N$ C 59,3 — H 2,0 — O 32,9 — N 5,8 — M. G. 243.
- 1) Anhydrid d. *p*-Nitronaphtalin-1,8-Dicarbonsäure. Sm. 220° (B. 21, 1461). — II, 1880.

- $C_{12}H_5O_7N_3$ C 47,5 — H 1,6 — O 37,0 — N 13,9 — M. G. 303.
 1) Verbindung (aus Benzolhexacarbonsäuretriimid) (A. 66, 53). — II, 2106.
- $C_{12}H_5O_8N_3$ C 41,5 — H 1,4 — O 36,9 — N 20,2 — M. G. 347.
 1) α -Tetranitrocarbazol. Sm. 308° u. Zers. (B. 15, 1759). — IV, 391.
 2) β -Tetranitrocarbazol. Sm. noch nicht bei 320° (B. 15, 1759). — IV, 391.
 3) γ -Tetranitrocarbazol. Sm. 285° u. Zers. (B. 15, 1759). — IV, 391.
 4) δ -Tetranitrocarbazol (B. 15, 1759). — IV, 391.
 5) isom. Tetranitrocarbazol. K (A. 202, 26). — IV, 391.
- $C_{11}H_6O_8N_7$ C 38,4 — H 1,3 — O 34,1 — N 26,1 — M. G. 375.
 1) 4,6-Dinitro-2-[2,4-Dinitrophenyl]-2,1,3-Benzotriazol. + 2 Molec. Benzol, + 2 Molec. Toluol (B. 25, 2663). — IV, 1144.
- $C_{13}H_5O_9N_7$ C 36,8 — H 1,3 — O 36,8 — N 25,1 — M. G. 391.
 1) 4,6-Dinitro-2-[2,4-Dinitrophenyl]-2,1,3-Benzotriazoloxyd. Zers. bei 192°. + 2 C_6H_6 , + 2 Molec. Toluol (B. 25, 2664). — IV, 1144.
- $C_{12}H_6O_{10}N_3$ C 41,0 — H 1,4 — O 45,6 — N 12,0 — M. G. 351.
 1) ?-Trinitronaphtalin-1,5-Dicarbonsäure. Ba + 2 H_2O (G. 26 [1] 105).
- $C_{12}H_5O_{12}N_7$ C 32,8 — H 1,1 — O 43,7 — N 22,3 — M. G. 439.
 1) Hexanitrodiphenylamin. Sm. 261° (B. 7, 1249). — II, 340.
 2) isom. Hexanitrodiphenylamin. Sm. 238° u. Zers. NH_4 , Ba (B. 7, 1250, 1400; 9, 1245; 11, 845). — II, 340.
- $C_{12}H_5O_{18}N_7$ C 31,6 — H 1,1 — O 45,7 — N 21,5 — M. G. 455.
 1) Di[2,4,6-Trinitrophenyl]hydroxylamin. Sm. 169,5° (J. pr. [2] 35, 358). — II, 453.
- $C_{13}H_5NBr_4$ 1) Tetrabromcarbazol. Sm. 220° (C. 1896 [2] 490).
- $C_{12}H_5NBr_6$ 1) Hexabromdiphenylamin. Sm. 218° (B. 8, 926; J. pr. [2] 56, 10). — II, 338.
- $C_{12}H_5N_3Cl_6$ 1) 2,4,6,2',4',6'-Hexachlordiazoamidobenzol. Zers. bei 141° (B. 30, 2355). — IV, 1562.
- $C_{12}H_5N_3Br_6$ 1) 2,4,6,2',4',6'-Hexabromdiazoamidobenzol. Sm. 158° u. Zers. (J. pr. [2] 27, 120). — IV, 1562.
- $C_{12}H_5Br_3S_3$ 1) ?-Tribrom-?-Dithienylthiophen. Sm. 282° (Bl. [3] 6, 194). — III, 769.
- $C_{12}H_4ON_2$ C 74,2 — H 3,1 — O 8,2 — N 14,4 — M. G. 194.
 1) peri-Naphtoylazomethylen. Sm. 79–80° (C. 1899 [1] 114).
- $C_{12}H_6OCl_2$ 1) 7,7-Dichlor-8-Ketoacenaphten. Sm. 146,5° (A. 290, 198). — III, 178.
- $C_{12}H_6OCl_4$ 1) Verbindung (aus d. Verb. $C_{12}H_6O_2Cl_6$). Sm. 245–247° (A. 296, 177).
- $C_{12}H_6OBr_2$ 1) 7,7-Dibrom-8-Ketoacenaphten. Sm. 160–161° (C. 1899 [1] 114).
 2) ?-Dibrombiphenylenoxyd. Sm. 185° (A. 159, 215). — II, 991.
- $C_{12}H_5O_2N_4$ C 60,5 — H 0,2 — O 13,4 — N 23,5 — M. G. 238.
 1) Dianhydrid d. 3,3'-Bidiazo-4,4'-Dioxybiphenyl (B. 21, 3333). — IV, 1552.
- $C_{12}H_6O_2Cl_2$ 1) Chlorid d. Naphtalin-1,5-Dicarbonsäure. Sm. 155–156° (G. 26 [1] 97).
- $C_{12}H_6O_2Cl_4$ 1) ?-Tetrachlor-4,4'-Dioxybiphenyl. Sm. 233° (B. 13, 227). — II, 988.
- $C_{12}H_6O_2Cl_6$ 1) Verbindung (aus d. ?-Pentachlor-2-Oxy-1-Methyl-?-Dihydro-R-Penten-2-Carbonsäure). Sm. 175° (A. 296, 196).
 2) Verbindung (aus d. ?-Pentachlor-3-Oxy-1-Methyl-?-Dihydro-R-Penten-3-Carbonsäure). Sm. 182° (A. 296, 176).
- $C_{12}H_5O_2Br_4$ 1) Bromhydrorosoquinon. Sm. 264° (A. 202, 122). — II, 1984.
 2) ?-Tetrabrom-4,4'-Dioxybiphenyl. Sm. 264° (B. 13, 225). — II, 988.
 3) Acetat d. 1,3,4,6-Tetrabrom-2-Oxynaphtalin. Sm. 189–190° (B. 24 [2] 720). — II, 880.
- $C_{12}H_6O_2J_4$ 1) Verbindung (aus Dijodphenylenoxyd) (B. 11, 559). — II, 164.
- $C_{12}H_5O_3Br_4$ 1) ?-Tetrabrom-2,2'-Dioxydiphenyläther (B. 10, 1467). — II, 917.
- $C_{12}H_6O_4N_2$ C 59,5 — H 2,5 — O 26,4 — N 11,6 — M. G. 242.
 1) 1,4-Dioxy-2,3-Diketo-2,3-Dihydro-5,10-Naphtdiazin (Dioxyphenazin-quinon) (B. 21, 1227; 23, 2449). — IV, 1022.
 2) Lakton d. ?-Nitro-1-Pyrrolenoxymethylbenzol-2-Carbonsäure (G. 18, 151). — IV, 83.
- $C_{12}H_6O_4Cl_4$ 1) 2,5-Dichlor-1,4-Benzochinon-2,5-Dichlorhydrochinon + 2 H_2O (Tetrachlorchinhydron). Sm. 140–145° (wasserfrei) (A. 69, 316; Soc. 63, 1320). — III, 345.
 2) 2,6-Dichlor-1,4-Benzochinon-2,6-Dichlorhydrochinon. Sm. 135° (Soc. 63, 1321). — III, 345.
- $C_{12}H_5O_4Br_4$ 1) Tetrabrom-?-Tetraoxybiphenyl. Sm. 280° u. Zers. (B. 11, 2170; M. 1, 353). — II, 1037.

- $C_{12}H_5O_4Br_2$ 2) **2,5-Dibrom-1,4-Benzochinon-2,5-Dibromhydrochinon** + $2H_2O$. Sm. 145—150° (Soc. 63, 1325). — III, 345.
- $C_{12}H_9O_4J_4$ 1) **Verbindung** (aus Phenol) (B. 27 [2] 82).
- $C_{12}H_5O_5N_2$ C 55,8 — H 2,3 — O 31,0 — N 10,9 — M. G. 258.
- $C_{12}H_5O_6N_2$ 1) **2-Dinitrobiphenylenoxyd**. Sm. 200° (A. 159, 214). — II, 991.
C 43,6 — H 1,8 — O 29,1 — N 25,5 — M. G. 330.
- $C_{12}H_5O_7N_2$ 1) **2,4-Dinitrosodinitroazobenzol**. Sm. 238° (J. pr. [2] 42, 130). — IV, 1351.
C 41,6 — H 1,7 — O 32,4 — N 24,3 — M. G. 346.
- $C_{12}H_5O_8N_2$ 1) **Nitrosotrinitroazobenzol**. Sm. 224° (J. pr. [2] 42, 129). — IV, 1352.
C 47,1 — H 2,0 — O 41,8 — N 9,1 — M. G. 306.
- $C_{12}H_5O_8N_4$ 1) **2-Dinitronaphtalin-1,5-Dicarbonsäure**. $Ca + 4\frac{1}{2}H_2O$ (G. 26 [1] 107).
2) **isom. 2-Dinitronaphtalin-1,5-Dicarbonsäure** (G. 26 [1] 110).
C 43,1 — H 1,8 — O 38,3 — N 16,8 — M. G. 334.
- $C_{12}H_5O_8N_6$ 1) **Tetranitrobiphenyl**. Sm. 140° (B. 4, 405). — II, 224.
C 39,8 — H 1,6 — O 35,4 — N 23,2 — M. G. 362.
- $C_{12}H_9O_8Cl_4$ 1) **2,4,2',4'-Tetranitroazobenzol**. Sm. 222° (J. pr. [2] 42, 128). — IV, 1352.
- $C_{12}H_5O_9N_4$ 1) **Tetrachlortetraoxychinhydron** (A. 146, 36). — III, 352.
C 41,1 — H 1,7 — O 41,1 — N 16,0 — M. G. 350.
- 1) **Di[2,4-Dinitrophenyl]äther**. Sm. 195° (B. 13, 887). — II, 685.
- 2) **2-Nitrophenyläther d. 2,4,6-Trinitro-1-Oxybenzol**. Sm. 172—173° (B. 17, 1766). — II, 692.
- 3) **4-Nitrophenyläther d. 2,4,6-Trinitro-1-Oxybenzol**. Sm. 153° (B. 17, 1766). — II, 692.
- $C_{12}H_5O_9N_6$ C 38,1 — H 1,6 — O 38,1 — N 22,2 — M. G. 252.
- $C_{12}H_5O_{10}N_4$ 1) **3,5,3',5'-Tetranitroazoxybenzol**. Sm. 185° (R. 13, 151). — IV, 1336.
C 39,3 — H 1,6 — O 43,7 — N 15,3 — M. G. 366.
- 1) **Trinitroazoresorcin** (B. 17, 1805). — II, 934.
- 2) **3,5,3',5'-Tetranitro-4,4'-Dioxybiphenyl**. Sm. 225° (220°). Na_2 (B. 21, 3333, 3532). — II, 988.
- $C_{12}H_5O_{12}N_4$ C 36,2 — H 1,5 — O 48,2 — N 14,1 — M. G. 398.
- 1) **s-Di[2-Dinitro-1,3-Dioxy]biphenyl**. Sm. 268°. K_2 (M. 2, 329). — II, 932.
- $C_{12}H_6NCl_3$ 1) **Trichlorcarbazol**. Sm. 180°. Pikrat (A. 202, 28). — IV, 390.
- $C_{12}H_6N_2Cl_2$ 1) **2-Dichlor-5,10-Naphtdiazin** (Dichlorphenazin). Sm. 144° (B. 8, 604). — IV, 1001.
- $C_{12}H_6N_2Br_2$ 1) **Dibromphenanthrolin** (M. 3, 585; B. 15, 896). — IV, 998.
- $C_{12}H_6N_2Br_4$ 1) **2-Tetrabromazobenzol**. Sm. 320° (A. 165, 200).
- $C_{12}H_6N_2Br_6$ 1) **2,4,6,2',4',6'-Hexabrom-s-Diphenylhydrazin**. Sm. 126—127° (B. 31, 564). — IV, 1497.
- $C_{12}H_6N_2S_2$ 1) **2,6-Dirhodannaphtalin**. Sm. 96° (B. 25, 2738). — II, 984.
- 2) **2,7-Dirhodannaphtalin**. Sm. 78° (B. 24, 146). — II, 985.
- $C_{12}H_7ON$ C 79,6 — H 3,9 — O 8,8 — N 7,7 — M. G. 181.
- 1) **α -Phenylenpyridinketon**. Sm. 140—142°; Sd. 315°. ($2HCl$, $PtCl_4$), Pikrat (M. 4, 474; B. 23, 1237). — IV, 388.
- 2) **β -Phenylenpyridinketon**. Sm. 128—129°. ($2HCl$, $PtCl_4 + 2H_2O$) (B. 23, 1242). — IV, 388.
- 3) **Cyanid d. Naphtalin-1-Carbonsäure**. Sm. 101°; Sd. 230°₈₅ (B. 15, 3065; 16, 640). — II, 1445.
- $C_{12}H_7OCl$ 1) **7-Chlor-8-Ketoacenaphten**. Sm. 109—110° (C. 1899 [1] 115).
- $C_{12}H_7OBr$ 1) **7-Brom-8-Ketoacenaphten**. Sm. 112° (A. 290, 201). — III, 178.
- $C_{12}H_7O_2N$ C 73,1 — H 3,5 — O 16,2 — N 7,1 — M. G. 197.
- 1) **1-Naphtisatin**. Sm. 255° (B. 21, 117). — II, 623.
- 2) **2-Naphtisatin**. Sm. 248° (252°) (B. 21, 115; 31, 253). — II, 624.
- 3) **Lakton d. 1-Pyrrolenoxymethylbenzol-2-Carbonsäure** (Pyrrolenphtalid). Sm. 240—241° (B. 17, 2958). — IV, 83.
- 4) **Imid d. Naphtalin-1,2-Dicarbonsäure**. Sm. 224° (B. 25, 2479). — II, 1879.
- 5) **Imid d. Naphtalin-1,8-Dicarbonsäure**. Sm. 300°. Na , K , Ag , (A. 172, 270; B. 28, 260; G. 25 [1] 248). — II, 1879.
- $C_{12}H_7O_2N_3$ C 64,0 — H 3,1 — O 14,2 — N 18,6 — M. G. 225.
- 1) **2-Nitro-5,10-Naphtdiazin**. Sm. 209—210° (B. 8, 39). — IV, 1001.
- 2) **Nitrophenanthrolin** (B. 15, 896).
- $C_{12}H_7O_2Cl_2$ 1) **Acetat d. 2,3,4-Trichlor-1-Oxynaphtalin**. Sm. 123—124° (B. 21, 1037). — II, 860.

- $C_{12}H_7O_2Cl_2$ 2) Acetat d. 1,3,4-Trichlor-2-Oxynaphtalin. Sm. 133,5—134° (B. 21, 3390). — II, 879.
- 3) Acetat d. 1,4,5-Trichlor-2-Oxynaphtalin. Sm. 129° (B. 24 [2] 719). — II, 879.
- $C_{12}H_7O_2Br_2$ 1) Acetat d. 1,3,6 [oder 1,3,4]-Tribrom-2-Oxynaphtalin. Sm. 184° (B. 24 [2] 720). — II, 880.
- $C_{12}H_7O_2N$ C 67,6 — H 3,3 — O 22,5 — N 6,6 — M. G. 213.
- 1) Resorufin (Diazo-resorufin) (M. 1, 893; 5, 606; B. 39, 593; A. 162, 278; B. 15, 174; 16, 1101; 17, 1850; 22, 3035). — II, 932.
- 2) Oxyimid d. Naphtalin-1,8-Dicarbonsäure (Naphtalhydroxamsäure). Sm. 284°. Na, K, Ag (G. 25 [1] 251; B. 28, 362). — II, 1880.
- $C_{12}H_7O_4N$ C 62,9 — H 3,1 — O 27,9 — N 6,1 — M. G. 229.
- 1) Resaurin (Azoresorcin, Diazo-resorcin, Resazoïn). Na, Ba (M. 1, 887 5, 607; B. 17, 1849; 22, 3022; 24, 3367; A. 162, 273). — II, 931.
- $C_{12}H_7O_4N_2$ C 66,0 — H 2,7 — O 24,9 — N 16,3 — M. G. 257.
- 1) Dinitrocarbazol. Sm. noch nicht bei 306° (C. 1896 [2] 490).
- $C_{12}H_7O_4N_2$ C 50,5 — H 2,5 — O 22,4 — N 24,6 — M. G. 285.
- 1) Dinitrosonitroazobenzol. Sm. 247,5° (B. 22, 1663; J. pr. [2] 37, 347). — IV, 1351.
- $C_{12}H_7O_4Cl_2$ 1) Chloralid d. Acetophenonoxalsäure. Sm. 197—198° (B. 31, 1306).
- $C_{12}H_7O_4Cl_2$ 1) Lakton d. 2-[3,3,5-Trichlor- α -Oxy- α -Acetoxyläthyl]phenyldichlor-essigsäure. Sm. 170° (A. 300, 202).
- $C_{12}H_7O_4Br$ 1) Bromparacotoïn. Sm. 200—201° (G. 23 [2] 199). — III, 640.
- 2) p-Bromnaphtalin-1,8-Dicarbonsäure. Sm. 210° (B. 7, 1095). — II, 1880.
- $C_{12}H_7O_4Br_2$ 1) Brombergaptendibromid (M. 12, 390). — II, 2008.
- $C_{12}H_7O_4N_2$ C 52,7 — H 2,6 — O 29,3 — N 15,4 — M. G. 273.
- 1) 2,4-Dinitrophenoxazin. Sm. 213°; subl. (Soc. 59, 722). — II, 713.
- $C_{12}H_7O_6N$ C 55,2 — H 2,7 — O 36,8 — N 5,3 — M. G. 261.
- 1) Nitrobergapten. Sm. 256° u. Zers. (M. 14, 29). — II, 2014.
- 2) Nitroparacotoïn. Sm. 195° (G. 23 [2] 198). — III, 640.
- 3) p-Nitronaphtalin-1,8-Dicarbonsäure. Zers. bei 140—150°. $(NH_4)_2 + H_2O$, $Ca + H_2O$ (B. 21, 1460). — II, 1880.
- 4) Säure (aus Methylakridin). Ag₂ (B. 16, 1808). — IV, 371.
- $C_{12}H_7O_4N_2$ C 45,4 — H 2,2 — O 30,3 — N 22,1 — M. G. 317.
- 1) 2,4,6-Trinitroazobenzol. Sm. 142° (A. 190, 133). — IV, 1352.
- 2) 2,4,2' oder 2,3',4'-Trinitroazobenzol. Sm. 220° (A. 255, 326). — IV, 1352.
- 3) 2,4,4'-Trinitroazobenzol. Sm. 170° (J. pr. [2] 42, 127). — IV, 1352.
- 4) 3,4,3'-Trinitroazobenzol. Sm. 170° (172—173°) (M. 7, 126, 127; A. 255, 329). — IV, 1352.
- 5) isom. Trinitroazobenzol. Sm. 112° (Z. 1870, 265; M. 7, 125).
- 6) isom. Trinitroazobenzol. Sm. 160° (B. 18, 1135; M. 7, 125).
- 7) isom. Trinitroazobenzol. Sm. 180° (B. 18, 1135; M. 7, 125).
- $C_{12}H_7O_7N_2$ C 47,2 — H 2,3 — O 36,7 — N 13,8 — M. G. 305.
- 1) Phenyläther d. 2,4,6-Trinitro-1-Oxybenzol (B. 12, 1278). — II, 692.
- 2) 2-Nitrophenyläther d. 2,4-Dinitro-1-Oxybenzol. Sm. 119° (B. 17, 1765). — II, 685.
- 3) 4-Nitrophenyläther d. 2,4-Dinitro-1-Oxybenzol. Sm. 114° (B. 17, 1765). — II, 685.
- $C_{12}H_7O_7N_2$ C 43,2 — H 2,1 — O 33,6 — N 21,0 — M. G. 333.
- 1) 2,4,2'-Trinitroazoxybenzol. Sm. 187—188° (Z. 1869, 421; B. 6, 557; A. 255, 319). — IV, 1336.
- 2) 2,4,4' [oder 3,4,4']-Trinitroazoxybenzol. Sm. 136—137° (A. 255, 337). — IV, 1336.
- 3) 3,4,3'-Trinitroazoxybenzol. Sm. 175—176° (A. 255, 322). — IV, 1336.
- $C_{12}H_7O_8N_2$ C 41,2 — H 2,0 — O 36,7 — N 20,0 — M. G. 349.
- 1) Di[2,4-Dinitrophenyl]amin. Sm. 180° (B. 17, 2629). — II, 340.
- 2) Di[p-Dinitrophenyl]amin. Sm. 192° (B. 10, 1320). — II, 340.
- 3) 1-Nitro-3-[2,4,6-Trinitrophenyl]amidobenzol. Sm. 205° (B. 7, 1248). — II, 340.
- 4) 1-Nitro-4-[2,4,6-Trinitrophenyl]amidobenzol. Sm. 216° (B. 7, 1249). — II, 340.
- 5) p-Trinitro-p-Dioxyazobenzol. Sm. 102° (B. 6, 558).

- $C_{12}H_7O_2N_5$ C 39,4 — H 1,9 — O 39,4 — N 19,2 — M. G. 365.
 1) Aethyläther d. *p*-Trinitro-7,8-Dinitroso-2-Oxynaphtalin. Sm. 167° (B. 30, 1121).
 2) *p*-Trinitro-*p*-Trioxiazobenzol. Sm. 52° (B. 6, 558).
- $C_{12}H_7NCl_2$ 1) *p*-Dichlorcarbazol. Sm. 202—203° (G. 26 [2] 240). — IV, 390.
 $C_{12}H_7NCl_4$ 1) Tetrachlordiphenylamin. Sm. 133—134° (B. 8, 1040). — II, 338.
 $C_{12}H_7NBr_2$ 1) 3,6-Dibromcarbazol. Sm. 212—213° (G. 22 [2] 573). — IV, 391.
 $C_{12}H_7NBr_4$ 1) Tetrabromdiphenylamin. Sm. 182° (A. 132, 166; B. 8, 925). — II, 338.
 $C_{12}H_7N_2Cl_4$ 1) 2,4,2',4'-Tetrachlordiazoamidobenzol. Sm. 126,5° (A. 121, 275). — IV, 1562.
 2) 2,5,2',5'-Tetrachlordiazoamidobenzol. Sm. 170° u. Zers. (B. 28, 2472; 27, 767). — IV, 1562.
- $C_{12}H_7N_2Br_2$ 1) Azodibrombenzidin. Sm. 206° (B. 17, 466). — IV, 961.
 $C_{12}H_7N_2Br_4$ 1) 2,4,2',4'-Tetrabromdiazoamidobenzol. Sm. 167,5°. — IV, 1562.
 2) 2,5,2',5'-Tetrabromdiazoamidobenzol. Sm. 234—235°. — IV, 1562.
- $C_{12}H_7Cl_2J_2$ 1) 4,4'-Dichlor-*p*-Joddiphenyljodoniumjodid. Sm. 133° u. Zers. (B. 28, 100).
 $C_{12}H_7Cl_2J_3$ 1) 4,4'-Dichlor-*p*-Joddiphenyljodoniumtrijodid. Sm. 152° (B. 28, 100).
 $C_{12}H_7Cl_3J_2$ 1) 4,4'-Dichlor-*p*-Joddiphenyljodoniumchlorid. Sm. 195°. (2 + PtCl₄) (B. 28, 100).
- $C_{12}H_5ON_2$ C 73,4 — H 4,1 — O 8,2 — N 14,3 — M. G. 196.
 1) 9-Nitrosocarbazol. Sm. 82° (A. 191, 305). — II, 391.
 2) Oxyphenanthrolin. Sm. 159—160°. (2HCl, PtCl₄ + H₂O) (B. 16, 675). — IV, 998.
 3) 5-Keto-5,10-Dihydro-*a*-Chinochinolin. Sm. 210°. HCl, (2HCl, PtCl₄), Pikrat (B. 28, 126). — IV, 1004.
 4) Diphenylenazonoxyd. Sm. 152° (B. 24, 3083). — IV, 1403.
 5) *peri*-Naphtoylhydrazimethylen. Sm. 140° (C. 1899 [1] 114).
- $C_{12}H_5ON_3$ C 51,4 — H 2,9 — O 5,7 — N 40,0 — M. G. 280.
 1) Disasimid (aus 3,3'-Diamidoazoxybenzol). Sm. 85—86° (Soc. 69, 9). — IV, 1337.
- $C_{12}H_5OBr_2$ 1) Dibromdiphenyläther. Sm. 58,5°; Sd. oberh. 360° (A. 159, 210; B. 14, 191; 15, 1124). — II, 656.
 2) Dibrommethyl-2-Naphtylketon. Sm. 101° (B. 24, 547). — III, 174.
- $C_{12}H_5O_2N_2$ C 67,9 — H 3,8 — O 15,1 — N 13,2 — M. G. 212.
 1) Cyanphenylglutakonimid. Sm. 280—282° u. Zers. Ba + 5H₂O, Cu + 4NH₃. — IV, 382.
 2) 7,8-Dioximidoacenaphten. Sm. 222° u. Zers. (A. 276, 10). — III, 404.
 3) 5-Keto-3-[1-Naphtyl]-4,5-Dihydro-1,2,4-Oxdiazol. Sm. 189° (B. 22, 2458). — II, 1446.
 4) 5-Keto-3-[2-Naphtyl]-4,5-Dihydro-1,2,4-Oxdiazol. Sm. 216° (B. 22, 2454). — II, 1455.
 5) Amidobenzolasoxindon. Sm. 250°. HCl, (2HCl, PtCl₄), (HCl, AuCl₃), H₂SO₄, Pikrat (A. 226, 61; B. 27, 2785; 28, 296). — IV, 1005.
 6) 3-Nitrocarbazol. Sm. 210° (B. 24, 281; C. 1896 [2] 490). — IV, 391.
 7) isom. Nitrocarbazol. Sm. 184° (C. 1896 [2] 490).
 8) 3-Oximido-*a*-Naphtoxindol. Zers. bei 230° (B. 21, 117). — II, 623.
 9) 3-Oximido-*β*-Naphtoxindol. Sm. 240° u. Zers. (230°) (B. 21, 115; 31, 252). — II, 623.
 10) 2,3-Dioxy-1,4-Naphtdiazin. Sm. oberh. 350° (B. 27, 765). — IV, 1000.
 11) 2,3-Dioxy-5,10-Naphtdiazin (Dioxyphenazin). H₂SO₄ + 2H₂O (B. 23, 843; 24, 1338). — IV, 1002.
 12) 2,3-Dioxy-1,4-Naphtisodiazin. Sm. oberh. 300° (B. 24, 2032). — IV, 999.
 13) 5-Chinindol-10-Carbonsäure. Zers. bei 300° (Soc. 61, 787). — IV, 997.
 14) 8-Chinindol-10-Carbonsäure. Sm. 286° u. Zers. (Soc. 59, 759). — IV, 997.
 15) Nitril d. 6-Oxy-2-Keto-4-Phenyl-2,5-Dihydropyridin-3-Carbonsäure. Sm. 280—282°. Cu + 4NH₃ (C. 1896 [1] 603; 1897 [1] 369).
 16) 1,2-Naphtylenamid d. Oxalsäure. Sm. noch nicht bei 300° (B. 30, 772). — IV, 919.
- $C_{12}H_5O_2N_4$ C 60,0 — H 3,3 — O 13,3 — N 23,3 — M. G. 240.
 1) 2,4-Dinitrosoazobenzol. Sm. 178° (B. 24, 595; 25, 899; J. pr. [2] 37, 352; [2] 40, 253; [2] 46, 131). — IV, 1350.

- $C_{12}H_9O_3N_4$ 2) 5-Nitro-1-Phenyl-1,2,3-Benztriazol. Sm. 107° (B. 28, 2971). — IV, 1144.
 3) p-Nitro-1-Phenyl-1,2,3-Benztriazol. Sm. 275° (B. 21, 1636). — IV, 1144.
 4) 1-[4-Nitrophenyl]-1,2,3-Benztriazol. Sm. 239° (B. 28, 2977). — IV, 1144.
- $C_{12}H_9O_3N_6$ C 53,7 — H 3,0 — O 11,9 — N 31,3 — M. G. 268.
 1) 3-Nitrobenzolazo-4'-Diazobenzolimid. Sm. 80°. — IV, 1492.
- $C_{12}H_8O_2Cl_2$ 1) Acetat d. 2,4-Dichlor-1-Oxynaphtalin. Sm. 74—76° (B. 21, 1036; 28, 507). — II, 859.
 2) Acetat d. 5,7-Dichlor-1-Oxynaphtalin. Sm. 110° (A. 275, 284). — II, 859.
 3) Acetat d. 5,8-Dichlor-1-Oxynaphtalin. Sm. 144—145° (A. 275, 285). — II, 859.
 4) Acetat d. 6,7-Dichlor-1-Oxynaphtalin. Sm. 102—103° (A. 275, 286). — II, 860.
 5) Acetat d. 7,8-Dichlor-1-Oxynaphtalin. Sm. 71—72° (87—88°) (A. 275, 286; C. 1895 [2] 120). — II, 860.
 6) Acetat d. 1,3-Dichlor-2-Oxynaphtalin. Sm. 79—80° (B. 21, 3386). — II, 879.
 7) Acetat d. 1,4-Dichlor-2-Oxynaphtalin. Sm. 90—91° (B. 21, 3388). — II, 879.
- $C_{12}H_8O_2Br_2$ 1) Brommethyl-p-Brom-1-Oxy-2-Naphtylketon. Sm. 136,5° (B. 30, 1468).
 2) Methyl-p-Dibrom-4-Oxy-2-Naphtylketon. Sm. 124—125° (A. 275, 294). — III, 175.
- $C_{12}H_8O_2S$ 1) Biphenylensulfon. Sm. 230° (A. 156, 334; 174, 188). — II, 991.
 2) isom. Biphenylensulfon. Sm. 214—216° (B. 13, 387). — II, 991.
- $C_{12}H_8O_2S_2$ 1) Diphenylendisulfoxyd (Thianthrendioxyd). Sm. 241° (229°; 237°) (A. ch. [6] 14, 440; B. 29, 440; Bl. [3] 15, 422, 1038). — II, 914.
 2) Thianthrenmonosulfon. Sm. 278—279° (B. 29, 440).
- $C_{12}H_8O_2Se_2$ 1) Diphenylendiselenoxyd (Selenanthrendioxyd). Sm. 270° u. Zers. (B. 29, 445).
- $C_{12}H_8O_3N_3$ C 63,1 — H 3,5 — O 21,0 — N 12,4 — M. G. 228.
 1) Krokontolazin (Krokon-3,4-Toluyldiamin). K₂ (B. 19, 776). — IV, 1005.
 2) Acetat d. 7-Oxyisonaphtoxdiazol (A. d. β -Naphtholfurazan). Sm. 137° (B. 30, 1120).
- $C_{12}H_8O_3N_4$ C 56,2 — H 3,1 — O 18,7 — N 21,9 — M. G. 256.
 1) Nitrosonitroazobenzol. Sm. 175° (J. pr. [2] 40, 254). — IV, 1351.
 2) 4-Nitrobenzolnitrolsäure. Sm. 218° (M. 6, 160, 465). — IV, 1351.
- $C_{12}H_8O_3Br_4$ 1) $\alpha\beta$ -Diketo- β -[2,3,4,5-Tetrabromtetrahydro-2-Furanyl]- α -Phenyläthan (Benzfuryltetrabromid). Sm. 127—128° (A. 211, 230). — III, 730.
- $C_{12}H_8O_3S_2$ 1) Verbindung (aus ?-Dithienylthiophen). Sm. 312—313° (Bl. [3] 6, 194). — III, 769.
- $C_{12}H_8O_4N_2$ C 59,0 — H 3,3 — O 26,2 — N 11,5 — M. G. 244.
 1) Dinitroacenaphten. Sm. bei 206° (Z. 1867, 714; B. 21, 1456). — II, 228.
 2) 2,4-Dinitrobiphenyl (Isodinitrobiphenyl). Sm. 93,5° (A. 207, 350; J. 1882, 467; B. 14, 612; 29, 166). — II, 224.
 3) 2,2'-Dinitrobiphenyl. Sm. 124° (B. 24, 197; 25, 133). — II, 224.
 4) 3,3'-Dinitrobiphenyl. Sm. 197—198° (B. 20, 1028). — II, 224.
 5) 4,4'-Dinitrobiphenyl. Sm. 233° (A. 124, 276; 174, 221; B. 14, 612; 29, 166). — II, 224.
 6) 3-Nitro-4-Oxy-1-Methyl- α -Naphtoxazol. Sm. 163° u. Zers. (B. 21, 1198). — II, 867.
 7) Trioxyphenazon (B. 23, 2448). — IV, 1004.
 8) 2,3'-Bipyridyl-2',3-Dicarbonsäure + 2H₂O. Sm. 214—215° u. Zers. K + $\frac{1}{2}$ H₂O, Ca + 3H₂O, Ba + $1\frac{1}{2}$ H₂O, Cu + 3H₂O, Ag + 4H₂O, 2HCl, (2HCl, PtCl₄ + 3 u. 6H₂O) (M. 3, 590; Ph. Ch. 3, 396). — IV, 989.
 9) 3,3'-Bipyridyl-2,2'-Dicarbonsäure + $\frac{1}{2}$ H₂O. Sm. 213° (wasserfrei). K + 2H₂O, K₂ + 5H₂O, Ca + 5H₂O, Cu + $3\frac{1}{2}$ H₂O, Ag₂ + $\frac{1}{2}$ H₂O, Ag₂ + AgNO₃, HCl + H₂O, (2HCl, PtCl₄ + 8H₂O) (M. 4, 583). — IV, 989.
 10) 4,4'-Bipyridyl-2,2'-Dicarbonsäure. Sm. 247,5° (J. pr. [2] 44, 404). — IV, 989.
 11) 4,4'-Bipyridyl-3,3'-Dicarbonsäure. Sm. noch nicht bei 280° (J. pr. [2] 48, 10). — IV, 990.

- $C_{12}H_8O_4N_4$ C 53,0 — H 2,9 — O 23,5 — N 20,6 — M. G. 272.
 1) 2,4-Dinitroazobenzol. Sm. 116—117° (*J. pr.* [2] 37, 352). — IV, 1351.
 2) 2,4'-Dinitroazobenzol. Sm. 214° (*M.* 7, 131). — IV, 1351.
 3) 3,3'-Dinitroazobenzol (*M.* 6, 166, 457; *B.* 18, 1134). — IV, 1351.
 4) 3,4'-Dinitroazobenzol. Sm. 211° (*M.* 7, 132). — IV, 1351.
 5) 4,4'-Dinitroazobenzol. Sm. 206° (216—220° u. Zers.) (*A.* 75, 73; 255, 336; *M.* 6, 159). — IV, 1351.
 6) p-Dinitroazobenzol. Sm. 185° (*M.* 7, 136). — IV, 1351.
- $C_{12}H_8O_4Cl_2$ 1) Dichlorchinhydron + H_2O . Sm. 70—72° (93—94° wasserfrei) (*A.* 51, 156; 69, 308; *Soc.* 63, 1319). — III, 345.
- $C_{12}H_8O_4Br_2$ 1) Dibromchinhydron. Sm. 98° (*Soc.* 63, 1325). — III, 345.
 2) Dibrompiperinid. Sm. 136° (*A.* 172, 139, 151). — II, 1769.
- $C_{12}H_8O_4S_2$ 1) Diphenylendisulfon (Thianthrendisulfon). Sm. 325° (321°) (*A. ch.* [6] 14, 440; *B.* 29, 442; *A.* 179, 182). — II, 914.
 2) Diphenylendisodisulfon. Sm. oberh. 360° (*Bl.* [3] 17, 601).
- $C_{12}H_8O_5N_2$ C 55,4 — H 3,0 — O 30,8 — N 10,8 — M. G. 260.
 1) 2,4-Dinitrodiphenyläther. Sm. 71° (*B.* 6, 564; 12, 767). — II, 685.
 2) 2,2'-Dinitrodiphenyläther. Sm. 115,5° (*B.* 29, 2084).
 3) 2,4'-Dinitrodiphenyläther. Sm. 103,5° (*B.* 29, 1450, 2083).
 4) 4,4'-Dinitrodiphenyläther. Sm. 142,5—143° (135°) (*A.* 159, 208; *B.* 29, 1448, 2083 Anm.). — II, 656.
 5) p-Dinitro-4-Oxybiphenyl. Sm. 154°. $K + 2H_2O$ (*J. r.* 5, 52). — II, 895.
- $C_{12}H_8O_5N_4$ C 50,0 — H 2,8 — O 27,8 — N 19,4 — M. G. 288.
 1) p-Dinitrodiphenylnitrosamin (unbek. Const.) (*B.* 11, 758; 12, 1400). — II, 339.
 2) 3,3'-Dinitroazoxybenzol. Sm. 141—142° (143°) (*B.* 18, 2552; *R.* 13, 119, 128). — IV, 1336.
 3) 4,4'-Dinitroazoxybenzol. Sm. 211° (*R.* 13, 122). — IV, 1336.
 4) 3,3'-Dinitro-4-Oxyazobenzol. Sm. 172—173°. Ag (*B.* 18, 2552). — IV, 1410.
 5) 2',4'-Dinitro-4-Oxyazobenzol. Sm. 200° (*B.* 20, 2997). — IV, 1410.
- $C_{12}H_8O_5N_6$ C 45,6 — H 2,5 — O 25,3 — N 26,6 — M. G. 316.
 1) 3,3'-Dinitrodiazobenzolanhydrid (*B.* 29, 472).
 2) 4,4'-Dinitrodiazobenzolanhydrid (*B.* 29, 471). — IV, 1525.
- $C_{12}H_8O_5Cl_2$ 1) 2,2-Dichlor-3-Acetoxy-1-Keto-2,3-Dihydroinden-3-Carbonsäure. Sm. 125° (*B.* 21, 2384). — II, 1865.
- $C_{12}H_8O_5Br_2$ 1) Dibromoxypiperinid. Sm. 181—182,5° (*A.* 172, 156). — II, 1931.
- $C_{12}H_8O_6N_2$ C 52,2 — H 2,9 — O 34,8 — N 10,1 — M. G. 276.
 1) 3,3'-Dinitro-4,4'-Dioxybiphenyl. Sm. 280° (272°) (*B.* 21, 3331, 3531). — II, 988.
 2) p-Dinitro-p-Dioxybiphenyl. Sm. 184° (*J. r.* 6, 193). — II, 990.
 3) Methyl-p-Dinitro-4-Oxy-2-Naphtylketon. Sm. 145—146° (*A.* 275, 296). — III, 175.
 4) 1-Phenylpyrazol-3,4,5-Tricarbonsäure + H_2O . Sm. 184°. $Ba + \frac{1}{2}H_2O$ (*B.* 22, 179). — IV, 547.
- $C_{12}H_8O_6N_4$ C 47,4 — H 2,6 — O 31,6 — N 18,4 — M. G. 304.
 1) 3-Nitro-1-[2,4-Dinitrophenyl]amidobenzol. Sm. 189° (194—195°) (*B.* 7, 1250; 9, 1179). — II, 340.
 2) 4-Nitro-1-[2,4-Dinitrophenyl]amidobenzol. Sm. 181° (*B.* 7, 1250). — II, 340.
 3) 2,4,6-Trinitro-1-Phenylamidobenzol. Sm. 175° (177—178°) (*B.* 3, 126; 11, 845; 27, 2460). — II, 340.
 4) p-Trinitrodiphenylamin. Sm. 135° (*B.* 18, 1997). — II, 340.
 5) p-Trinitrodiphenylamin. Sm. 170—173° (*B.* 31, 2536).
 6) 2',4'-Dinitro-2,4-Dioxyazobenzol (*J. pr.* [2] 50, 269). — IV, 1443.
- $C_{12}H_8O_6N_6$ C 43,4 — H 2,4 — O 28,9 — N 25,3 — M. G. 332.
 1) Dinitro-1,2-Naphtochinondiurein (*G.* 27 [1] 239).
- $C_{12}H_8O_6S$ 1) 1,3,1',3'-Tetraoxybiphenyl-p-Sulfon. Zers. oberh. 300° (*M.* 14, 3). — II, 1037.
- $C_{12}H_8O_7N_2$ C 49,3 — H 2,7 — O 44,5 — N 9,6 — M. G. 292.
 1) s-Di[4-Nitro-3-Oxyphenyl]äther + H_2O . $Ba + 2H_2O$, $HBa + 5\frac{1}{2}H_2O$ (*M.* 4, 610; 5, 188). — II, 924.

- $C_{12}H_9O_2N_4$ C 45,0 — H 2,5 — O 35,0 — N 17,5 — M. G. 320.
 1) 2-[2,4,6-Trinitrophenyl]amido-1-Oxybenzol. Sm. 175° (Soc. 59, 720). — II, 704.
 2) 4-[2,4,6-Trinitrophenyl]amido-1-Oxybenzol. Sm. 174° (Soc. 59, 718). — II, 718.
- $C_{12}H_9O_7Br_2$ 1) α, α^3 -Lakton d. β -Brom- α -Oxy- α -[5-Brom-2,4,6-Trioxypyphenyl]äthen- α^3, β -Dicarbonsäure- β -Aethylester. Sm. 208—220° u. Zers. (Soc. 71, 1112).
- $C_{12}H_9O_7S$ 1) Naphtalin-1,5-Dicarbonsäure-2-Sulfonsäure. Sm. noch nicht bei 275°. Ba + 2H₂O (G. 26 [1] 114).
 2) 1-Aldehyd d. 2-Oxynaphtalin-1,3-Dicarbonsäure-6-Sulfonsäure. Na (C. 1898 [2] 836).
- $C_{12}H_9O_7S_2$ 1) Biphenylenoxyddisulfonsäure. Ba + H₂O (A. 159, 213). — II, 991.
 $C_{12}H_9O_9S_6$ 1) 2-Dithienylthiophen-2-Trisulfonsäure. Ca (Bl. [3] 6, 194). — III, 769.
- $C_{12}H_9O_{10}S_2$ 1) Anhydrid d. 1,3,5-Trioxypybenzolsulfonsäure (A. 178, 193). — II, 1022.
 $C_{12}H_9O_{11}N_6$ C 35,0 — H 1,9 — O 42,7 — N 20,4 — M. G. 412.
 1) Alloxantinharstoff (J. 1856, 699).
- $C_{12}H_8NCl$ 1) 3-Chlorcarbazol. Sm. 192—193° (G. 26 [2] 238). — IV, 390.
 $C_{12}H_8NCl_3$ 1) $\gamma\gamma\gamma$ -Trichlor- α -[2-Chinoly]propen. Sm. 145° (A. 248, 165). — IV, 377.
- $C_{12}H_8NBr$ 1) 3-Bromcarbazol. Sm. 199° (G. 12, 276). — IV, 391.
 $C_{12}H_8N_2Cl_2$ 1) 3,3'-Dichlorazobenzol. Sm. 101° (B. 8, 1625). — IV, 1349.
 2) 4,4'-Dichlorazobenzol. Sm. 183—184° (B. 5, 914, 918, 1093; 14, 2635, 2637; 20, 2007; Z. 1868, 497). — IV, 1349.
 3) Phenazinchlorid (B. 8, 600). — IV, 1000.
- $C_{12}H_8N_2Br_2$ 1) 2,2'-Dibromazobenzol. Sm. 187° (M. 8, 55). — IV, 1349.
 2) 3,3'-Dibromazobenzol. Sm. 125,5° (B. 9, 1407). — IV, 1349.
 3) 4,4'-Dibromazobenzol. Sm. 205° (A. 135, 179; 165, 199; B. 17, 465). — IV, 1349.
 4) Phenazinbromid (A. 168, 6). — IV, 1000.
 5) Phenanthrolindibromid. Sm. 149° (B. 15, 895; M. 3, 582). — IV, 998.
- $C_{12}H_8N_2Br_4$ 1) 2-Tetrabrom-4,4'-Diamidobiphenyl. Sm. 284—286° (B. 14, 86; A. 165, 200; J. pr. [2] 49, 541; Soc. 65, 54). — IV, 962.
 2) Pseudophenanthrolintetrabromid (M. 4, 579). — IV, 999.
- $C_{12}H_8N_2J_2$ 1) 3,3'-Dijodazobenzol. Sm. 150° (B. 9, 1410; Soc. 69, 13). — IV, 1350.
 2) 4,4'-Dijodazobenzol. Sm. 237° (B. 9, 1409). — IV, 1350.
 3) Pseudophenanthrolindijodid (M. 4, 582). — IV, 999.
- $C_{12}H_8N_2S$ 1) Imidothiodiphenylamin. HCl, (2HCl, ZnCl₂) (A. 230, 103). — II, 808.
 $C_{12}H_8N_2Cl$ 1) 6-Chlor-1-Phenyl-1,2,3-Benztriazol. Sm. 128° (126—127°) (B. 23, 3426; A. 303, 310). — IV, 1143.
- $C_{12}H_8N_2Br$ 1) 6-Brom-1-Phenyl-1,2,3-Benztriazol. Sm. 127° (A. 303, 325).
 $C_{12}H_8N_2Br_3$ 1) 2,4,6-Tribromdiazamidobenzol. Sm. 104° (J. pr. [2] 27, 121). — IV, 1562.
- $C_{12}H_8N_4Cl_2$ 1) 4,4'-Bidiazobiphenylchlorid. Zers. bei 106—108°. 2 + PtCl₄ (B. 30, 2800; J. 1864, 436). — IV, 1543.
- $C_{12}H_8N_6Fe$ 1) Phenylferrocyanwasserstoffsäure. Ba₃ + H₂O (B. 26, 478). — II, 1212.
 $C_{12}H_8N_6J_2$ 1) Di[4-Chlorphenyl]jodoniumjodid. Sm. 163° (B. 28, 101).
 $C_{12}H_8Cl_4S$ 1) 4,4'-Dichlordiphenylsulfid. Sm. 88—89° (B. 7, 1165; 27, 2548). — II, 803.
- $C_{12}H_8Cl_4S_2$ 1) Dichlordiphenyldisulfid. Sm. 71° (A. 143, 111). — II, 815.
 $C_{12}H_8Cl_4Se$ 1) Dichlordiphenylselenid. Sm. 95—96° (B. 27, 1764). — II, 819.
 $C_{12}H_8Cl_4J$ 1) Di[4-Chlorphenyl]jodoniumchlorid. Sm. 202°. + HgCl₂, 2 + PtCl₄ (B. 28, 101).
- $C_{12}H_8Br_2S$ 1) Di[4-Bromphenyl]sulfid. Sm. 109—110° (111,5°); Sd. 225—226°, (G. 22 [1] 506; B. 7, 1164; 28, 2321). — II, 803.
- $C_{12}H_8Br_2S_2$ 1) Di[4-Bromphenyl]disulfid. Sm. 93,5° (A. 156, 328; H. 5, 320). — II, 815.
 $C_{12}H_8Br_2Se$ 1) Dibromdiphenylselenid. Sm. 115,5° (B. 27, 1765; A. ch. [6] 20, 234). — II, 819.
- $C_{12}H_8Br_4S_2$ 1) Tetrabromid d. Diphenylendisulfid (A. 149, 253). — II, 914.
 $C_{12}H_8Br_6S_2$ 1) 2-Dithienylthiophenhexabromid (Bl. [3] 6, 194). — III, 769.
 $C_{12}H_8J_2S$ 1) Di[4-Jodphenyl]sulfid. Sm. 138—139° (B. 7, 1165). — II, 803.
 $C_{12}H_8J_2S_2$ 1) Di[4-Jodphenyl]disulfid. Sm. 124° (H. 20, 593).
 $C_{12}H_8ON$ C 78,7 — H 4,9 — O 8,7 — N 7,6 — M. G. 183.
 1) α -Naphtoxindol. Sm. 245° (B. 21, 116). — II, 623.

- C₁₂H₉ON**
- 2) β -Naphtoxindol. Sm. 234° (B. 21, 114). — II, 623.
 - 3) Phenoxazin (Phenazoxin). Sm. 148° (B. 20, 943). — II, 713.
 - 4) 2-Methyl- β -Naptoxazol. Sd. 300°. (2HCl, PtCl₄ + 2H₂O) (B. 18, 1939; 25, 3433). — II, 885.
 - 5) 8-Oximidoacenaphten. Sm. 175° (A. 276, 13). — III, 178.
 - 6) 1,4-Benzochinonphenylimid. Sm. 97° (M. 9, 134). — III, 331.
 - 7) Biphenylisocyanat (B. 13, 1965).
 - 8) Acetylamidopinen. Sm. 108–109° (A. 268, 203). — IV, 78.
 - 9) 3-Benzoylpyridin (β -Phenylpyridylketon). Sd. 307°. HCl, (2HCl, PtCl₄) (B. 20, 1209; M. 17, 515). — IV, 184.
 - 10) 4-Benzoylpyridin. Fl. (M. 17, 527; B. 27, 1925). — IV, 185.
- C₁₂H₉ON₂**
- 11) Nitril d. Oxyessig-2-Naphtyläthersäure. Sm. 72° (B. 30, 1702).
C 68,2 — H 4,3 — O 7,6 — N 19,9 — M. G. 211.
 - 1) Azoazoxybenzol. Sm. 85° (A. 114, 225). — IV, 1338.
 - 2) 4-Benzolnitrolsäure (B. 18, 1136; M. 6, 465). — IV, 1350.
 - 3) 5-Methyl-3-[6-Chinoly]-1,2,4-Oxdiazol (Chinolin-6-Methenylazoximäthenyl). Sm. 175° (B. 22, 2766). — IV, 350.
 - 4) 7-Amido-2-Oxy-5,10-Naphtdiazin. Sm. 268° (B. 28, 2975). — IV, 1178.
- C₁₂H₉ON₃**
- C 60,2 — H 3,8 — O 6,7 — N 29,3 — M. G. 239.
- 1) Benzoyladenin. Sm. 234–235° (H. 12, 247). — IV, 1321.
 - 2) 4,4'-Diazoamidoazoxybenzol. Zers. bei 255–260° (B. 27, 1567). — IV, 1565.
- C₁₂H₉OBr**
- 1) Brommethyl-1-Naphtylketon. Fl. (B. 19, 2898). — III, 174.
 - 2) Methyl-2[oder 3]-Brom-1-Naphtylketon. Sm. 102° (B. 24, 552). — III, 174.
 - 3) Methyl-4-Brom-1-Naphtylketon. Sd. 345–347° (B. 24, 551). — III, 174.
- C₁₂H₉OBr₂**
- 1) Äthyläther d. 1,6,8-Tribrom-2-Oxynaphtalin. Sm. 128° (C. 1897 [1] 239).
- C₁₂H₉O₂N**
- C 72,4 — H 4,5 — O 16,1 — N 7,0 — M. G. 199.
- 1) Nitroacenaphten. Sm. 101–102° (B. 20, 610; 21, 1455; Bl. 48, 755). — II, 227.
 - 2) 2-Nitrobiphenyl. Sm. 37°; Sd. 320° (A. 207, 352; 209, 341; J. 1882, 467; B. 8, 871; 14, 613). — II, 224.
 - 3) 3-Nitrobiphenyl? Sm. 86° (157°) (J. pr. [2] 6, 107; A. 174, 212). — II, 224.
 - 4) 4-Nitrobiphenyl. Sm. 114–114,5° (113°); Sd. 340° (A. 174, 210; 209, 340; B. 8, 871; 28, 42, 404, 406; 29, 278, 471). — II, 224.
 - 5) 1-Oxy-2-Keto-2,3-Dihydro- β -Naphtindol (β -Naphtodioxindol). Sm. 216° (B. 31, 254).
 - 6) Pyrrolenhydrophtalid. Sm. 118° (B. 21, 1554). — IV, 84.
 - 7) δ -Cyan- α -Phenyl- $\alpha\gamma$ -Butadien- δ -Carbonsäure. Sm. 212° (196°). Cu, Ag (A. ch. [6] 29, 493; J. pr. [2] 50, 13). — II, 1442.
 - 8) 2-Phenylpyridin-6-Carbonsäure. Sm. 109°. Ag (B. 28, 1728). — IV, 381.
 - 9) 3-Phenylpyridin-3'-Carbonsäure. Sm. 185°. Ca + 2H₂O, Cu + H₂O (M. 4, 450; Ph. Ch. 3, 397). — IV, 381.
 - 10) Chinolin-2-Äthenyl- β -Carbonsäure (β -[2]Chinolyllakrylsäure). Sm. 193° u. Zers. Ba + 2H₂O, Ag (B. 18, 3403; 19, 132, 908; A. 246, 164; 287, 27). — IV, 381.
 - 11) Anhydro- β -Oxy- β -[2-Chinolyll]propionsäure. Sm. 83°. HCl, Pikrat (A. 246, 169). — IV, 366.
 - 12) Amid d. Naphtalin-1-Ketocarbonsäure. Sm. 151° (B. 15, 3066). — II, 1694.
 - 13) Verbindung (aus Glyoxylsäure u. 1-Amidonaphtalin) (C. 1895 [1] 201).
C 63,4 — H 3,9 — O 14,1 — N 18,5 — M. G. 227.
- C₁₂H₉O₂N₂**
- 1) 4-Nitrosodiphenylnitrosamin. Sm. 98° u. Zers. (A. 243, 276). — II, 339.
 - 2) 2-Nitroazobenzol. Sm. 129,9° (M. 7, 129; 8, 56). — IV, 1350.
 - 3) 3-Nitroazobenzol. Sm. 82–83°. — IV, 1350.
 - 4) 4-Nitroazobenzol. Sm. 137° (A. 75, 73; M. 6, 158; 7, 129). — IV, 1350.
 - 5) 5-Amido-2-Keto-3-[1-Naphtyl]-2,3-Dihydro-1,3,4-Oxdiazol. Sm. 212° (B. 24, 4188). — IV, 926.

- $C_{11}H_9O_2N_3$ 6) 4,6-Difuranyl-2-Methyl-1,3,5-Triazin. Sm. 138° (B. 25, 1416). — IV, 1180.
7) 1,3-Dioximidonaphtisoindol (Imidodioxim d. Naphtalin-1,2-Dicarbon-
säure). Sm. 260° (B. 25, 2576). — II, 1879.
- $C_{11}H_9O_2N_4$ 8) Verbindung (aus Furfuramidin). Sm. 138° (B. 25, 1416). — III, 699.
C 56,5 — H 3,5 — O 12,5 — N 27,4 — M. G. 255.
- $C_{11}H_9O_2Cl$ 1) Benzoylguanin (H. 17, 491). — III, 966.
1) Acetat d. 4-Chlor-1-Oxynaphtalin. Sm. 44° (B. 28, 3053).
2) Acetat d. 5-Chlor-1-Oxynaphtalin. Sm. 53° (A. 247, 373). — II, 859.
3) Acetat d. 6-Chlor-1-Oxynaphtalin. Sm. 47° (A. 247, 376). — II, 859.
4) Acetat d. 7-Chlor-1-Oxynaphtalin. Fl. (A. 247, 375). — II, 859.
5) Acetat d. 1-Chlor-2-Oxynaphtalin. Sm. 42–43° (B. 21, 3285). — II, 878.
6) Methylester d. 2-Chlornaphtalin-1-Carbonsäure. Sm. 50° (B. 22, 395). — II, 1446.
7) 2-Naphtylester d. Chloressigsäure. Sm. 48° (B. 30, 1470).
- $C_{11}H_9O_2Cl_2$ 1) Acetylderivat d. β -Trichlornaphtalindichlorid. Sm. 195° (Bl. 28, 507). — II, 190.
- $C_{11}H_9O_2Br$ 1) Brommethyl-1-Oxy-2-Naphtylketon. Sm. 124,5° (B. 30, 1468).
2) Methyl- β -Brom-4-Oxy-2-Naphtylketon. Sm. 149° (A. 275, 294). — III, 175.
3) Mono[β -Bromphenyläther] d. 1,4-Dioxybenzol. Sd. 182–186° (J. pr. [2] 24, 473). — II, 940.
4) Acetat d. 4-Brom-1-Oxynaphtalin. Sm. 51° (B. 28, 3054).
5) Acetat d. 1-Brom-2-Oxynaphtalin. Sd. 215°₁₀ (G. 12, 431). — II, 880.
6) Acetat d. 6-Brom-2-Oxynaphtalin. Sm. 103° (C. 1897 [1] 238).
C 67,0 — H 4,2 — O 22,3 — N 6,5 — M. G. 215.
- $C_{11}H_9O_3N$ 1) 2'-Nitro-4-Oxybiphenyl. Sm. 138° (A. 207, 351). — II, 895.
2) 4'-Nitro-4-Oxybiphenyl. Sm. 170° (120°) (A. 207, 347; B. 28, 526). — II, 895.
3) isom. β -Nitro-4-Oxybiphenyl. Sm. 67° (J. r. 5, 52). — II, 895.
4) Phenyläther d. 2-Nitro-1-Oxybenzol. Sd. 205°₁₀ (B. 29, 1447, 1880).
5) Phenyläther d. 4-Nitro-1-Oxybenzol. Sm. 61° (B. 29, 1446).
6) 5-Phenylamido-2-Oxy-1,4-Benzochinon. Sm. 228–230° u. Zers. (B. 18, 788; 31, 2401). — III, 347.
7) 3-Acetylamido-1,2-Naphtochinon. Sm. 214–216° (B. 31, 2406).
8) 4-Acetylamido-1,2-Naphtochinon. Zers. bei 220–260° (B. 27, 3342; 29, 2951). — III, 394.
9) 6-Acetylamido-1,2-Naphtochinon. Zers. bei 180° (B. 31, 2414).
10) 2-Acetylamido-1,4-Naphtochinon. Sm. 202° (198° u. Zers.) (J. pr. [2] 40, 257; B. 21, 1196; 27, 3344). — III, 376.
11) Hydroresorufin. HCl (A. 162, 279; B. 17, 1859; 22, 3033). — II, 933.
12) Benzoat d. anti-2-Oximidomethylfuran. Sm. 138–138,5° (G. 26 [1] 463). — III, 726.
13) α -Oximido-1-Naphtyleessigsäure. Sm. 193–195° u. Zers. (Bl. [3] 17, 302).
14) 1-Pyrrolenoxymethylbenzol-2-Carbonsäure. Sm. 174–184° u. Zers. Ag (B. 17, 2957; 21, 2870). — IV, 83.
15) 2-Keto-1-Phenyl-1,2-Dihydropyridin-5-Carbonsäure. Sm. 275–280° (B. 17, 2393; 18, 318; A. 273, 180). — IV, 153.
16) α -Keto- β -(2-Chinolyl)äthan- α -Carbonsäure (Chinaldinoxalsäure). Zers. oberh. 170° (B. 30, 1479). — IV, 367.
17) 1-Naphtylmonamid d. Oxalsäure. Sm. 189° u. Zers. K, Ca, Ba, 1-Naphtylaminsalz (B. 6, 247). — II, 611.
18) 2-Naphtylmonamid d. Oxalsäure (2-Naphtyloxaminsäure). Sm. 190° u. Zers. (B. 30, 772; C. 1899 [1] 288).
19) Verbindung (aus Phenylamidomethylglutakonsäure). Sm. 220–223° (A. 273, 180).
20) Verbindung (aus Methantricarbonsäurediäthylesterphenylmonamid). Sm. 171,5–172° (J. pr. [2] 35, 452). — II, 422.
C 59,3 — H 3,7 — O 19,7 — N 17,3 — M. G. 243.
- $C_{11}H_9O_3N_2$ 1) 2-Nitrodiphenylnitrosamin. Sm. 99–100° (B. 24, 3796). — II, 339.
2) 4-Nitrodiphenylnitrosamin. Sm. 133,5° (130–130,5°) (B. 11, 756; 31, 581, 2535). — II, 339.
3) 2-Nitroazoxybenzol. Sm. 49° (A. 114, 220). — IV, 1336.

- C₁₁H₉O₃N₃**
- 4) 3-Nitroazoxybenzol⁹ Sm. 127° (B. 20, 361). — IV, 1336.
 - 5) 4-Nitroazoxybenzol. Sm. 153° (A. 114, 221). — IV, 1336.
 - 6) 5-Nitro-2-Oxyazobenzol. Sm. 150—151° (B. 30, 995). — IV, 1410.
 - 7) 3-Nitro-4-Oxyazobenzol. Sm. 126° (B. 20, 2997). — IV, 1410.
 - 8) 2'-Nitro-4-Oxyazobenzol. Sm. 155—157° (B. 20, 2998; 31, 2121). — IV, 1410.
 - 9) 3'-Nitro-4-Oxyazobenzol. Sm. 146—147° (159°). HCl (B. 20, 2998; 31, 2121). — IV, 1410.
 - 10) 4'-Nitro-4-Oxyazobenzol. Sm. 212—213° (210°). HCl (B. 20, 2997; 27, 673; 28, 845; 31, 2122; Soc. 47, 658). — IV, 1410.
 - 11) 3-Nitroso-2,4-Dioxyazobenzol (Benzolazonitrosoresorcin). Zers. bei 168° (B. 21, 3109). — IV, 1442.
 - 12) 3-Nitroso-2,6-Dioxyazobenzol (Benzolazonitrosoresorcin). Zers. bei 225° (B. 21, 3112). — IV, 1442.
 - 13) 1-Acetyl-2,5-Difuranyl-1,3,4-Triazol. Sm. 120° u. Zers. (B. 28, 470; A. 298, 30). — III, 699.
 - 14) 3-Nitro-4-Amido-1-Methyl- α -Naphtoxazol. HCl, (2HCl, PtCl₄) (B. 21, 1197). — II, 866.
- C₁₁H₉O₃Cl**
- 1) Aethyläther d. 3-Chlor-2-Oxy-1,4-Naphtochinon. 2 Modif. α -Modif. Sm. 96—97°; β -Modif. Sm. 149—150° (B. 21, 1043). — III, 383.
 - 2) Aethylester d. 2-Chlor-1-Ketoinden-3-Carbonsäure. Sm. 99—100° (A. 283, 352). — II, 1687.
- C₁₁H₉O₃Br**
- 1) Aethyläther d. 3-Brom-2-Oxy-1,4-Naphtochinon. Sm. 118° (B. 32, 263).
- C₁₁H₉O₃J**
- 1) Aethyläther d. 3-Jod-2-Oxy-1,4-Naphtochinon. Sm. 128—129° (B. 28, 347). — III, 384.
- C₁₁H₉O₄N**
- C 62,3 — H 4,0 — O 27,7 — N 6,0 — M. G. 231.
- 1) 3,4-Methylenäther d. 5-Keto-3-Methyl-4-[3,4-Dioxybenzyliden]-4,5-Dihydroisoxazol. Sm. 220° (B. 30, 1339).
 - 2) Methyl-4-Nitro-1-Oxy-2-Naphtylketon. Sm. 157° (B. 28, 1948). — III, 174.
 - 3) 3-Acetylamido-2-Oxy-1,4-Naphtochinon. Sm. 219—220° (J. pr. [2] 40, 183; B. 31, 2407). — III, 385.
 - 4) Acetat d. 2-Nitro-1-Oxynaphtalin. Sm. 118° (B. 25, 973). — II, 862.
 - 5) Acetat d. 1-Nitro-2-Oxynaphtalin. Sm. 61° (B. 16, 1938). — II, 883.
 - 6) Acetat d. 8-Nitro-2-Oxynaphtalin. Sm. 101—102° (J. pr. [2] 45, 615). — II, 883.
 - 7) Phenylkomenaminsäure + H₂O (J. pr. [2] 32, 177). — IV, 158.
 - 8) 2-Methylchinolin-3,4-Dicarbonsäure + H₂O. Sm. 236—237° (245°). Ag₂ (J. pr. [2] 56, 316; [2] 57, 479).
 - 9) 2-Methylchinolin-4,6-Dicarbonsäure. Cu (B. 23, 2262). — IV, 370.
 - 10) Chinolin-2-Methylcarbonsäure-3 oder 4-Carbonsäure + H₂O. Sm. 228—229°. Ag₂ (J. pr. [2] 57, 477).
 - 11) Methylester d. 5-Nitronaphtalin-1-Carbonsäure. Sm. 109—110° (B. 16, 2252). — II, 1448.
 - 12) Methylester d. 5 [oder 8]-Nitronaphtalin-2-Carbonsäure (vom Sm. 295°). Sm. 112° (B. 16, 2254). — II, 1457.
 - 13) Citrakonsäurephenylimid-3-Carbonsäure. Sm. 218° (Am. 9, 201). — II, 1266.
 - 14) Imid d. Phenylacetoxylmaleinsäure. Sm. 134—135° (A. 282, 78). — II, 1642.
 - 15) Phenylimid d. Akonitsäure (Akonitanilsäure). Sm. 250° u. Zers. Ag (A. 98, 85; Soc. 55, 238). — II, 422.
 - 16) Verbindung (aus Brenztraubensäure u. Benzoylamidoessigsäure). Sm. 157° (B. 19, 2555). — II, 1184.
 - 17) Verbindung (aus 1,4-Benzochinon) (B. 16, 1556). — III, 330.
- C₁₁H₉O₄N₃**
- C 55,6 — H 3,5 — O 24,7 — N 16,2 — M. G. 259.
- 1) 2,4-Dinitrodiphenylamin. Sm. 153° (156—157°) (J. pr. [1] 108, 320; [2] 1, 175; B. 3, 128; 9, 977; 31, 2536; Bl. 30, 5; A. 215, 363). — II, 339.
 - 2) 2,4'-Dinitrodiphenylamin. Sm. 222—223° (211,5°) (B. 11, 759; 12, 1400; 15, 829; 28, 2976; 31, 580; A. 132, 167). — II, 339.
 - 3) 4,4'-Dinitrodiphenylamin. Sm. 214° (216°) (B. 11, 759; 12, 1400; 15, 828; 31, 580, 2535; A. 132, 167). — II, 339.

- $C_{11}H_9O_4N_3$ 4) 4'-Nitro-2,4-Dioxyazobenzol (Soc. 47, 660). — IV, 1442.
 5) 4'-Nitro-2,5-Dioxyazobenzol. Zers. bei 185–190° (B. 26, 1911). — IV, 1447.
 6) 4'-Nitro-3,4-Dioxyazobenzol (B. 26, 1074). — IV, 1440.
 7) 5-Phenylhydrazon-2-Oxy-6-Keto-5,8-Dihydropyridin-4-Carbonsäure (Phenylhydrazoncitrazinsäure). $Na + 6H_2O$ (Soc. 63, 1043). — IV, 726.
- $C_{11}H_9O_4N_5$ C 50,2 — H 3,1 — O 22,3 — N 24,4 — M. G. 287.
 1) 2,2'-Dinitrodiasoamidobenzol. Sm. 196–196,5° (Soc. 67, 52). — IV, 1563.
 2) 3,3'-Dinitrodiasoamidobenzol. Sm. 194° (195,5°) (Soc. 51, 441; 67, 52; A. 121, 272; B. 19, 3244). — IV, 1563.
 3) 3,4'-Dinitrodiasoamidobenzol. Sm. 223–224° (B. 19, 3240; 30, 1395; Soc. 55, 415). — IV, 1564.
 4) 4,4'-Dinitrodiasoamidobenzol. Sm. 231° (224,5°; 228–230°). Na_2 , Cd, Co, Cu, Ag, (A. 121, 271; B. 27, 1565, 1952, 2201; 28, 173; Soc. 49, 627; 51, 439; 67, 50). — IV, 1564.
 5) p-Dinitro-4-Amidoazobenzol? Sm. 175–176° u. Zers. (B. 9, 390). — IV, 1355.
 6) isom. Dinitroamidoazobenzol. Sm. 210–215° (G. 20, 649). — IV, 1356.
 7) isom. Dinitroamidoazobenzol. Sm. 193–195° (G. 20, 649). — IV, 1356.
- $C_{11}H_9O_4Cl$ 1) 1,4-Benzochinonchlorhydrochinon. Sm. 145° (Soc. 63, 1316). — III, 344.
 2) 2-Chlor-1,4-Benzochinonhydrochinon. Sm. 132–133° (Soc. 63, 1316). — III, 344.
 3) Verbindung (aus 3,4-Dioxy-1,3-Diketo-1,2,3,4-Tetrahydronaphtalin). Sm. 131–132° u. Zers. (B. 25, 1177). — III, 276.
- $C_{11}H_9O_4Cl_3$ 1) Aethylester d. 3,5,6-Trichlor-4-Oxy-1-Methylbenzofuran-2-Carbonsäure. Sm. 138° (J. pr. [2] 45, 67). — III, 731.
- $C_{11}H_9O_5N$ C 58,2 — H 3,6 — O 32,4 — N 5,7 — M. G. 247.
 1) 4-Phenylimido-2,3,5,6-Tetraoxy-1-Keto-1,4-Dihydrobenzol (Tetraoxychinonanilid) (B. 21, 1854). — III, 355.
 2) 5-Oxy-1-Phenylpyrrol-2,3-Dicarbonsäure. Sm. 227° u. Zers. (Soc. 65, 14). — IV, 96.
 3) Methylester d. 4-Nitro-3-Oxynaphtalin-2-Carbonsäure. Sm. 189° (B. 27, 2623). — II, 1691.
- $C_{11}H_9O_5N_3$ C 52,3 — H 3,3 — O 29,1 — N 15,3 — M. G. 275.
 1) 2-[2,4-Dinitrophenyl]amido-1-Oxybenzol. Sm. 190° (B. 22, 900; 24, 3588). — II, 704.
 2) 2,4-Dinitro-4'-Oxydiphenylamin. Sm. 190° (B. 28, 2973).
 3) 2,4-Dinitro-1-Naphtylamid d. Essigsäure. Sm. 247° (250,5°) (A. 183, 273; 208, 330; B. 4, 850; 17, 114; 19, 2683; 27 [2] 592). — II, 607.
 4) p-Dinitro-2-Naphtylamid d. Essigsäure. Sm. 185° (J. 1868, 868). — II, 616.
 5) p-Dinitro-2-Naphtylamid d. Essigsäure. Sm. 235° (J. 1868, 868). — II, 616.
- $C_{11}H_9O_5Cl_3$ 1) Aethylester d. Trichlorbenzochinonacetessigsäure (J. pr. [2] 45, 65). — II, 1963.
- $C_{11}H_9O_5Br$ 1) Bromoxypiperinid. Sm. 131,5–132° (A. 172, 144). — II, 1769.
- $C_{11}H_9O_6N$ C 54,7 — H 3,4 — O 36,5 — N 5,3 — M. G. 263.
 1) α -[2-Nitrophenyl]- $\alpha\gamma$ -Butadien- $\delta\delta$ -Dicarbonsäure. Sm. 212–213°. Cu, Ag, (A. 253, 374). — II, 1876.
 2) α -[4-Nitrophenyl]- $\alpha\gamma$ -Butadien- $\delta\delta$ -Dicarbonsäure. Sm. 208°. (NH_4), Cu, Ag, (A. 253, 361). — II, 1876.
 3) α -Phthalylamidoäthan- $\alpha\beta$ -Dicarbonsäure (Phthalylasparaginsäure). Sm. 225°. Ba, Cu + $4H_2O$ (G. 16, 2). — II, 1811.
- $C_{11}H_9O_6N_3$ C 49,5 — H 3,1 — O 33,0 — N 14,4 — M. G. 291.
 1) 2-[2,4-Dinitrophenyl]amido-1,3-Dioxybenzol. Sm. 183° (B. 24, 3589). — II, 928.
 2) 1,3,5-Trinitrobenzol + Benzol (B. 30, 4; A. 215, 376).
- $C_{11}H_9O_6N_5$ C 45,1 — H 2,8 — O 30,1 — N 21,9 — M. G. 319.
 1) 2,4,6-Trinitro-3'-Amidodiphenylamin. Sm. 206–207° (B. 31, 1182).

- $C_{12}H_9O_6N_5$ 2) 2,4,6-Trinitro-s-Diphenylhydrazin. Sm. 173—185° u. Zers. (181°) (A. 190, 132; 253, 2; J. pr. [2] 37, 346; B. 27, 2459). — IV, 1498.
- $C_{12}H_9O_6Cl_3$ 1) Triacetat d. 4,5,6-Trichlor-1,2,3-Trioxybenzol. Sm. 122° (125°) (B. 20, 2037; Bl. [3] 15, 907). — II, 1013.
2) Triacetat d. 3,5,6-Trichlor-1,2,4-Trioxybenzol. Sm. 171° (B. 27, 558). — II, 1017.
3) Triacetat d. 2,4,6-Trichlor-1,3,5-Trioxybenzol. Sm. 167—168° (B. 22, 1476). — II, 1020.
4) Methylester d. 2,4,6-Trichlor-3,5-Diacetoxybenzol-1-Carbonsäure. Sm. 116° (B. 25, 2688). — II, 1747.
- $C_{12}H_9O_6Br_3$ 1) Triacetat d. 2,4,6-Tribrom-1,3,5-Trioxybenzol. Sm. 181—183° (M. 6, 887). — II, 1021.
- $C_{12}H_9O_7N_5$ C 46,9 — H 2,9 — O 36,5 — N 13,7 — M. G. 307.
1) Aethyläther d. 2,4,5 [oder 2,4,8]-Trinitro-1-Oxynaphtalin. Sm. 170 bis 171° (148°) (A. 217, 170; J. pr. [2] 44, 244). — II, 864.
2) Aethyläther d. p-Trinitro-1-Oxynaphtalin. Sm. 149—150° (Soc. 65, 841). — II, 864.
3) Aethyläther d. p-Trinitro-2-Oxynaphtalin. Sm. 186° (B. 14, 900; A. 217, 171). — II, 884.
4) 2,4,6-Trinitro-1-Oxybenzol + Benzol. Sm. 85—90° (A. 109, 247; Bl. 7, 30).
- $C_{12}H_9NCl_2$ 1) Dichlordiphenylamin. Sm. 80° (B. 15, 1286). — II, 338.
- $C_{12}H_9NBr_2$ 1) Dibromdiphenylamin. Sm. 107° (B. 15, 830). — II, 338.
- $C_{12}H_9NS$ 1) 1-Methyl- α -Naphththiazol + H_2O . Sm. 48° (wasserfrei) (B. 21, 2628; A. 277, 259). — II, 870.
2) 2-Methyl- β -Naphththiazol. Sm. 94,5—95,5°. (2HCl, PtCl₄) (B. 20, 1800, 1898). — II, 888.
3) Thiodiphenylamin. Sm. 180°; Sd. 371°. HCl (A. 230, 77; B. 19, 3255; 27, 3320; 29, 1362). — II, 805.
4) 2-[2-Thienyl]indol. Sm. 162°. Pikrat (A. 272, 201). — IV, 394.
- $C_{12}H_9NS_2$ 1) Dithiodiphenylamin. Sm. 59—60° (B. 21, 2063). — II, 812.
2) Methyläther d. 1-Merkapto- α -Naphththiazol. Sm. 73,5—74° (B. 24, 1408). — II, 871.
- $C_{12}H_9N_2Cl$ 1) 3-Chlorazobenzol. Sm. 67,5° (B. 29, 103). — IV, 1349.
2) 4-Chlorazobenzol. Sm. 88—89° (87,5°) (B. 19, 1687; 23, 3553; 29, 103; A. 303, 306). — IV, 1349.
- $C_{12}H_9N_2Cl_2$ 1) 2-Dichlormethyl-3-[β -Chloräthenyl]-6-Methyl-1,4-Benzdiazin? Sm. 96° (B. 23, 3782). — IV, 971.
- $C_{12}H_9N_2Br$ 1) 2-Bromazobenzol. Sm. 87° (B. 19, 2156). — IV, 1349.
2) 3-Bromazobenzol. Sm. 69° (M. 8, 54; B. 19, 2156; 20, 359; 29, 103). — IV, 1349.
3) 4-Bromazobenzol. Sm. 82° (89°) (M. 8, 51; B. 19, 2156; 20, 357; 23, 3254; 29, 103; A. 303, 320). — IV, 1349.
4) 5-Brom-2-Methyl- β -Naphthimidazol. Sm. 229°. HCl (B. 18, 2160). — IV, 992.
- $C_{12}H_9N_2J$ 1) 4-Jodazobenzol. Sm. 105° (B. 23, 3255; A. 303, 330). — IV, 1350.
- $C_{12}H_9N_2Cl_2$ 1) 3,3'-Dichlordiazoamidobenzol. Sm. 107° (B. 25, 1357). — IV, 1561.
2) 4,4'-Dichlordiazoamidobenzol. Sm. 124,5. Ag (Soc. 53, 670; B. 30, 1413; A. 121, 271). — IV, 1561.
- $C_{12}H_9N_2Br_2$ 1) 4,4'-Dibromdiazoamidobenzol. Sm. 146—147°. (2HCl, PtCl₄) (B. 30, 1412; A. 121, 269). — IV, 1562.
2) 4-Brombenzolsyndiazo-4-Bromphenylamid (B. 27, 1863).
3) p-Dibrom-4-Amidoazobenzol. Sm. 152° (B. 17, 1403). — IV, 1358.
- $C_{12}H_9N_2J_2$ 1) 4,4'-Dijoddiazoamidobenzol. Sm. 165—166° (B. 30, 1409). — IV, 1563.
- $C_{12}H_9N_2S$ 1) Thionin (Amidoimidothiodiphenylamin). HCl + 2H₂O, (2HCl, ZnCl₂ + H₂O), (2HCl, HgCl₂), HNO₃ + 2H₂O, H₂SO₄ + H₂O, Oxalat + 4H₂O (B. 9, 1035; 12, 2070; 22, 2066; A. 230, 111, 123). — II, 809.
2) Isothionin. 2HCl (A. 230, 135). — II, 809.
- $C_{12}H_9N_2Cl_2$ 1) Diazoderivat (aus 4,4'-Diamidodiphenylamin). + PtCl₄ + H₂O (B. 11, 1099). — IV, 1169.
- $C_{12}H_9ClJ_2$ 1) 4-Joddiphenyljodoniumchlorid. Sm. 200—201° u. Zers. (B. 27, 430).
- $C_{12}H_9ClS$ 1) 4-Chlordiphenylsulfid. Sd. 305—310° u. Zers. (B. 24, 763; 27, 2547). — II, 803.
- $C_{12}H_9BrJ_2$ 1) 4-Joddiphenyljodoniumbromid. Sm. 167—168° u. Zers. (B. 27, 430).

- C₁₁H₉BrS** 1) *p*-Bromdiphenylsulfid. Sm. 25,7° (B. 28, 2321).
C₁₁H₁₀ON₂ C 72,7 — H 5,0 — O 8,1 — N 14,1 — M. G. 198.
- 1) Diphenylnitrosamin. Sm. 66,5°. + Zn (C₂H₅)₂ (A. 190, 174; B. 8, 855; 10, 1309; Am. 20, 286). — II, 338.
 - 2) 4-Nitrosodiphenylamin. Sm. 143°. HCl (A. 243, 279; B. 19, 2994). — II, 339.
 - 3) *p*-Diamidobiphenylenoxyd. Sm. 188° (A. 264, 192). — II, 991.
 - 4) Azoxybenzol. Sm. 36°. Lit. bedeutend. — IV, 1334.
 - 5) 4-Oxyazobenzol. Sm. 152° (148°). Ag, HCl, Phosphat (A. 137, 85; 154, 211; B. 3, 234; 8, 1027; 13, 525; 14, 2617; 20, 372; 23, 3552; 28, 2417; J. 1879, 465). — IV, 1407.
 - 6) anti-3-[α -Oximidobenzyl]pyridin (β -Phenylpyridylketonoxim). Sm. 141 bis 143° (145°) (M. 17, 517; 18, 450). — IV, 184.
 - 7) syn-3-[α -Oximidobenzyl]pyridin. Sm. 162–163° (M. 17, 518; 18, 451). — IV, 184.
 - 8) 2-Benzoylamidopyridin. Sm. 165°. (2HCl, PtCl₄), Pikrat (B. 27, 1321). — IV, 818.
 - 9) 4-Cyan-1-Keto-3-Aethyl-1,2-Dihydroisochinolin. Sm. 261–262° u. Zers. (B. 27, 2233). — II, 1870.
 - 10) 4-Cyan-1-Keto-2,3-Dimethyl-1,2-Dihydroisochinolin. Sm. 182–183° (B. 25, 3568). — II, 1868.
 - 11) Oxydihydro-1,8-Naphtochinoxalin. Sm. 221° (B. 30, 777). — IV, 925.
 - 12) Harmol. Sm. 321° (B. 18, 402; 30, 2489). — III, 886.
 - 13) Amid d. Chinolin-2-Aethenyl- β -Carbonsäure (A. d. β -[2]-Chinolyakrylsäure). Sm. 175–176° (A. 287, 28). — IV, 981.
 - 14) Phenylamid d. Pyridin-2-Carbonsäure. Sm. 76° (B. 27, 1786). — IV, 142.
 - 15) Phenylamid d. Pyridin-3-Carbonsäure + 2H₂O. Sm. 85° (132° wasserfrei) (C. 1898 [1] 678).
 - 16) Verbindung (aus 2,4-Diamidodiphenylamin). Sm. 152° (B. 28, 2973). — IV, 1122.
 - 17) Verbindung (aus 4-Oxybenzol-1-Carbonsäure u. Diazobenzolchlorid). Sm. 213–215° (A. 283, 237). — IV, 1408.
- C₁₁H₁₀ON₂** C 63,7 — H 4,4 — O 7,1 — N 24,8 — M. G. 226.
- 1) Benzylhypoxanthin. Sm. 280° (H. 13, 398). — III, 969.
 - 2) Diazobenzolanhydrid. Zers. bei 0° (B. 29, 460). — IV, 1518.
 - 3) 4-Diazoazobenzol (B. 17, 605). — IV, 1528.
 - 4) Base (aus Nitrosodiazobenzol). Sm. 183° (J. pr. [2] 46, 136). — IV, 1351.
- C₁₁H₁₀OBr₂** 1) Aethyläther d. 1,6-Dibrom-2-Oxynaphtalin. Sm. 94° (C. 1897 [1] 239).
- C₁₁H₁₀OJ₂** 1) 4-Joddiphenyljodoniumhydroxyd. Salze, siehe diese (B. 27, 431).
- C₁₁H₁₀OS** 1) 5-Benzoyl-2-Methylthiophen. Sm. 124° (A. 267, 181; B. 19, 3280). — III, 767.
- 2) 2[oder 3]-[2-Methylbenzoyl]thiophen. Fl. (B. 19, 3279). — III, 767.
 - 3) Diphenylsulfoxyd. Sm. 70,5°; Sd. bei 340° (B. 20, 195; 29, 441). — II, 812.
 - 4) Acetat d. 1-Merkaptonaphtalin. Sd. 188°₁₆ (B. 22, 823). — II, 871.
 - 5) Acetat d. 2-Merkaptonaphtalin. Sm. 53,5°; Sd. 191°₁₃ (B. 22, 825). — II, 888.
- C₁₁H₁₀OPb** 1) Bleidiphenyloxyd (B. 20, 3332). — IV, 1715.
- C₁₁H₁₀OSe** 1) Diphenylselenoxyd. Sm. 113–114° (B. 26, 2819). — II, 819.
- 2) Diphenylselenin. Sd. 230°₆₈ (A. ch. [6] 20, 253). — II, 819.
- C₁₁H₁₀OSn** 1) Zinndiphenyloxyd (A. 194, 157). — IV, 1714.
- C₁₁H₁₀OTe** 1) Diphenyltelluroxyd. Sm. oberh. 185° u. Zers. (B. 27, 1770). — II, 819.
- C₁₁H₁₀O₂N₂** C 67,3 — H 4,7 — O 14,9 — N 13,1 — M. G. 214.
- 1) 3-Phenylnitrosamido-1-Oxybenzol. Sm. 115° u. Zers. (B. 21, 909). — II, 714.
 - 2) 4-Phenylnitrosamido-1-Oxybenzol. Sm. 95° u. Zers. (B. 17, 2433). — II, 717.
 - 3) *p*-Nitroso-3-Phenylamido-1-Oxybenzol (B. 21, 909). — II, 730.
 - 4) 2'-Nitro-4-Amidobiphenyl. Sm. 97–98°. HCl (A. 174, 225; 207, 350; J. 1882, 467). — II, 633.

- C₁₂H₁₀O₂N₂** 5) 4'-Nitro-4-Amidobiphenyl. Sm. 198°. (2HCl, PtCl₄) (A. 124, 278; 174, 222). — II, 633.
 6) 2-Nitrodiphenylamin. Sm. 75° (B. 23, 1840; 24, 3796; C. 1898 [2] 342). — II, 339.
 7) 4-Nitrodiphenylamin. Sm. 132° (133°) (B. 11, 757; 15, 827; 31, 580; A. 132, 167). — II, 339.
 8) 4-Nitrosodiphenylhydroxylamin. Sm. 147—152° u. Zers. (B. 31, 1513).
 9) 2-Naphtoylharnstoff. Sm. 215° (A. 180, 322). — II, 1454.
 10) 5-Amido-2-Phenylamido-1,4-Benzochinon. Sm. 280—282° (B. 31, 2401).
 11) 2,4-Dioxyazobenzol. Sm. 170° (u. 161°) (B. 8, 151; 10, 1577; 15, 24, 2816; 16, 1329; 20, 905, 1121, 1578; 21, 3119). — IV, 1442.
 12) 2,5-Dioxyazobenzol. Sm. 145—148° (B. 26, 1910). — IV, 1447.
 13) 2,6-Dioxyazobenzol (B. 10, 1577; 15, 2819; 20, 1145; 22, 2377). — IV, 1441.
 14) 3,4-Dioxyazobenzol (Benzolazobrenskatechin). Sm. 165° u. Zers. (B. 26, 1073). — IV, 1440.
 15) 2,3'-Dioxyazobenzol. Sm. 171°. Pb (A. 196, 344; B. 17, 273; J. r. 21, 481). — IV, 1404.
 16) 4,4'-Dioxyazobenzol + H₂O. Sm. 204° (200°) u. Zers. Ba + 4H₂O (A. 196, 340; B. 8, 1499; 15, 3037; 17, 275; J. r. 21, 481). — IV, 1406.
 17) 2-Methyl-4,4'-Bipyridyl-2'-Carbonsäure + 5H₂O. Sm. 193° wasserfrei (J. pr. [2] 42, 438; [2] 44, 404). — IV, 988.
 18) Nitril d. γ-[1,2-Phtalyl]amidobuttersäure. Sm. 80,5—81,5° (B. 22, 3337). — II, 1810.
 19) Amid d. Naphtalin-1,2-Dicarbonsäure. Sm. 265° u. Zers. (B. 25, 2478). — II, 1879.
 20) Amid d. Naphtalin-1,5-Dicarbonsäure (G. 26 [1] 99, 104).
 21) Amid d. 2-Keto-1-Phenyl-1,2-Dihydropyridin-5-Carbonäure. Sm. 221—226° (A. 273, 181). — IV, 153.
 22) Mono-2-Naphtyldiamid d. Oxalsäure. Sm. 248° (B. 30, 772).
- C₁₁H₁₀O₂N₂** C 49,5 — H 4,1 — O 13,2 — N 23,1 — M. G. 242.
 1) p-Dinitroso-s-Diphenylhydrazin (B. 2, 683). — IV, 1497.
 2) 2-Nitrodiazocamidobenzol. Sm. 104,5—105° (B. 28, 237). — IV, 1563.
 3) 3-Nitrodiazocamidobenzol. Sm. 131° (B. 21, 2572). — IV, 1563.
 4) 4-Nitrodiazocamidobenzol. Sm. 148° u. Zers. (B. 20, 3014; 27, 673; 28, 839; 29, 471). — IV, 1563.
 5) 4,4'-Bisdiazobiphenyl (Tetrazobiphenyl). Salze siehe (J. 1864, 436; 1866, 461; B. 30, 2800). — IV, 1543.
 6) 3-Nitro-4'-Amidoazobenzol. Sm. 210° u. Zers. (2HCl, PtCl₄) (Soc. 45, 112). — IV, 1358.
 7) 4-Nitro-4'-Amidoazobenzol. Sm. 203—205° (B. 20, 3015). — IV, 1355.
 8) Dimethylalloxazin. Sm. 236° (B. 24, 2367). — IV, 944.
 9) Methyltolualloxazin (aus Dimethylalloxanthin u. 3,4-Diamido-1-Methylbenzol). Zers. oberh. 250° (B. 24, 3030). — IV, 616.
 10) 1,2-Naphtochinondiurein (G. 27 [1] 237).
 11) Phenylhydrazinderivat d. Verb. C₈H₆O₂N₂ (aus Acetonylaceton). Sm. 161° u. Zers. (B. 24, 1306). — I, 1019.
 12) 3,7-Dioxy-2,8-Dimethyl-1,4,6,9-Naphttetrazin (Dioxydimethyldichinoxalin) (B. 22, 445). — IV, 1244.
- C₁₁H₁₀O₂S** 1) 2,2'-Dioxydiphenylsulfid. Sm. 128—129° (G. 17, 92). — II, 913.
 2) 4,4'-Dioxydiphenylsulfid. Sm. 151—151,5° (150°; 140°) (B. 7, 1165; 22, 821; 25, 1896; G. 17, 83; 20, 363). — II, 951.
 3) Diphenylsulfon. Sm. 128—129°; Sd. 376,4°₁₂₂ (140°). Lit. bedeutend. — II, 812.
 4) Biphenylsulfinsäure (B. 13, 388). — II, 225.
- C₁₁H₁₀O₂S₂** 1) 4,4'-Dioxydiphenyldisulfid. Sm. 150—151° (J. pr. [2] 41, 196). — II, 951.
 2) p-Dioxydiphenyldisulfid. Sd. oberhalb 200° u. Zers. Na + 6H₂O, K + 5H₂O, Pb (M. 4, 166). — II, 913.
 3) Phenylester d. Benzolthiolsulfonsäure. Sm. 45° (A. 145, 318; B. 9, 1640; 10, 2181; 11, 2071; 15, 131; 18, 893; 19, 1236; 20, 2090; J. pr. [2] 53, 4). — II, 817.

- $C_{11}H_{10}O_4S_2$ 4) Verbindung (aus 2-Bromacetylthiophen). Sm. 130° (B. 19, 2894). — III, 763.
- $C_{11}H_{10}O_4S_3$ 1) *p*-Dioxydiphenyltrisulfid. Sm. 127° (G. 22 [2] 615). — II, 913.
- $C_{11}H_{10}O_4Hg$ 1) Acetat d. Quecksilber-1-Naphtyloxydhydrat. Sm. 154° (A. 147, 175; 154, 191). — IV, 1712.
- 2) Acetat d. Quecksilber-2-Naphtyloxydhydrat. Sm. $147-148^\circ$ (B. 27, 252). — IV, 1713.
- $C_{11}H_{10}O_4Se$ 1) Di[*p*-Oxyphenyl]selenid (B. 30, 2824).
- 2) Diphenylselenon. Sm. 155° ; Sd. $270-271^\circ_{9.6}$ (B. 29, 425).
- $C_{11}H_{10}O_4N_2$ C 62,8 — H 4,3 — O 20,8 — N 12,2 — M. G. 230.
- 1) 4-Nitro-3-Phenylamido-1-Oxybenzol. Sm. 165° (B. 26, 684). — II, 714.
- 2) 4-Acetylnitrosamido-1-Oxynaphtalin. Sm. 203° (B. 29, 2953).
- 3) 4-Amido-3-Acetylamido-1,2-Naphtochinon. Sm. 222° (B. 31, 2408).
- 4) 4-Acetylamido-2-Oximido-1-Keto-1,2-Dihydronaphtalin? Zers. bei $195-200^\circ$ (B. 27, 3343). — III, 394.
- 5) 6-Acetylamido-1- oder 2-Oximido-2- oder 1-Keto-1,2-Dihydronaphtalin. Sm. 230° (B. 31, 2416).
- 6) 2-Acetylamido-4-Oximido-1-Keto-1,4-Dihydronaphtalin. Zers. bei $195-200^\circ$ (B. 27, 3345). — III, 377.
- 7) Allylphenyloxallylharnstoff. Sm. $107-108^\circ$ (Z. 1869, 262). — II, 411.
- 8) 4,4'-Dioxyazoxybenzol + H_2O . Zers. bei 200° (B. 21, 2616). — IV, 1342.
- 9) Trioxazobenzol (Benzolazopyrogallol) (B. 13, 44). — IV, 1450.
- 10) 9-Nitroso-8-Oxy-10-Keto-3,4-Dihydrojulol (β -Nitroso- γ -Oxy- α -Ketojulolin). Sm. 158° u. Zers. (B. 25, 1200). — IV, 195.
- 11) Phenylamidoformiat d. anti-3-Oximidomethylfuran (Carbanilidofurfurantaldoxim). Sm. 138° (B. 22, 3103; 25, 2585). — III, 726.
- 12) Phenylamidoformiat d. syn-2-Oximidomethylfuran (Carbanilidofurfursynaldoxim). α -Modif. Sm. 72° ; β -Modif. Sm. 98° (B. 25, 2579, 2580). — III, 725.
- 13) 1-Oximidomethylnaphtalin-8-Carbonsäure. Sm. 257° (A. 276, 16). — II, 1694.
- 14) 2-Phenylhydrazonmethylfuran-5-Carbonsäure. Sm. 176° u. Zers. (Am. 20, 176).
- 15) 5-Methyl-1-Phenylpyrazol-4-Ketocarbonsäure. Sm. 166° . Ag (A. 295, 321). — IV, 546.
- 16) 3-Keto-4-Methyl-2-Phenyl-2,3-Dihydro-1,2-Diazin-6-Carbonsäure. Sm. 216° (B. 27, 1273). — IV, 799.
- 17) 6-Oxy-2-Benzyl-1,3-Diazin-4-Carbonsäure. Sm. 230° (B. 22, 1627). — IV, 988.
- 18) 6-Oxy-2-[4-Methylphenyl]-1,3-Diazin-4-Carbonsäure. Sm. 252° u. Zers. (B. 25, 1422). — IV, 988.
- 19) 6-Oxy-2-Phenyl-1,3-Diazin-4-Methylcarbonsäure. Sm. 216° u. Zers. Ag + H_2O (B. 28, 480). — IV, 988.
- 20) Methylester d. 5-Keto-4-Benzyliden-4,5-Dihydropyrazol-3-Carbonsäure. Sm. noch nicht bei 250° (J. pr. [2] 51, 51). — IV, 987.
- 21) 2-Nitro-1-Naphtylamid d. Essigsäure. Sm. 199° (A. 183, 229; B. 6, 342; 19, 797; 20, 892). — II, 606.
- 22) 4-Nitro-1-Naphtylamid d. Essigsäure. Sm. 190° (A. 183, 253; 19, 797; 20, 892). — II, 606.
- 23) 8-Nitro-1-Naphtylamid d. Essigsäure. Sm. $187-188^\circ$ (Sec. 63, 1055). — II, 596.
- 24) 3-Nitro-2-Naphtylamid d. Essigsäure. Sm. $123,5^\circ$ (A. 211, 41; B. 14, 805; 19, 338, 805). — II, 616.
- 25) 5-Nitro-2-Naphtylamid d. Essigsäure. Sm. $185,5^\circ$ (B. 25, 2078). — II, 616.
- 26) 8-Nitro-2-Naphtylamid d. Essigsäure. Sm. $195,5^\circ$ (B. 25, 2081). — II, 616.
- 27) 2-Naphtylmonohydrazid d. Oxalsäure. Sm. 202° (B. 24, 4183). — IV, 930.
- $C_{12}H_{10}O_5N_4$ C 55,8 — H 3,9 — O 18,6 — N 21,7 — M. G. 258.
- 1) α -Nitroso- α -Nitro- α -[2-Naphtyl]azoäthan. Sm. 141° u. Zers. (G. 23 [1] 260). — IV, 1391.

- $C_{11}H_{10}O_3N_4$ 2) Verbindung (aus 1,3-Diamidobenzol) (Z. 1865, 557). — IV, 569.
- $C_{11}H_{10}O_3Cl_4$ 1) Aethylester d. 2,2,3,3-Tetrachlor-1-Oxy-2,3-Dihydroinden-1-Carbonsäure. Sm. 163° (A. 267, 333). — II, 1662.
- $C_{11}H_{10}O_3S$ 1) Oxydiphenylsulfon (J. 1885, 1591). — II, 814.
2) 4,4'-Dioxydiphenylsulfoxyd. Sm. 95,5° (B. 25, 1893). — II, 951.
3) Biphenylsulfonsäure. $K + 2H_2O$, Ca, Ba, Cu + $6H_2O$, Ag (Z. 1871, 260; J. r. 5, 50). — II, 225.
4) Aethylester d. Benzoylthiocarbonylessigsäure. Sm. 162—164° (B. 21, 351). — II, 1646.
5) Phenylester d. Benzolsulfonsäure. Sm. 35° (G. 11, 66; B. 19, 1832). — II, 668.
- $C_{11}H_{10}O_3S_2$ 1) 1-Merkaptobenzolphenyläther-?-Sulfonsäure. Ba (B. 26, 996). — II, 839.
- $C_{11}H_{10}O_3Hg$ 1) 1-Acetat d. Quecksilber-2-Oxy-1-Naphtyloxydhydrat. Sm. 185° u. Zers. (B. 31, 2624; Bl. [3] 11, 265). — IV, 1713.
- $C_{11}H_{10}O_3Si$ 1) Anhydrid d. Phenylsiliconsäure (A. 173, 157). — IV, 1701.
- $C_{11}H_{10}O_4N_2$ C 58,5 — H 4,1 — O 26,0 — N 11,4 — M. G. 246.
1) Monoxim d. 3-Acetylamido-2-Oxy-1,4-Naphtochinon. Zers. bei 190—200° (J. pr. [2] 40, 184). — III, 385.
2) 2,4,6,4'-Tetraoxyazobenzol + $3H_2O$ (B. 12, 227). — IV, 1451.
3) isom. 2,4,6,4'-Tetraoxyazobenzol (B. 12, 228). — IV, 1451.
4) ?-Tetraoxyazobenzol (C. 1897 [2] 588). — IV, 1363.
5) 2,3-Diacetyl-1,4-Diketo-1,2,3,4-Tetrahydro-2,3-Benzdiazin (Diacetylphthalhydrazid). Sm. 114° (J. pr. [2] 51, 381; [2] 54, 72). — II, 1814.
6) 5-Methyl-1-Phenylpyrazol-3,4-Dicarbonsäure. Sm. 198° u. Zers. (B. 22, 177). — IV, 547.
7) Aethylester d. α -Cyan- β -[3-Nitrophenyl]akrylsäure. Sm. 96° (J. pr. [2] 54, 541).
8) Aethylester d. α -Cyan- β -[3-Nitrophenyl]akrylsäure. Sm. 127—128° (134°) (J. pr. [2] 54, 544; Soc. 73, 88).
9) Aethylester d. α -Cyan- β -[4-Nitrophenyl]akrylsäure. Sm. 169—170° (A. ch. [6] 29, 489). — II, 1417.
10) Monamid d. 5-Oxy-1-Phenylpyrrol-2,3-Dicarbonsäure (Soc. 65, 13). — IV, 96.
11) Verbindung (aus 1,4-Benzochinon u. 2-Nitro-1-Amidobenzol). Sm. 94 bis 97° (B. 15, 1976). — III, 329.
12) Verbindung (aus 1,4-Benzochinon u. 4-Nitro-1-Amidobenzol). Sm. 115 bis 120° (B. 15, 1975). — III, 330.
- $C_{11}H_{10}O_4N_4$ C 52,6 — H 3,6 — O 23,3 — N 20,4 — M. G. 274.
1) 2,4-Dinitro-3'-Amidodiphenylamin. Sm. 172° (B. 15, 1237). — IV, 572.
2) 2,4-Dinitro-4'-Amidodiphenylamin. Pikrat (B. 23, 1852). — IV, 584.
3) 5,5'-Dinitro-2,2'-Diamidobiphenyl. Sm. 285° (B. 25, 129). — IV, 959.
4) 2,2'-Dinitro-4,4'-Diamidobiphenyl. Sm. 214° (B. 23, 795). — IV, 962.
5) 3,3'-Dinitro-4,4'-Diamidobiphenyl. Sm. 218—221°. HCl (B. 5, 237; 20, 1024; M. 8, 471). — IV, 962.
6) Isodinitrobenzidin. Sm. 196—197° (M. 8, 472). — IV, 962.
7) 2,4-Dinitro-s-Diphenylhydrazin. Sm. 120° (J. pr. [2] 37, 351; [2] 40, 252). — IV, 1498.
8) 3,3'-Dinitro-s-Diphenylhydrazin? Sm. 220° (248—250°) (B. 5, 234; J. pr. [2] 42, 49). — IV, 1498.
9) α -Oximido- β -[Cyanformylphenyl]hydrazonbuttersäure. Sm. 209° u. Zers. (B. 25, 195). — IV, 1098.
10) Diamid d. 3-Keto-4-Oxy-2-Phenyl-2,3-Dihydro-1,2-Diazin-5,6-Dicarbonsäure. Sm. 237—238° (B. 27, 1271). — IV, 731.
- $C_{12}H_{10}O_4Cl_2$ 1) Aethylester d. 2,2-Dichlor-1-Keto-3-Oxy-2,3-Dihydroinden-3-Carbonsäure. Sm. 100° (A. 267, 335). — II, 1865.
- $C_{12}H_{10}O_4Cl_4$ 1) Diäthylester d. 3,4,5,6-Tetrachlorbenzol-1,2-Dicarbonsäure. Sm. 60—60,5° (B. 16, 861; A. 238, 326). — II, 1819.
2) isom. Diäthylester d. 3,4,5,6-Tetrachlorbenzol-1,2-Dicarbonsäure. Sm. 124° (B. 16, 861). — II, 1819.
- $C_{12}H_{10}O_4Br_4$ 1) $\alpha\beta\gamma\delta$ -Tetrabrom- δ -[?-Dioxyphenyl]valerianmethylenäthersäure (Tetrabrompiperhydronsäure). Sm. 160—165° u. Zers. (A. 172, 137). — II, 1769.

- $C_{11}H_{10}O_4Br_2$ 2) Benzol-1,2-[$\alpha\beta$ -Dibromäthyl- β -Carbonsäure] (B. 19, 436). — II, 1858.
3) Benzol-1,4-Di[$\alpha\beta$ -Dibromäthyl- β -Carbonsäure] (A. 231, 378). — II, 1858.
- $C_{12}H_{10}O_4J_4$ 1) Diäthylester d. 2,3,5,6-Tetrajodbenzol-1,4-Dicarbonsäure. Sm. 262,5° (B. 29, 2837).
- $C_{12}H_{10}O_4S$ 1) 2,4-Dioxydiphenylsulfon. Sm. 179° (J. 1885, 1591). — II, 814.
2) 2,5-Dioxydiphenylsulfon. Sm. 196° (B. 27, 3259; 29, 2025).
3) 3,4-Dioxydiphenylsulfon. Sm. 143—145° (164° wasserfrei) (B. 29, 2025).
4) p-Dioxydiphenylsulfon. Sm. 186—187° (G. 19, 345). — II, 913.
5) s-p-Dioxydiphenylsulfon. Sm. 239°. NH_4 , Na + H_2O , Ag, Ag_2 (A. 147, 52; 172, 28; B. 9, 1148; G. 20, 362). — II, 839.
6) 4-Oxybiphenyl-p-Sulfonsäure. K + H_2O , Ca + 3 H_2O , Ba + H_2O (2K + Cu + 6 H_2O) (J. r. 5, 54). — II, 895.
7) Phenylester d. 4-Oxybenzol-1-Sulfonsäure. Fl. (J. pr. [2] 13, 169; Z. 1869, 298). — II, 831.
- $C_{12}H_{10}O_4S_2$ 1) Braunes Sulfohydrochinon (A. 69, 295). — III, 329.
- $C_{12}H_{10}O_4S_3$ 1) Sulfid d. Benzolsulfonsäure. Sm. 133—134° (B. 24, 1137). — II, 162.
- $C_{12}H_{10}O_4S_4$ 1) Disulfid d. Benzolsulfonsäure. Sm. 76—77° (B. 24, 1138, 1142). — II, 162.
- $C_{12}H_{10}O_4S_5$ 1) Trisulfid d. Benzolsulfonsäure. Sm. 101—102° (B. 24, 1138, 1142). — II, 162.
- $C_{12}H_{10}O_5N_2$ C 55,0 — H 3,8 — O 30,5 — N 10,7 — M. G. 262.
1) Aethyläther d. 2,4-Dinitro-1-Oxynaphtalin. Sm. 88° (Z. 1868, 82; J. pr. [2] 44, 241). — II, 863.
2) Aethyläther d. 4,5[oder 4,8]-Dinitro-1-Oxynaphtalin. Sm. 188° (J. pr. [2] 44, 243). — II, 864.
3) Aethyläther d. 1,6-Dinitro-2-Oxynaphtalin. Sm. 144° (J. pr. [2] 43, 29). — II, 883.
4) Aethyläther d. 1,8-Dinitro-2-Oxynaphtalin. Sm. 215° (J. pr. [2] 43, 33). — II, 883.
5) Aethyläther d. 5,8-Dinitro-2-Oxynaphtalin. Sm. 215° (B. 23, 3360). — II, 883.
6) Harmolsäure. Sm. 246—247° u. Zers. (B. 22, 642). — III, 886.
7) 5-Keto-1-Phenyl-4,5-Dihydropyrazol-3-Carbonsäure-4-Methylcarbonsäure + H_2O . Sm. 228—229° (B. 22, 888). — IV, 726.
8) 3-[3-Carboxylphenyl]-1,2,4-Oxiazol-5-[β]Propionsäure (B. 19, 1497). — II, 1229.
9) 6-Oxy-1,4-Benzdiazin-6-Aethyläther-2,3-Dicarbonsäure. Sm. 186° (B. 25, 500). — IV, 951.
10) Acetat d. Verbindung $C_{10}H_8O_4N_2$. Sm. 129° (G. 22 [2] 487). — II, 978.
- $C_{12}H_{10}O_5Br$ 1) Methylester d. α -Oxybromcarminmethylestersäure. Sm. 185° (B. 18, 3184). — II, 2098.
- $C_{12}H_{10}O_5Br_4$ 1) $\alpha\gamma\delta$ -Tribrom- β -Oxy- α -[p-Brom-3,4-Dioxyphenyl]butan-3,4-Methylester- α -Carbonsäure (Tetrabromoxypiperhydronsäure). Sm. 155° u. Zers. Na + 1½ H_2O , Ca + 2 H_2O , Ba + 3 H_2O (A. 152, 52; 172, 154). — II, 1931.
- $C_{12}H_{10}O_5S$ 1) 2,3,4[oder 3,4,5]-Trioxdiphenylsulfon. Sm. 188° (B. 29, 2026).
2) 1-Oxy-2-Acetylnaphtalin-4-Sulfonsäure. Ba + 5 H_2O (B. 28, 1948). — III, 175.
- $C_{12}H_{10}O_5S_2$ 1) Diphenylsulfon-3-Sulfonsäure + 2 H_2O . Na + 3 H_2O , K + H_2O , Ca + 7 H_2O , Ba + 4½ H_2O , Pb + 3½ H_2O , Cu + 7½ H_2O (B. 19, 2418). — II, 814.
2) Anhydrid d. Benzolsulfonsäure. Sm. 54° (Soc. 49, 692; siehe auch A. 223, 244). — II, 113.
- $C_{12}H_{10}O_5Se$ 1) Di[m-Dioxyphenyl]selenoxyd. Sm. 170—173° (B. 30, 2825).
- $C_{12}H_{10}O_6N_4$ C 47,0 — H 3,3 — O 31,4 — N 18,3 — M. G. 306.
1) Benzol + 2,4,6-Trinitro-1-Amidobenzol (B. 11, 844). — II, 319.
2) Anilin + 1,3,5-Trinitrobenzol. Sm. 123—124° (Bl. 30, 5; A. 215, 356). — II, 313.
3) Dimethylester d. 1-[4-Nitrophenyl]-1,2,3-Triazol-4,5-Dicarbonsäure. Sm. 117—118° (Am. 20, 386). — IV, 1116.
- $C_{12}H_{10}O_6Cl_2$ 1) Diäthylester d. 3,6-Dichlor-1,4-Diketo-1,4-Dihydrobenzol-2,5-Dicarbonsäure. Sm. 195° (B. 20, 1310). — II, 2009.

- $C_{11}H_{10}O_6Br$, 1) Diäthylester d. 3,6-Dibrom-1,4-Diketo-1,4-Dihydrobenzol-2,5-Dicarbonensäure. Sm. 221° (B. 21, 1761; Am. 13, 41). — II, 2009.
- $C_{11}H_{10}O_6S_2$, 1) Biphenyl-2,2'-Disulfonsäure. Ba + $6\frac{1}{2}H_2O$, Pb + $5H_2O$ (A. 261, 327). — II, 225.
2) Biphenyl-4,4'-Disulfonsäure. Sm. $72,5^\circ$. K₂ + $2\frac{1}{2}H_2O$, Ca, Ba (A. 132, 209; Z. 1871, 260; B. 13, 390). — II, 226.
3) Triacetat d. 2,5,6-Trioxyphenylen-1,3-Disulfid (Bl. [3] 15, 416).
- $C_{12}H_{10}O_6S_3$, 1) Diphenylsulfid-*p*-Disulfonsäure. Ba + $1(3)H_2O$ (B. 26, 994). — II, 839.
2) Diphenylsulfid-*p*-Disulfonsäure (B. 7, 1165). — II, 812.
- $C_{12}H_{10}O_6S_4$, 1) Diphenyldisulfid-4,4'-Disulfonsäure. K₂ (C. 1895 [2] 495).
- $C_{12}H_{10}O_7N_2$, C 49,0 — H 3,4 — O 38,1 — N 9,5 — M. G. 294.
1) α -Oxy- γ -Phenylhydrazonpropen- $\alpha\beta\gamma$ -Tricarbonensäure. Sm. 130° u. Zers. K, Ag₂ (B. 27, 581, 1270). — IV, 731.
- $C_{12}H_{10}O_8S_2$, 1) 4-Oxybiphenyl-*p*-Disulfonsäure. K₂ + $1\frac{1}{2}H_2O$ (J. r. 5, 54, 58). — II, 896.
2) Diphenylätherdisulfonsäure. Fl. Na₂ + xH_2O , Ba, Ag₂ (A. 125, 329; 159, 204). — II, 832.
3) Anhydrid [p] d. 4-Oxybenzol-1-Sulfonsäure (A. 178, 171; Z. 1869, 299). — II, 831.
- $C_{12}H_{10}O_8S_3$, 1) 2,2'-Dioxybiphenyl-4,4'-Disulfonsäure. Ba + $2H_2O$, Pb + $4H_2O$ (A. 261, 334). — II, 989.
2) 3,3'-Dioxybiphenyl-*p*-Disulfonsäure. Na + $2H_2O$, K₂ + H_2O , Ba + xH_2O , Pb (B. 11, 1335). — II, 987.
3) 4,4'-Dioxybiphenyl-*p*-Disulfonsäure. K₂ (B. 9, 130). — II, 989.
- $C_{12}H_{10}O_8S_4$, 1) Diphenylsulfondisulfonsäure. Na₂ + $3H_2O$, K₂ + H_2O , Ca + $6\frac{1}{2}H_2O$, Ba + $5H_2O$, Pb + $3H_2O$, Cu + $3\frac{1}{2}H_2O$ (B. 12, 214; 19, 3124). — II, 815.
- $C_{12}H_{10}O_{10}S_2$, 1) 1,3,1'3'-Tetraoxybiphenyl-*p*-Disulfonsäure. Pb + $4H_2O$ (M. 14, 6). — II, 1037.
- $C_{12}H_{10}O_{11}S_2$, 1) Anhydrid d. 1,2,3-Trioxybenzol-*p*-Sulfonsäure (A. 178, 182). — II, 1016.
2) Anhydrid d. 1,3,5-Trioxybenzolsulfonsäure (A. 178, 192). — II, 1022.
- $C_{12}H_{10}O_{11}S_3$, 1) 4,4'-Dioxybiphenyl-*p*-Trisulfonsäure. Ba₃, Pb₃ + $2H_2O$, (Pb₃ + $2PbO$) (J. 1866, 462). — II, 990.
- $C_{12}H_{10}O_{14}S_4$, 1) 4,4'-Dioxybiphenyltetrasulfonsäure. Ba₄ + $5H_2O$, Ba₄, Pb₄, (Pb₄ + $2PbO$), Ag₄ + H_2O (J. 1866, 462). — II, 990.
- $C_{12}H_{10}NCl$, 1) Chlor-2-Amidobiphenyl + H_2O . Sm. 48° . HCl, (2HCl, PtCl₂), HNO₃, H₂SO₄ (A. 209, 349; B. 8, 872). — II, 633.
2) 4-Chlordiphenylamin. Sm. 74° (A. 243, 287). — II, 338.
3) Verbindung (aus Chinolin u. Glycerindichlorhydrin). 2 + PtCl₄, + AuCl₃ (J. 1882, 1078). — IV, 252.
- $C_{12}H_{10}N_2Cl_2$, 1) 2,2'-Dichlor-4,4'-Diamidobiphenyl. Sm. 163° . 2HCl, (2HCl, PtCl₂) (B. 8, 1625; 17, 465). — IV, 961.
2) 3,3'-Dichlor-4,4'-Diamidobiphenyl. Sm. 60° . H₂SO₄ (B. 17, 464). — IV, 961.
3) 3,3'-Dichlor-*s*-Diphenylhydrazin. Sm. 94° (B. 8, 1624). — IV, 1497.
4) 4,4'-Dichlor-*s*-Diphenylhydrazin. Sm. 122° (B. 5, 918; 13, 1181). — IV, 1497.
- $C_{12}H_{10}N_2Br$, 1) 2',3-Dibrom-4-Amidodiphenylamin. Sm. 70° . H₂SO₄ (B. 31, 1520).
2) 2,2'-Dibrom-4,4'-Diamidobiphenyl. Sm. 152° . 2HCl, (2HCl, PtCl₂) (B. 9, 1407). — IV, 961.
3) 3,3'-Dibrom-4,4'-Diamidobiphenyl. Sm. 108° (B. 17, 465). — IV, 961.
4) isom. Dibrom-4,4'-Diamidobiphenyl. Sm. 89° . 2HCl (A. 132, 207). — IV, 962.
5) *p*-Dibrom-4,4'-Diamidobiphenyl. Sm. $103-104^\circ$ (C. 1898 [2] 522).
6) Benzyliden-3,4-Dibromphenylhydrazin. Sm. 123° (A. 272, 218). — IV, 748.
7) 2,2'-Dibrom-*s*-Diphenylhydrazin. Sm. 82° (B. 20, 364). — IV, 1497.
8) 3,3'-Dibrom-*s*-Diphenylhydrazin. Sm. $107-109^\circ$ (B. 9, 1406). — IV, 1497.
9) 4,4'-Dibrom-*s*-Diphenylhydrazin. Sm. 130° (A. 165, 192; B. 13, 1182). — IV, 1497.
- $C_{12}H_{10}N_2Br_6$, 1) Azobenzolhexabromid (A. 165, 215). — IV, 1348.
- $C_{12}H_{10}N_2J_2$, 1) 3,3'-Dijod-*s*-Diphenylhydrazin. Sm. $89-90^\circ$ (B. 9, 1410). — IV, 1497.

- $C_{12}H_{10}N_2J_2$ 2) 4,4'-Dijod-s-Diphenylhydrazin (B. 9, 1408). — IV, 1497.
 $C_{12}H_{10}N_2S$ 1) 4-Amidothioldiphenylamin. HCl (A. 230, 101, 106). — II, 807.
 2) Phenyläther d. Thiodiazobenzol. Fl. (B. 28, 3241).
 $C_{12}H_{10}N_2S_2$ 1) Verbindung (aus 4-Diamidophenylsulfid) (B. 11, 1169). — II, 817.
 $C_{12}H_{10}N_2Hg_2$ 1) 4-Quecksilberdiphenylendiamin. Salze siehe (G. 22 [1] 378; 24 [2] 458; 28 [2] 445). — IV, 1705.
 $C_{12}H_{10}N_2Cl$ 1) 4-Chlordiazoamidobenzol. Sm. 87—88° (B. 29, 467; 30, 1407). — IV, 1561.
 2) isom. 4-Chlordiazoamidobenzol. Sm. 65° (B. 30, 1407). — IV, 1561.
 3) 4'-Amido-4'-Diazobiphenylchlorid (B. 27, 2628). — IV, 1543.
 $C_{12}H_{10}N_2Br$ 1) 4-Bromdiazoamidobenzol. Sm. 104—105° (2HCl, PtCl₄) (B. 7, 1618; 20, 3012; 28, 839 Anm.; 30, 1395; A. 137, 60). — IV, 1562.
 2) isom. 4-Bromdiazoamidobenzol. Sm. 65—80° (B. 30, 1396). — IV, 1562.
 $C_{12}H_{10}N_2J$ 1) 4-Joddiazoamidobenzol. Sm. 118—119° (B. 30, 1409). — IV, 1563.
 2) isom. 4-Joddiazoamidobenzol. Sm. 79—85° (B. 30, 1409).
 $C_{12}H_{10}N_{10}Cl_2$ 1) Hydrazomethylchlorpurin + H₂O (B. 31, 122). — IV, 1330.
 $C_{12}H_{10}ClJ$ 1) Diphenyljodoniumchlorid. Sm. 213—215° (225°). Zers. bei 230°. + HgCl₂, 2 + HgCl₂, 2 + PtCl₄, + AuCl₃, + C₆H₅HgCl (B. 27, 508, 1594; 29, 1569; 30, 56; 31, 915, 1136).
 $C_{12}H_{10}ClP$ 1) Diphenylchlorphosphin. Sd. 320° (B. 10, 627; 15, 801; 18, 2109; 21, 1505; A. 207, 208). — IV, 1656.
 $C_{12}H_{10}ClAs$ 1) Diphenylchlorarsin. Sd. 333° (i. CO₂) (A. 201, 205; 207, 195). — IV, 1687.
 $C_{12}H_{10}ClB$ 1) Diphenylborechlorid. Sd. 270—271° (B. 27, 245). — IV, 1700.
 $C_{12}H_{10}Cl_2Pb$ 1) Bleidiphenyldichlorid (B. 20, 3332). — IV, 1715.
 $C_{12}H_{10}Cl_2Se$ 1) Diphenylselenidchlorid. Sm. 179—180° (181—182°) (B. 26, 2820; 27, 1771; 29, 426). — II, 819.
 $C_{12}H_{10}Cl_2Si$ 1) Siliciumdiphenyldichlorid. Sd. 230—237°₁₀₀ (B. 19, 1019). — IV, 1701.
 $C_{12}H_{10}Cl_2Sn$ 1) Zinndiphenylchlorid. Sm. 42°; Sd. 333—337° (A. 194, 159). — IV, 1714.
 $C_{12}H_{10}Cl_3P$ 1) Diphenylphosphortrichlorid (B. 10, 627). — IV, 1657.
 $C_{12}H_{10}Cl_3As$ 1) Diphenylarsentrichlorid. Sm. 174° (B. 15, 1955; A. 201, 222). — IV, 1687.
 $C_{12}H_{10}Cl_3Sb$ 1) Antimondiphenyltrichlorid + H₂O. Sm. 180° (wasserfrei) (A. 233, 58). — IV, 1694.
 $C_{12}H_{10}BrJ$ 1) Diphenyljodoniumbromid. Zers. bei 230° (B. 27, 508).
 $C_{12}H_{10}BrAs$ 1) Diphenylbromarsin. Sd. 356° (i. CO₂) (A. 201, 230). — IV, 1687.
 $C_{12}H_{10}BrBi$ 1) Wismuthdiphenylbromid. Sd. 157—158° (A. 251, 327). — IV, 1697.
 $C_{12}H_{10}Br_2S_2$ 1) Diphenyldisulfidbromid (Z. 1867, 436). — II, 815.
 $C_{12}H_{10}Br_2Pb$ 1) Bleidiphenyldibromid (B. 20, 721). — IV, 1715.
 $C_{12}H_{10}Br_2Se$ 1) Diphenylselenidbromid. Sm. bei 140° u. Zers. (145°) (B. 26, 2818; 27, 1771). — II, 819.
 $C_{12}H_{10}Br_2Sn$ 1) Zinndiphenyldibromid. Sm. 38°; Sd. 230°₁₁ (A. 194, 166; B. 22, 2918). — IV, 1714.
 $C_{12}H_{10}Br_2Te$ 1) Diphenyltelluridbromid. Sm. 203,5° (B. 27, 1770). — II, 819.
 $C_{12}H_{10}JBi$ 1) Wismuthdiphenyljodid. Sm. 133° (B. 30, 2843). — IV, 1697.
 $C_{12}H_{10}J_2As_2$ 1) Jodarsenobenzol (B. 14, 913; 15, 1953). — IV, 1684.
 $C_{12}H_{10}J_2Pb$ 1) Bleidiphenyldijodid. Sd. 101—103° (B. 20, 721). — IV, 1715.
 $C_{12}H_{10}J_2Sn$ 1) Zinndiphenyldijodid (A. 194, 167). — IV, 1714.
 $C_{12}H_{10}SPb$ 1) Bleidiphenylsulfid. Zers. bei 80—90° (B. 20, 3335). — IV, 1715.
 $C_{12}H_{10}S_2P_2$ 1) Isophosphophenylsulfid. Fl. (B. 10, 815). — IV, 1648.
 $C_{12}H_{10}S_3As_3$ 1) Phenylarsenssesquisulfid. Sm. 130° (B. 15, 1957). — IV, 1685.
 $C_{12}H_{11}ON$ C 77,8 — H 5,9 — O 8,6 — N 7,6 — M. G. 185.
 1) 4-Oxy-1-[4-Amidophenyl]benzol (4-Amido-4'-Oxybiphenyl). Sm. 273° (B. 27, 2629).
 2) 2-Phenylamido-1-Oxybenzol (2-Oxydiphenylamin). Sm. 68°. HCl (J. pr. [2] 50, 89).
 3) 3-Phenylamido-1-Oxybenzol. Sm. 81,5—82°; Sd. 340°. HCl, H₂SO₄, Ba + 5H₂O (B. 14, 2345; 16, 2787). — II, 714.
 4) 4-Phenylamido-1-Oxybenzol. Sm. 70°; Sd. 330°. HCl, HBr (B. 16, 2799; 17, 2431; 22, 2909). — II, 717.
 5) Phenyläther d. 2-Amido-1-Oxybenzol (2-Amidodiphenyläther). Sm. 42,5—43°; Sd. 307—308₁₂₈. HCl (B. 29, 1881).

- C₁₂H₁₁ON** 6) Phenyläther d. 4-Amido-1-Oxybenzol. Sm. 84°. HCl, H₂SO₄ (B. 29, 1447).
 7) Furalbensylamin. Sd. 155°₁₁ (A. 271, 13). — III, 723.
 8) o-Furaltoluidin. Sm. 54–55°; Sd. 171–172°₁₉ (A. 271, 13). — III, 723.
 9) p-Furaltoluidin. Sm. 43–44° (A. 271, 13). — III, 723.
 10) 2-Nitroso-1,4-Dimethylnaphtalin. Sm. 99–100° (G. 26 [1] 29).
 11) 1-[α-Oximidoäthyl]naphtalin. Sm. 145° (135–136°) (B. 19, 3180; Bl. [3] 15, 60). — III, 174.
 12) 2-[α-Oximidoäthyl]naphtalin. Sm. 142–143° (Bl. [3] 15, 61). — III, 174.
 13) 2-[β-Ketopropyl]chinolin (2-Acetylchinolin). Sm. 76° (B. 16, 164). — III, 279.
 14) 3-Acetyl-2-Methylchinolin. Sm. 74° (57,5° ex Alkohol); Sd. 306° (2HCl, PtCl₄) (B. 25, 1756). — IV, 373.
 15) 6-Acetyl-2-Methylchinolin. Sm. 92°; Sd. 318–320°. (2HCl, PtCl₄ + 3H₂O), Pikrat (B. 25, 2548). — IV, 374.
 16) Aldehyd d. 6,8-Dimethylchinolin-2-Carbonsäure. Sm. 107° (B. 23, 1471). — IV, 373.
 17) Amid d. 1-Naphtylessigsäure. Sm. 180–181° (154°) (B. 16, 641; 20, 2468; 21, 534). — II, 1460.
 18) 1-Naphtylamid d. Essigsäure. Sm. 159°. + CH₃ONa, + C₂H₅ONa, + NaOH, Hg (A. 183, 229; 279, 68; Bl. 20, 20; B. 6, 342; 14, 1793; 15, 615; 16, 1200; Soc. 69, 93; 73, 161; G. 28 [2] 127). — II, 605.
 19) 2-Naphtylamid d. Essigsäure. Sm. 132°. + C₂H₅ONa, + NaOH (B. 14, 2343; 15, 611; 16, 9; A. 211, 42; 279, 68; Soc. 69, 93; 73, 162). — II, 615.
 20) Methyl-1-Naphtylamid d. Ameisensäure. Sd. 306–308° (Am. 13, 515). — II, 605.
 21) Verbindung (aus Methyl-1-Oxy-2-Naphtylketon). Sm. 203° u. Zers. (B. 21, 323). — III, 175.
- C₁₂H₁₁ON₃** C 67,6 — H 5,2 — O 7,5 — N 19,7 — M. G. 213.
 1) 4-[2,4-Diamidophenyl]imido-1-Keto-1,4-Dihydrobenzol + 2H₂O (Amidoindophenol). Sm. 133° (wasserfrei) (B. 28, 2974). — IV, 1124.
 2) Bensylidenfurylhydrazidin (2-Imidobenzylidenhydrazidomethylfuran). Sm. 142° (B. 28, 467; A. 298, 28). — III, 699.
 3) 4-Amidoazoxybenzol. Sm. 138,5°. HCl (A. 122, 174; Z. 1869, 417). — IV, 1337.
 4) 3'-Amido-4-Oxyazobenzol? Sm. 168° (B. 15, 3021). — IV, 1411.
 5) 4'-Amido-4-Oxyazobenzol. Sm. 181°. (2HCl, PtCl₄) (Soc. 47, 659). — IV, 1410.
 6) 1-Phenyloxyamidodiazobenzol (Diazooxyamidobenzol). Sm. 126–127° (B. 29, 103). — IV, 1583.
 7) 4-Phenylamidodiazobenzol. Sulfat (A. 243, 281). — IV, 1527.
 8) 4-Acetylamido-2-Phenyl-1,3-Diazin. Sm. 174–175°. (2HCl, PtCl₄) (B. 30, 2030). — IV, 1167.
- C₁₂H₁₁ON₅** C 59,9 — H 4,5 — O 6,6 — N 29,0 — M. G. 241.
 1) 5-Methyl-3-[5-Methyl-1-Phenyl-1,2,4-Triazolyl-3-]-1,2,4-Oxdiazol. Sm. 105,5° (B. 22, 1750). — IV, 1115.
- C₁₂H₁₁OCl₃** 1) δδδ-Trichlor-α-Keto-α-Phenyl-β-Hexen (Trichlorbutylidenacetophenon). Sm. 45–47° (B. 26, 559). — III, 166.
- C₁₂H₁₁OBr** 1) Aethyläther d. 1-Brom-2-Oxynaphtalin. Sm. 66° (C. 1895 [1] 1064).
 2) β-Bromäthyläther d. 2-Oxynaphtalin. Sm. 96° (B. 13, 1954). — II, 877.
- C₁₂H₁₁OJ** 1) Diphenyljodoniumhydrat. Salze, siehe diese. HNO₃, H₂SO₄, Chromat, Acetat (B. 27, 508, 1593, 1597).
- C₁₂H₁₁OB** 1) Diphenylborsäure. Sm. 264–267° (B. 27, 246). — IV, 1700.
- C₁₂H₁₁O₃N** C 71,6 — H 5,5 — O 15,9 — N 7,0 — M. G. 201.
 1) Di[3-Oxyphenyl]amin (Bl. [3] 3, 811). — II, 715.
 2) Di[4-Oxyphenyl]amin. Sm. 174,5° (B. 32, 689).
 3) Aethyläther d. 2-Nitroso-1-Oxynaphtalin. Sm. 101° (B. 8, 630; 19, 342). — II, 862.
 4) Aethyläther d. 1-Nitroso-2-Oxynaphtalin. Sm. 50–60° (B. 19, 341). — II, 881.

- $C_{12}H_{11}O_2N$ 5) 1-Oxy-2-[α -Oximidoäthyl]naphtalin. Sm. 168–169° (B. 21, 323; 28, 1947). — III, 174.
- 6) α -[1-Naphtyl]äther d. β -Oximido- α -Oxyäthan. Sm. 108° (B. 30, 1703).
- 7) α -[2-Naphtyl]äther d. β -Oximido- α -Oxyäthan. Sm. 123,5° (B. 30, 1702).
- 8) 3-Acetylamido-1-Oxynaphtalin. Sm. 179° (B. 28, 1953).
- 9) 4-Acetylamido-1-Oxynaphtalin. Sm. 187° (B. 29, 2947).
- 10) 7-Acetylamido-1-Oxynaphtalin. Sm. 210–211° (B. 29, 41).
- 11) 1-Acetylamido-2-Oxynaphtalin. Sm. 235° u. Zers. (B. 16, 1938; 25, 3430). — II, 885.
- 12) 8-Acetylamido-2-Oxynaphtalin. Sm. 165° (B. 29, 41).
- 13) N-2-Methylphenylfurfuraldoxim. Sm. 58° (B. 30, 2018).
- 14) N-Benzyläther d. syn-Furfuraldoxim + H_2O . Sm. 63° (87–88° wasserfrei) (B. 23, 2337; 25, 2577). — III, 725.
- 15) Methyl-4-Amido-1-Oxy-2-Naphtylketon. (2HCl, PtCl₄) (B. 28, 1949). — III, 175.
- 16) 2-Aethylamido-1,4-Naphtochinon. Sm. 139–140° (Soc. 37, 639). — III, 374.
- 17) 2-Dimethylamido-1,4-Naphtochinon. Sm. 118° (Soc. 37, 639). — III, 374.
- 18) 2,6-Dioxy-3-Benzylpyridin. Sm. 184° (Soc. 63, 260). — IV, 377.
- 19) 1,3-Diacetylindol. Sm. 150–151° (B. 22, 664, 1978). — IV, 242.
- 20) 8-Oxy-10-Keto-3,4-Dihydrojulol (γ -Oxy- α -Ketojulolin). Sm. oberh. 300°. HCl, Ba, Cu (B. 25, 1194). — IV, 195.
- 21) $\alpha\gamma$ -Diketo- α -Methylilolidin. Sm. 298°. Cu (B. 26, 1300). — IV, 189.
- 22) 1-Naphtylamidoessigsäure. Sm. 198–199° (192°). Ca + 3 H_2O , Ba + 2 H_2O , Cu, Ag + H_2O (B. 22, 1808, 2372; M. 11, 379; G. 19, 361; Ph. Ch. 10, 642). — II, 613.
- 23) 2-Naphtylamidoessigsäure. Sm. 134–135° (B. 22, 2373; Ph. Ch. 10, 643). — II, 621.
- 24) 2-Methyl-5-Phenylpyrrol-3-Carbonsäure. Sm. 190° u. Zers. (B. 18, 2593). — IV, 356.
- 25) 1-Allylindol-2-Carbonsäure. Sm. 182°. Ba + 2 H_2O (B. 26, 2176). — IV, 235.
- 26) Aethylidenchinolin-4-Carbonsäure (Aethylidencinchoninsäure). Ag (A. 270, 355). — IV, 347.
- 27) Chinolin-2-Aethyl- β -Carbonsäure (β -[2]Chinolypropionsäure). Sm. 122 bis 123°. Ca, (2HCl, PtCl₄) (A. 287, 29). — IV, 355.
- 28) 2-Aethylchinolin-4-Carbonsäure + 2 H_2O (α -Aethylcinchoninsäure). Sm. 173°. HCl, (2HCl, PtCl₄ + 2 H_2O), Ag (A. 242, 270). — IV, 355.
- 29) 3-Aethylchinolin-2-Carbonsäure + $\frac{1}{2}H_2O$. Sm. 148°. Cu, Pikrat (B. 18, 3368). — IV, 355.
- 30) 2,3-Dimethylchinolin-6-Carbonsäure. Sm. 270° u. Zers. Cu + H_2O (B. 23, 2269). — IV, 356.
- 31) 2,6-Dimethylchinolin-4-Carbonsäure. Sm. 261° u. Zers. (265°). Ag, (2HCl, PtCl₄ + 2 H_2O) (J. pr. [2] 38, 584; [2] 56, 318). — IV, 356.
- 32) 2,8-Dimethylchinolin-4-Carbonsäure. Sm. 252° (A. ch. [7] 9, 478). — IV, 356.
- 33) 2,8-Dimethylchinolin-6-Carbonsäure. subl. Ba, Ag + H_2O , (2HCl, PtCl₄ + 4 H_2O), Pikrat + H_2O (B. 20, 38). — IV, 356.
- 34) 6,8-Dimethylchinolin-2-Carbonsäure (o-p-Dimethylchinaldinsäure) (B. 28, 1513). — IV, 356.
- 35) Aethylbetaïn d. Chinolin-4-Carbonsäure + 2 H_2O . Sm. 90–92° (u. 199° u. Zers.) (A. 270, 353). — IV, 347.
- 36) 1,3-Anhydrid d. 1,2-Dimethylchinolinammonium-3-Carbonsäure + 2 H_2O . Sm. 144° u. Zers. (A. 282, 127). — IV, 352.
- 37) Methylester d. Chinolin-2-Methylcarbonsäure. Sm. 72° (A. 287, 41). — IV, 355.
- 38) Methylester d. 2-Methylchinolin-3-Carbonsäure. Sm. 72° (A. 282, 115). — IV, 352.
- 39) Methylester d. α -Cyan- β -[2-Methylphenyl]akrylsäure. Sm. 89–90° (A. ch. [6] 29, 486). — II, 1427.
- 40) Methylester d. α -Cyan- β -[3-Methylphenyl]akrylsäure. Sm. 95° (A. ch. [6] 29, 477). — II, 1427.

- C₁₁H₁₁O₂N** 41) Methylester d. α -Cyan- β -[4-Methylphenyl]akrylsäure. Sm. 110—112° (A. ch. [6] 29, 482). — II, 1428.
 42) Aethylester d. α -Cyan- β -Phenylakrylsäure. Sm. 50°; Sd. bei 360° u. Zers. (J. pr. [2] 45, 501). — II, 1417.
 43) Aethylester d. Chinolin-4-Carbonsäure. Sm. 13°; Sd. 173°₁₅. + HgCl₂, (2 HCl, PtCl₄) (M. 15, 457; R. 8, 218). — IV, 346.
 44) Phenylimid d. Dimethylfumarsäure. Sm. 96° (A. 234, 49). — II, 419.
 45) Phenylimid d. cis-R-Tetramethylen-1,2-Dicarbonsäure. Sm. 127° (B. 26, 2244; Soc. 65, 584). — II, 419.
 46) 4-Methylphenylimid d. Citrakonsäure. Sm. 114,5° (Am. 9, 200). — II, 503.
 47) Amid d. α -Oxy- α -[2-Naphtyl]essigsäure. Sm. 227—228° (B. 24, 548). — II, 1692.
 48) Amid d. Oxyessig-1-Naphtyläthersäure. Sm. 155° (G. 16, 438). — II, 858.
 49) Amid d. Oxyessig-2-Naphtyläthersäure. Sm. 147° (G. 16, 441). — II, 878.
 50) Amid d. 4-Oxynaphtalinmethyläther-1-Carbonsäure. Sm. 234° (A. 244, 72). — II, 1689.
 51) Amid d. 2-Oxynaphtalinmethyläther-1-Carbonsäure. Sm. 186° (A. 244, 75). — II, 1690.
 52) 1-Naphtylamid d. Oxyessigsäure. Sm. 128° (126—127°) (A. 279, 67; C. 1898 [1] 109).
 53) 2-Naphtylamid d. Oxyessigsäure. Sm. 138° (A. 279, 68; C. 1898 [1] 996).
- C₁₁H₁₁O₂N₂** C 62,9 — H 4,8 — O 14,0 — N 18,3 — M. G. 229.
 1) 4-Nitro-2-Amidodiphenylamin. Sm. 125° (B. 28, 2971; C. 1898 [2] 343). — IV, 556.
 2) 4-Nitro-2'-Amidodiphenylamin. Sm. 144° (B. 28, 2977). — IV, 556.
 3) 2-Nitro-4,4'-Diamidobiphenyl. Sm. 143°. H₂SO₄ + $\frac{1}{2}$ H₂O (B. 23, 796). — IV, 962.
 4) 1-Nitroso-2-Aethylnitrosamidonaphtalin. Zers. bei 105° (B. 21, 686). — II, 602.
 5) α -Nitro- α -[1-Naphtyl]hydrazonäthan. Sm. 105—106° (G. 23 [1] 262). — IV, 1391.
 6) 4'-Amido-2,4-Dioxyazobenzol. (2 HCl, PtCl₄), H₂SO₄ (Soc. 47, 660). — IV, 1443.
 7) α -Nitro- α -[2-Naphtyl]hydrazonäthan. Sm. 145° u. Zers. (G. 23 [1] 257). — IV, 1391.
 8) 4-Oximidoacetyl-5-Methyl-1-Phenylpyrazol. Sm. 192° u. Zers. (A. 295, 323). — IV, 550.
 9) 2-Keto-3-Phenylhydrazon-6-Oxy-5-Methyl-2,3-Dihydropyridin. Zers. bei 240° (B. 27, 1272). — IV, 799.
 10) 2-Acetylamido-4-Oxy-6-Phenyl-1,3-Diazin (Acetylimidophenyluracil). Sm. 248° (J. pr. [2] 47, 217). — II, 1644.
 11) Acetat d. 6-Amidooximidomethylchinolin. Sm. 115° (B. 22, 2765). — IV, 350.
 12) α -[5-Chinolyl]hydrazonpropionsäure. Sm. 185° (Soc. 61, 786). — IV, 1160.
 13) α -[8-Chinolyl]hydrazonpropionsäure. Sm. 174° (Soc. 59, 758). — IV, 1161.
 14) Amid d. 6-Oxy-4-Phenyl-1,3-Diazin-2-Methylcarbonsäure. Sm. 243° (B. 28, 480). — IV, 988.
- C₁₁H₁₁O₂N₂** C 56,0 — H 4,3 — O 12,4 — N 27,2 — M. G. 257.
 1) α -Phenyl- β -[4-Nitrophenylazo]hydrazin. Sm. 104,5° (B. 28, 840). — IV, 1563.
 2) 4,4'-Diazoamidodiasodioxybenzol. Sm. 224—226° u. Zers. (B. 27, 1566). — IV, 1565.
- C₁₁H₁₁O₂Cl** 1) Methylester d. 1-Chlor-3-Methylinden-2-Carbonsäure. Sm. 84° (A. 247, 163). — II, 1443.
- C₁₁H₁₁O₂Br** 1) Methylester d. 1-Brom-1-Methylinden-2-Carbonsäure. Sm. 98—100° (A. 247, 163). — II, 1443.
- C₁₁H₁₁O₂P** 1) Diphenylphosphinsäure. Sm. 190°. Na, Ca + 3 H₂O, Ag (B. 8, 1304; 10, 627; 11, 885; 12, 564; 15, 801). — IV, 1657.

- $C_{12}H_{11}O_2P_5$ 1) Verbindung (aus Phosphenylchlorid) (B. 11, 887). — IV, 1646.
- $C_{12}H_{11}O_2As$ 1) Diphenylarsinsäure. Sm. 174°. Na, Ba, Pb, Cu, CuOH, Ag (B. 9, 1569; 12, 564; A. 201, 231). — IV, 1687.
- $C_{12}H_{11}O_2Sb$ 1) Diphenylantimonigesäure (Diphenylstibinsäure) (A. 233, 59). — IV, 1694.
- $C_{12}H_{11}O_2N$ C 66,3 — H 5,1 — O 22,1 — N 6,5 — M. G. 217.
- 1) Aethyläther d. 2-Nitro-1-Oxynaphtalin. Sm. 84° (J. pr. [2] 44, 240). — II, 862.
 - 2) Aethyläther d. 4-Nitro-1-Oxynaphtalin. Sm. 116–117° (J. pr. [2] 44, 240). — II, 863.
 - 3) Aethyläther d. 1-Nitro-2-Oxynaphtalin. Sm. 103–104° (94°) (B. 17, 394; C. 1896 [2] 1057). — II, 882.
 - 4) Aethyläther d. 5-Nitro-2-Oxynaphtalin. Sm. 115° (B. 25, 2079). — II, 883.
 - 5) Aethyläther d. 8-Nitro-2-Oxynaphtalin. Sm. 72–73° (J. pr. [2] 43, 25). — II, 883.
 - 6) Aethyläther d. 2-Nitro-2-Oxynaphtalin. Sm. 114° (J. pr. [2] 43, 23). — II, 882.
 - 7) ϵ -Keto- α -[2-Nitrophenyl]- $\alpha\gamma$ -Hexadien. Sm. 73,5° (B. 18, 2327). — III, 172.
 - 8) ϵ -Keto- α -[4-Nitrophenyl]- $\alpha\gamma$ -Hexadien. Sm. 132° (A. 253, 353). — III, 172.
 - 9) 3-Acetylamido-1,2-Dioxynaphtalin. Zers. bei 170° (B. 31, 2405).
 - 10) 4-Acetylamido-1,2-Dioxynaphtalin. Sm. 187° u. Zers. (B. 27, 3341; 29, 2951).
 - 11) 1-Propionyl-2,3-Diketo-5-Methyl-2,3-Dihydroindol (Propionyl-p-Methylpseudoisatin). Sm. 143° (B. 28, 731). — II, 1651.
 - 12) Dimethylamidojuglon. Sm. 149–150° (B. 18, 464). — III, 387.
 - 13) γ -Cyan- α -Keto- α -Phenylbutan- γ -Carbonsäure. Sm. 172° (Bl. [3] 15, 775).
 - 14) 3-Keto-2-Aethyl-2,3-Dihydroisindol-1-Methenylcarbonsäure (Phtaläthylimidyleessigsäure). Sm. 180°. Ag (B. 19, 2370). — II, 1873.
 - 15) α -Oxy- β -[2-Chinolyl]propionsäure + H_2O . Sm. 123–125° u. Zers. Na + 3 H_2O , Ag, (2HCl, PtCl₄ + 5 H_2O) (B. 18, 3465; 19, 906). — IV, 366.
 - 16) β -Oxy- β -[2-Chinolyl]propionsäure. Sm. 176°. Na, Ag, HCl, (2HCl, PtCl₄) (A. 246, 176). — IV, 366.
 - 17) 4-Oxy-2,7-Dimethylchinolin-3-Carbonsäure. Sm. 249° (B. 27, 1401). — IV, 367.
 - 18) 2-Oxychinolinäthyläther-3-Carbonsäure. Sm. 133° (B. 17, 460). — IV, 360.
 - 19) 2-Oxychinolinäthyläther-4-Carbonsäure. Sm. 145–146°. Ag, (2HCl, PtCl₄) (B. 16, 2153). — IV, 360.
 - 20) 1-Keto-2-Aethyl-1,2-Dihydroisochinolin-3-Carbonsäure. Sm. 202°. Ag (B. 27, 203). — IV, 365.
 - 21) Methylbetaïn d. Chininsäure. Sm. 194° (A. 276, 269). — IV, 362.
 - 22) Methylester d. 4-Amido-3-Oxynaphtalin-2-Carbonsäure. Sm. 106° (B. 27, 2623). — II, 1692.
 - 23) Methylester d. 6-Methoxylchinolin-4-Carbonsäure. Sm. 85° (A. 282, 106). — IV, 362.
 - 24) Methylester d. 3-Keto-1-Methylen-1,3-Dihydroisindol-2-Methylcarbonsäure. Sm. 105–106° (B. 29, 2522).
 - 25) Methylester d. γ -Cyan- α -Keto- α -Phenylpropan- γ -Carbonsäure. Sm. 54° (B. 27 [2] 666).
 - 26) Aethylester d. α -Cyan- β -[4-Oxyphenyl]akrylsäure. Sm. 162–163° (J. pr. [2] 54, 534).
 - 27) Aethylester d. β -Cyan- β -Phenyl- α -Ketoäthan- α -Carbonsäure. Sm. 130° (A. 271, 173). — II, 1642.
 - 28) Aethylester d. Benzoylcyanessigsäure. Sm. 40,5–41°. + 2 Molec. Phenylhydrazin (Bl. 45, 271; [3] 15, 131; J. 1887, 164). — II, 1646.
 - 29) Aethylester d. 5-Phenylisoxazol-3-Carbonsäure. Sm. 52° (B. 23, 2159). — II, 1862.
 - 30) Aethylester d. 2-Oxychinolin-4-Carbonsäure. Sm. 206–207° (B. 16, 2155). — IV, 360.

- C₁₁H₁₁O₃N** 31) Aethylcarbonat d. 8-Oxychinolin. Sm. 105°. (2HCl, PtCl₄) (M. 8, 439). — IV, 274.
 32) Imid d. Phenyloxymaleinäthyläthersäure. Sm. 128—130° (A. 282, 75). — II, 1642.
 33) 2-Acetat d. 3-Methyl-1,2-Benzpyron-2-Oxim (A. d. α-Methylcumaroxim). Sm. 56° (B. 24, 3461). — II, 1656.
 34) Verbindung (aus 1,4,5-Trioxybenzol) (B. 17, 2413). — II, 1027.
 35) Verbindung (aus γ₁-Oxy-α₁-Ketojulolin). Sm. 260° (B. 25, 1197). — IV, 195.
- C₁₁H₁₁O₃N₃** C 58,8 — H 4,5 — O 19,6 — N 17,1 — M. G. 245.
 1) 6-Oxy-4,5-Dimethyl-2-[3-Nitrophenyl]-1,3-Diazin. Sm. oberh. 300° (B. 28, 485). — IV, 972.
 2) 6-[4-Methylbenzoyl]-2-Acetyl-1,2,3,5-Oxtriazin. Sm. oberh. 260° (B. 18, 343). — IV, 1119.
 3) β-[Cyanformylphenyl]hydrasonbuttersäure. Sm. 187—188° u. Zers. (B. 25, 194). — IV, 1098.
 4) Aethylester d. Phenylazocyanbrenztraubensäure. Sm. 149° u. Zers. (J. pr. [2] 47, 384). — IV, 1467.
 5) Monamid d. 1-Phenylpyrazol-4,5-Dicarbonsäuremonomethylester. Sm. 186° (A. 295, 318). — IV, 544.
- C₁₁H₁₁O₃N₅** C 52,7 — H 4,0 — O 17,6 — N 25,6 — M. G. 273.
 1) α-Oximido-β-[Imidocyanmethylphenylhydrason]buttersäure. Sm. 217—218° u. Zers. (B. 25, 194). — IV, 1097.
- C₁₁H₁₁O₃Cl₃** 1) ζζζ-Trichlor-ε-Oxy-αγ-Diketo-α-Phenylhexan (Benzoylacetonechloral). Sm. 101—104° (G. 28 [2] 704, 85).
- C₁₁H₁₁O₃Br** 1) Aethyläther d. p-Brom-1-Oxynaphtalin. Sm. 48° (J. 1879, 543). — II, 860.
 2) Acetat d. γ-Keto-α-[5-Brom-2-Oxyphenyl]-α-Buten. Sm. 89—90° (B. 29, 1893).
- C₁₁H₁₁O₃Br₃** 1) 3-Methyläther-4-Acetat d. 2,5,6-Tribrom-3,4-Dioxy-1-Allylbenzol. Sm. 137° (B. 28, 2086).
- C₁₁H₁₁O₃P** 1) Monophenylester d. Phenylphosphinsäure. Sm. 57°. NH₄, Ag (A. 181, 336). — IV, 1651.
- C₁₂H₁₁O₄N** C 61,8 — H 4,7 — O 27,5 — N 6,0 — M. G. 233.
 1) Methyläther d. 7-Acetylamido-6-Oxy-1,2-Benzpyron. Sm. 207—208° (G. 27 [2] 353).
 2) Methylenäther d. 2-Acetyl-7,8-Dioxy-1-Keto-1,2,3,4-Tetrahydroisochinolin. Sm. 128—130° (Soc. 57, 1016). — II, 1765.
 3) γε-Diketo-α-[2-Nitrophenyl]-α-Hexen. Sm. 112—113° (B. 16, 36). — III, 279.
 4) δ-Phenylamido-αγ-Butadien-αγ-Dicarbonsäure(Phenylamidomethylen-glutakonsäure). Sm. 120—121° (A. 273, 179). — II, 441.
 5) 3-[2-Fural]amidobenzol-1-Carbonsäure (A. 201, 364). — III, 724.
 6) Chinolin-2-[αβ-Dioxyäthyl-β-Carbonsäure] + 3 H₂O (αβ-Dioxy-β-[2]Chinolypropionsäure). Zers. bei 100—150°. Ba, (HCl, AuCl₃) (A. 287, 35). — IV, 369.
 7) p-Dioxyisochinolindimethyläther-p-Carbonsäure + 2 H₂O. Sm. 205° u. Zers. HCl + 2 H₂O (M. 6, 964; 8, 520). — IV, 368.
 8) 6-Methyloxyl-2-Keto-1-Methyl-1,2-Dihydrochinolin-4-Carbonsäure. Sm. 290°. Ba (A. 282, 368). — IV, 368.
 9) α,2-Lakton d. α-[3-Oxyphenyl]imidoäthan-αβ-Dicarbonsäure-β-Aethylester. Sm. 112°; Sd. 210°_{ss} (A. 295, 365).
 10) Aethylester d. 1,2-Phtalylamidoessigsäure. Sd. 112—115° (104 bis 105°); Sd. oberh. 300° (B. 21, 2688; A. 242, 5; J. pr. [2] 52, 441). — II, 1810.
 11) Monoäthylester d. Indol-2,p-Dicarbonsäure. Sm. oberh. 250° u. Zers. (A. 236, 168). — IV, 241.
 12) Imid d. β-Phenylpropan-β,2,4-Tricarbonsäure (l. d. Joniregentricarbonsäure). Sm. oberh. 300°. Ag (B. 26, 2686). — II, 2015.
 13) Phenylimid d. Tricarballylsäure. Sm. 137°. Ag (B. 24, 599). — II, 422.
 14) Phenylimid d. Acetäpfelsäure. Sm. 157° (B. 24, 2007). — II, 419.

- C₁₁H₁₁O₄N₃** C 55,2 — H 4,2 — O 24,5 — N 16,1 — M. G. 261.
 1) 2,4-Diacetyl-3,5-Diketo-1-Phenyltetrahydro-1,2,4-Triazol (Diacetyl-phenylurazol). Sm. 162—163° (164°) (A. 295, 171; C. 1898 [1] 39; B. 21, 1224). — IV, 677.
 2) Dimethylester d. 1-Phenyl-1,2,3-Triazol-4,5-Dicarbonsäure. Sm. 127—128° (Am. 20, 381). — IV, 1116.
 3) Dimethylester d. 1-Phenyl-1,2,4-Triazol-3,5-Dicarbonsäure. Sm. 167° (B. 23, 3787). — IV, 1117.
 4) α -Aethylester d. Phenylhydrazoncyanessigsäure-2-Carbonsäure. Sm. 215°. Ag (J. pr. [2] 49, 350). — IV, 1464.
 5) α -Aethylester d. Phenylhydrazoncyanessigsäure-3-Carbonsäure. Sm. 222°. Ag (J. pr. [2] 52, 172). — IV, 1465.
- C₁₁H₁₁O₄N₂** C 49,8 — H 3,8 — O 22,1 — N 24,2 — M. G. 289.
 1) 4-Oximido-3-Methyl-5-[β -Oximido- β -Phenylazoacetyl]-4,5-Dihydroisoxazol. Sm. 208° u. Zers. (B. 30, 1305). — IV, 1477.
- C₁₁H₁₁O₄Br** 1) $\beta\delta$ -Lakton d. γ -Brom- β -Oxy- β -Phenylbutan- $\gamma\delta$ -Dicarbonsäure (γ -Methylphenyl- β -Bromparakonsäure). Sm. 152—153° u. Zers. (A. 282, 297). — II, 1959.
 2) Brommethylphenylatiksäure. Sm. 145° (A. 282, 300).
 3) Brom- β -Hydropiperinsäure. Sm. 170—171°. Ca (A. 216, 177). — II, 1784.
- C₁₁H₁₁O₄P** 1) Diphenylester d. Phosphorsäure. Sm. 61—62° (56°). Ba, Ag, Anilinsalz (Z. 1866, 653; B. 8, 1235, 1522; 30, 2373; A. 143, 193; 224, 158; H. 25, 445). — II, 660.
- C₁₁H₁₁O₅N** C 57,8 — H 4,4 — O 32,1 — N 5,6 — M. G. 249.
 1) 6-[4-Nitrophenyl]dehydrohexon-5-Carbonsäure. Sm. 172°. Ag (Soc. 51, 734). — II, 1683.
 2) Säure (aus d. Verbindung C₁₁H₉O₄N). Ba + 2H₂O (B. 19, 2556). — II, 1184.
 3) 4,5-Lakton d. 2-Keto-4,6,7-Trioxy-1,2,3,4-Tetrahydrochinolin-6,7-Dimethyläther-5-Carbonsäure. Sm. 256° (B. 19, 2296). — II, 2045.
 4) Aethylester d. δ -[4-Nitrobenzoyl]- α -Buten- δ -Carbonsäure. Sm. 45 bis 46° (Soc. 49, 451). — II, 1683.
 5) Aethylester d. 4-Nitro-2-Methylbenzofuran-1-Carbonsäure (Ae. d. 4-Nitromethyleumarilsäure). Sm. 74° (B. 20, 1333). — II, 1677.
 6) Aethylester d. β -[2-Nitrophenyl]akrylsäure-4-Carbonsäurealdehyd. Sm. 80° (A. 231, 377). — II, 1677.
 7) Methylimid d. α -Benzoxyl- β -Oxyäthan- $\alpha\beta$ -Dicarbonsäure. Sm. 160 bis 161° (B. 29, 2716).
 8) Phenylimid d. Citronensäure (Citranilsäure). Ag, Anilinsalz (A. 82, 92; 98, 89). — II, 423.
- C₁₁H₁₁O₅Cl** 1) Diacetat d. Chlormethyl-3,4-Dioxyphenylketon. Sm. 95° (J. r. 25, 154). — III, 138.
- C₁₁H₁₁O₅Cl₃** 1) Aethylester d. β -Keto- α -[3,4,6-Trichlor-2,5-Dioxyphenyl]propan- α -Carbonsäure (Ae. d. Trichlorhydrochinonacetessigsäure). Sm. 132° (J. pr. [2] 45, 66). — II, 1953.
- C₁₁H₁₁O₅Br** 1) Dimethylester d. 5-Brom-4-Acetylbenzol-1,3-Dicarbonsäure. Sm. 114—115° (A. 293, 172).
- C₁₁H₁₁O₆N** C 54,3 — H 4,2 — O 36,2 — N 5,3 — M. G. 265.
 1) $\alpha\gamma$ -Lakton d. α -Oxy- α -[4-Nitrophenyl]propan- γ -Carbonsäure- β -Carbonsäuremethylester. Fl. (R. 6, 13). — II, 1956.
 2) $\alpha\gamma$ -Lakton d. α -Oxy- α -[3-Nitrophenyl]propan- γ -Carbonsäure- β -Carbonsäuremethylester. Fl. (R. 6, 13). — II, 1956.
 3) Aethylester d. β -[6-Nitro-3,4-Dioxyphenyl]akryl-3,4-Methylenäthersäure. Sm. 113—114° (Soc. 59, 153). — II, 1777.
 4) 6-Acetylderivat d. 1,6-Anhydro-6-Amido-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure (Acetylazoopiansäure). Sm. 164—165° u. Zers. (B. 19, 2289, 2920, 2922). — II, 1998.
- C₁₁H₁₁O₆N₅** C 44,8 — H 3,4 — O 29,9 — N 21,8 — M. G. 321.
 1) Verbindung (aus Amidobenzol u. 2,4,6-Trinitro-1-Amidobenzol). Sm. 123° bis 125° (A. 215, 359). — II, 320.
- C₁₁H₁₁O₆Br** 1) Trimethylester d. 6-Brombenzol-1,2,4-Tricarbonsäure. Sm. 110° (A. 293, 152).

- $C_{11}H_{11}O_7N$ C 51,2 — H 3,9 — O 39,8 — N 5,0 — M. G. 281.
 1) γ -Oxy- α -[2-Nitrophenyl]- α -Buten- $\delta\delta$ -Dicarbonsäure. Sm. 269° (A. 258, 375). — II, 1876.
- $C_{11}H_{11}O_7N_2$ C 46,6 — H 3,6 — O 36,2 — N 13,6 — M. G. 309.
 1) Verbindung (aus 2,6-Dioxy-pyridin-4-Carbonsäure u. d. Amid dieser Säure) (Soc. 63, 1039).
- $C_{11}H_{11}O_8N$ C 48,5 — H 3,7 — O 43,1 — N 4,7 — M. G. 297.
 1) Acetylnitroopiansäure (B. 19, 2288). — II, 1944.
 2) α ,2-Lakton d. α -Oxy- α -[6-Nitro-3,4-Dioxyphenyl]äthan-3,4-Dimethyläther- β ,2-Dicarbonsäure (Nitromekoninessigsäure). Sm. 176° Ca (B. 19, 2295). — II, 2045.
- $C_{11}H_{11}O_8N_2$ C 44,3 — H 3,4 — O 39,4 — N 12,9 — M. G. 325.
 1) Oximanhidrid d. Methylendimethyläther d. 6-Nitro-2,3,4,5-Tetraoxy-1-[$\alpha\beta$ -Dioximidopropyl]benzol. Sm. 132—133° (G. 22 [2] 505). — II, 1035.
- $C_{11}H_{11}O_9N_2$ C 42,2 — H 3,2 — O 42,2 — N 12,3 — M. G. 341.
 1) Aethylester d. α -[2,4,6-Trinitrophenyl]- β -Ketopropan- α -Carbonsäure (Ae. d. 2,4,6-Trinitrophenylacetessigsäure). Sm. 98° (B. 23, 2720). — II, 1659.
- $C_{11}H_{11}NJ$ 1) 4-[β -Dijodpropyl]chinolin. Sm. 140° u. Zers. (B. 31, 2374).
 $C_{11}H_{11}NS$ 1) 4-Amido- β -Merkaptobiphenyl. HCl (B. 13, 1410). — II, 895.
 2) 4-Amidodiphenylsulfid. Sm. 93° (B. 29, 2364).
 3) 1-Naphtylamid d. Thioessigsäure. Sm. 95,5—96° (110—111°) (B. 11, 1760; 20, 1897). — II, 606.
 4) 2-Naphtylamid d. Thioessigsäure. Sm. 145—146° (B. 21, 2627). — II, 615.
 5) Verbindung (aus 4-Amido-4'-Phenylamidodiphenyldisulfid). HCl (B. 27, 3323).
- $C_{11}H_{11}NS_2$ 1) β -Amido- β -Dimerkaptobiphenyl. Sm. 153° (B. 13, 1412). — II, 991.
 2) Methylester d. 1-Naphtylamidodithioameissensäure (B. 21, 971). — II, 609.
- $C_{11}H_{11}N_2Cl$ 1) 5-Chlor-2-Amidodiphenylamin. Sm. 99° (102°). Pikrat (B. 23, 3423; A. 303, 309). — IV, 555.
 2) 4-Chlor-4'-Amidodiphenylamin. Sm. 71° (A. 303, 312).
 3) 5-Chlor-2,4'-Diamidobiphenyl (A. 303, 318).
 4) β -Chlor-4,4'-Diamidobiphenyl. 2HCl (B. 19, 2971). — IV, 961.
 5) 4-Chlor- α -Diphenylhydrazin. Sm. 89—90° (B. 19, 1688; A. 303, 305). — IV, 1497.
 6) Base (aus 3,4-Diamido-1-Methylbenzol u. 3-Chlor-1,2-Diketo-R-Pentamethylen). HCl + 2H₂O (B. 22, 1262). — IV, 971.
- $C_{11}H_{11}N_2Br$ 1) 4-Brom-4'-Amidodiphenylamin. Sm. 79° (A. 303, 329).
 2) 5-Brom-2,4'-Diamidobiphenyl. H₂SO₄ (A. 303, 327).
 3) 4-Brom- α -Diphenylhydrazin. Sm. 115° (B. 20, 364; A. 303, 319). — IV, 1497.
- $C_{11}H_{11}N_2Br_2$ 1) Verbindung (aus Azoxybenzol) (A. 165, 204). — IV, 1335.
- $C_{11}H_{11}N_2J$ 1) 5-Jod-2-Amidodiphenylamin. HCl (A. 303, 335).
 2) 5-Jod-2,4'-Diamidobiphenyl. 2HCl (A. 303, 332).
 3) 4-Jod- α -Diphenylhydrazin. Sm. 105—106° (B. 23, 3255; A. 303, 330). — IV, 1497.
- $C_{11}H_{11}N_2P$ 1) Phenylhydrazonphenylphosphin. Sm. 152° (A. 270, 129). — IV, 1647.
 2) Phosphazobenzolphenylamid (B. 27, 494).
 3) Verbindung + H₂O (aus Phosphazobenzolphenylamid). Sm. 152—153° (B. 27, 495).
- $C_{11}H_{11}N_2S$ 1) α -Diamidodithiodiphenylamin (A. 230, 123, 126). — II, 807.
 2) β -Diamidodithiodiphenylamin (A. 230, 134). — II, 807.
 3) 2-Phenylthioharnstoffpyridin (α -2-Pyridylphenylthioharnstoff). Sm. 168° (B. 27, 1322). — IV, 818.
- $C_{11}H_{11}ON_2$ C 72,0 — H 6,0 — O 8,0 — N 14,0 — M. G. 200.
 1) 4,4'-Diamido-3-Oxybiphenyl. Sm. 285°. (2HCl, PtCl₄ + 5H₂O), H₂SO₄ (B. 20, 3173). — II, 894.
 2) 6,4'-Diamido-3-Oxybiphenyl. Sm. 148° (A. 303, 344).
 3) 2,2'-Diamidodiphenyläther. Sm. 60°. 2HCl (B. 30, 738).
 4) 2,4'-Diamidodiphenyläther. Sm. 78—80°. 2HCl (B. 29, 2083).

- C₁₇H₁₅ON,** 5) 4,4'-Diamidodiphenyläther. Sm. 186—187°. 2HCl + H₂O (A. 159, 209; B. 29, 1449). — II, 656.
 6) 2-Phenylamido-5-Amido-1-Oxybenzol. Sm. 135° (B. 21, 910). — II, 722.
 7) 4-Amido-4'-Oxydiphenylamin. 2HCl (B. 32, 691).
 8) 1-Dimethylnitrosamidonaphtalin. (2HCl, PtCl₄) (B. 21, 3125). — II, 598.
 9) 2-Aethylnitrosamidonaphtalin. Sm. 56° (49°) (B. 17, 2669; 20, 1248). — II, 601.
 10) 4-Nitroso-1-Aethylamidonaphtalin. Sm. 133° u. Zers. Na, HCl, Pikrat (A. 243, 310). — II, 598.
 11) 2-Nitroso-1-Aethylamidonaphtalin. Sm. 95° (A. 255, 162). — II, 598.
 12) 1-Nitroso-2-Aethylamidonaphtalin. Sm. 120—121° (B. 20, 2475). — II, 601.
 13) 4-Amido-1-Acetylamidonaphtalin. HCl, H₂Cr₂O₇, Pikrat (A. 183, 239). — IV, 922.
 14) 4-Acetyl-5-Methyl-1-Phenylpyrazol. Sm. 107—108°; Sd. 331—333°; (A. 295, 320). — IV, 550.
 15) 1-Acetyl-3-Methyl-5-Phenylpyrazol. Sm. 43° (A. 279, 250). — IV, 935.
 16) 4-Benzoyl-3,5-Dimethylpyrazol + 2H₂O. Sm. 59—60°. Ag (G. 24 [1] 8). — IV, 551.
 17) 6-Oxy-4-Methyl-2-Benzyl-1,3-Diazin. Sm. 175° (B. 22, 1622). — IV, 971.
 18) 6-Oxy-4-Methyl-2-(2-Methylphenyl)-1,3-Diazin. Sm. 216°. (2HCl, PtCl₄ + 2H₂O), H₂Cr₂O₇ + 7H₂O, Pikrat (B. 21, 2658). — IV, 972.
 19) 6-Oxy-5,5-Dimethyl-2-Phenyl-1,3-Diazin. Sm. 203° (B. 22, 1624). — IV, 972.
 20) 6-Oxy-2-Aethyl-4-Phenyl-1,3-Diazin. Sm. 238° (B. 22, 1621). — IV, 972.
 21) Aethyläther d. 4-Oxy-2-Phenyl-1,3-Diazin. Sd. 180°; (2HCl, PtCl₄) (B. 30, 2028). — IV, 955.
 22) 6-Keto-1,4-Dimethyl-2-Phenyl-1,6-Dihydro-1,3-Diazin? Sm. 91 bis 92° (Am. 20, 489). — IV, 957.
 23) 3-[α-Oximidoäthyl]-2-Methylchinolin. Sm. 143° (B. 25, 1757). — IV, 374.
 24) 5-Acetylamido-6-Methylchinolin. Sm. 160° (B. 23, 3658). — IV, 933.
 25) 8-Acetylamido-6-Methylchinolin. Sm. 91—92° (B. 23, 3670). — IV, 933.
 26) 5-Acetylamido-8-Methylchinolin. Sm. 187° (B. 23, 3675). — IV, 933.
 27) Harmalol + 3H₂O. HCl, (2HCl, PtCl₄) (B. 22, 638). — III, 885.
 28) Nitril d. γ-Benzoylimidobutan-β-Carbonsäure. Sm. 98—100° (J. pr. [2] 52, 105).
 29) Amid d. Chinolin-2-Aethyl-β-Carbonsäure (A. d. β-[2]Chinoly]propion-säure). Sm. 149—150° (A. 287, 31). — IV, 355.
 30) 1-Naphtylhydrazid d. Essigsäure. Sm. 143° (B. 24, 4184). — IV, 926.
 31) 2-Naphtylhydrazid d. Essigsäure. Sm. 167° (164—165°) (B. 22, 2657; A. 253, 25). — IV, 928.
- C₁₇H₁₅ON₄** C 63,2 — H 5,2 — O 7,0 — N 14,6 — M. G. 228.
 1) Diazobenzolnitrosoanilin. Sm. bei 125° u. Zers. (B. 21, 685, 2609). — IV, 797.
 2) 3,3'-Diamidoazoxybenzol. Sm. 150° (146—148°). 2HCl, 2HBr (B. 30, 2934; Soc. 69, 7). — IV, 1337.
 3) 4,4'-Diamidoazoxybenzol. Sm. 182—184°. (2HCl, PtCl₄) (Am. 5, 3). — IV, 1337.
 4) 2-Benzylidenhydrazido-6-Oxy-4-Methyl-1,3-Diazin + H₂O. Sm. 233°. Ag (A. 302, 307). — IV, 1242.
- C₁₂H₁₁OBr₂** 1) αβ-[oder γδ]-Dibrom-ε-Keto-α-Phenyl-γ[oder α]-Hexen. Sm. 173,5° u. Zers. (B. 18, 2323). — III, 172.
- C₁₂H₁₁OS** 1) 3-Isopropyl-1,2-Thiobenzpyron (Thio-α-Isopropylcumarin). Sm. 81° (B. 24, 3463). — II, 1666.
- C₁₂H₁₂OS₂** 1) γ-Keto-ββ-Dithiönylbutan. Sd. 315—320° (B. 30, 2040).
- C₁₂H₁₂O₂N₂** C 66,7 — H 5,6 — O 14,8 — N 12,9 — M. G. 216.
 1) 4,4'-Dioxamidobiphenyl (p-Dioxybenzidin). Fl. (B. 20, 2477). — IV, 968.

- $C_{11}H_{11}O_2N_2$ 2) **3,3'-Diamido-4,4'-Dioxybiphenyl**. 2HCl, H_2SO_4 , Pikrat (B. 21, 3332, 3531). — II, 988.
- 3) **1-Aethyläther d. 1,2-Dioximidonaphtalin**. Sm. 153°. K (B. 19, 341). — III, 396.
- 4) **4-Oxy-5-Phenylhydrasonmethyl-2-Methylfuran**. Sm. 138° (B. 28 [2] 786).
- 5) **5-Acetylimido-3-[4-Methylphenyl]-4,5-Dihydroisoxazol**. Sm. 191° (J. pr. [2] 58, 148).
- 6) **3-Oxy-5-Keto-4-Isopropyliden-1-Phenyl-4,5-Dihydropyrazol**. Sm. 164° (B. 25, 1510). — IV, 702.
- 7) **4-Acetyl-5-Keto-3-Methyl-1-Phenyl-4,5-Dihydropyrazol**. Sm. 58° (J. pr. [2] 55, 154). — IV, 550.
- 8) **Acetat d. 5-Oxy-3-Methyl-1-Phenylpyrazol**. Sd. 200°₁₀ (J. pr. [2] 54, 207; [2] 55, 153). — IV, 511.
- 9) **5-Acetonyl-3-[4-Methylphenyl]-1,2,4-Oxiazol**. Sm. 97° (B. 22, 2438). — II, 1344.
- 10) **3,6-Diketo-4,5-Dimethyl-1-Phenyl-1,2,3,4-Tetrahydro-1,2-Diazin**. Sm. 129° (J. pr. [2] 42, 72). — IV, 708.
- 11) **6-Oxy-4-Methyl-2-[α -Oxybenzyl]-1,3-Diazin**. Sm. 216°. Ag, HCl, Pikrat (B. 23, 2948). — IV, 972.
- 12) **2,4-Diketo-3-Benzyl-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin** (3-Benzyl-6-Methyluracil). Sm. 232—233° (A. 244, 9). — II, 529.
- 13) **?-Nitro-2,6,8-Trimethylchinolin**. Sm. 92°. (2HCl, $PtCl_4$ + 3H₂O) (B. 20, 35). — IV, 337.
- 14) **Methyläther d. 5-Acetylamido-8-Oxychinolin + H₂O**. Sm. 179° (J. pr. [2] 48, 26). — IV, 912.
- 15) **1-Phenylpyrazol-3- oder 5-Aethyl- β -Carbonsäure**. Sm. 120°; Sd. 235°₂₀. Ag₂ (B. 31, 625).
- 16) **3,5-Dimethyl-1-Phenylpyrazol-4-Carbonsäure**. Sm. 196—198°. Ag (B. 20, 1101; 28, 633, 704; Am. 16, 438). — IV, 546.
- 17) **7-Amido-2,8-Dimethylchinolin-5-Carbonsäure**. Ag, HCl, (2HCl, $PtCl_4$), H_2SO_4 , $H_2Cr_2O_7$, Pikrat (A. 274, 361). — IV, 950.
- 18) **6-Methyl-2-Aethyl-1,3-Benzdiazin-4-Carbonsäure**. Sm. 154°. NH₄, Ag (B. 28, 732). — IV, 950.
- 19) **Methylester d. 3-Methyl-1-Phenylpyrazol-4-Carbonsäure**. Sm. 70 bis 71° (G. 28 [1] 389).
- 20) **Methylester d. 3-Methyl-1-Phenylpyrazol-5-Carbonsäure**. Sm. 65 bis 66° (A. 278, 289). — IV, 539.
- 21) **Methylester d. 5-Methyl-1-Phenylpyrazol-3-Carbonsäure**. Sm. 55 bis 56°; Sd. 255—256°₁₀₀ (A. 278, 283; 295, 305 Anm.). — IV, 539.
- 22) **Methylester d. 5-Methyl-1-Phenylpyrazol-4-Carbonsäure**. Sm. 71° (A. 295, 314). — IV, 539.
- 23) **Methylester d. 2,6-Dimethyl-1,3-Benzdiazin-4-Carbonsäure**. Sm. 96° (B. 28, 727). — IV, 948.
- 24) **Aethylester d. 1-Phenylpyrazol-1²-Carbonsäure**. Sd. 308—310° (G. 19, 124). — IV, 498.
- 25) **Aethylester d. 1-Phenylpyrazol-1⁴-Carbonsäure**. Sm. 61—62° (G. 19, 121). — IV, 498.
- 26) **Aethylester d. 2,3-Benzdiazin-1-Methylcarbonsäure**. Sm. 129—131°. Pikrat (B. 28, 1835). — IV, 945.
- 27) **Nitril d. 4-Diacetylamidophenylessigsäure**. Sm. 152—153° (B. 15, 835). — II, 1322.
- 28) **Amid d. β -Oxy- β -[2-Chinolyl]propionsäure**. Sm. 151—152° (A. 246, 175). — IV, 367.
- 29) **Phenylamidolmid d. β -Buten- $\beta\gamma$ -Dicarbonsäure** (Ph. d. Pyrocinchon-säure). Sm. 187° (J. pr. [2] 42, 73). — IV, 708.
- 30) **Verbindung** (aus Phenylacetbernsteinsäurediäthylester). Sm. 264° (B. 18, 794). — II, 1965.

$C_{11}H_{11}O_2N_4$ C 59,0 — H 4,9 — O 13,1 — N 32,9 — M. G. 244.

- 1) **3,3'-Dihydrazido-4,4'-Dioxybiphenyl**. Sm. 140° u. Zers. (B. 21, 3333). — II, 989.
- 2) **2-Acetyl-3-Acetylimido-1-Phenyl-2,3-Dihydro-1,2,4-Triazol**. Sm. 118° (G. 29 [1] 24).

- $C_{11}H_{12}O_2N_4$ 3) β -[Imidocyanmethylphenylhydrazon]buttersäure. Sm. 208—209° u. Zers. NH_4 , K (B. 25, 190). — IV, 1097.
- 4) Nitril d. β -Acetoximido- α -Methylphenylhydrazonpropionsäure. Sm. 121,5° (B. 21, 3004). — IV, 757.
- 5) Benzylidenhydrazid d. 3-Keto-2,3,4,5-Tetrahydro-1,2-Diazin-5-Carbonsäure. Sm. oberh. 250° (B. 26, 2063; J. pr. [2] 51, 146). — IV, 540.
- $C_{13}H_{14}O_2N_6$ C 52,9 — H 4,4 — O 11,8 — N 30,9 — M. G. 272.
- 1) 4,4'-Di[α -Nitrosohydrazido]biphenyl. Sm. 112—113° u. Zers. (A. 239, 210). — IV, 1276.
- $C_{13}H_{12}O_2Br_2$ 1) Methylester d. 2,3-Dibrom-3-Methyl-2,3-Dihydroinden-2-Carbonsäure. Sm. 157° (A. 247, 161). — II, 1432.
- $C_{11}H_{12}O_2S$ 1) Aethyl-1-Naphtylsulfon. Sm. 88—89° (J. pr. [2] 47, 103). — II, 867.
- 2) Aethyl-2-Naphtylsulfon. Sm. 43—45° (J. pr. [2] 47, 103). — II, 887.
- 3) Aethylester d. Naphtalin-2-Sulfinsäure (J. pr. [2] 47, 157). — II, 200.
- 4) Aethylester d. 2-Methylbenzofuran-1-Thiolcarbonsäure (Ae. d. Thiomethylcumarilsäure). Sm. 90—91° (B. 19, 2400). — II, 1677.
- $C_{12}H_{12}O_2Pb$ 1) Bleidiphenyldioxyhydrat. Salze siehe (B. 20, 720, 3332). — IV, 1715.
- $C_{12}H_{12}O_2N_4$ C 62,1 — H 5,2 — O 20,7 — N 12,0 — M. G. 232.
- 1) 3,6-Diketo-2-Acetyl-1-Phenylhexahydro-1,2-Diazin. Sm. 179° u. Zers. (B. 25, 2752). — IV, 703.
- 2) 2,6-Diketo-3-Acetyl-1-Phenylhexahydro-1,3-Diazin. Sm. 135—138° (R. 9, 57). — II, 433.
- 3) Acetat d. 5-Methyl-3-[Phenylloxymethyl]-1,2,4-Oxdiazol. Sm. 52° (B. 18, 1077). — II, 1553.
- 4) 3-Methyl-1-Phenylpyrazol-5-Oxyessigsäure. Sm. 158° (J. pr. [2] 55, 157). — IV, 512.
- 5) 5-Aethoxyl-1-Phenylpyrazol-3-Carbonsäure. Sm. 152—153°. Ca + 4H₂O, Ba + 2H₂O (Am. 14, 580). — IV, 536.
- 6) 3-Keto-5-Methyl-2-Phenyl-2,3-Dihydropyrazol-1-Methylcarbon-säure. Sm. 205—207° (J. pr. [2] 55, 156). — IV, 512.
- 7) 5-Keto-3-Methyl-1-Phenyl-4,5-Dihydropyrazol-4-Methylcarbon-säure. Sm. 178°. Na (B. 17, 2052; A. 238, 163; J. pr. [2] 54, 198; Soc. 71, 332; Am. 14, 514). — IV, 546.
- 8) 5-Keto-4-Methyl-1-Phenyl-4,5-Dihydropyrazol-3-Methylcarbon-säure. Sm. 169° (B. 28, 3203; A. 289, 60). — IV, 546.
- 9) 2-Benzyl-1,2,4-Oxdiazol-5-Aethyl- β -Carbonsäure. Sm. 59—60°. Cu (B. 18, 2483). — II, 1315.
- 10) 3-[4-Methylphenyl]-1,2,4-Oxdiazol-5-Aethyl- β -Carbonsäure. Sm. 138,5° (B. 22, 2434). — II, 1344.
- 11) 4-Keto-6-Methyl-2-Phenyl-2,3,4,5-Tetrahydro-1,2-Diazin-5-Carbonsäure. Zers. bei 230° (A. 301, 62; B. 29, 622).
- 12) Methylester d. 3-Keto-5-Methyl-2-Phenyl-2,3-Dihydropyrazol-1-Carbonsäure. Sm. 52° (J. pr. [2] 54, 180). — IV, 512.
- 13) Aethylester d. 3-Keto-2-Phenyl-2,3-Dihydropyrazol-4-Carbonsäure. Sm. 117—118°. NH_4 + H₂O, Ag (B. 28, 36; Soc. 61, 793; 63, 878). — IV, 537.
- 14) Aethylester d. 5-Keto-1-Phenyl-4,5-Dihydropyrazol-3-Carbonsäure. Sm. 180—182° u. Zers. (A. 246, 321). — IV, 536.
- 15) Imid d. Phenylacetamidobernsteinsäure. Sm. 200° (A. 252, 163). — II, 437.
- 16) Benzoat d. 6-Oximido-2-Ketohexahydropyridin (Benzoylglutarimid-oxim). Sm. 160° (B. 24, 3434). — II, 1210.
- 17) Verbindung (aus 4-Amidodiazobenzol) (B. 17, 607). — IV, 1526.
- 18) Verbindung (aus d. 3-Phenyl-1-Keto-1,4-Dihydrobenzol-5-Carbonsäure). Sm. 172° u. Zers. (B. 17, 2761). — II, 1693.
- 19) Verbindung (aus Natriumacetbernsteinsäurediäthylester u. Phenylhydra-zin). Sm. 175—177°. Na (Am. 14, 514).
- $C_{12}H_{12}O_2N_4$ C 55,4 — H 4,6 — O 18,4 — N 21,5 — M. G. 260.
- 1) Phenylhydrazondimethylalloxan. Sm. 261° (B. 24, 4142). — IV, 721.
- 2) 4-Oximido-3-Methyl-5-[β -Oximido- α -Phenylimidoäthyl]-4,5-Di-hydroisoxazol + H₂O (B. 30, 1304).
- 3) Aethylester d. 4-Phenylhydrazon-5-Keto-4,5-Dihydropyrazol-3-Carbonsäure. Sm. 241° (J. pr. [2] 51, 55). — IV, 1489.

- $C_{11}H_{11}O_3Cl$ 1) Aethyläther d. β -Di[Chloracetyl]-1-Oxybenzol. Sm. 108° (B. 30, 1716).
- $C_{11}H_{11}O_3Br$ 1) Aethyläther d. β -Di[Bromacetyl]-1-Oxybenzol. Sm. 77° (B. 31, 174).
2) $\beta\gamma$ -Dibrom- β -Acetyl- γ -Phenylbuttersäure. Sm. 153° u. Zers. (B. 23, 76). — II, 1667.
3) 4-Acetat-3-Methyläther d. β -Dibrom-3,4-Dioxy-1-Allylbenzol. Sm. 66° (B. 21, 1395). — II, 975.
- $C_{11}H_{11}O_3Br$ 1) $\gamma\delta$ -Dibrom- δ -[β -Dibrom- β -Oxyphenylmethyläther]valeriansäure? Sm. 159° u. Zers. (Soc. 39, 438). — II, 1589.
2) 4-Acetat-3-Methyläther d. β -Dibrom-3,4-Dioxy-1-[$\beta\gamma$ -Dibrompropyl]benzol. Sm. 91° (B. 21, 1395). — II, 975.
- $C_{11}H_{11}O_3S$ 1) 1-Aethylnaphtalin- β -Sulfonsäure. Ba, Cu + H_2O (A. 155, 119). — II, 219.
2) 2-Aethylnaphtalin- β -Sulfonsäure. Pb (G. 11, 439). — II, 219.
3) 1,4-Dimethylnaphtalin- β -Sulfonsäure. K + H_2O (G. 12, 147). — II, 219.
4) isom. β -Dimethylnaphtalin- β -Sulfonsäure (A. 211, 370). — II, 219.
5) Aethylester d. Naphtalin-1-Sulfonsäure. Fl. (A. 114, 133). — II, 201.
6) Aethylester d. Naphtalin-2-Sulfonsäure. Sm. 11–12° (B. 25, 2261; 26, 2824). — II, 202.
- $C_{11}H_{11}O_4N_2$ C 57,1 — H 4,8 — O 25,8 — N 11,3 — M. G. 248.
1) Diacetat d. antiamphi- $\alpha\beta$ -Dioximido- α -Phenyläthan. Sm. 92° (B. 24, 3502). — III, 131.
2) Diacetat d. 1,4-Di[Oximidomethyl]benzol. Sm. 155° (B. 16, 2995). — III, 93.
3) Dimethyläther d. 3-Acetyl-5,6-Dioxy-4-Keto-3,4-Dihydro-2,3-Benzdiazin (Acetylopiazon). Sm. 158–159° (B. 26, 533). — II, 1942.
4) 4-Phenoxylessigsäuremethylpyrazolon. Sm. 211° (B. 30, 2104). — IV, 514.
5) Aethylharminsäure. Zers. bei 280° (B. 30, 2487).
6) 3-[6-Oxy-3-Methylphenyl]-1,2,4-Oxdiazol-5-Aethyl- β -Carbonsäure. Sm. 103° (B. 24, 3666). — II, 1547.
7) 3-[4-Methoxyphenyl]-1,2,4-Oxdiazol-5-[Aethyl- β -Carbonsäure]. Sm. 140–141° (B. 22, 2796). — II, 1531.
8) Inn. Anhydrid d. δ -[3-Nitrobenzoyl]amidovaleriansäure. Sm. 114° (B. 21, 2248). — II, 1234.
9) Dialdehyd d. 1,2-Phtalyldi[amidoessigsäure]. (2HCl, PtCl₄) (B. 27, 3103). — II, 1813.
10) Aethylester d. 1,3-Dioximido-2,3-Dihydroinden-4-Carbonsäure. Sm. 186° (B. 31, 2087).
11) Aethylester d. 2-Keto-3-[4-Methylphenyl]-2,3-Dihydro-1,3,4-Oxdiazol-5-Carbonsäure. Sm. 83° (B. 24, 4198). — IV, 808.
12) Aethylester d. 6-Oxy-2-Furanyl-1,3-Diazin-4-Methylcarbonsäure. Sm. 164° (B. 28, 482). — IV, 947.
13) Aethylester d. 1,4-Diketo-1,2,3,4-Tetrahydro-2,3-Benzdiazin-2-Methylcarbonsäure. Sm. oberh. 300° (J. pr. [2] 51, 382). — II, 1814.
14) α -Imidobenzylmonamid d. β -Ketopropan- $\alpha\alpha$ -Dicarbonsäure. Benzeylamidinsalz (B. 23, 161). — IV, 847.
- $C_{11}H_{11}O_4N_4$ C 52,2 — H 4,3 — O 23,2 — N 20,3 — M. G. 276.
1) Triamidoazoresorcin (B. 18, 588).
2) Urocaninsäure + 4 H_2O . Sm. 212–213° (wasserfrei) (222–223°). 2HCl, 2 HNO_3 , H_2SO_4 , Ba + 2 H_2O (B. 7, 1671; 8, 811; H. 24, 399). — II, 2113.
3) Hexahydrobenzo-1,1'-Diacetyl-5,5'-Diketo-3,4-Dipyrazol. Sm. über 250° (B. 27, 473; J. pr. [2] 51, 67). — IV, 1270.
- $C_{11}H_{11}O_4Cl_2$ 1) Diacetat d. 2,6-Dichlor-4,5-Dioxy-1,3-Dimethylbenzol. Sm. 161° (A. 296, 206).
2) Diäthylester d. 3,6 [oder 3,4]-Dichlorbenzol-1,2-Dicarbonsäure. Sd. 305–315° (J. 1886, 652). — II, 1818.
3) Diäthylester d. isom. β -Dichlorbenzol-1,2-Dicarbonsäure. Sm. 60° (A. 238, 353). — II, 1818.
- $C_{11}H_{11}O_4Br_2$ 1) $\alpha\beta$ -Dibrom- α -Phenylbutan- $\beta\delta$ -Dicarbonsäure (Dibrombenzylglutarsäure). Zers. bei 191–192° (A. 282, 343). — II, 1857.
2) 2,5-Dibrom-1-[α -Acetoxylisopropyl]benzol-4-Carbonsäure. Sm. 92° (G. 21 [2] 393). — II, 1586.
3) $\beta\gamma$ -Dibrom- δ -[β -Dioxyphenyl]valerianmethylenäthersäure (Dibrompiperhydronsäure). Sm. 140° (A. 172, 159; 216, 177). — II, 1769.

- $C_{12}H_{11}O_4Br$, 4) Aethylester d. $\alpha\beta$ -Dibrom- β -[3,4-Dioxyphenyl]propion-3,4-Methylenäthersäure. Sm. 84° (B. [3] 17, 617).
- 5) Diäthylester d. 2,5-Dibrombenzol-1,4-Dicarbonsäure. Sm. 121° ($124-125^\circ$; Sd. 335° (B. 18, 1763; G. 18, 308). — II, 1837.
- $C_{12}H_{11}O_4S$ 1) Gelbes Sulfohydrochinon. Sm. unter 100° u. Zers. (A. 69, 295).
- 2) 1-Oxynaphtalinäthyläther-4-Sulfonsäure. Ba (J. pr. [2] 49, 130). — II, 872.
- 3) 1-Oxynaphtalinäthyläther- ρ -Sulfonsäure. K + H_2O , Ba (Z. 1870, 367). — II, 872.
- 4) isom. 1-Oxynaphtalinäthyläther- ρ -Sulfonsäure. K + $\frac{1}{2}H_2O$ (Z. 1870, 367). — II, 872.
- 5) 2-Oxynaphtalinäthyläther-1-Sulfonsäure (C. 1895 [1] 1064).
- 6) 2-Oxynaphtalinäthyläther-6-Sulfonsäure. K + H_2O , Ba (Z. 1870, 366; J. pr. [2] 49, 132; C. 1895 [1] 1064). — II, 890.
- 7) 2-Oxynaphtalinäthyläther-8-Sulfonsäure (C. 1895 [1] 1064).
- 8) 2-Oxynaphtalinäthyläther- ρ -Sulfonsäure. K (Z. 1870, 366). — II, 890.
- $C_{12}H_{11}O_5N_2$ C 54,5 — H 5,5 — O 30,3 — N 10,6 — M. G. 264.
- 1) 3,4-Methylenäther d. 6-Diacetylamido-3,4-Dioxybenzaloxim. Sm. 188° (B. 24, 626). — III, 104.
- 2) Methylenäthyläther d. 3-[2,3,4,5-Tetraoxyphenyl]-4-Methyl-1,2,5-Oxiazol. Sm. 138° (G. 22 [2] 498). — II, 1035.
- 3) Di[5-Oximidomethyl-2-Methyl-4-Furanyl]äther. Sm. $167-168^\circ$ (B. 28 [2] 787).
- $C_{12}H_{11}O_5Br$ 1) Verbindung (aus Pikrotoxin) (J. 1863, 587). — III, 644.
- 2) Dimethylester d. 4,6-Dibrom-5-Oxy-1-Methylbenzolmethylenäther-2,3-Dicarbonsäure. Sm. 70° (B. 18, 3191). — II, 1948.
- $C_{12}H_{11}O_5N_2$ C 51,4 — H 4,3 — O 34,3 — N 10,0 — M. G. 280.
- 1) Trisuccinamid. Sm. 83° (J. 1856, 507). — I, 1382.
- 2) $\alpha\beta$ -Dioxy- $\alpha\beta$ -Di[2,6-Dioxy-4-Pyridyl]äthan (Soc. 65, 31). — IV, 127.
- 3) Methylenäthyläther d. 3-[2,3,4,5-Tetraoxyphenyl]-4-Oximido-4,5-Dihydroisoxazol? Sm. $168-170^\circ$ u. Zers. (G. 22 [2] 498). — II, 1035.
- 4) 1,3-Phtalyldi[amidoessigsäure]. Sm. 210° u. Zers. (B. 27, 3105). — II, 1827.
- 5) 1,4-Phtalyldi[amidoessigsäure]. Sm. 240° u. Zers. Ag₂ (B. 27, 3104). — II, 1832.
- 6) Oximanhydrid d. Methylenäthyläther d. 2,3,4,5-Tetraoxy-1-[$\alpha\beta$ -Dioximidopropyl]benzol. Sm. $169-170^\circ$ (G. 22 [2] 496). — II, 1035.
- 7) Verbindung (aus d. Verb. $C_{12}H_{11}O_5N_2Na_2$) (B. 31, 192).
- $C_{12}H_{11}O_5Cl_2$ 1) Diäthylester d. Dichlordihydrochinondicarbonsäure. Sm. 123° . + $2C_2H_5O$ (B. 20, 1312, 2796; 21, 1758). — II, 2003.
- $C_{12}H_{11}O_5Br_2$ 1) Diäthylester d. Dibromdihydrochinondicarbonsäure. Sm. 157° (B. 21, 1759). — II, 2004.
- $C_{12}H_{11}O_5S_2$ 1) β -Dimethylnaphtalin- ρ -Disulfonsäure (A. 211, 370). — II, 219.
- $C_{12}H_{11}O_5Hg_2$ 1) Triacetat d. Phenyl-1,2,4-Triquecksilberoxydhydrat (C. 1899 [1] 734). — IV, 1707.
- $C_{12}H_{11}O_7N_2$ C 48,6 — H 4,0 — O 37,8 — N 9,5 — M. G. 296.
- 1) Methylester d. 4,6-Dinitro-1,3,5-Trimethylbenzol-2-Ketocarbonsäure. Sm. $158-160^\circ$ (A. 264, 144). — II, 1666.
- 2) Aethylester d. α -[2,4-Dinitrophenyl]- β -Ketopropan- α -Carbonsäure (Ae. d. 2,4-Dinitrophenylacetessigsäure). Sm. 94° (A. 220, 131). — II, 1659.
- $C_{12}H_{11}O_7N_6$ C 40,9 — H 3,4 — O 31,8 — N 23,8 — M. G. 352.
- 1) Verbindung (aus 4-Oximido-3-Methyl-5-[$\alpha\beta$ -Dioximidoäthyl]-4,5-Dihydroisoxazol). Sm. 267° u. Zers. (B. 30, 1299).
- $C_{12}H_{11}O_7S_2$ 1) 2-Oxynaphtalinäthyläther-1,6-Disulfonsäure (C. 1895 [1] 1064).
- 2) 2-Oxynaphtalinäthyläther-3,6-Disulfonsäure (C. 1895 [1] 1065).
- 3) 2-Oxynaphtalinäthyläther-6,8-Disulfonsäure (C. 1895 [1] 1064).
- $C_{12}H_{11}O_8N_2$ C 46,3 — H 3,5 — O 41,1 — N 9,0 — M. G. 311.
- 1) Diäthylester d. 2,5-Dinitrobenzol-1,4-Dicarbonsäure. Sm. 144° (B. 26, 2984). — II, 1838.
- $C_{12}H_{11}O_8Br_4$ 1) polym. Aethylenester d. σ -Dibrombernsteinsäure. Sm. 96° (A. 280, 190).
- 2) isom. polym. Aethylenester d. Dibrombernsteinsäure. Sm. 80° (80 bis 82°) (A. 280, 193, 196).

- $C_{11}H_{12}O_2S$ 1) Tetramethylester d. Thiophentetracarbonsäure. Sm. 126—128° (B. 28, 1635). — III, 761.
- $C_{11}H_{12}NCl$ 1) 2-Chlor-7-Isopropylchinolin. Fl. (2HCl, PtCl₄) (B. 19, 265). — IV, 334.
2) 4-Chlor-2,6,8-Trimethylchinolin. Sm. 114°; Sd. 297—298°. (2HCl, PtCl₄) (B. 21, 527). — IV, 337.
3) 1-Chlor-3-Propylisochinolin. Sd. 302—303°₇₄₆. (2HCl, PtCl₄), (HCl, AuCl₃) (B. 29, 2395). — IV, 337.
4) 1-Chlor-3-Isopropylisochinolin. Sd. 292—293°₇₄₈ (B. 30, 893). — IV, 338.
5) Chlorbenzylat d. Pyridin. 2 + PtCl₄ (B. 14, 1505; J. pr. [2] 41, 345). — IV, 110.
- $C_{11}H_{12}NBr$ 1) p-Brom-1-Dimethylamidonaphtalin. Zers. bei 260°. (2HCl, PtCl₄) (B. 21, 3127). — II, 598.
- $C_{11}H_{12}NJ$ 1) Jodallylat d. Chinolin. Sm. 177,5° (J. 1882, 1079; 1888, 683). — IV, 252.
- $C_{11}H_{12}N_2S$ 1) Di[2-Amidophenyl]sulfid. Sm. 85—86° (B. 29, 2774).
2) Di[4-Amidophenyl]sulfid (Thioanilin). Sm. 105° (108°). HCl + 2H₂O, 2HCl + 2H₂O, (2HCl, PtCl₄), H₂SO₄ + H₂O, Oxalat (B. 3, 978; 4, 386; 7, 384; II, 1169; 27, 2807, 3261; 29, 2363; Bl. [3] 5, 173). — II, 803.
3) Di[p-Amidophenyl]sulfid. Sm. 85,5°. 2HCl (B. 27, 2811; 29, 2774).
4) 2-[α-Phenylhydrazonäthyl]thiophen. Sm. 96° (B. 17, 2645). — IV, 788.
- $C_{11}H_{12}N_2S_2$ 1) Di[2-Amidophenyl]disulfid. Sm. 93°. 2HCl (B. 12, 2364; 13, 1226; 20, 1793; 27, 866; 30, 2397). — II, 816.
2) Di[3-Amidophenyl]disulfid. H₂SO₄ (A. 278, 254). — II, 816.
3) Di[4-Amidophenyl]disulfid. Sm. 81—82° (78—79°). 2HCl, H₂SO₄ + 2H₂O (B. 11, 1172; 27, 2813; J. pr. [2] 41, 205). — II, 816.
- $C_{11}H_{12}N_2Hg$ 1) Quecksilberdi[4-Amidophenyl]. Sm. 174° u. Zers. (G. 23 [2] 533). — IV, 1706.
- $C_{11}H_{12}N_3P$ 1) Verbindung (aus Anilin u. Phosphorstickstoffchlorid). Sm. 268° (B. 17, 1910). — IV, 1661.
- $C_{11}H_{12}N_4S$ 1) Verbindung (aus s-Allylphenylthioharnstoff) (Z. 1869, 261). — II, 393.
- $C_{11}H_{13}ON$ 1) C 77,0 — H 6,9 — O 8,5 — N 7,5 — M. G. 187.
1) 1-[β-Oxyäthyl]amidonaphtalin. Sm. 51°. HCl (J. pr. [2] 44, 18). — II, 601.
2) 2-[β-Oxyäthyl]amidonaphtalin. Sm. 51°. HCl (J. pr. [2] 44, 19). — II, 605.
3) β-Amidoäthyläther d. 2-Oxynaphtalin. HCl + H₂O, (2HCl, PtCl₄) (B. 13, 1955). — II, 877.
4) Äthyläther d. 4-Amido-1-Oxynaphtalin. Sm. 96° (J. pr. [2] 45, 545; B. 25, 3059). — II, 865.
5) Äthyläther d. 1-Amido-2-Oxynaphtalin. Sm. 51°; Sd. 300—302° (J. pr. [2] 43, 27; C. 1896 [2] 1055). — II, 885.
6) Äthyläther d. 8-Amido-2-Oxynaphtalin. Sm. 67°; Sd. 315° (J. pr. [2] 43, 28). — II, 886.
7) Äthyläther d. p-Amido-2-Oxynaphtalin. Sm. 90—91°; Sd. 330° (J. pr. [2] 43, 28). — II, 886.
8) α-Oximido-α-Phenyl-αγ-Hexadiën. Sm. 153° (B. 28, 1726). — III, 172.
9) 2,5-Dimethyl-1-[2-Oxyphenyl]pyrrol. Sm. 95°. Na, Pikrat (B. 19, 558). — IV, 72.
10) 5-Methyl-2-[β-Phenyläthenyl]-4,5-Dihydrooxazol. Sm. 80—81° (2HCl, PtCl₄), Pikrat (B. 24, 3226). — IV, 339.
11) 2-[β-Phenyläthenyl]-4,5-Dihydro-1,3-Oxazin (2-Cinnamerylpentoxazolin). Sm. 55—56°. (2HCl, PtCl₄), Pikrat (B. 24, 3227). — IV, 340.
12) 2-Acetyl-3,5-Dimethylindol. Sm. 215—217° (B. 24, 2562). — IV, 242.
13) 2-[γ-Oxypropyl]chinolin. Sm. 115° (A. 287, 31). — IV, 334.
14) 2-Oxy-7-Isopropylchinolin. Sm. 168—169° (B. 19, 264). — II, 1434.
15) 4-Oxy-3-Methyl-2-Äthylchinolin. Sm. 295° (Bl. [3] 4, 643). — IV, 335.
16) 4-Oxy-2-Methyl-3-Äthylchinolin. Sm. 290° (B. 24, 2992). — IV, 335.
17) 5 oder 7-Oxy-4-Methyl-3-Äthylchinolin. Sm. 189° (B. 31, 2148).
18) 4-Oxy-2,6,8-Trimethylchinolin + H₂O. Sm. 263—264° (wasserfrei). (2HCl, PtCl₄) (B. 21, 526). — IV, 337.
19) 8-Oxy-1,3,6-Trimethylisochinolin. Sm. 247—280° (Soc. 69, 302). — IV, 339.

- C₁₁H₁₁ON** 20) Methyläther d. 1-Oxy-3-Aethylisochinolin. Sd. 266—267°₇₆₅ (2HCl, PtCl₄ + 2H₂O), (HCl, AuCl₃), Pikrat (B. 27, 2238). — IV, 332.
- 21) Aethyläther d. 2-Oxy-4-Methylchinolin. Sm. 51°; Sd. 250°₇₄₂ (2HCl, PtCl₄) (A. 236, 102). — IV, 317.
- 22) Aethyläther d. 1-Oxy-3-Methylisochinolin. Sd. 266°₇₆₄ (B. 27, 830 Anm.). — IV, 324.
- 23) 1-Keto-3-Propyl-1,2-Dihydroisochinolin. Sm. 130—131° (B. 29, 2394). — IV, 337.
- 24) 1-Keto-3-Isopropyl-1,2-Dihydroisochinolin. Sm. 186—189° u. Zers. (B. 30, 892). — IV, 338.
- 25) 1-Keto-2-Methyl-3-Aethyl-1,2-Dihydroisochinolin. Sm. 113—113,5° (B. 27, 2235). — II, 1682.
- 26) 6-Acetylamido-2-Methylinden. Sm. 148° (B. 19, 1251). — II, 591.
- 27) Amidanhydrid d. β-Keto-β-Phenylpentan-α-Carbonsäure. Sm. 137° (A. 294, 327).
- 28) Allylamid d. β-Phenylakrylsäure. Sm. 90—90,5°; Sd. 223—224°₁ (B. 26, 2850). — II, 1407.
- 29) Nitril d. β-Keto-α-Phenylpentan-α-Carbonsäure. Fl. (J. pr. [2] 55, 346).
- 30) Verbindung (aus Amidobenzol u. Oxybenzol). Sm. 30,8° (32°; 36—37°); Sd. 181° (A. 210, 342; 217, 388; Soc. 43, 466; B. 19, 1002). — II, 652.
C 67,0 — H 6,0 — O 7,4 — N 19,5 — M. G. 215.
- C₁₁H₁₃ON₂** 1) 2,4-Diamido-4'-Oxydiphenylamin + 2H₂O. Sm. 133° (wasserfrei). HCl (B. 28, 2974).
- 2) 1-Acetyl-2-Methyl-5-[4-Methylphenyl]-1,3,4-Triazol. Sm. 112° (B. 30, 1878; A. 298, 7). — IV, 1163.
- 3) Aethyläther d. 6-Amidooximidomethylchinolin. Sm. 85° (B. 22, 2763). — IV, 350.
- 4) Amid d. 6-Methyl-2-Aethyl-1,3-Benzdiazin-4-Carbonsäure. Sm. 168° (B. 28, 734). — IV, 950.
C 59,2 — H 5,3 — O 6,6 — N 28,8 — M. G. 243.
- C₁₁H₁₃ON₂** 1) Verbindung (aus Diazobenzolnitril) (A. 137, 83). — IV, 1515.
- C₁₁H₁₃OC1** 1) Chlorid d. β-[4-Isopropylphenyl]akrylsäure. Sm. 25° (J. 1877, 790). — II, 1433.
C 70,9 — H 6,4 — O 15,8 — N 6,9 — M. G. 203.
- C₁₇H₁₅O₂N** 1) α-Phenylamido-γ-Keto-β-Aethanoyl-α-Buten. Sm. 90—91° (A. 297, 68).
- 2) 5-Oximido-3-Keto-1-Phenylhexahydrobenzol. Sm. 79—82° (A. 294, 307).
- 3) isom. 5-Oximido-3-Keto-1-Phenylhexahydrobenzol. Sm. 172° (J. pr. [2] 43, 392). — III, 279.
- 4) 2-Oximido-3-Oxy-1,4-Dimethyl-2,3-Dihydronaphtalin. Sm. 175° (G. 26 [1] 27).
- 5) 2-Oximido-3-Isopropyl-1,2-Benzpyron (α-Isopropylcumaroxim). Sm. 171° (B. 24, 3464). — II, 1666.
- 6) p-Dimethylamido-4-Methyl-1,2-Benzpyron (Dimethylamido-β-Methylcumarin). Sm. 143° (B. 30, 277).
- 7) 1-Acetyl-2-Keto-3-Aethyl-2,3-Dihydroindol. Sm. 45° (M. 18, 543).
- 8) 1-Acetyl-2-Keto-3,3-Dimethyl-2,3-Dihydroindol. Sm. 105° (M. 18, 109). — IV, 225.
- 9) αγ-Dioxy-β-[2-Chinolyl]propan. Sm. 116—117°. (2HCl, PtCl₄), Pikrat (B. 32, 225).
- 10) 4-[p-Dioxypropyl]chinolin. Sm. 127—129°. HCl, (2HCl, PtCl₄ + 2H₂O), Pikrat (B. 31, 2371).
- 11) 2,5 oder 2,7-Dioxy-4-Methyl-3-Aethylchinolin. Sm. 273° u. Zers. (B. 31, 2146).
- 12) 2,4-Dioxy-8-Methyl-3-Aethylchinolin. Sm. 217,5—220° (B. 21, 302). — IV, 335.
- 13) Methyläther d. 6-Oxy-4-Keto-1,2-Dimethyl-1,4-Dihydrochinolin. Sm. 149° (B. 21, 1652). — IV, 312.
- 14) Dimethyläther d. 4,6-Dioxy-2-Methylchinolin. Sm. 94° (B. 21, 1652). — IV, 312.
- 15) 6-Aethyläther d. 4,6-Dioxy-2-Methylchinolin. HCl, (2HCl, PtCl₄) (B. 28 [2] 991).

- C₁₁H₁₃O₂N** 16) Aethyläther d. 4-Oxy-2-Keto-1-Methyl-1,2-Dihydrochinolin. Sm. 87,5° (B. 20, 2013). — IV, 286.
- 17) 1,3-Diketo-2,4,4-Trimethyl-1,2,3,4-Tetrahydroisochinolin. Sm. 102 bis 103°; Sd. 294,5°₇₇₀ (B. 19, 2364; 20, 1199). — II, 1856.
- 18) α-[2-Cyanphenyl]butan-β-Carbonsäure. Sm. 67—68°. Ag (B. 31, 2888).
- 19) 1-Propylindol-2-Carbonsäure. Sm. 170° (B. 30, 2815).
- 20) 1-Isopropylindol-2-Carbonsäure. Sm. 183° (B. 30, 2818).
- 21) 5-Methyl-1-Aethylindol-2-Carbonsäure. Sm. 202° (A. 232, 118). — IV, 239.
- 22) 1,2-Dimethylindol-3-Methylcarbonsäure. Sm. bei 188° (A. 236, 159). — IV, 241.
- 23) Inn. Anhydrid d. δ-Benzoylamido-norm. Valeriansäure. Sm. 112° (B. 21, 2239). — II, 1191.
- 24) Lakton d. γ-Phenylimido-δ-Oxy-β-Methylbutan-β-Carbonsäure. Sm. 88°; Sd. 300—310° (B. 31, 2730).
- 25) Aldehyd d. α-[4-Acetylamidophenyl]propen-β-Carbonsäure. Sm. 120° (B. 19, 1249). — III, 63.
- 26) Aethylester d. β-Cyan-β-Phenylpropionsäure. Sd. 176°₁₆ (A. 293, 344).
- 27) Aethylester d. β-[2-Cyanphenyl]propionsäure. Sm. 98—99° (B. 22, 2017, 2019). — II, 1360.
- 28) Aethylester d. 2-Methylindol-3-Carbonsäure. Sm. 131° (134°) (Am. 16, 435; A. 266, 73). — IV, 238.
- 29) Aethylester d. 3-Methylindol-2-Carbonsäure. Sm. 133—134° (A. 246, 336). — IV, 239.
- 30) Aethylester d. 5-Methylindol-2-Carbonsäure. Sm. 158—160° (A. 239, 225). — IV, 239.
- 31) Acetat d. γ-Oximido-α-Phenyl-α-Buten. Sm. 90—91° (B. 20, 923). — III, 160.
- 32) γ-Benzoat d. γ-Oximido-β-Methyl-α-Buten. Sm. 68—69° (A. 262, 344). — II, 1194.
- 33) norm. Butylimid d. Benzol-1,2-Dicarbonsäure. Sm. 65°; Sd. 311,8°₇₅₈ (A. 242, 16; B. 31, 1228). — II, 1804.
- 34) Isobutylimid d. Benzol-1,2-Dicarbonsäure. Sm. 93°; Sd. 293—295° (B. 23, 999). — II, 1804.
- 35) Phenylimid d. fum. Butan-βγ-Dicarbonsäure. Sm. 126—127° (A. 285, 230).
- 36) Phenylimid d. mal. Butan-βγ-Dicarbonsäure. Sm. 146° (B. 23, 643; A. 285, 233). — II, 415.
- 37) Phenylimid d. β-Methylpropan-αβ-Dicarbonsäure. Sm. 84—86° (87°) (A. 292, 186; 299, 183; B. 30, 617; C. 1895 [2] 447, 929; Soc. 73, 843).
- 38) Benzylimid d. Propan-αβ-Dicarbonsäure. Sd. 315° (B. 30, 3040).
- 39) 2,3-Dimethylphenylimid d. Bernsteinsäure. Sm. 105° (B. 29 [2] 579).
- 40) 2,4-Dimethylphenylimid d. Bernsteinsäure. Sm. 118° (B. 29 [2] 579).
- 41) 2,5-Dimethylphenylimid d. Bernsteinsäure. Sm. 120° (B. 29 [2] 579).
- 42) 2,6-Dimethylphenylimid d. Bernsteinsäure. Sm. 187° (B. 29 [2] 579).
- 43) 3,4-Dimethylphenylimid d. Bernsteinsäure. Sm. 150° (B. 29 [2] 579).
- 44) 3,5-Dimethylphenylimid d. Bernsteinsäure. Sm. 168° (B. 29 [2] 579).
- C₁₂H₁₃O₂N₃** C 62,3 — H 5,6 — O 13,8 — N 18,2 — M. G. 231.
- 1) 5-Oxy-3-Methyl-1-[4-Acetylamidophenyl]pyrazol. Sm. 197° (C. 1897 [2] 967).
- 2) 4-Nitroso-3-Keto-5-Methyl-1-Aethyl-2-Phenyl-2,3-Dihydropyrazol. Zers. bei 130° (J. pr. [2] 54, 192). — IV, 511.
- 3) 4-Formylamido-3-Keto-1,5-Dimethyl-2-Phenyl-2,3-Dihydropyrazol. Sm. 189° (A. 293, 64). — IV, 1109.
- 4) 5-Propyl-1-Phenyl-1,2,4-Triazol-3-Carbonsäure. Sm. 160,5—161°. Cu + 1/2 H₂O (B. 25, 178). — IV, 1117.
- 5) 5-Isopropyl-1-Phenyl-1,2,4-Triazol-3-Carbonsäure. Sm. 153° u. Zers. (135°). Cu + 2 1/2 H₂O (B. 25, 181; 27, 1966). — IV, 1118.
- 6) 2,4,5-Trimethylphenylhydrazoncyanessigsäure. Sm. 184° (J. pr. [2] 49, 349). — IV, 1457.
- 7) Aethylester d. 5-Methyl-1-Phenyl-1,2,4-Triazol-3-Carbonsäure. Fl. (B. 19, 2600). — IV, 1114.

- C₁₇H₁₃O₂N₃** 8) Aethylester d. β -Cyan- α -Phenylhydrazonpropionsäure. Sm. 102 bis 103° (*J. pr.* [2] 47, 381). — IV, 689.
 9) Aethylester d. 2-Methylphenylhydrazoncyanessigsäure. Sm. 133° (*J. pr.* [2] 49, 344; *B.* 21 [2] 354). — IV, 1456.
 10) Aethylester d. 4-Methylphenylhydrazoncyanessigsäure. Sm. 74 bis 75° (*J. pr.* [2] 49, 346). — IV, 1456.
 11) Aethylester d. 2-Methylphenylazocyanessigsäure. Sm. 85°. K (*J. pr.* [2] 49, 343). — IV, 1456.
 12) Aethylester d. 4-Methylphenylazocyanessigsäure. Sm. 116—118°. K, Ag (*J. pr.* [2] 49, 346). — IV, 1456.
 13) Propylester d. Phenylazocyanessigsäure. α -Modif. Sm. 78—80°; β -Modif. Sm. 102—103° (*C.* 1896 [1] 1106).
 14) Verbindung (aus β -Cyan- α -Phenylhydrazonpropionsäureäthylester). Sm. 128° (*J. pr.* [2] 47, 381). — IV, 689.
- C₁₇H₁₃O₂N₅** C 55,6 — H 5,0 — O 12,3 — N 27,0 — M. G. 259.
 1) 3,4-Di[Acetylamido]-1-Phenyl-1,2,5-Triazol. Sm. 206° (*A.* 295, 148). — IV, 1314.
 2) Acetat d. 3-Oximidoamidomethyl-5-Methyl-1-Phenyl-1,2,4-Triazol. Sm. 148° (*B.* 22, 1750). — IV, 1115.
- C₁₇H₁₃O₂N₇** C 45,7 — H 4,1 — O 10,2 — N 40,0 — M. G. 315.
 1) Verbindung (aus Adenin u. Theobromin) (*H.* 21, 277).
- C₁₇H₁₃O₂Cl** 1) Acetat d. 3-Chlor-2-Oxy-1,2,3,4-Tetrahydronaphtalin. Sm. 47° (*B.* 26, 1835; *A.* 288, 82). — II, 855.
 2) $\beta\beta$ -Diacetyl- α -Chlor- α -Phenyläthan. Sm. 104—105° (*A.* 281, 79). — III, 273.
 3) α -Chlor- α -Phenyl- α -Penten- β -Carbonsäure. Sm. 121°. Ag (*Soc.* 49, 162). — II, 1434.
 4) β -[2-Chlor-4-Isopropylphenyl]akrylsäure. Sm. 133—134° (*B.* 23, 3078). — II, 1433.
- C₁₇H₁₃O₂Cl₃** 1) $\gamma\gamma\delta$ -Trichlor- β -Oxyamylphenylketon (Butyrchloralacetophenon). Sm. 108—110° (*B.* 26, 559). — III, 148.
- C₁₇H₁₃O₂Br** 1) Aethyläther d. γ -Keto- α -[5-Brom-2-Oxyphenyl]- α -Buten. Sm. 106 bis 107° (*B.* 29, 1893).
 2) β -[2-Brom-4-Isopropylphenyl]akrylsäure. Sm. 134° (*B.* 23, 3076). — II, 1433.
- C₁₇H₁₃O₂B** 1) Dimethylester d. 2-Naphtylborsäure. Sd. 160—180°₈₀ (*B.* 27, 253). — IV, 1701.
- C₁₇H₁₃O₃N** C 65,7 — H 5,9 — O 21,9 — N 6,4 — M. G. 219.
 1) Methylenäther d. 7,8-Dioxy-1-Keto-2-Aethyl-1,2,3,4-Tetrahydroisochinolin. Fl. (*Soc.* 57, 1035). — II, 1765.
 2) Acetat d. Oximidomethyl-2,4-Dimethylphenylketon. Sm. 53—54° (*B.* 25, 3463). — III, 151.
 3) β -[2-Acetylamidophenyl]- α -Propen-4-Carbonsäure. Sm. 210—212° (*B.* 16, 2575). — II, 1429.
 4) α -Cyan- δ -Oxyvalerianphenyläthersäure. Sm. 62—67° (*B.* 30, 1057).
 5) 2-[α -Oximidobenzyl]-1-Methyl-R-Trimethylen-2-Carbonsäure. Sm. 130—135° u. Zers. (*Soc.* 61, 85). — II, 1684.
 6) Dimethylfumarphenylaminsäure. Sm. 59—64° (*J. pr.* [2] 46, 301). — II, 419.
 7) 4-Methylphenylpseudoitakonaminsäure. Sm. 184—185° (*A.* 254, 150).
 8) 5-Keto-2-Methyl-1-Phenyltetrahydropyrrol-2-Carbonsäure. Sm. 183°. Ba, Ag (*B.* 22, 2367). — II, 419.
 9) 1-Acetyl-1,2,3,4-Tetrahydrochinolin-4-Carbonsäure. Sm. 164,5°. Ca + 2H₂O (*M.* 3, 64). — IV, 214.
 10) 1,1,3-Trimethyl-2,4-Benzoxazin-6-Carbonsäure (Methylcumazonsäure). Sm. 217—218°. (2HCl, PtCl₄), H₂SO₄ + 2H₂O (*B.* 16, 2576). — II, 1587.
 11) Methylester d. α -Phenylamido- γ -Keto- α -Buten- β -Carbonsäure. Sm. 84—85° (*A.* 297, 34).
 12) Aethylester d. 3-Oxy-5-Methylindol-2-Carbonsäure (Ac. d. 4-Tolylindoxylsäure). Sm. 155—156° (*B.* 31, 1816).
 13) Aethylester d. 2-Keto-1,2,3,4-Tetrahydrochinolin-3-Carbonsäure. Sm. 137—138° (*B.* 29, 665). — IV, 240.

- C₁₁H₁₃O₃N** 14) **4-Aethoxylphenylimid d. Bernsteinsäure** (Pyrautin). Sm. 155° (158°). (2 + KJ, J₂) (B. 29, 85; G. 25 [2] 513, 520; 28 [2] 171; C. 1897 [1] 49).
 15) **1,2,3,4-Tetrahydro-2-Naphtylmonamid d. Oxalsäure**. Sm. 163 bis 164° (C. 1895 [2] 973).
- C₁₂H₁₃O₃N₂** C 58,3 — H 5,3 — O 19,4 — N 17,0 — M. G. 247.
 1) **Ricidin**. Sm. 193° (B. 30, 2197).
 2) **Methylimid d. β-Phenylnitrosamidopropan-αβ-Dicarbonsäure** (M. d. Phenylnitrosamidobrenzweinsäure). Sm. 147° (B. 18, 1044). — II, 440.
- C₁₂H₁₃O₃N₃** C 52,4 — H 4,7 — O 17,4 — N 25,4 — M. G. 275.
 1) **4-Oximido-3-Methyl-5-[β-Oximido-α-Phenylhydrazonäthyl]-4,5-Dihydroisoxazol**. Sm. 234° u. Zers. (B. 30, 1304). — IV, 768.
- C₁₂H₁₃O₃Br** 1) **Diäthyläther d. Methyl-3,5,6-Tribrom-2,4-Dioxyphenylketon**. Sm. 132—133° (M. 17, 321).
- C₁₂H₁₃O₄N** C 61,3 — H 5,5 — O 27,2 — N 5,9 — M. G. 235.
 1) **γ-Acetoximido-γ-Phenylbuttersäure** (stabile Form). Sm. 99° (B. 25, 1933). — II, 1658.
 2) **4-Propionylamido-1-Methylbenzol-3-Ketocarbonsäure** (Propionyl-p-Methylisatinsäure). Sm. 161—162° (B. 28, 731). — II, 1651.
 3) **β-2-Nitro-4-Isopropylphenylakrylsäure**. Sm. 156—157°. Ba (B. 17, 2016, 2283; 19, 258). — II, 1433.
 4) **β-[3-Nitro-4-Isopropylphenyl]akrylsäure**. Sm. 141°. Na + 3H₂O, K, Ca + 3H₂O, Ba + 5½H₂O (B. 19, 413). — II, 1433.
 5) **Lakton d. β-Oxy-β-[2-Nitro-4-Isopropylphenyl]propionsäure**. Sm. 73° (B. 17, 2021). — II, 1593.
 6) **Methoxyhydrat d. Chininsäure**. Chlorid, Jodid, Nitrat, Sulfat (A. 276, 267). — IV, 362.
 7) **Monaldehyd d. Methantricarbonsäuremonäthylesterphenylmonamid**. Sm. 51—52° (B. 29, 1794).
 8) **Aethylester d. Benzimidomethyläther-N-Ketocarbonsäure**. Sd. 192°₁₄ (Am. 20, 70).
 9) **Aethylester d. Acetylphenyloxaminsäure**. Sm. 64—65° (A. 184, 268). — II, 408.
 10) **Aethylester d. Oxalessigsäurephenylamid**. Sm. 87—88°. Na (B. 24, 1248). — II, 420.
 11) **Aethylimid d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure** (Ae. d. Hemipinsäure). Sm. 96—98° (B. 19, 2282; 23, 2906). — II, 1996.
 12) **Aethylisocimid d. m-Hemipinsäure**. Sm. 230° (M. 9, 339). — II, 1998.
- C₁₂H₁₃O₄N₂** C 54,8 — H 4,9 — O 24,3 — N 16,0 — M. G. 263.
 1) **Dimethylanilinalloxan + H₂O**. Zers. bei 230°. Ag, HCl (G. 17, 417). — II, 421.
 2) **Verbindung** (aus 5-Amido-4,6-Dioxy-2-Methylpyridin) (Soc. 71, 843). — IV, 823.
- C₁₂H₁₃O₄Cl** 1) **Diäthylester d. 4-Chlorbenzol-1,2-Dicarbonsäure**. Sd. 300—305° (A. 233, 238). — II, 1817.
 2) **Diäthylester d. 5-Chlorbenzol-1,3-Dicarbonsäure**. Sm. 45° (J. pr. [2] 25, 514). — II, 1828.
 3) **Diäthylester d. 2-Chlorbenzol-1,4-Dicarbonsäure**. Fl. (B. 19, 1638).
- C₁₂H₁₃O₄Br** 1) **3,4 [oder 4,5]-Methylen-2,5 [oder 2,3]-Dimethyläther d. 6-Brom-2,3,4,5-Tetraoxy-1-Propenylbenzol**. Sm. 51° (B. 23, 2287). — II, 1035.
 2) **α [oder β]-Brom-α-Phenylbutan-ββ-Dicarbonsäure**. Sm. 158—159° u. Zers. (A. 282, 344). — II, 1857.
 3) **α-Brom-α-Phenyl-β-Methylpropan-βγ-Dicarbonsäure**. Sm. 149° u. Zers. (A. 216, 123; 255, 268). — II, 1857.
 4) **Diäthylester d. isom. 2-3-Brombenzol-1,2-Dicarbonsäure**. Sd. 295° u. ger. Zers. (Z. 1869, 108; A. 160, 64). — II, 1820.
 5) **Diäthylester d. 4-Brombenzol-1,3-Dicarbonsäure**. Sd. 320—325°₂₆₅ (B. 24, 3779). — II, 1828.
 6) **Acetylverbindung** (aus d. Methyläther d. α-Bromäthyl-3-Brom-4-Oxyphenylketon). Sm. 82,5—83° (J. pr. [2] 51, 429). — III, 142.
- C₁₂H₁₃O₄Br₂** 1) **3,4 [oder 4,5]-Methylen-2,5 [oder 2,3]-Dimethyläther d. 6-Brom-2,3,4,5-Tetraoxy-1-[βγ-Dibrompropyl]benzol** (Bromapioldibromid). Sm. 88—89° (B. 21, 2514). — II, 1034.
 2) **isom. Bromapioldibromid**. Sm. 110° (B. 29, 1800).

- $C_{12}H_{13}O_4Br_3$ 3) 3,4 [oder 4,5]-Methylen-2,5 [oder 2,3]-Dimethyläther d. 6-Brom-2,3,4,5-Tetraoxy-1-[$\alpha\beta$ -Dibrompropyl]benzol (Bromisoapioldibromid). Sm. 120° (B. 21, 2515). — II, 1034.
- $C_{12}H_{13}O_4J$ 4) isom. Bromisoapioldibromid. Sm. 115° (B. 29, 1804).
- 1) Diäthylester d. 3-Jodbenzol-1,2-Dicarbonsäure. Sm. 70° (J. pr. [2] 53, 384).
- $C_{12}H_{13}O_5N$ C 57,3 — H 5,1 — O 31,9 — N 5,6 — M. G. 251.
- 1) 4-Acetat d. 3-Methyläther d. 5-Nitro-3,4-Dioxy-1-Allylbenzol. Sm. 61° (M. 3, 391). — II, 976.
- 2) Diacetat d. 5-Acetylamido-1,3-Dioxybenzol. Sm. 119–121° (M. 14, 422). — II, 929.
- 3) Aethylester d. β -[6-Nitro-3-Methoxyphenyl]akrylsäure. Sm. 72,5° (A. 262, 173). — II, 1635.
- 4) Aethylester d. β -[3-Nitro-4-Methoxyphenyl]akrylsäure. Sm. 100° (A. 243, 373). — II, 1636.
- 5) 2-Aethylester d. 1,6-Anhydro-6-Amido-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure (Ae. d. Azoopiansäure). Sm. 98° (B. 19, 2300). — II, 1998.
- 6) Monamid d. Benzoyloxybernsteinsäuremonomethylester. Sm. 78 bis 80° (B. 19, 2462). — II, 1154.
- 7) 1-Methylamid d. 5-Oxybenzoläthyläther-1-Carbonsäure-2-Ketocarbonsäure? Sm. bei 100°. Ba (A. 286, 23). — II, 2009.
- 8) Phenylmonamid d. Tricarballysäure. Ag₂ (B. 24, 599). — II, 422.
- 9) Monophenylamid - 3 - Carbonsäure d. Malonsäuremonäthylester (Aethoxylmalonbenzamsäure). Sm. 172–173° u. Zers. (A. 232, 144). — II, 1265.
- $C_{12}H_{13}O_5N_3$ C 51,6 — H 4,6 — O 28,7 — N 15,1 — M. G. 279.
- 1) Aethylester d. α -[2-Nitrophenyl]azo- β -Ketopropan- α -Carbonsäure. Sm. 85–95° (92–93°) (B. 17, 2416; 30, 1968). — IV, 706.
- 2) Aethylester d. α -[4-Nitrophenyl]azo- β -Ketopropan- α -Carbonsäure. Sm. 122–123° (B. 30, 1968; 31, 3125). — IV, 706, 1467.
- $C_{12}H_{13}O_5Br$ 1) 1-Aldehyd-2-Aethylester d. 6-Brom-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure (Ae. d. Bromopiansäure). Sm. 78° (B. 25, 1996). — II, 1943.
- $C_{12}H_{13}O_5Br_3$ 1) Diacetat (aus Tribromxylenoldibromid). Sm. 172–173° (B. 29, 2354).
- $C_{12}H_{13}O_6N$ C 53,9 — H 4,9 — O 35,9 — N 5,2 — M. G. 267.
- 1) 1,3-Dimethyläther d. 2-Nitro-4-Keto-1,3,3-Trioxy-1,2,3,4-Tetrahydronaphtalin. Sm. 143° u. Zers. (A. 278, 190). — III, 391.
- 2) Acetat d. Apiolaldoxim. Sm. 128–129° (B. 21, 2130). — III, 110.
- 3) Triacetat d. 1-Amido-?-Trioxybenzol. Sm. 182–184° (M. 16, 253).
- 4) Dipropionat d. 2-Nitro-1,4-Dioxybenzol. Sm. 86° (A. 200, 247). — II, 946.
- 5) 2-Nitro-1-[α -Acetoxyisopropyl]benzol-4-Carbonsäure. Sm. 131 bis 133° (B. 16, 2569). — II, 1586.
- 6) Oxyessig-[β -Nitro-3-Methoxy-1-Propenylphenyl]-4-Aethersäure (G. 23 [1] 556). — II, 980.
- 7) 2-Keto-4,6,7-Trioxy-1,2,3,4-Tetrahydrochinolin-6,7-Dimethyläther-5-Carbonsäure. Ba + 6 H₂O (B. 19, 2297). — II, 2045.
- 8) Aethylester d. α -Keto- β -[4-Nitro-3-Methoxyphenyl]äthan- α -Carbonsäure. Sm. 142° (B. 31, 398).
- 9) Aethylester d. Diacetylkomenaminsäure. Sm. 38° (J. pr. [2] 29, 59). — IV, 158.
- 10) Diäthylester d. 3-Nitrobenzol-1,2-Dicarbonsäure. Sm. 45° (A. 208, 243). — II, 1821.
- 11) Diäthylester d. 4-Nitrobenzol-1,2-Dicarbonsäure. Sm. 33–34° (A. 208, 234; B. 32, 34). — II, 1822.
- 12) Diäthylester d. 5-Nitrobenzol-1,3-Dicarbonsäure. Sm. 83,5° (A. 153, 288; J. pr. [2] 25, 489). — II, 1829.
- 13) Diäthylester d. Pyridin-2,3,4-Tricarbonsäure. Sm. 118°. HCl (M. 18, 226).
- 14) Verbindung (aus d. Citronensäurephenylimid). Ag₂ (A. 82, 95). — II, 423.
- $C_{12}H_{13}O_7N$ C 50,9 — H 4,6 — O 39,6 — N 4,9 — M. G. 283.
- 1) Nitropikrotoxin (J. 1863, 587). — III, 644.

- C₁₂H₁₃O₇N** 2) **6-Acetylamido-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure** (Acetylamidohemipinsäure). Sm. 160—170° u. Zers. (B. 19, 2921). — II, 1998.
- 3) **Methylester d. α -Oximido- α -[2,3,4,5-Tetraoxyphenyl]methan- β -Dimethyläther- β -Methylenäther- α -Carbonsäure**. Sm. 129° (G. 21 [2] 184). — II, 2044.
- 4) **1 oder 3-Monoäthylester d. 4,6-Dioxybenzol-1,3-Dicarbonsäure-2-Methylcarbonsäure**. Sm. 221—222° (B. 31, 2017).
- 5) **Diäthylester d. α -[β -Nitro-2-Furanyl]äthen- $\beta\beta$ -Dicarbonsäure**. Sm. 108° (B. 28, 2257). — III, 718.
- 6) **1-Aldehyd-2-Aethylester d. 6-Nitro-3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure** (Aethylester d. Nitroopiansäure). Sm. 96° (J. pr. [2] 24, 358). — II, 1944.
- C₁₂H₁₃O₇N₃** C 46,3 — H 4,2 — O 36,0 — N 13,5 — M. G. 311.
- 1) **Acetylderivat d. Verb. C₁₀H₁₁O₆N₃** (aus 6-Nitroopiansäureamid). Zers. bei 246° (B. 31, 928).
- C₁₂H₁₃O₇Br** 1) **Diäthylester d. 5-Brom-2,4,6-Trioxybenzol-1,3-Dicarbonsäure** (D. d. Bromphloroglucindicarbonsäure). Sm. 128° (B. 21, 1770). — II, 2044.
- 2) **Diäthylester d. Bromketacetsäure**. Sm. 125—130° (A. 269, 43). — I, 848.
- C₁₂H₁₃O₈N₅** C 40,6 — H 3,5 — O 36,1 — N 19,7 — M. G. 355.
- 1) **Aethylester d. β -[2,4,6-Trinitrophenyl]hydrazonbuttersäure**. Sm. 115° (G. 24 [1] 580). — IV, 691.
- C₁₂H₁₃O₁₀N** C 43,5 — H 3,9 — O 48,3 — N 4,2 — M. G. 331.
- 1) **Verbindung** (aus Ketacetsäurediäthylester) + H₂O. Sm. 95° (A. 269, 45). — I, 848.
- C₁₂H₁₃N₈** 1) **Aethyläther d. 4-Merkapto-2-Methylchinolin**. Sm. 56° (B. 21, 630). — IV, 313.
- 2) **Aethyläther d. 2-Merkapto-4-Methylchinolin**. Fl. (2HCl, PtCl₄ + $\frac{1}{2}$ H₂O), HJ (B. 21, 627). — IV, 318.
- C₁₂H₁₃N₂Cl** 1) **2-Chlor-5 oder 7-Amido-4-Methyl-3-Aethylchinolin**. Sm. 138° (B. 31, 2146).
- 2) **4-Chlor-1-Isobutyl-2,3-Benzdiazin**. Fl. (2HCl, PtCl₄), Pikrat (B. 29, 1441). — IV, 942.
- 3) **2-Amidochlorbenzylat d. Pyridin**. HCl, (HCl, PtCl₄) (A. 259, 58). — IV, 629.
- 4) **3-Amidochlorbenzylat d. Pyridin**. HCl (A. 259, 59). — IV, 639.
- 5) **4-Amidochlorbenzylat d. Pyridin**. HCl (A. 259, 54). — IV, 640.
- C₁₂H₁₃N₂Br** 1) **Brombipikolin**. 2HBr (J. 1878, 440). — IV, 126.
- C₁₂H₁₃N₂Cl₂** 1) **Verbindung** (aus Diazobenzolchlorid u. Salzs. Anilin). + PtCl₄ (Am. 17, 93).
- C₁₂H₁₃N₃S** 1) **Benzyleyanamid d. Allylamidothioameisensäure**. Sm. 116° (B. 23, 1664). — II, 529.
- C₁₂H₁₃N₃S₂** 1) **Verbindung** (aus CS₂ u. 1,3-Diamidobenzol) (B. 17, 2658). — IV, 576.
- C₁₂H₁₄ON₂** C 71,3 — H 6,9 — O 7,9 — N 13,9 — M. G. 202.
- 1) **1-Phenylhydrazon-5-Oxy-1,2,3,4-Tetrahydrobenzol**. Sm. 176—177° (A. 278, 39). — II, 906.
- 2) **3-[α -Oxyisopropyl]-4-Phenylpyrazol**. Sm. 129—130° (B. 28, 700). — IV, 942.
- 3) **5-Oxy-4-Methyl-3-Aethyl-1-Phenylpyrazol**. Sm. 104° (Bl. [3] 4, 651). — IV, 526.
- 4) **Methyläther d. 5-Oxy-3-Methyl-1-[2-Methylphenyl]pyrazol**. Sm. 96—97° (B. 17, 550). — IV, 511.
- 5) **Methyläther d. 5-Oxy-3-Methyl-1-[4-Methylphenyl]pyrazol**. Sm. 137° (B. 17, 550). — IV, 511.
- 6) **Methyläther d. 5-Oxy-3,4-Dimethyl-1-Phenylpyrazol**. Sd. 244 bis 245°₂₅ (B. 28, 713; J. pr. [2] 54, 209). — IV, 521.
- 7) **Aethyläther d. 5-Oxy-3-Methyl-1-Phenylpyrazol**. Sm. 38,5° (40°); Sd. 300—302°. HCl, (2HCl, PtCl₄) (A. 266, 76; B. 28, 632, 710, 713; Am. 14, 417, 585; 16, 436; J. pr. [2] 47, 246; [2] 54, 191). — IV, 507.
- 8) **3-Keto-5-Methyl-1-Aethyl-2-Phenyl-2,3-Dihdropyrazol**. Sm. 72 bis 73°. (2HCl, PtCl₄ + 2H₂O) (J. pr. [2] 54, 191; A. 293, 3). — IV, 511.
- 9) **3-Keto-1,4,5-Trimethyl-2-Phenyl-2,3-Dihdropyrazol**. Sm. 82°; Sd. 350°₇₅₀. Pikrat (J. pr. [2] 54, 210; A. 238, 209; 293, 9 Anm.). — IV, 521.

- C₁₁H₁₁ON₂** 10) **5-Keto-3-Methyl-4-Aethyl-1-Phenyl-4,5-Dihydropyrazol** + H₂O. Sm. 108° (wasserfrei) (B. 17, 2051). — IV, 526.
 11) **5-Keto-3,4,4-Trimethyl-1-Phenyl-4,5-Dihydropyrazol**. Sm. 55 bis 56°; Sd. 309° (290°₇₅₀) (A. 238, 165; 293, 9). — IV, 526.
 12) **5-Keto-3-Methyl-1-[2,4-Dimethylphenyl]-4,5-Dihydropyrazol**. Sm. 159°. HCl, H₂Fe(CN)₆ (M. 12, 215). — IV, 813.
 13) **2-Keto-5-Methyl-4-[3-Methylbenzyl]-2,3-Dihydroimidazol**. Sm. 265° (B. 31, 2132).
 14) **1-Benzoyl-2-Aethyl-4,5-Dihydroimidazol**. Sm. 240—242° (B. 28, 1175).
 15) **1-Benzoyl-2,5-Dimethyl-4,5-Dihydroimidazol**. Sm. 197° (B. 28, 1177).
 16) **5-Imido-3-Propyl-4-Phenyl-4,5-Dihydroisoxazol**. Sm. 107—108° (J. pr. [2] 55, 346).
 17) **5-Isoamyl-3-Phenyl-1,2,4-Oxiazol**. Sd. 257° (B. 22, 3145). — II, 1201.
 18) **5 oder 7-Amido-2-Oxy-4-Methyl-3-Aethylchinolin**. Sm. 284° u. Zers. (B. 31, 2145).
 19) **4-Keto-7-Methyl-2-Isopropyl-3,4-Dihydro-1,3-Benzdiazin**. Sm. 228° (B. 27 [2] 516; J. pr. [2] 51, 570). — IV, 942.
 20) **1-Keto-4-Isobutyl-1,2-Dihydro-2,3-Benzdiazin**. Sm. 113° (B. 29, 1440).
 21) **Pyrrolroth** (A. 105, 357; 116, 279; 119, 368). — IV, 68.
- C₁₂H₁₄ON₂** C 62,6 — H 6,1 — O 7,0 — N 24,3 — M. G. 230.
 1) **β-Amidocyanmethylen-α-Isobutyryl-α-Phenylhydrazin**. Sm. 150° (B. 27, 1964). — IV, 742.
 2) **3,4-Dimethyl-1-[p-Acetylamidophenyl]-1,2,5-Triazol** + C₂H₅O. Sm. 139° (J. pr. [2] 57, 167). — IV, 1107.
 3) **Amid d. 5-Propyl-1-Phenyl-1,2,4-Triazol-3-Carbonsäure**. Sm. 122 bis 122,5° (B. 25, 180). — IV, 1118.
 4) **Amid d. 5-Isopropyl-1-Phenyl-1,2,4-Triazol-3-Carbonsäure**. Sm. 145—146° (127,5—128°) (B. 25, 182; 27, 1966). — IV, 1118.
- C₁₂H₁₄O₂N₂** C 66,1 — H 6,4 — O 14,7 — N 12,8 — M. G. 218.
 1) **β-Acetylimido-β-Acetylamido-α-Phenyläthan**. Sm. 172—173° (B. 17, 1425). — IV, 850.
 2) **3,5-Dioximido-1-Phenylhexahydrobenzol** (Dioxim d. Phenyl-dihydroresorcin). Sm. 177° (B. 27, 2056; A. 294, 308). — III, 279.
 3) **1-Phenylamido-2,5-Diketo-3,3-Dimethyltetrahydropyrrol** (Dimethylsuccinylphenylhydrazin). Sm. 131—132° (A. 242, 204). — IV, 704.
 4) **Methyläther d. 4-Oxy-3-Keto-1,5-Dimethyl-2-Phenyl-2,3-Dihydropyrazol**. Sm. 75° (A. 293, 54). — IV, 513.
 5) **Methyläther d. 3-Oxy-5-Keto-4,4-Dimethyl-1-Phenyl-4,5-Dihydropyrazol**. Sm. 70°; Sd. bei 310° (B. 31, 3010).
 6) **5-Aethyläther d. 5-Oxy-1-[4-Oxyphenyl]-3-Methylpyrazol**. Sm. 195° (B. 28, 637). — IV, 514.
 7) **Aethyläther d. 5-Keto-3-Methyl-1-[4-Oxyphenyl]-4,5-Dihydropyrazol**. Sm. 147° (B. 25, 1664). — IV, 514.
 8) **β-Oxyäthyläther d. 5-Oxy-3-Methyl-1-Phenylpyrazol** + H₂O. Sm. 61 bis 62° (53—54° wasserfrei) (B. 28, 713). — IV, 513.
 9) **2-Acetyl-5-Keto-3-Methyl-1-Phenyltetrahydropyrazol**. Sm. 126° (B. 26, 105). — IV, 489.
 10) **2-Acetyl-3-Keto-5-Methyl-1-Phenyltetrahydropyrazol**. Sm. 79° (J. pr. [2] 45, 89). — IV, 489.
 11) **p-Nitroso-2-Keto-3-Benzylhexahydropyridin**. Sm. 61,5—62,5° (B. 23, 3697). — II, 1397.
 12) **3,6-Diketo-2-Aethyl-1-Phenylhexahydro-1,2-Diazin**. Sm. 60,5° (B. 26, 678). — IV, 703.
 13) **Aethyläther d. 3-Keto-6-[4-Oxyphenyl]-2,3,4,5-Tetrahydro-1,2-Diazin**. Sm. 145—146° (B. 32, 405).
 14) **Aethyläther d. 2-Oximido-3-Keto-1-Aethyl-2,3-Dihydroindol** (Aethylpseudoisatin-α-Aethylloxim). Sm. 99° (B. 16, 2193). — II, 1614.
 15) **Diäthyläther d. 3-Oximido-2-Oxypseudoindol** (Aethylisatoäthylloxim) (B. 16, 1707). — II, 1611.
 16) **1,4-Diacetyl-1,2,3,4-Tetrahydro-1,4-Benzdiazin**. Sm. 144°; Sd. 350° u. Zers. (B. 21, 378). — IV, 558.
 17) **Lakton d. γ-Phenylhydrazon-δ-Oxy-β-Methylbutan-β-Carbonsäure**. Sm. 131° (B. 31, 2731).

- C₁₃H₁₄O₂N₂** 18) Aethylester d. α -Cyan- α -Phenylamidopropionsäure (B. 19, 2964). — II, 433.
- 19) Aethylester d. β -Phenylazocrotonsäure. Sm. 50,5° (B. 20, 2747; A. 266, 74). — IV, 691.
- 20) Amid d. 5-Keto-2-Methyl-1-Phenyltetrahydropyrrol-2-Carbonsäure. Sm. 127° (B. 22, 2366). — II, 419.
- 21) 1-Vinylamid-2-Aethylamid d. Benzol-1,2-Dicarbonsäure. Sm. 106 bis 107°. HCl, (2HCl, PtCl₄), (2HCl, AuCl₃), Pikrat (B. 29, 2528).
- 22) Imid d. β -[2-Methylphenyl]amidopropan- $\alpha\beta$ -Dicarbonsäure (I. d. o-Toluidobrenzweinsäure). Sm. 181° (B. 18, 1050). — II, 473.
- 23) Methylimid d. β -Phenylamidopropan- $\alpha\beta$ -Dicarbonsäure (M. d. Phenylamidobrenzweinsäure). Sm. 103° (B. 18, 1043). — II, 440.
- 24) Phenylhydrazid d. Pentinsäure (B. 21, 2607). — IV, 693.
- C₁₃H₁₄O₂N₄** C 58,5 — H 5,7 — O 13,0 — N 22,8 — M. G. 246.
- 1) 3,5,3',5'-Tetraamido-4,4'-Dioxybiphenyl. 2HCl, 4HCl + 4H₂O, H₂SO₄ (B. 21, 3334, 3532). — II, 989.
- 2) Diacetylbenzylidenamidoguanidin. Sm. 158—159° (A. 302, 307).
- 3) 4-Oximido-3-Methyl-5-[α -Phenylhydrazonäthyl]-4,5-Dihydroisoxazol. Sm. 208° (B. 30, 1309). — IV, 768.
- 4) 4-Ureido-3-Keto-1,5-Dimethyl-2-Phenyl-2,3-Dihydropyrazol. Sm. 245° (A. 293, 65). — IV, 1109.
- 5) 6,7-Di[Acetylamido]-2-Methylbenzimidazol. Sm. 176°. Pikrat (B. 22, 1651). — IV, 1243.
- C₁₂H₁₄O₂Cl₄** 1) Dipropyläther d. 2,4,5,6-Tetrachlor-1,3-Dioxybenzol. Fl. Zers. bei 100° (B. 13, 1678; M. 1, 260). — II, 920.
- C₁₁H₁₄O₂Br₂** 1) 3-Methyläther-4-Aethyläther d. $\alpha\beta$ -Dibrom- α -[3,4-Dioxyphenyl]propen (B. 29, 680).
- 2) 3-Methyläther-4-Aethyläther d. ρ -Dibrom- γ -[3,4-Dioxyphenyl]propen. Sm. 20° (B. 28, 2086).
- 3) $\alpha\beta$ -Dibrom- β -[4-Isopropylphenyl]propionsäure. Sm. 190° (B. 19, 258). — II, 1398.
- 4) Methylester d. 2,5-Dibrom-4-Isopropylphenylessigsäure. Sd. 325 bis 326° (G. 21 [1] 57). — II, 1395.
- 5) norm. Propylester d. $\alpha\beta$ -Dibrom- β -Phenylpropionsäure. Sm. 23° (B. 12, 538). — II, 1359.
- C₁₁H₁₄O₂S₂** 1) Diäthylester d. Benzol-1,3-Dithiolcarbonsäure (B. 17, 1435). — II, 1830.
- C₁₁H₁₄O₂N₂** C 61,5 — H 6,0 — O 20,5 — N 12,0 — M. G. 234.
- 1) 2,3-Diimido-1,1,4-Triacetyl-5-Methyl-2,3-Dihydro-R-Penten. Sm. 194—198° (B. 31, 2945).
- 2) 1-[3-Nitrobenzoyl]hexahydropyridin + 5H₂O. Sm. 83—84° (B. 21, 2245). — IV, 15.
- 3) Acetat d. β -Imido- β -Acetylamido- α -Oxy- α -Phenyläthan. Sm. 210° (B. 23, 2948). — II, 1553.
- 4) Acetat d. α -Oximido- α -[2-Acetylamidophenyl]äthan. Sm. 127° (B. 24, 2374). — III, 132.
- 5) Aethylester d. α -Benzoylhydrazonpropionsäure. Sm. 155° (J. pr. [2] 50, 308). — II, 1308.
- 6) Aethylester d. Acetylphenylhydrazonessigsäure. Sm. 95° (B. 25, 3183). — IV, 700.
- 7) Aethylester d. α -Phenylhydrazon- β -Ketopropan- α -Carbonsäure (Ae. d. Azobenzolacetessigsäure). Sm. 80—84° (75°; 59,5°) (B. 11, 1418; 17, 1927; 30, 1965; 32, 198). — IV, 705.
- 8) Aethylester d. γ -Phenylallenylamidoximkohlsäure. Sm. 101° (B. 22, 2399). — II, 1409.
- 9) Aethylester d. 2-Keto-1,2,3,4-Tetrahydro-1,4-Benzdiazin-1-Methylcarbonsäure. Sm. 163° (A. 292, 251). — IV, 559.
- 10) Amid d. 4-Propionylamido-1-Methylbenzol-3-Ketocarbonsäure. Sm. 186° (B. 28, 733). — II, 1651.
- 11) Diamid d. α -[4-Oxyphenyl]propen-4-Methyläther- $\beta\gamma$ -Dicarbonsäure (I. d. 4-Methoxybenzalbernsteinsäure). Sm. 255°. HCl, HNO₃ (J. pr. [2] 50, 8). — II, 1964.
- 12) Phenylamid d. β -Acetoximidobuttersäure. Sm. 96—97° (B. 28, 2731).

- $C_{11}H_{11}O_3N$, 13) Phenylmonohydrazid d. β -Buten- $\beta\gamma$ -Dicarbonsäure (Pyrocinchonylphenylhydrazidsäure). Phenylhydrazinsalz (*J. pr.* [2] 42, 68). — IV, 708.
- $C_{11}H_{11}O_3Br$, 1) Diäthyläther d. Methyl- β -Dibrom-2,4-Dioxyphenylketon. Sm. 51 bis 52° (*M.* 17, 319).
- 2) Diäthyläther d. isom. Methyl- β -Dibrom-2,4-Dioxyphenylketon. Sm. 127—129° (*M.* 17, 320).
- 3) Myristicinidibromid. Sm. 105° (*B.* 23, 1809). — III, 638.
- 4) Äthylester d. $\alpha\beta$ -Dibrom- β -[4-Methoxyphenyl]propionsäure. Sm. 114° (*Bl.* [3] 17, 512).
- $C_{11}H_{11}O_3S$, 1) 4-Methylphenyl- β -Merkaptoläwulinsäure. Sm. 103—104°. Ba (*B.* 25, 2983). — II, 825.
- 2) Äthylester d. Phenylmerkaptacetylessigsäure. Fl. Zers. bei 60 bis 70° (*B.* 25, 2982). — II, 789.
- $C_{11}H_{11}O_4N$, C 57,6 — H 5,6 — O 25,6 — N 11,2 — M. G. 250.
- 1) Nitrosoanhalonin. Sm. 58° (59°) (*C.* 1898 [1] 741; *B.* 31, 1197).
- 2) Phenylacetyluramidooessigsäure (Phenylacetyluramidacetyluramidooessigsäure). Sm. 173—174° (*J. pr.* [2] 38, 102). — II, 1313.
- 3) α -[4-Äthoxyphenyl]hydrazon- β -Ketopropan- α -Carbonsäure. Sm. 172—173° (*B.* 28, 1695). — IV, 815.
- 4) Dimethylester d. Phenylhydrazonäthan- $\alpha\beta$ -Dicarbonsäure. Sm. 118° (*B.* 22, 2930; *A.* 277, 377). — IV, 713.
- 5) Monoäthylester d. Phenylhydrazonäthan- $\alpha\beta$ -Dicarbonsäure (*A.* 246, 325). — IV, 713.
- 6) Monoäthylester d. α -[4-Methylphenyl]hydrazonmethan- $\alpha\alpha$ -Dicarbonsäure. Sm. 139,5° (*B.* 27, 1688). — IV, 809.
- 7) Äthylester d. 2-Keto-4-Furanyl-6-Methyl-1,2,3,4-Tetrahydro-1,3-Diazin-5-Carbonsäure (Ä. d. Furfuramidocrotonsäure). Sm. 208 bis 209° (*G.* 23 [1] 390). — III, 714.
- 8) 2-Methoxyl-4-Allylphenylester d. Allophansäure (*A.* 114, 163). — II, 975.
- 9) Acetat d. 2,4-Di[Acetyl-amido]-1-Oxybenzol. Sm. 180—182° (*B.* 31, 2399).
- 10) Acetat d. 2,5-Di[Acetyl-amido]-1-Oxybenzol. Sm. 234° (*B.* 30, 2098).
- 11) Acetat d. 3,4-Di[Acetyl-amido]-1-Oxybenzol. Sm. 184—185° (135 bis 136°) (*B.* 31, 2404; *J. pr.* [2] 43, 72). — II, 723.
- 12) Diacetat d. α -Oxy- α -Phenyläthenylamidoxim. Sm. 113° (*B.* 18, 1077). — II, 1553.
- 13) Diacetat d. 1,4-Dioximido-2,5-Dimethyl-1,4-Dihydrobenzol. Sm. 170° (*B.* 20, 978). — III, 363.
- 14) Benzoesäure d. α -Nitro- α -Oximidopentan (*B.* d. Amylnitrosäure). Sm. 83° (*B.* 28, 1280).
- 15) 5-Nitro-2,4-Dimethylphenylimid d. Essigsäure. Sm. 115° (*A.* 271, 16). — II, 544.
- 16) Verbindung + 2H₂O (aus Glykose u. 1,2-Diamidobenzolacetat) (*B.* 20, 2207; 22, 93). — IV, 565.
- $C_{11}H_{11}O_4Cl$, 1) Diäthylester d. 3,6-Dichlor-1,4-Dihydrobenzol-2,5-Dicarbonsäure. Sm. 70—71° (*B.* 21, 1467). — II, 1760.
- $C_{11}H_{11}O_4Br$, 1) 3,4[oder 4,5]-Methylen-2,5[oder 2,3]-Dimethyläther d. 2,3,4,5-Tetraoxy-1-Dibrompropylbenzol. Sm. 75° (*B.* 23, 2287). — II, 1034.
- $C_{11}H_{11}O_4S$, 1) α -Merkaptopropanbenzyläther- $\alpha\beta$ -Dicarbonsäure (Benzylsulfhydrylbrenzweinsäure). Sm. 145° (*M.* 18, 62).
- $C_{11}H_{11}O_4S$, 1) Merkaptooessigmethylphenylmethylenäthersäure (Methylphenylmethylenedithioglykolsäure). Sm. 135—136° (*B.* 21, 483). — III, 129.
- $C_{11}H_{11}O_5N$, C 54,1 — H 5,3 — O 30,1 — N 10,5 — M. G. 266.
- 1) δ -3-[Nitrobenzoyl]amidovaleriansäure. Sm. 134—135°. Ba + 2½H₂O, Cd + 7H₂O (*B.* 22, 2247). — II, 1234.
- 2) Monoäthylester d. 2,3-Diimido-1-Acetyl-5-Methyl-2,3-Dihydro-R-Penten-1,4-Dicarbonsäure. Sm. 136° (*B.* 31, 2943).
- 3) Äthylester d. 5-Nitro-2-Acetylmethylamidobenzol-1-Carbonsäure. Sm. 66° (*J. pr.* [2] 43, 478). — II, 1283.
- 4) 2-Äthylester d. 1-Methylbenzol-2-Amidoameisensäure-4-Oxaminsäure + ½H₂O (2-Urethanotolyloxamidsäure). Sm. 168—170° (*A.* 268, 336). — IV, 604.
- 5) Phenylmonohydrazid d. Propan- $\alpha\beta\gamma$ -Tricarbonsäure. Ca (*B.* 24, 599). — IV, 722.

- $C_{12}H_{14}O_5N_4$ C 49,0 — H 4,8 — O 27,2 — N 19,0 — M. G. 294.
 1) 5-Nitro-1,2,3-Tri[Acetylamido]benzol. Sm. 243° (B. 30, 544). — IV, 1121.
- $C_{12}H_{14}O_6N_2$ C 51,1 — H 4,9 — O 34,0 — N 9,9 — M. G. 282.
 1) Methylen dimethyläther d. 2,3,4,5-Tetraoxy-1-[$\alpha\beta$ -Dioximidopropyl]-benzol. Sm. 154° (G. 22 [2] 502). — II, 1035.
 2) Methylen dimethyläther d. isom. 2,3,4,5-Tetraoxy-1-[$\alpha\beta$ -Dioximidopropyl]benzol. Sm. 197—198° (G. 22 [2] 504). — II, 1035.
 3) Arabinose-2,3-Diamidobenzol-1-Carbonsäure + 2H₂O. Sm. 235° u. Zers. Ba, HCl (B. 20, 3114). — II, 1273.
 4) Methylester d. 3,5-Dinitro-2,4,6-Trimethylphenylessigsäure. Sm. 140—141° (A. 264, 141; B. 30, 1276). — II, 1396.
 5) Aethylester d. 2,6-Dinitro-1-Isopropylbenzol-4-Carbonsäure. Sm. 77,5° (J. 1858, 271). — II, 1387.
 6) Diäthylester d. 3,6-Diamido-1,4-Diketo-1,4-Dihydrobenzol-2,5-Dicarbonsäure. Zers. bei 270° (B. 20, 1311). — II, 2009.
 7) Acetat d. 3,5-Dinitro-2-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 72 bis 73° (G. 21 [2] 157). — II, 767.
 8) Acetat d. 2,6-Dinitro-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 85° (G. 20, 145). — II, 773.
 9) Phenylhydrazid d. d-Mannozuckersäure. Sm. 190—191° u. Zers. (B. 24, 544). — IV, 730.
 10) Phenylmonohydrazid d. l-Mannozuckersäure + $\frac{1}{2}$ H₂O. Sm. 190 bis 192° u. Zers. (B. 20, 2713). — IV, 730.
- $C_{12}H_{14}O_6N_4$ C 46,4 — H 4,5 — O 31,0 — N 18,1 — M. G. 310.
 1) Desoxyamalinsäure (Tetramethylhydurilsäure). Sm. 260° u. Zers. Na, (A. 221, 339; A. ch. [6] 28, 327; B. 28, 2476; C. 1897 [2] 555). — I, 1404.
 2) Aethylester d. β -[2,4-Dinitrophenyl]hydrazonbuttersäure. Sm. 96° (95°) (J. pr. [2] 50, 267; G. 24 [1] 569). — IV, 690.
- $C_{12}H_{14}O_6S_2$ 1) Disulfonsäure d. Kohlenw. C₁₂H₁₄ (aus Petroleum). Na + 3H₂O, Ba + 6H₂O (B. 15, 733; A. 234, 111). — II, 176.
- $C_{12}H_{14}O_7N_2$ C 48,3 — H 4,7 — O 37,6 — N 9,4 — M. G. 298.
 1) Methylester d. α -Nitro- β -Oxy- β -[4-Nitrophenyl]propionäthyläthersäure. Sm. 110°. Ba, Ag (A. 229, 219). — II, 1575.
 2) Methylester d. β -[3,5-Dinitro-4-Oxyphenyläthyläther]propionsäure. Sm. 36° (A. 225, 81). — II, 1566.
 3) Aethylester d. α -Nitro- β -Oxy- β -[4-Nitrophenyl]propionmethylestersäure. Sm. 77° (A. 229, 221). — II, 1575.
 4) Aethylester d. β -[3,5-Dinitro-4-Oxyphenylmethylether]propionsäure. Sm. 71° (A. 225, 80). — II, 1566.
- $C_{12}H_{14}O_7Br_2$ 1) Dibrompikroerythrin (A. 117, 322). — II, 1753.
- $C_{12}H_{14}O_8N_2$ C 45,9 — H 4,4 — O 40,8 — N 8,9 — M. G. 314.
 1) Diäthylester d. 2,5-Dinitroso-1,4-Diketo-hexahydrobenzol-2,5-Dicarbonsäure (D. d. Dinitrososuccinylbernsteinsäure). Sm. 113—114° u. Zers. (A. 229, 55). — I, 824.
- $C_{12}H_{14}O_8N_4$ C 42,1 — H 4,1 — O 37,4 — N 16,4 — M. G. 342.
 1) Amalinsäure (Tetramethylalloxantin) (A. 71, 3; 215, 258; J. 1850, 436; 1854, 503; A. ch. [6] 28, 327; B. 14, 1912; M. 3, 103). — I, 1402.
- $C_{12}H_{14}O_8Cl_2$ 1) Diäthylester d. Di[Dichloracetyl]weinsäure. Sd. 225°₁₅ (Soc. 73, 189).
- $C_{12}H_{14}O_{11}N_2$ C 28,7 — H 2,8 — O 35,1 — N 33,4 — M. G. 362.
 1) Dinitroarbutin + 2H₂O (A. 118, 293; 154, 243; 177, 343). — III, 571.
- $C_{12}H_{14}O_{15}Te$ 1) Citronentellurigesäure. K₂ + H₂O (J. 1886, 1352). — I, 840.
- $C_{12}H_{14}O_{22}N_6$ C 24,2 — H 2,4 — O 59,2 — N 14,1 — M. G. 594.
 1) Hexanitrat d. Cellulose (J. 1847/48, 1133; 1866, 861; 1867, 913; 1876, 1111; B. 13, 175). — I, 1075.
 2) Hexanitrat d. Stärke. Zers. bei 194° (B. 31, 88).
- $C_{12}H_{14}O_{27}N_8$ C 20,5 — H 2,0 — O 61,5 — N 15,9 — M. G. 702.
 1) Oktonitrat d. Maltose. Sm. 163—164° u. Zers. (B. 31, 84).
 2) Oktonitrat d. Milchsucker. Sm. 145—146° (139—140°) (J. r. 14, 257; B. 31, 83).
 3) Oktonitrat d. Rohrzucker. Sm. 28—29°; Zers. bei 135° (B. 31, 81).
 4) Oktonitrat d. Trehalose. Sm. 124° (B. 31, 85).

- $C_{11}H_{14}NCl$ 1) Chlorpropylat d. Chinolin + H_2O . Sm. 95° (145° wasserfrei). + $CHCl_3$ (B. 19, 2504). — IV, 251.
 2) Chloräthylat d. 2-Methylchinolin. 2 + $PtCl_4$, + $AuCl_3$ (A. 242, 305). — IV, 308.
 3) Chlormethylat d. 2,6-Dimethylchinolin. 2 + $PtCl_4$, + $AuCl_3$ (A. 242, 312). — IV, 329.
 4) Chlormethylat d. 2,8-Dimethylchinolin. 2 + $PtCl_4$, + $AuCl_3$ (A. 242, 309). — IV, 329.
- $C_{11}H_{14}NBr$ 1) p-Brom-1,3,4-Trimethyl-1,2-Dihydrochinolin? ($2HCl, PtCl_4$), HBr (G. 21, 316). — IV, 228.
 2) Brompropylat d. Chinolin + $2H_2O$. Sm. 66° . + $CHCl_3$ (B. 19, 2502). — IV, 251.
- $C_{11}H_{14}NBr_2$ 1) Bromid d. Chinolinbrompropylat. Sm. 93° (B. 19, 2505, 2763). — IV, 251.
- $C_{11}H_{14}NJ$ 1) Jodpropylat d. Chinolin. Sm. 145° . + $CHCl_3$ (B. 19, 2503). — IV, 251.
 2) Jodäthylat d. 2-Methylchinolin. Sm. $233-234^\circ$ (B. 16, 1851; R. 3, 345). — IV, 308.
 3) Jodäthylat d. 4-Methylchinolin. Sm. $141-143^\circ$ (R. 2, 321). — IV, 314.
 4) Jodmethylat d. 2-Aethylchinolin. Sm. 180° (A. 242, 273). — IV, 326.
 5) Jodmethylat d. 4-Aethylchinolin. Sm. 149° (B. 19, 3000). — IV, 327.
 6) Jodmethylat d. 2,3-Dimethylchinolin + $\frac{1}{2}H_2O$. Sm. 218° (B. 22, 271). — IV, 327.
 7) Jodmethylat d. 2,4-Dimethylchinolin. Sm. $225-226^\circ$ ($252-253^\circ$) (J. pr. [2] 33, 406; G. 23 [2] 120). — IV, 328.
 8) Jodmethylat d. 2,6-Dimethylchinolin. Sm. $236-237^\circ$ (A. 242, 311). — IV, 329.
 9) Jodmethylat d. 2,8-Dimethylchinolin. Sm. 221° (A. 242, 309). — IV, 329.
 10) Jodmethylat d. 3,4-Dimethylchinolin. Sm. $190-191^\circ$ (A. 245, 364). — IV, 330.
- $C_{11}H_{14}NJ_2$ 1) Jodid d. Chinolinjodpropylat. Sm. 62° (B. 19, 2506). — IV, 252.
- $C_{11}H_{14}NJ_4$ 1) Tetrajodid d. Chinolinjodpropylat. Sm. 50° (B. 19, 2506). — IV, 252.
- $C_{11}H_{14}N_2Cl_2$ 1) Pyridinäthylenchlorid. 2 + $PtCl_4$ (A. 121, 255). — IV, 111.
- $C_{11}H_{14}N_2Br_2$ 1) Pyridinäthylenbromid. Sm. 295° (C. 1897 [1] 241). — IV, 111.
 2) Dipyridinäthylenbromid (A. 121, 254). — IV, 111.
- $C_{11}H_{14}N_2J_2$ 1) Jodmethylat d. 4,4'-Bipyridyl (M. 3, 863). — IV, 954.
 2) Jodmethylat d. isom. Bipyridyl (M. 10, 382). — IV, 953.
- $C_{11}H_{14}N_2S$ 1) 2-Merkapto-4 oder 5-Methyl-5 oder 4-[3-Methylbenzyl]imidazol. Sm. 267° (B. 31, 2131).
 2) Methyläther d. 2-Merkapto-1-[2,4-Dimethylphenyl]imidazol. Fl. ($2HCl, PtCl_4$), HJ , Pikrat (B. 25, 2368). — IV, 504.
- $C_{11}H_{14}N_3Cl$ 1) 3-Chlor-5-Butyl-1-Phenyl-1,2,4-Triazol. Sd. $323-324^\circ$ (B. 29, 2676; 30, 2434). — IV, 1111.
- $C_{11}H_{14}N_3S$ 1) Di[2-Hydrazidophenyl]sulfid. Sm. 115° (B. 23, 3482; siehe auch B. 27, 2807). — II, 805.
 2) Di[4-Hydrazidophenyl]sulfid. Sm. 114° . $2HCl$, H_2SO_4 (A. 270, 150). — IV, 816.
 3) Amid d. 5-Propyl-1-Phenyl-1,2,4-Triazol-3-Thiocarbonsäure. Sm. $130-130,5^\circ$ (B. 25, 180). — IV, 1118.
 4) Amid d. 5-Isopropyl-1-Phenyl-1,2,4-Triazol-3-Thiocarbonsäure. Sm. $147-148^\circ$ (B. 25, 182). — IV, 1118.
- $C_{12}H_{14}N_4S_2$ 1) Di[2,5-Diamidophenyl]disulfid. Fl. Pikrat (A. 251, 67). — II, 817.
- $C_{12}H_{15}ON$ 1) C 76,2 — H 7,9 — O 8,5 — N 7,4 — M. G. 189.
 1) 1-Benzoylamido-R-Pentamethylen. Sm. $157,5-158,5^\circ$ (B. 30, 975).
 2) 2-[α -Oximidopropyl]-2,3-Dihydroinden. Sm. 104° (Soc. 65, 244). — III, 167.
 3) 2-Keto-3-Benzylhexahydropyridin. Sm. $117-118^\circ$. Pikrat (B. 23, 3696; 24, 2447). — II, 1397.
 4) 1-Benzylhexahydropyridin. Sm. 48° ; Sd. oberh. 360° (A. ch. [3] 38, 88; B. 17, 2545; 21, 2238; A. 280, 41). — IV, 15.
 5) 2-Keto-3,3-Diäthyl-2,3-Dihydroindol. Sm. $157-158^\circ$ (G. 28 [2] 414).
 6) Methoxyhydrat d. 2,6-Dimethylchinolin. Chlorid, Jodid, Bichromat (A. 242, 311). — IV, 329.

- C₁₂H₁₅ON**
- 7) Methyloxydhydrat d. 2,8-Dimethylechinolin. Chlorid, Jodid, Bichromat (A. 242, 309). — IV, 329.
 - 8) Aethyloxydhydrat d. 2-Methylechinolin. Chlorid, Jodid, Bichromat (B. 16, 1851; R. 3, 345; A. 242, 305). — IV, 308.
 - 9) 2-Keto-7-Isopropyl-1,2,3,4-Tetrahydrochinolin (Isopropylhydrocarbostyryl). Sm. 134° (B. 19, 2771, 2772, 2778). — II, 1398.
 - 10) 1-Acetyl-6-Methyl-1,2,3,4-Tetrahydrochinolin. Sd. 302—305°₇₁₉ (B. 24, 2068). — IV, 205.
 - 11) 1-Acetyl-8-Methyl-1,2,3,4-Tetrahydrochinolin. Sm. 53—54°; Sd. 297—299°₇₁₈ (B. 24, 2063). — IV, 206.
 - 12) Amid d. β-[4-Isopropylphenyl]akrylsäure. Sm. 185—186° (J. 1877, 790). — II, 1433.
 - 13) Phenylamid d. R-Pentamethylencarbonsäure. Sm. 159—160° (Soc. 65, 100).
 - 14) Phenylamid d. Brenzterebinsäure. Sm. 153—154° (G. 21, 273). — II, 371.
 - 15) Phenylamid d. β-Methyl-β-Buten-γ-Carbonsäure. Sm. 93—94° (Soc. 69, 1480).
 - 16) 1,2,3,4-Tetrahydro-1-Naphtylamid d. Essigsäure. Sm. 148—149° (144—145°) (B. 22, 966; Soc. 75, 152). — II, 586.
 - 17) 1,2,3,4-Tetrahydro-2-Naphtylamid d. Essigsäure. Sm. 107,5° (B. 21, 856). — II, 588.
 - 18) 1,2,3,4-Tetrahydro-5-Naphtylamid d. Essigsäure. Sm. 158° (B. 21, 1793). — II, 587.
 - 19) Nitril d. δ-Oxy-α-Methylvalerianphenyläthersäure. Sd. bei 300° (B. 26, 2571). — II, 665.
 - 20) Nitril d. Methylencamphercarbonsäure. Sm. 46—47°; Sd. 279—282° (A. 281, 385). — II, 1594.
- C₁₂H₁₅ON₂**
- 1) Aethyläther d. 5-Oxy-3-Methyl-1-[4-Amidophenyl]pyrazol. Sm. 94° (C. 1898 [2] 238).
 - 2) 3-Oxy-5-Isobutyl-1-Phenyl-1,2,4-Triazol. Sm. 164—165° (B. 29, 1950). — IV, 1111.
 - 3) 6-Acetyl-amido-1,2,5-Trimethylbenzimidazol. Sm. 237—238°. Pikrat (B. 31, 2517).
 - 4) 7-Acetyl-amido-1,2,5-Trimethylbenzimidazol. Sm. 199—201°. +¹/₂CH₄O. Pikrat (B. 31, 2520).
- C₁₂H₁₅OCl**
- 1) Chlorid d. 3-Pseudobutyl-1-Methylbenzol-5-Carbonsäure. Sd. 258 bis 260° (B. 31, 1345).
- C₁₂H₁₅O₂N**
- 1) β-Benzoylamido-γ-Keto-β-Methylbutan. Sm. 120—121° (A. 262, 334). — II, 1194.
 - 2) Methyl-2-Butyrylamidophenylketon. Sm. 52° (B. 26, 1388). — III, 124.
 - 3) Methyl-2-Isobutyrylamidophenylketon. Sm. 50° (B. 26, 1389). — III, 124.
 - 4) Aethyläther d. γ-Imido-γ-Oxy-α-Keto-α-[2-Methylphenyl]propan. Sm. 116,3°. HCl (B. 22 [2] 439). — II, 1660; III, 145.
 - 5) N-Acetylbenzimidopropyläther. Sd. 153°₁₃ (Am. 20, 74).
 - 6) N-Propionylbenzimidooethyläther. Sd. 161—162°₁₇ (Am. 20, 72).
 - 7) Acetat d. anti-2,4,6-Trimethylbenzaldoxim. Sm. 68° (B. 28, 746). — III, 57.
 - 8) Acetat d. syn-4-Isopropylbenzaldoxim. Sm. 60—61° (Ph. Ch. 13, 524). — III, 57.
 - 9) Acetat d. α-Oximido-α-[3,4-Dimethylphenyl]äthan. Sm. 71—72° (Soc. 63, 84). — III, 151.
 - 10) 3-Benzoyl-2,4-Dimethyltetrahydrooxazol. Sm. 105° (B. 30, 2257).
 - 11) 1-[2-Oxybenzoyl]hexahydropyridin. Sm. 142° (B. 21, 2252). — IV, 16.
 - 12) 1-[4-Oxybenzoyl]hexahydropyridin. Sm. 210° (B. 21, 2253). — IV, 16.
 - 13) Methylhydrodrastinin. Fl. (2HCl, PtCl₄), HJ (B. 24, 2736). — IV, 202.
 - 14) Methyläther d. 6-Oxy-1-Acetyl-1,2,3,4-Tetrahydrochinolin. Sm. 46—47° (M. 6, 771). — IV, 198.
 - 15) Isobutyläther d. 3-Oxy-1,4-Benzoxazin. Sd. 160—164°₂₁ (Am. 20, 564).

- C₁₂H₁₅O₂N** 16) β -[2-Amido-4-Isopropylphenyl]akrylsäure. Sm. 165° u. Zers. HCl + 3 H₂O (B. 19, 262). — II, 1433.
 17) β -[3-Amido-4-Isopropylphenyl]akrylsäure. Sm. 165°. HCl, (2HCl, PtCl₄ + 2 H₂O), H₂SO₄ + 2 1/2 H₂O (B. 19, 415). — II, 1434.
 18) 3-Isocamylidenamidobenzol-1-Carbonsäure. Sm. bei 130° (A. 210, 119). — II, 1270.
 19) Methylhomohydrocinchoninsäure + H₂O (M. 5, 651). — IV, 215.
 20) Aldehyd d. δ -Benzoylamidovaleriansäure. Sm. 65° (66°) (B. 31, 1561, 2687).
 21) Methylester d. β -[2-Methylphenyl]amidocrotonsäure. Sm. 31° (B. 21, 523). — II, 473.
 22) Methylester d. β -[4-Methylphenyl]amidocrotonsäure. Sm. 60,5° (B. 21, 525). — II, 509.
 23) Äthylester d. β -Phenylamidocrotonsäure. Zers. bei 240° (B. 20, 944, 1397). — II, 406.
 24) Äthylester d. β -[4-Methylphenyl]amidoakrylsäure. Sm. 116° (B. 25, 1052). — II, 509.
 25) Äthylester d. β -Methylimido- β -Phenylpropionsäure. Fl. (B. 29, 1051).
 26) Phenylester d. Hexahydropyridin-1-Carbonsäure. Sm. 80°; Sd. 300 bis 301° (Bl. [3] 19, 81).
 27) Amid d. δ -Keto- β -Phenylpentan- α -Carbonsäure + H₂O. Sm. bei 128° (A. 294, 325).
 28) Phenylacetylamid d. Buttersäure. Sd. 163°₁₈ (Am. 18, 700).
 29) Phenylimid d. Propionsäure (Dipropionanilid). Sm. 44°; Sd. 165—166°₁₇ (B. 26, 2851, 2854). — II, 370.
 30) 2,4-Dimethylphenylimid d. Essigsäure. Sm. 60° (A. 258, 330). — II, 543.
 31) Verbindung (aus d. Acetat d. Oximidocampher). Sm. 172° (G. 23 [1] 304). — III, 492.
- C₁₂H₁₅O₂N₂** C 61,8 — H 6,4 — O 13,7 — N 18,0 — M. G. 233.
 1) γ -Nitro- α -[2,4,5-Trimethylphenylazo]propen. Sm. 104° (B. 25, 1706). — IV, 1388.
 2) Acetat d. γ -Oximido- β -Phenylhydrazonbutan (A. 262, 303). — IV, 780.
 3) 7-Nitro-2-Methyl-5-Pseudobutylbenzimidazol. Sm. 258° (J. pr. [2] 48, 108). — IV, 888.
- C₁₂H₁₅O₂Cl** 1) Acetat d. 6-Chlor-3-Oxy-4-Isopropyl-1-Methylbenzol. Fl. (G. 26 [2] 404).
- C₁₂H₁₅O₂Cl₂** 1) Verbindung (aus Chloral und Thymol). Sm. 130—134° (G. 13, 272). — II, 770.
- C₁₂H₁₆O₂Br** 1) 3-Methyläther-4-Äthyläther d. β -Brom- γ -[3,4-Dioxyphenyl]propen. Sm. 48° (A. 179, 386). — II, 975.
 2) 3-Methyläther-4-Äthyläther d. β -Brom- α -[3,4-Dioxyphenyl]propen. Sm. 72°; Sd. 185—187°₁₅ (B. 29, 677).
 3) 4-Methyläther- α -Äthyläther d. α -Oxy- α -[3-Brom-4-Oxyphenyl]propen. Sd. 180—182°₁₆ (B. 29, 683).
 4) α [oder β]-Brom- β -[4-Isopropylphenyl]propionsäure. Sm. 85—87° (J. 1877, 379). — II, 1398.
 5) β -[2-Brom-4-Isopropylphenyl]propionsäure. Sm. 55,5° (B. 23, 3077). — II, 1398.
 6) Isobutylester d. d-Phenylbromessigsäure. Sd. 167—168°₁₉ (B. 28, 1296).
 7) Amylester d. 2-Brombenzol-1-Carbonsäure. Sd. 285—287°₂₃₄ (C. 1899 [1] 467).
 8) Amylester d. 3-Brombenzol-1-Carbonsäure. Sd. 286—289°₂₄₇ (C. 1899 [1] 467).
 9) Amylester d. 4-Brombenzol-1-Carbonsäure. Sd. 287—290°₂₂₄ (C. 1899 [1] 467).
 10) Acetat d. 6-Brom-3-Oxy-4-Isopropyl-1-Methylbenzol. Fl. (G. 18, 516). — II, 772.
- C₁₂H₁₅O₂Br₂** 1) 3-Methyläther-4-Äthyläther d. 3,4-Dioxy-1- $\alpha\beta\beta$ -Tribrompropylbenzol. Sm. 107° (B. 29, 678).
 2) 3-Methyläther-4-Äthyläther d. β -Brom-3,4-Dioxy-1- $[\beta\gamma$ -Dibrompropyl]benzol. Sm. 80° (A. 179, 385). — II, 975.

$C_{12}H_{15}O_3J$ 1) Acetat d. 6-Jod-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 71° (*J. pr.* [2] 39, 294). — II, 772. $C_{12}H_{15}O_3N$ C 65,2 — H 6,8 — O 21,7 — N 6,3 — M. G. 221.

- 1) Diäthyläther d. 3,5-Dioxy-1-Methylbenzoxazol (Aethylpyriphloron-diäthyläther). Sm. bei 60° (58–59°); Sd. 176,5°. HCl, (2 HCl, PtCl₄) (*M.* 17, 472; 18, 353, 369).
- 2) Anhalonin. Sm. 74–77,5° (85,5°). HCl, (2 HCl, PtCl₄), (HCl, AuCl₃), HJ (*C.* 1895 [1] 219; 1898 [1] 741; *B.* 29, 225; 31, 1197). — III, 779.
- 3) Anhalonidin. Sm. 160° (154°). HCl, (2 HCl, PtCl₄), (HCl, AuCl₃), HJ, H₂SO₄ (*B.* 29, 224; 31, 1196; *C.* 1898 [1] 741). — III, 779.
- 4) Hydrocotarnin + $\frac{1}{2}$ H₂O. Sm. 55° (50°). HCl + $1\frac{1}{2}$ H₂O, (2 HCl, PtCl₄), HBr + $1\frac{1}{2}$ H₂O, HJ (*A. Spl.* 8, 326; *Soc.* 28, 577; 29, 170; 32, 529; *B.* 31, 1577). — III, 908.
- 5) γ -Benzoylamido-norm. Valeriansäure. Sm. 132° (*B.* 27, 2313). — II, 1191.
- 6) δ -Benzoylamido-norm. Valeriansäure. Sm. 94°. Ba (*B.* 17, 2545; 21, 2239; 31, 779). — II, 1191.
- 7) α -Phenylacetylamidobuttersäure. Sm. 118° (*B.* 25, 2315; *Ph. Ch.* 10, 653). — II, 434.
- 8) β -Phenylacetylamidoisobuttersäure. Sm. 174° (*B.* 25, 2330; *Ph. Ch.* 10, 659). — II, 435.
- 9) α -[2-Methylphenyl]acetylamidopropionsäure. Sm. 177° (*B.* 25, 2305; *Ph. Ch.* 10, 648). — II, 471.
- 10) α -[4-Methylphenyl]acetylamidopropionsäure. Sm. 166° (*B.* 25, 2307; *Ph. Ch.* 10, 649). — II, 508.
- 11) 1-Isopropylbenzol-4-Carbonsäure-2-Amidoessigsäure (Cuminursäure). Sm. 168°. Ca + 3H₂O, Ba + H₂O, Ag (*B.* 12, 1512; *A.* 109, 31). — II, 1389.
- 12) 2-Acetylamido-1-Isopropylbenzol-4-Carbonsäure. Sm. 246° (248 bis 250°) (*G.* 11, 18; *B.* 16, 2578). — II, 1388.
- 13) δ -Oximido- β -Phenylpentan- α -Carbonsäure. Sm. 127° (*A.* 294, 324).
- 14) isom. β - δ -Oximido- β -Phenylpentan- α -Carbonsäure (Oxim d. γ -Acetyl- β -Phenylbuttersäure). Sm. 93–94° (*J. pr.* [2] 43, 393; *A.* 294, 324). — II, 1667.
- 15) γ -Oximido- β -Benzylbutan- α -Carbonsäure (Oxim d. β -Acetyl- γ -Phenylbuttersäure). Fl. (*A.* 254, 207). — II, 1667.
- 16) 8-Oxy-1-Aethyl-1,2,3,4-Tetrahydrochinolin-2-Carbonsäure. Sm. 220° u. Zers. (*M.* 8, 320). — IV, 214.
- 17) Aethylester d. α -Benzoylamidopropionsäure. Sm. 76–77°; Sd. oberh. 270° u. Zers. (*H.* 16, 580). — II, 1191.
- 18) Aethylester d. Phenylacetylamidoessigsäure. Sm. 79° (*J. pr.* [2] 38, 107). — II, 1313.
- 19) Aethylester d. Acetylphenylamidoessigsäure. Sd. 298–300° (*B.* 23, 2594). — II, 429.
- 20) Aethylester d. 2-Methylphenylmalonaminsäure. Sm. 73–74° (*B.* 18, 2975). — II, 467.
- 21) Aethylester d. 4-Methylphenylmalonaminsäure (*B.* 18, 2972). — II, 502.
- 22) Aethylester d. 4-Dimethylamidobenzol-1-Ketocarbonsäure. Sm. 95° (*B.* 10, 2082). — II, 1625.
- 23) Aethylester d. 1-Methyl-1,2-Dihydrobenzoxazol-1-Methylcarbon-säure. Sm. 107–108°. K (*B.* 16, 1949). — II, 713.
- 24) Monäthylester d. α -Phenyläthan- $\beta\beta$ -Dicarbonsäuremonamid (Benzylmalonamidsäureäthylester). Sm. 98° (*A.* 239, 97). — II, 1849.
- 25) Isobutylester d. Phenylloxaminsäure. Sm. 85° (*A.* 254, 11). — II, 408.
- 26) Acetat d. α -Oxy- α -[4-Acetylamidophenyl]äthan. Sm. 192° (*Bl.* [3] 11, 322). — II, 1063.
- 27) Acetat d. 4-Acetyläthylamido-1-Oxybenzol. Sm. 58° (*A.* 305, 287).
- 28) Amid d. Oxyessig-[2-Methoxy-4-Propenylphenyl]äthersäure. Sm. 213° (*G.* 23 [1] 553). — II, 980.
- 29) Phenylmonamid d. Butan- $\alpha\gamma$ -Dicarbonsäure. α -Modif. Sm. 100°; β -Modif. Sm. 114–115° (*A.* 292, 211; *Soc.* 73, 38).
- 30) Phenylmonamid d. fum. Butan- $\beta\gamma$ -Dicarbonsäure. Sm. 169° (*A.* 285, 230).

- C₁₁H₁₅O₃N** 31) Phenylmonamid d. mal. Butan- $\beta\gamma$ -Dicarbonsäure. Sm. 135—136° (A. 285, 232).
- 32) Phenylmonamid d. β -Methylpropan- $\alpha\beta$ -Dicarbonsäure. Sm. 189° (190—191°; 169°) (A. 292, 186; 299, 183; B. 30, 256, 598, 615; C. 1895 [2] 447, 929; Soc. 73, 843).
- 33) Benzylmonamid d. Bernsteinsäuremonomethylester. Sm. 61—64° (R. 15, 342).
- 34) Aethylphenylmonamid d. Bernsteinsäure. Sm. 92—93° (A. 292, 193).
- 35) 4-Aethoxylphenylimid d. Essigsäure. Sm. 53,5—54°; Sd. 182°₁₃ (B. 31, 2788).
- 36) Piperidid d. 2-Oxyphenylkohlsäure. Sm. 121° (A. 300, 147).
- 37) Piperidid d. 3-Oxyphenylkohlsäure. Sm. 107° (A. 300, 153).
- 38) Piperidid d. 4-Oxyphenylkohlsäure. Sm. 270° (A. 300, 155).
- C₁₁H₁₅O₄N₂** C 57,8 — H 6,0 — O 19,3 — N 16,9 — M. G. 249.
- 1) 1,3,5-Tri[Acetylamido]benzol. Sm. 208° (M. 18, 762). — IV, 1126.
- 2) 2-Nitrobenzenylpiperidoxim. Sm. 132—133° (B. 27, 2849). — IV, 15.
- 3) 3-Nitrobenzenylpiperidoxim. Sm. 159—160° (B. 27, 2849). — IV, 15.
- 4) 4-Nitrobenzenylpiperidoxim. Sm. 166—167° (B. 27, 2850). — IV, 15.
- 5) δ -Phenylhydrazon- γ -Oximidopentan- α -Carbonsäure. Sm. 168° (J. pr. [2] 49, 198). — IV, 692.
- 6) Aethylester d. α -Benzylidenamidoharnstoff- α -Methylcarbonsäure (Ae. d. Benzylidenamidohydantoinsäure). Sm. 150° (B. 31, 167).
- 7) Amid d. β -Phenylpropan- $\alpha\alpha\gamma$ -Tricarbonsäure. Sm. 230° u. Zers. (Soc. 75, 247).
- C₁₁H₁₅O₅Br₃** 1) Triäthyläther d. 2,4,6-Tribrom-1,3,5-Trioxybenzol. Sm. 102—104° (M. 15, 702).
- C₁₁H₁₅O₄N** C 60,7 — H 6,3 — O 27,0 — N 5,9 — M. G. 237.
- 1) Cotarnin. Sm. 132—133° u. Zers. HCl + 2H₂O, (HCl, HgCl₂), (2HCl, PtCl₄), HBr + 2H₂O, HJ, (HJ, J₂) (A. 50, 19, 36; 86, 189; 248, 157; A. Spl. 7, 62; Soc. 28, 575, 585; 29, 170; B. 14, 310; 26, 252; J. pr. [2] 2, 455). — III, 916.
- 2) Cantharidinacetylimid. Sm. 148° (G. 21 [1] 469). — III, 623.
- 3) 3-Methyläther-5-Acetat d. 2-Acetylamido-3,5-Dioxy-1-Methylbenzol. Sm. 108—109° (B. 30, 1106).
- 4) α -Methylbenzhydroximbuttersäure. Sm. 68° (B. 29, 2658).
- 5) α -Aethylbenzhydroxampropionsäure (B. 27, 3354). — II, 1199.
- 6) 2-Acetylamido-1-[α -Oxyisopropyl]benzol-4-Carbonsäure (B. 16, 2572). — II, 1587.
- 7) 3-Acetylamido-1-[α -Oxyisopropyl]benzol-4-Carbonsäure. Sm. 174° (B. 19, 272). — II, 1587.
- 8) 2,6-Dimethyl-4-Propylpyridin-3,5-Dicarbonsäure + H₂O. Sm. 211 bis 212° (247° wasserfrei) (A. 246, 35). — IV, 170.
- 9) Methylester d. p-Nitro-1-Pseudobutylbenzol-3-Carbonsäure. Fl. (B. 19, 1727). — II, 1394.
- 10) Methylester d. p-Nitro-1-Pseudobutylbenzol-4-Carbonsäure. Fl. (B. 19, 1726). — II, 1394.
- 11) Dimethylester d. 2,4,6-Trimethylpyridin-3,5-Dicarbonsäure. Sm. 82°; Sd. 285—287°. HCl + 2H₂O, (2HCl, PtCl₄), (HCl, AuCl₃), HNO₃ (B. 16, 1947; Ph. Ch. 10, 420). — IV, 169.
- 12) Aethylester d. 2-Nitro-1-Isopropylbenzol-4-Carbonsäure. Sd. bei 290° u. Zers. (J. r. 17, 113). — II, 1387.
- 13) Aethylester d. Oxyessig-4-Acetylamidophenyläthersäure. Sm. 103 bis 104° (C. 1898 [1] 1252).
- 14) Aethylester d. α -Phenylamidoformoxylpropionsäure (Milchsäureäthylesterphenylurethan). Fl. (Bl. [3] 19, 773).
- 15) Aethylester d. Aethoxylimidobenzyl oxyameisensäure. Sm. 40° (A. 281, 264). — II, 1199.
- 16) Monäthylester d. 2,4,6-Trimethylpyridin-3,5-Dicarbonsäure + 2H₂O. Sm. 157° (wasserfrei). Ca + 3H₂O, Ba + 3H₂O, Zn + 5H₂O, Cd + 4H₂O, AgH + H₂O, HCl, (2HCl, PtCl₄) (A. 225, 124). — IV, 169.
- 17) Diäthylester d. 3-Amidobenzol-1,2-Dicarbonsäure. Fl. (A. 208, 246). — II, 1823.
- 18) Diäthylester d. 4-Amidobenzol-1,2-Dicarbonsäure. Sm. 95° (B. 10, 125, 1079; J. r. 10, 199; A. 208, 237). — II, 1823.

- C₁₂H₁₅O₄N** 19) Diäthylester d. 5-Amidobenzol-1,3-Dicarbonsäure. Sm. 118° (*J. pr.* [2] 25, 503). — II, 1830.
- 20) Diäthylester d. Benzol-1-Carbonsäure-3-Amidoameisensäure. Sm. 100—101° (*B.* 11, 702). — II, 1260.
- 21) Diäthylester d. 2-Methylpyridin-4,6-Dicarbonsäure (*B.* 17, 95). — IV, 167.
- 22) Amylester d. 2-Nitrobenzol-1-Carbonsäure. Sd. 238°₆₉ (*C.* 1899 [1] 466).
- 23) Amylester d. 3-Nitrobenzol-1-Carbonsäure. Sd. 223—225°₅₂ (*C.* 1899 [1] 466).
- 24) Amylester d. 4-Nitrobenzol-1-Carbonsäure. Sd. 250—252°₈₀ (*C.* 1899 [1] 466).
- 25) Aethylester-4-Propionylamidophenylester d. Kohlensäure. Sm. 101 bis 103° (*C.* 1897 [1] 469).
- 26) Propylester-4-Acetylamidophenylester d. Kohlensäure. Sm. 105 bis 108° (*C.* 1897 [1] 469).
- 27) β -Acetat d. β -Oximido- $\alpha\alpha$ -Dioxy- α -[2,4-Dimethylphenyl]äthan. Sm. 142° (*B.* 25, 3464). — III, 152.
- 28) Acetat d. Oximidooxymethyl-2,5-Dimethylphenylketon. Sm. 135 bis 136° (*B.* 27, 661). — III, 152.
- 29) Acetat d. Oximidooxymethyl-3,4-Dimethylphenylketon. Sm. 130 bis 131° (*B.* 27, 659). — III, 151.
- 30) 4-Methoxyphenylmonamid d. Methandicarbonsäuremonoäthylester. Sm. 73° (*G.* 25 [2] 539).
- 31) 4-Aethoxyphenylmonamid d. Bernsteinsäure. Sm. 160—161°. Na (*B.* 29, 86).
- 32) 4-Aethoxyphenylmonamid d. Oxalsäuremonäthylester. Sm. 110 bis 111° (*G.* 25 [2] 537; *C.* 1897 [1] 49; *B.* 31, 334).
- C₁₂H₁₅O₄N₃** C 54,3 — H 5,7 — O 24,1 — N 15,8 — M. G. 265.
- 1) 2,4,6-Tri[Acetylamido]-1-Oxybenzol. Sm. 263° u. Zers. (279°) (*B.* 16, 2401; *M.* 16, 263). — II, 725.
- 2) 2-Tri[Acetylamido]-1-Oxybenzol. Sm. 211° (*B.* 30, 183).
- 3) 2-Methyl-1-[2,4-Dinitrophenyl]hexahydropyridin (*B.* 24, 2106). — IV, 27.
- 4) Aethylester d. β -[3-Nitrophenyl]hydrazonbuttersäure. Sm. 117° (*B.* 22, 2815). — IV, 690.
- 5) Aethylester d. 3-Uramido-4-Methylphenyloxaminsäure. Sm. 218° (*A.* 268, 339). — IV, 605.
- 6) 2-Amid-4-Aethylester d. 1-Methylbenzol-2-Oxaminsäure-4-Amidoameisensäure. Sm. 223° (*A.* 268, 319). — IV, 605.
- 7) 4-Amid-2-Aethylester d. 1-Methylbenzol-4-Oxaminsäure-2-Amidoameisensäure. Sm. 209° (*A.* 268, 320). — IV, 605.
- C₁₂H₁₅O₄N₅** C 49,1 — H 5,1 — O 21,8 — N 23,9 — M. G. 293.
- 1) 3,5-Dinitro-6-Pseudobutyl-2,4-Dimethyldiazobenzolimid? Sm. 89° (*B.* 31, 1232).
- C₁₂H₁₅O₄Br** 1) Bromcampheroxalsäure. Sm. 130°(?). Cu, Ag (*Am.* 20, 326).
- C₁₂H₁₅O₅N** C 56,9 — H 5,9 — O 31,6 — N 5,5 — M. G. 253.
- 1) 1-Acetat d. 2,4,5-Trimethoxyl-1-Oximidomethylbenzol. Sm. 14°. — III, 108.
- 2) Acetylderivat d. Oximidomethyl-4-Oxyphenylketon-4-Aethyläther. Sm. 136°. — III, 134.
- 3) β -Oxy- β -[2-Nitro-4-Isopropylphenyl]propionsäure. Sm. 119—120° (*B.* 17, 2021). — II, 1593.
- 4) α -Oximido-2,4-Dioxyphenylessig-2,4-Diäthyläthersäure. Sm. 130° (*M.* 16, 622).
- 5) Aethylester d. 2-Nitro-1-[α -Oxyisopropyl]benzol-4-Carbonsäure. Sm. 96°. — II, 1586.
- 6) 2-Aethylester d. 3,4-Dioxybenzoldimethyläther-1,2-Dicarbonsäure-1-Amid. Sm. 180—181° (*R.* 15, 339).
- 7) Aethylcarbonat d. 4-Oxyphenylamidoameisensäureäthylester. Sm. 108—109° (104—105°) (*A.* 305, 287; *C.* 1897 [1] 469).
- 8) Aethylmonamid d. m-Hemipinsäure (*M.* 9, 339). — II, 1998.
- 9) 4-Aethoxyphenylmonamid d. Aepfelsäure. Sm. 160°. Ba, Ag (*G.* 28 [2] 193).

- C₁₃H₁₅O₅N₃** C 51,2 — H 5,3 — O 28,5 — N 14,9 — M. G. 281.
 1) **3-Methyl-1-[2,4-Dinitrophenyl]hexahydropyridin.** Sm. 67° (B. 23, 1390). — IV, 28.
 2) **Methylester d. 3,4-Dioxy-1-Semicarbazonmethylbenzoldimethyläther-2-Carbonsäure** (Opiansäuremethylestersemicarbazon). Sm. 204° (B. 29, 179).
 3) **Aethylester d. 2-Nitro-4-Dimethylamidophenyloxaminsäure.** Sm. 152°. HCl (B. 12, 1805). — IV, 592.
- C₁₄H₁₅O₄N** C 53,5 — H 5,6 — O 35,7 — N 5,2 — M. G. 269.
 1) **Phenylimid d. Glykuronsäure.** Sm. 177° u. Zers. K (H. 13, 277). — II, 423.
- C₁₂H₁₅O₆N₃** C 48,5 — H 5,0 — O 32,3 — N 14,1 — M. G. 297.
 1) **p-Trinitro-p-tert.-Butyl-1-Aethylbenzol** (B. 24, 2842; 27, 1614). — II, 107.
 2) **2,4,6-Trinitro-5-Butyl-1,3-Dimethylbenzol.** Sm. 110° (B. 24, 2841). — II, 107.
 3) **p-Trinitro-1,3-Diisopropylbenzol.** Sm. 110–111° (B. 23, 3143). — II, 107.
- C₁₃H₁₅O₆N₃** C 44,3 — H 4,6 — O 29,5 — N 21,5 — M. G. 325.
 1) **Verbindung (aus Amalinsäure)** (J. 1854, 503). — I, 1403.
- C₁₂H₁₅O₇N₃** C 46,0 — H 4,8 — O 35,8 — N 13,4 — M. G. 313.
 1) **Methyläther d. 2,4,5-Trinitro-6-Oxy-3-Pseudobutyl-1-Methylbenzol.** Sm. 69–70° (B. 27, 1614). — II, 776.
 2) **Methyläther d. p-Trinitro-3-Oxy-p-Pseudobutyl-1-Methylbenzol** (B. 27, 1618).
- C₁₂H₁₅O₉N₃** C 41,7 — H 4,3 — O 41,7 — N 12,2 — M. G. 345.
 1) **Triäthyläther d. 2,4,6-Trinitro-1,3,5-Trioxybenzol.** Sm. 119–120° (Am. 15, 612). — II, 1022.
 2) **polym. Carboxyäthylcarbonimid.** Sm. 118–119° (Bl. 44, 26). — I, 1266.
- C₁₂H₁₅O₂₀N₅** C 26,2 — H 2,7 — O 58,3 — N 12,7 — M. G. 549.
 1) **Pentanitrat d. Cellulose** (B. 13, 175). — I, 1075.
 2) **Pentanitrat d. Stärke.** — I, 1086.
- C₁₂H₁₅NS** 1) **1-Methyl-3-Isobutyl-2-Phenylsenföl.** Sm. 44°; Sd. 267° (B. 17, 2345). — II, 564.
 2) **1-Methyl-5-Pseudobutyl-2-Phenylsenföl.** Sm. 46°; Sd. 275–280° u. Zers. (B. 17, 2336). — II, 564.
 3) **Pentamethylphenylsenföl.** Sm. 86° (B. 18, 1827). — II, 565.
- C₁₂H₁₅NS₂** 1) **1,2,3,4-Tetrahydro-2-Naphtylmethylamidodithioameisensäure** (B. 22, 1914). — II, 590.
- C₁₂H₁₅N₂Cl** 1) **Chlormethylat d. 3,5-Dimethyl-1-Phenylpyrazol.** 2 + PtCl₄ (B. 20, 1105). — IV, 523.
 2) **Chlormethylat d. 1,5[oder 1,3]-Dimethyl-3[oder 5]-Phenylpyrazol.** 2 + PtCl₄ (A. 279, 251). — IV, 935.
 3) **Chlormethylat d. 2-Dimethylamidochinolin.** 2 + PtCl₄ (A. 282, 385). — IV, 908.
 4) **Chlormethylat d. 6-Dimethylamidochinolin + H₂O.** 2 + PtCl₄ (B. 16, 673; 18, 596). — IV, 913.
- C₁₂H₁₅N₂J** 1) **Jodmethylat d. 3,5-Dimethyl-1-Phenylpyrazol.** Sm. 190° (B. 20, 1104). — IV, 523.
 2) **Jodmethylat d. 1,5[oder 1,3]-Dimethyl-3[oder 5]-Phenylpyrazol.** Sm. 190° (A. 279, 250). — IV, 935.
 3) **Jodäthylat d. 5-Methyl-1-Phenylpyrazol.** Sm. 208° (A. 278, 291). — IV, 515.
 4) **Jodäthylat d. 1-[2-Methylphenyl]pyrazol.** Sm. 98–100° (G. 18, 370). — IV, 498.
 5) **Jodäthylat d. 1-[4-Methylphenyl]pyrazol.** Sm. 104–105° (G. 18, 364). — IV, 498.
 6) **Jodäthylat d. Nikotyrin.** Sm. 173,5–174,5° (B. 27, 2539). — IV, 858.
 7) **Jodmethylat d. 2-Dimethylamidochinolin.** Sm. 197° (A. 282, 384). — IV, 908.
 8) **Jodmethylat d. 6-Dimethylamidochinolin** (B. 16, 673). — IV, 913.
- C₁₂H₁₅N₄S** 1) **1-[2-Methylphenyl]imidomerkaptomethyl-2-Methyl-4,5-Dihydroimidazol.** Sm. 159–159,5° (Ser. 69, 35).

- $C_{12}H_{15}N_3S$ 2) Isobutylecyanamid d. Phenylamidothioameisensäure. Sm. 139° (B. 25, 822). — II, 399.
- 3) Benzylecyanamid d. Propylamidothioameisensäure. Sm. 113° (B. 23, 1662). — II, 529.
- $C_{12}H_{15}N_3S_2$ 1) α -Phenylmethyldithiodi- α -Methylketuret. Sm. 152° (B. 28, 1107).
 C 70,6 — H 7,8 — O 7,8 — N 13,7 — M. G. 204.
- $C_{12}H_{16}ON_2$ 1) 2-Aethylnitrosamido-1,2,3,4-Tetrahydronaphtalin. Fl. (B. 22, 1301). — II, 589.
- 2) 5-Aethylnitrosamido-1,2,3,4-Tetrahydronaphtalin. Fl. (B. 22, 1313). — II, 587.
- 3) 8-Nitroso-5-Aethylamido-1,2,3,4-Tetrahydronaphtalin. Sm. 119° (B. 22, 1314). — II, 587.
- 4) 1,2,3,4-Tetrahydro-2-Naphtylmethylharnstoff. Sm. 135—135,5° (B. 22, 1913). — II, 590.
- 5) β -Phenylhydrazon- γ -Ketohehexan. Sm. 113—114° (B. 22, 2119). — IV, 781.
- 6) δ -Methylphenylhydrazon- β -Ketopentan. Fl. (A. 253, 22). — IV, 781.
- 7) Methyleytisin. Sm. 134°. $2HCl + 1\frac{1}{2}H_2O$, ($2HCl, PtCl_4 + 2\frac{1}{2}H_2O$), ($HCl, AuCl_3$) (B. 24, 678). — III, 879.
- 8) 5-Keto-2,3,3-Trimethyl-1-Phenyltetrahydropyrazol. Fl. HCl (A. 292, 294). — IV, 490.
- 9) 5-Isobutyl-3-Phenyl-4,5-Dihydro-1,2,4-Ox Diazol. Sm. 83°. HCl (B. 22, 3145). — II, 1205.
- 10) 1-Benzoylamidohexahydropyridin (Benzoylpiperylharnstoff). Sm. 195°. HCl (C. 1896 [1] 1126; A. 221, 303). — IV, 481.
- 11) 1-[3-Amidobenzoyl]hexahydropyridin. Sm. 125°. ($2HCl, PtCl_4$) (B. 21, 2247). — IV, 15.
- 12) Acetylmetanikotin. Fl. (B. 27, 2865). — IV, 860.
- 13) 1-Nitroso-2-Propyl-1,2,3,4-Tetrahydrochinolin (C. 1897 [1] 242). — IV, 202.
- 14) 6-Nitroso-1,4,4-Trimethyl-1,2,3,4-Tetrahydrochinolin. Fl. Pikrat (G. 21, 322). — IV, 208.
- 15) 3-Isobutylamido-1,4-Benzoxazin. HCl (Am. 20, 567).
- 16) Phenylamid d. β -Dimethylamidocrotonsäure. Sm. 160° (B. 25, 777). — II, 371.
- 17) Phenylamid d. Hexahydropyridin-1-Carbonsäure (α -Phenylpiperidin-harnstoff). Sm. 171—172° (168°) (B. 17, 3040; A. 237, 250). — IV, 13.
- 18) Nitril d. 6-Keto-2,2,4-Trimethyl-1-Allyl-1,2,3,6-Tetrahydropyridin-5-Carbonsäure. Sm. 152—153,5°. — IV, 75.
- $C_{12}H_{16}OS$ 1) Isoamylester d. Benzolthiolcarbonsäure. Sd. 271° u. Zers. (Z. 1868, 356). — II, 1290.
- $C_{17}H_{18}O_2N_2$ C 65,5 — H 7,3 — O 14,5 — N 12,7 — M. G. 220.
- 1) $\alpha\beta$ -Di[Acetylamido]äthylbenzol ($\alpha\beta$ -Diacetylamidophenyläthan). Sm. 152° (B. 28, 3172). — IV, 640.
- 2) 1,2-Di[Acetylamidomethyl]benzol. Sm. 146° (B. 21, 580). — IV, 641.
- 3) 1,3-Di[Acetylamidomethyl]benzol. Sm. 118—119° (B. 21, 2706). — IV, 643.
- 4) α -Acetylamido- α -[2-Acetylamidophenyl]äthan. Sm. 131° (B. 26, 1901). — IV, 640.
- 5) Phenylsuccinimidoäthyläther. HCl (B. 20, 1860). — II, 352.
- 6) Diäthyläther d. 1,3-Di[Imidooxymethyl]benzol (Isophthalimidodiäthyläther). Sm. 66°. $2HCl$ (B. 17, 1431). — II, 1827.
- 7) Diäthyläther d. 1,3-Di[Oximidomethyl]benzol. Sm. 165° (B. 20, 508). — III, 92.
- 8) Diäthyläther d. 1,4-Di[Oximidomethyl]benzol. Sm. 55° (B. 16, 2995). — III, 93.
- 9) β -Benzoylamido- γ -Oximido- β -Methylbutan. Sm. 184—185° (A. 262, 333). — II, 1194.
- 10) s -Valerylphenylharnstoff. Sm. 98—99° (Soc. 67, 1042).
- 11) s -Isobutyryl-2-Methylphenylharnstoff. Sm. 134—135° (Soc. 69, 863).
- 12) s -Isobutyryl-4-Methylphenylharnstoff. Sm. 138—139° (Soc. 69, 864).
- 13) 1-[2-Nitrobenzyl]hexahydropyridin. HCl , ($2HCl, PtCl_4$) (A. 259, 46). — IV, 2.

- $C_{17}H_{16}O_2N_2$ 14) 1-[3-Nitrobenzyl]hexahydropyridin. (2HCl, PtCl₄) (A. 259, 40). — IV, 9.
- 15) 1-[4-Nitrobenzyl]hexahydropyridin. Sm. 34°. HCl, (2HCl, PtCl₄) (A. 259, 49). — IV, 9.
- 16) 3-Methyl-1-[4-Nitrophenyl]hexahydropyridin. Sm. 61°. (HCl, AuCl₃ + 2H₂O) (B. 23, 1389). — IV, 28.
- 17) $\beta\gamma$ -Dioxy- $\beta\gamma$ -Di[2-Pyrryl]butan + 2H₂O. Sm. 98° (120° wasserfrei) (B. 19, 2204). — IV, 99.
- 18) α -Benzylidenhydrazidovaleriansäure. Sm. 116° (B. 29, 674).
- 19) δ -Phenylhydrazonpentan- β -Carbonsäure. Sm. 122° u. Zers. (G. 21 [2] 29). — IV, 692.
- 20) α -Phenylhydrazon- $\beta\beta$ -Dimethylpropan- α -Carbonsäure. Sm. 157 bis 158° u. Zers. (M. 10, 773). — IV, 692.
- 21) α -[Aethyl-4-Methylphenyl]hydrazonpropionsäure (A. 232, 217). — IV, 807.
- 22) α -[2,4,5-Trimethylphenyl]hydrazonpropionsäure. Sm. 148° u. Zers. (Soc. 57, 55). — IV, 813.
- 23) Methylester d. β -[4-Methylphenyl]hydrazonbuttersäure. Sm. 100° (B. 27, 1688 Anm.).
- 24) Aethylester d. β -[2-Amidophenyl]imidobuttersäure. Sm. 85° (B. 29, 1500). — IV, 560.
- 25) Aethylester d. β -[2-Amidophenyl]amidopropen- α -Carbonsäure? Sm. 59° (B. 29, 1501). — IV, 560.
- 26) Aethylester d. β -Phenylhydrazonbuttersäure. Sm. 50° (A. 266, 71). — IV, 690.
- 27) Aethylester d. α -[2-Methylphenyl]hydrazonpropionsäure. Sm. 61 bis 62° (A. 239, 228; 247, 213). — IV, 803.
- 28) Aethylester d. α -[4-Methylphenyl]hydrazonpropionsäure. Sm. 106 bis 107° (A. 239, 225; 247, 215). — IV, 807.
- 29) Aethylester d. Isopropylidenphenylhydrazin-3-Carbonsäure. Sm. 90–91° (A. 236, 166). — II, 1289.
- 30) Phenylamid d. 2,4-Dimethyltetrahydrooxazol-3-Carbonsäure (Dimethylloxazolidylphenylharnstoff). Sm. 225° (B. 30, 2257).
- 31) Aethylenphenylamid d. Essigsäure (Diacetylphenyläthylendiamin). Sm. 116° (B. 24, 2194). — II, 368.
- $C_{17}H_{16}O_2N_2$ C 58,1 — H 6,4 — O 12,9 — N 22,6 — M. G. 248.
- 1) Dihydrobenzo-1,1,2,2-Tetramethyl-3,4-Diisopyrazolon. Sm. über 250° (J. pr. [2] 51, 66). — IV, 1270.
- 2) 1-[5-Nitro-2-Methylphenyl]azohexahydropyridin. Sm. 50–51° (A. 235, 248). — IV, 1580.
- $C_{17}H_{16}O_2Br_2$ 1) 3-Methyläther-4-Aethyläther d. 3,4-Dioxy-1-[$\alpha\beta$ -Dibrompropyl]benzol. Sm. 101–104° (B. 28, 2090).
- 2) 2-Methyläther-5-Aethyläther d. 3,6-Dibrom-5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol. Sm. 98° (B. 29, 2339).
- 3) 5-Methyläther-2-Aethyläther d. 3,6-Dibrom-5-Oxy-2-Oxymethyl-1,4-Dimethylbenzol. Sm. 39–40° (B. 29, 2340).
- $C_{17}H_{16}O_2S$ 1) Aethylester d. β -Merkaptopropion-4-Methylphenyläthersäure. Sd. 171°, (B. 25, 2981). — II, 825.
- $C_{17}H_{16}O_2N_2$ C 61,0 — H 6,8 — O 20,3 — N 11,9 — M. G. 236.
- 1) Methyläther d. 3-Acetylamido-4-Oxy-1-Acetylamidomethylbenzol. Sm. 185° (B. 20, 2412). — II, 755.
- 2) Methyläther d. 4-Oxy-1-Di[Acetylamido]methylbenzol. Sm. 180° (A. 154, 80). — III, 85.
- 3) Aethyläther d. 3,4-Di[Acetylamido]-1-Oxybenzol. Sm. 189°. — II, 723.
- 4) Acetat d. 4-Acetylamido-2-Dimethylamido-1-Oxybenzol. Sm. 175° (B. 27, 1932).
- 5) Monacetat d. 1,4-Dioximido-5-Isopropyl-2-Methyl-1,4-Dihydrobenzol (B. 28, 1548). — III, 366.
- 6) Aethyläther d. $\alpha\beta$ -Diacetyl- α -[4-Oxyphenyl]hydrazin. Sm. 112–116° (B. 25, 1848). — IV, 815.
- 7) 3-Methyläther d. 3,5,5-Trioxo-4,4-Dimethyl-1-Phenyl-4,5-Dihydropyrazol. Sm. 178° (B. 31, 3011).

- $C_{17}H_{16}O_3N_2$ 8) Benzoylornithin (Benzoyldiamidovaleriansäure). Sm. 225—230° (B. 11, 408; 30, 2881; II, 2111.
 9) Aethylester d. Phenylamidoisobuttersäure. Sm. 86° (B. 19, 2965). — II, 438.
 10) Aethylester d. 4-Dimethylamidophenylloxaminsäure. Sm. 117° (B. 12, 531). — IV, 592.
 11) Aethylester d. β -Phenylhydrazon- α -Oxybuttersäure. Sm. 102° (B. 28, 1790). — IV, 704.
 12) Aethylester d. β -[β -Phenylharnstoff]propionsäure. Sm. 84—85° (B. 9, 60). — II, 433.
 13) Aethylester d. α -Methyl- β -Phenylharnstoff- α -Methylcarbonsäure. Sm. 75° (B. 28, 3234).
 14) Aethylester d. β -Phenyläthylallophansäure. Sm. 106° (B. 19, 1825). — II, 539.
 15) Aethylester d. 5-Acetylamido-2-Methylphenylamidoameisensäure. Sm. 181° (B. 25, 2211). — IV, 603.
 16) Aethylester d. 2,4-Dimethylbenzenylamidoximkohlenensäure. Sm. 142° (B. 22, 2446). — II, 1376.
 17) 3-Methyl-6-Isopropylphenylester d. Allophansäure. Sm. 190° (A. 244, 44). — II, 771.
 18) 2-Nitro-4-Methylphenylamid d. Isovaleriansäure. Sm. 88—89° (A. 209, 364; B. 11, 1973). — II, 494.
 19) 1-Isobutyl-4-Nitro-3-Phenylamid d. Essigsäure. Sm. 105,5° (B. 21, 2950). — II, 556.
 20) 1-Isobutyl-3-Nitro-4-Phenylamid d. Essigsäure. Sm. 104,5°; Sd. 250 bis 252° (B. 20, 3253). — II, 557.
 21) 1,2,3,4-Tetramethyl-p-Nitro-5-Phenylamid d. Essigsäure. Sm. 225° (B. 21, 906). — II, 562.
 22) Phenylmonohydrazid d. Bernsteinsäuremonoäthylester. Sm. 107° (B. 25, 2745). — IV, 703.
 $C_{17}H_{16}O_3N_4$ C 54,5 — H 6,1 — O 18,2 — N 21,2 — M. G. 264.
 1) Verbindung (aus 5-Amido-4-Methyl-1-Aethylisoxazol). Sm. 65—66° (Bl. [3] 5, 776; B. 24 [2] 553). — IV, 528.
 $C_{17}H_{16}O_3Br_2$ 1) Trimethyläther d. 2,4,5(p)-Trioxy-1-[$\alpha\beta$ -Dibrompropyl]benzol (B. 17, 1160). — II, 1026.
 $C_{17}H_{16}O_3Hg$ 1) Butyrat d. 4-Aethoxylphenyloxydhydrat. Sm. 129° (B. 27, 259). — IV, 1710.
 $C_{17}H_{16}O_4N_2$ C 57,2 — H 6,3 — O 25,4 — N 11,1 — M. G. 252.
 1) $\delta\epsilon$ -Diimido- $\gamma\zeta$ -Diäthanoyl- $\beta\eta$ -Diketooktan. Sm. 147° (B. 31, 2944).
 2) p-Dinitro-4-Isoamyl-1-Methylbenzol. Fl. (A. 141, 163). — II, 107.
 3) p-Dinitro-1-Aethyl-p-tert.-Butylbenzol. Sm. 140° (B. 27, 1613).
 4) p-Dinitro-1,4-norm. Dipropylbenzol. Sm. 65° (A. 216, 226; B. 11, 1865). — II, 107.
 5) p-Dinitro-4-Isopropyl-1-Propylbenzol. Fl. (G. 21, 9). — II, 107.
 6) 4,6-Dinitro-2-Propyl-1,3,5-Trimethylbenzol. Sm. 93—94° (B. 28, 2462).
 7) Arabino-3,4-Diamido-1-Methylbenzol. Sm. 238° (B. 20, 3114). — IV, 620.
 8) 4,4'-Bi[5-Keto-4-Methyl-3-Aethyl-4,5-Dihydroisoxazol]. Sm. 187° (Bl. [3] 21, 17).
 9) Oxim d. Cotarnin. Sm. 165—168° u. Zers. HCl, (2HCl, PtCl₄ + 2H₂O) (A. 254, 337). — III, 917.
 10) Aethylester d. β -[4-Nitrophenyl]amidoisobuttersäure. Sm. 74° (B. 30, 2768).
 11) Aethylester d. α -[4-Nitro-2-Methylphenyl]amidopropionsäure. Sm. 103—104° (B. 30, 2770).
 12) Aethylester d. α -[2-Nitro-4-Methylphenyl]amidopropionsäure. Sm. 62° (B. 30, 2772).
 13) Aethylester d. α -[3-Nitro-4-Methylphenyl]amidopropionsäure. Sm. 64° (B. 30, 2769).
 14) Diäthylester d. 2,5-Diamidobenzol-1,4-Dicarbonsäure. Sm. 168° (B. 26, 2984). — II, 1839.
 15) Diäthylester d. 1,2-Phenylendi[amidoameisensäure]. Sm. 88° (Soc. 49, 259). — IV, 560.

- $C_{12}H_{10}O_4N_2$ 16) Diäthylester d. 1,3-Phenylendi[amidoameisensäure]. Sm. 143—145° (*J. pr.* [2] 54, 85). — IV, 575.
- 17) Diäthylester d. 1,4-Phenylendi[amidoameisensäure]. Sm. 196—196,5° (193°) (*B.* 18, 2605; *A.* 293, 375; *J. pr.* [2] 54, 87). — IV, 590.
- 18) Diäthylester d. α -Phenylhydrazin- $\alpha\beta$ -Dicarbonsäure. Sm. 58—60° (*B.* 32, 15).
- 19) Diäthylester d. 2,5-Dimethyl-1,4-Diazin-3,6-Dicarbonsäure. Sm. 86—87° (85,5°); Sd. 315—317° u. ger. Zers. 2HCl (*B.* 15, 1052, 1054; 27, 1142; 28, 1518). — IV, 837.
- 20) Amylester d. 2-Nitrophenylamidoameisensäure. Sm. —5° (*Am.* 19, 314).
- 21) Amid d. β -Oxy- β -(2-Nitro-4-Isopropylphenyl)propionsäure. Sm. 150° (*B.* 17, 2023). — II, 1593.
- $C_{12}H_{10}O_4Cl_2$ 1) 1,4-Dimethyl-2,5-Diäthyläther d. 3,6-Dichlor-1,2,4,5-Tetraoxybenzol. Sm. 103° (*J. pr.* [2] 42, 172). — II, 1032.
- $C_{12}H_{10}O_4S$ 1) Aethylester d. α -Phenylsulfonbuttersäure. Sm. 62° (*Am.* 7, 66; *B.* 23, 670; 27 [2] 269). — II, 787.
- 2) Aethylester d. α -Phenylsulfonisobuttersäure (*B.* 27 [2] 269).
- $C_{12}H_{10}O_4S_2$ 1) Sulfotoluylenamylen. Sm. 35—36° (*A.* 143, 223). — II, 110.
- $C_{12}H_{10}O_5N_2$ C 53,7 — H 6,0 — O 29,8 — N 10,4 — M. G. 268.
- 1) Methyläther d. β -Dinitro-3-Oxy- β -Pseudobutyl-1-Methylbenzol. Fl. (*B.* 27, 1618).
- 2) Aethyläther d. β -Dinitro-4-Oxy-1-tert. Butylbenzol. Sm. 95—96° (*J. pr.* [2] 48, 99). — II, 765.
- 3) Aethyläther d. 2,6-Dinitro-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 52—53° (*B.* 10, 1219). — II, 773.
- 4) 1,2-Galaktodiamidobenzol. Sm. 246° u. Zers. HCl + 1½ H₂O, HBr (*B.* 20, 3116). — IV, 566.
- 5) 1,2-Glykodikamidobenzol (*B.* 20, 2208). — IV, 565.
- 6) Diäthylester d. $\alpha\gamma$ -Dicyan- β -Methylpropan- $\alpha\gamma$ -Dicarbonsäure. Sm. 83° (*Bl.* [3] 15, 770).
- 7) Arabinosehydrazid d. Benzolcarbonsäure. Sm. 211—212° (*B.* 29, 2311).
- $C_{12}H_{10}O_5S$ 1) 3-Acetoxy-4-Isopropyl-1-Methylbenzol- β -Sulfonsäure (*J.* 1856, 617). — II, 848.
- $C_{12}H_{10}O_5S_2$ 1) Verbindung (aus Toluolsulfonsäurechlorid). Sm. 78—79° (*A.* 143, 224). — II, 110.
- $C_{12}H_{10}O_6N_2$ C 50,7 — H 5,6 — O 33,8 — N 9,9 — M. G. 284.
- 1) Diäthylester d. Diamidodihydrochinondicarbonsäure. 2HCl, + SnCl₄ + 2H₂O (*B.* 21, 1762). — II, 2004.
- 2) Verbindung (aus d. Verb. $C_{12}H_{10}O_6N_2Na_2$). Sm. 150° (*B.* 31, 193).
- $C_{12}H_{10}O_6N_4$ C 46,2 — H 5,1 — O 30,7 — N 18,0 — M. G. 312.
- 1) 2,4,6-Trinitro-1-Hexylamidobenzol. Sm. 70—70,5° (*R.* 14, 37).
- $C_{12}H_{10}O_6N_5$ C 42,3 — H 4,7 — O 28,2 — N 24,7 — M. G. 340.
- 1) Murexoïn (Tetramethylmurexid?). subl. bei 230° (*J.* 1850, 436; *B.* 21, 514). — I, 1403.
- $C_{12}H_{10}O_6Br_2$ 1) Verbindung (aus Succinylbernsteinsäurediäthylester) (*B.* 19, 2229). — I, 823.
- $C_{12}H_{10}O_7N_2$ C 48,0 — H 5,3 — O 37,3 — N 9,3 — M. G. 300.
- 1) Triäthyläther d. 4,5-Dinitro-1,2,3-Trioxybenzol. Sm. 93° (73°) (*M.* 2, 217; *B.* 25, 723). — II, 1015.
- 2) Triäthyläther d. 2,4-Dinitro-1,3,5-Trioxybenzol. Sm. 104—105° (*Am.* 18, 671).
- 3) Phenylmonohydrazid d. Schleimsäure. Sm. 190—195° u. Zers. (*B.* 24, 2143). — IV, 731.
- $C_{12}H_{10}O_7N_5$ 1) Verbindung (Base aus Harn) = ($C_{12}H_{10}O_7N_5$)_x (*B.* 25 [2] 756—757).
- $C_{12}H_{10}O_8N_2$ C 45,6 — H 5,0 — O 40,5 — N 8,9 — M. G. 316.
- 1) Tetramethylester d. α -Azinbernsteinsäure. Sm. 149—150° (*B.* 18, 1301). — I, 1497.
- 2) Tetramethylester d. β -s-Azinbernsteinsäure. Fl. (*J. pr.* [2] 39, 56). — I, 1497.
- 3) Tetramethylester d. 4,5-Dihydropyrazol-3,4,5-Tricarbonsäure-4-Methylcarbonsäure. Sm. 104° (*B.* 27, 873). — IV, 495.
- 4) isom. Tetramethylester d. 4,5-Dihydropyrazol-3,4,5-Tricarbonsäure-4-Methylcarbonsäure. Sm. 153° (*B.* 27, 874). — IV, 495.

- $C_{12}H_{16}O_5N_2$ 5) Diäthylester d. 3,6-Dioximido-2,5-Dioxy-?-Dihydrobenzol-1,4-Di-carbonsäure. Sm. 156—157° (B. 20, 2798). — II, 2068.
 6) Tetracetat d. α -D-Dioximido- α -D-Dioxybutan (oder $C_6H_7O_4N$). Sm. 130° (B. 28, 754; G. 25 [2] 263).
 7) Verbindung (aus Natriummalonsäurediäthylester u. Cyan). Na_2 (B. 31, 192).
- $C_{12}H_{16}O_5Cl_2$ 1) Diäthylester d. Di[Chloracetyl]weinsäure. Sm. 27°; Sd. 217°₁₅ (Soc. 73, 192, 203; Bl. [3] 13, 1056).
- $C_{12}H_{16}O_3S$ 1) Verbindung (Säure aus 1,4-Dioxybenzol). $Ba + 6H_2O$ (A. 110, 201; B. 18, 693). — II, 251.
- $C_{12}H_{16}O_{10}N_2$ C 41,4 — H 4,6 — O 45,9 — N 8,0 — M. G. 348.
 1) Verbindung (aus d. 2,5-Dioxy-1,4-Benzochinon-3,6-Dicarbonsäurediäthyl-ester). Sm. 170° u. Zers. (B. 20, 2799; 22, 1289). — II, 2070.
- $C_{12}H_{16}O_{15}N_4$ C 28,6 — H 3,2 — O 57,1 — N 11,1 — M. G. 501.
 1) Tetranitrat d. Arabin (J. 1860, 521). — I, 1101.
 2) Tetranitrocellulose (B. 13, 175). — I, 1075.
 3) Tetranitrostärke (J. 1862, 470; D. 284, 140). — I, 1086.
- $C_{12}H_{16}O_{23}N_6$ C 23,5 — H 2,6 — O 60,2 — N 13,7 — M. G. 612.
 1) Hexanitrat d. Milchzucker. Sm. 70°; Zers. 81° (B. 31, 84).
- $C_{12}H_{16}NJ$ 1) Jodmethylat d. 2,3,3-Trimethylpseudindol. Sm. 253° u. Zers. (B. 31, 1497).
 2) Jodallylat d. 1,2,3,4-Tetrahydrochinolin. Sm. 141° (B. 25, 2803). — IV, 192.
- $C_{12}H_{16}N_2Cl_2$ 1) Dichlormethylat d. Bipyridin. $2 + PtCl_4$ (J. 1878, 440). — IV, 238.
- $C_{12}H_{16}N_2J_2$ 1) Jodmethylat d. Bipyridin (J. 1878, 440). — IV, 238.
- $C_{12}H_{16}N_3J_2$ 1) Heptajodid d. Di[Pyridinjodmethylat]. Sm. 44° (C. 1896 [1] 42).
- $C_{12}H_{16}N_3S$ 1) α -Aethyl- β -Allyl- α -Phenylthioharnstoff. Sm. 26° (B. 17, 3037). — II, 393.
 2) 2-[Methyl-2-Methylphenyl]amido-5-Methyl-4,5-Dihydrothiazol. Sd. 295°. (2HCl, $PtCl_4$), HJ, Pikrat (B. 22, 2999). — II, 465.
 3) Phenylamid d. Hexahydropyridin-1-Thiocarbonsäure (s-Phenylpipe-ridylthioharnstoff). Sm. 97° (99°) (B. 17, 3039; 23, 288; 30, 228; Soc. 53, 558). — IV, 14.
- $C_{12}H_{16}N_4S_2$ 1) Diäthyläther d. 1,3 - Di[Imidomerkaptomethyl]benzol (Dithio-isophthalimidodiäthyläther). $2HCl + 1\frac{1}{2}H_2O$ (PINNER, Imidoäther 79). — II, 1827.
- $C_{12}H_{17}ON$ C 75,4 — H 8,9 — O 8,4 — N 7,3 — M. G. 191.
 1) 2-Oxy-1-Isoamylimidomethylbenzol. Cu (A. 150, 197). — III, 72.
 2) ζ -Phenylamido- β -Ketohehexan. Sm. 54—55°. HCl, (2HCl, $PtCl_4$), Pikrat (A. 289, 237).
 3) α -Oximido- α -[2,5-Dimethylphenyl]butan. Sm. 47° (J. pr. [2] 46, 479). — III, 155.
 4) α -Oximido- α -[2,4-Dimethylphenyl]- β -Methylpropan. Sm. 97° (J. pr. [2] 46, 482). — III, 155.
 5) α -Oximido- α -[2,5-Dimethylphenyl]- β -Methylpropan. Sm. 76° (J. pr. [2] 46, 484). — III, 155.
 6) α -Oximido- α -[3,4-Dimethylphenyl]- β -Methylpropan. Sm. 68° (J. pr. [2] 46, 484). — III, 155.
 7) α -Oximido- α -[3-Propyl-4-Methylphenyl]äthan. Fl. (J. pr. [2] 47, 421). — III, 155.
 8) 4-Isopropylbenzimidooäthyläther. HCl (Sm. 98°) (B. 30, 2006).
 9) 3-Dimethylamido-2-Oxy-1,2,3,4-Tetrahydronaphtalin. Sd. 183°₄₇. HCl, (2HCl, $PtCl_4$), (HCl, $AuCl_3$), Pikrat (B. 26, 1837; A. 288, 117). — II, 855.
 10) Aethyläther d. 8-Amido-5-Oxy-1,2,3,4-Tetrahydronaphtalin. Sm. 60° (B. 31, 900).
 11) Methyläther d. 2-Oxy-1,3,3-Trimethyl-2,3-Dihydroindol. Sm. 41°. HCl, (2HCl, $PtCl_4$), Pikrat (G. 27 [1] 477). — IV, 225.
 12) Methyläther d. 6-Oxy-1-Aethyl-1,2,3,4-Tetrahydrochinolin (Aethyl-thallin). Sd. 287—287,5°. HCl (M. 6, 779). — IV, 198.
 13) Methyläther d. 8-Oxy-1,2-Dimethyl-1,2,3,4-Tetrahydrochinolin. Sd. 260—262°. (2HCl, $PtCl_4$) (B. 17, 1708). — IV, 205.
 14) Methyläther d. 7-Oxy-2-Aethyl-1,2,3,4-Tetrahydroisochinolin. Sd. 188—189°₅₀. HCl, (2HCl, $PtCl_4$) (A. 286, 19). — IV, 202.

- C₁₁H₁₂ON** 15) Aethyläther d. **8-Oxy-1-Methyl-1,2,3,4-Tetrahydrochinolin**. Sd. 269—270°₇₁₆ (B. 16, 718). — IV, 199.
- 16) Aethyläther d. **7-Oxy-2-Methyl-1,2,3,4-Tetrahydroisochinolin**. Sd. 187—188°₅₆. HCl, (2 HCl, PtCl₄) (A. 286, 19). — IV, 202.
- 17) α -Methyleycampher. Sd. 170—180°₃₃ (B. 24 [2] 733; 27 [2] 300). — III, 512.
- 18) β -Methyleycampher. Sm. 63° (B. 27 [2] 300).
- 19) Aldehyd d. β -[2,4-Dimethylphenyl]amidobuttersäure. Sm. 102° (B. 29, 1468).
- 20) isom. Aldehyd d. β -[2,4-Dimethylphenyl]amidobuttersäure. Sm. 131° (B. 29, 1468).
- 21) Amid d. γ -[2,4-Dimethylphenyl]buttersäure. Sm. 123—124° (J. pr. [2] 46, 475). — II, 1399.
- 22) Amid d. γ -[2,5-Dimethylphenyl]buttersäure. Sm. 125° (J. pr. [2] 46, 479). — II, 1399.
- 23) Amid d. 4-Methyl-3-Propylphenylessigsäure. Sm. 112° (J. pr. [2] 47, 424). — II, 1399.
- 24) Amid d. Pentamethylbenzolcarbonsäure. Sm. 206° (B. 22, 1221). — II, 1400.
- 25) Diäthylamid d. Phenylessigsäure. Sm. 86°; Sd. 297° (B. 22, 324). — II, 1311.
- 26) Methylisobutylamid d. Benzolcarbonsäure. Sd. 290—292° (B. 29, 2118).
- 27) Phenylamid d. Capronsäure. Sm. 95° (B. 16, 1200). — II, 370.
- 28) Phenylamid d. β -Methylbutan- α -Carbonsäure. Sm. 88° (Soc. 67, 268).
- 29) Phenylamid d. β -Methylbutan- γ -Carbonsäure. Sm. 75° (Soc. 73, 17).
- 30) Phenylamid d. Diäthylessigsäure. Sm. 124° (B. 23, 191). — II, 370.
- 31) 2-Methylphenylamid d. Valeriansäure. Sm. 68—70° (C. 1899 [1] 467).
- 32) 3-Methylphenylamid d. Valeriansäure. Sm. 60—61° (C. 1899 [1] 467).
- 33) 4-Methylphenylamid d. Valeriansäure. Sm. 69—71° (C. 1899 [1] 467).
- 34) Aethyl-4-Methylphenylamid d. Propionsäure. Sd. 268—271° (B. 20, 2271). — II, 493.
- 35) norm. Butylphenylamid d. Essigsäure. Sd. 273—275°₇₁₃ (B. 18, 3367). — II, 367.
- 36) Isobutylphenylamid d. Essigsäure. Sd. 272—273°₇₁₂ (B. 21, 1110). — II, 367.
- 37) 3-Isobutylphenylamid d. Essigsäure. Sm. 101° (B. 21, 2949). — II, 556.
- 38) 4-Isobutylphenylamid d. Essigsäure. Sm. 170° (A. 211, 238; B. 14, 1473; 16, 115). — II, 557.
- 39) 2-Pseudobutylphenylamid d. Essigsäure. Sm. 159° (B. 23, 2416). — II, 558.
- 40) 4-Pseudobutylphenylamid d. Essigsäure. Sm. 172° (B. 23, 2417). — II, 558.
- 41) 4-Methyl-2-Isopropylphenylamid d. Essigsäure. Sm. 118° (A. 221, 166). — II, 559.
- 42) 2-Methyl-5-Isopropylphenylamid d. Essigsäure. Sm. 71° (115°) (B. 20, 1263; 26, 2086; A. 279, 375). — II, 559.
- 43) 3-Methyl-6-Isopropylphenylamid d. Essigsäure. Sm. 112° (B. 15, 169). — II, 560.
- 44) 1,3-Diäthyl-*p*-Phenylamid d. Essigsäure. Sm. 104° (B. 21, 2830). — II, 562.
- 45) 2,5-Diäthylphenylamid d. Essigsäure. Sm. 99° (B. 22, 317). — II, 562.
- 46) Aethyl-2,3-Dimethylphenylamid d. Essigsäure. Sd. 268° (A. 263, 317). — II, 540.
- 47) 2,5-Dimethyl-6-Aethylphenylamid d. Essigsäure. Sm. 142—143° (Soc. 61, 421). — II, 562.
- 48) 2,3,4,5-Tetramethylphenylamid d. Essigsäure. Sm. 172° (169,5°) (B. 21, 645, 906). — II, 562.
- 49) 2,3,4,6-Tetramethylphenylamid d. Essigsäure. Sm. 210—211° (215°) (B. 18, 1149; 21, 646). — II, 562.
- 50) 4-Isopropylbenzylamid d. Essigsäure. Sm. 65° (B. 20, 2416). — II, 561.

- C₁₂H₁₇ON** 51) Isoamylphenylamid d. Ameisensäure. Sd. 285—286°₇₇₈ (B. 21, 1110). — II, 352.
 52) 2-Methyl-4-Pseudobutylphenylamid d. Ameisensäure. Sm. 105 bis 106° (B. 17, 2332). — II, 564.
 53) 2-Methyl-6-Isobutylphenylamid d. Ameisensäure. Sm. 103—105° (B. 17, 2342). — II, 564.
 54) Pentamethylphenylamid d. Ameisensäure. Sm. 217° (B. 21, 645). — II, 565.
 55) Verbindung (Base aus Isonitrosoamyl-p-Tolylamin). Sm. 98° (A. 241, 301). — II, 511.
- C₁₂H₁₇ON₃** C 65,7 — H 7,8 — O 7,3 — N 19,2 — M. G. 219.
 1) γ -Oximido- β -Phenylhydrazonhexan. Sm. 130,5° (B. 22, 2120). — IV, 781.
- C₁₂H₁₇OBr** 1) Aethyläther d. 2-Brom-3-Oxy-4-Isopropyl-1-Methylbenzol. Fl. (G. 19, 336). — II, 772.
- C₁₂H₁₇OJ** 1) Aethyläther d. 6-Jod-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 52° (J. pr. [2] 39, 293). — II, 772.
- C₁₂H₁₇O₂N** C 69,6 — H 8,2 — O 15,4 — N 6,8 — M. G. 207.
 1) 2-Nitro-5-Butyl-1,3-Dimethylbenzol. Sm. 85° (B. 24, 2841). — II, 107.
 2) 4-Nitro-2-Propyl-1,3,5-Trimethylbenzol (B. 28, 2462).
 3) 3-Dimethylamido-5-Isopropyl-2-Methyl-1,4-Dihydrobenzol. Fl. (B. 16, 900). — III, 368.
 4) 5-Acetylamido-2-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 176—177° (B. 28, 1662; G. 25 [2] 392).
 5) 6-Acetylamido-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 174,5° (B. 28, 1663; G. 25 [2] 388).
 6) Aethyläther d. 4-Acetyläthylamido-1-Oxybenzol. Sm. 38° (A. 305, 281).
 7) 6-Methyläther d. 6-Oxy-3-tert. Butyl-1-Oximidomethylbenzol. Fl. (Am. 16, 641).
 8) Aethyläther d. α -Oximido- β -Methyl- α -[2-Oxyphenyl]propan. Sm. 110—111° (B. 23, 1206). — III, 150.
 9) Aethyläther d. Aethyl-4-Methylbenzhydroxamsäure. Fl. (A. 281, 218). — II, 1343.
 10) 3,5-Diacetyl-2,4,6-Trimethyl-1,4-Dihydropyridin. Sm. 152°; Sd. 220 bis 230°₇₀ (B. 31, 1029).
 11) 3,5-Diacetyl-2,4,6-Trimethyl-2,5-Dihydropyridin. Sm. 153°; Sd. 250° (i. V.) (Bl. 51, 15). — IV, 102.
 12) Cyanhydrin d. Oxymethylencampher. Sm. 122—123° (A. 281, 387). — III, 115.
 13) Acetat d. 3-Diäthylamido-1-Oxybenzol. Sd. 160,5° (B. 29, 508).
 14) Acetat d. i-Carvoxim. Fl. (B. 17, 2073). — III, 113.
 15) α -Phenylamidocaprinsäure. Sm. 168—170° (B. 25, 2047). — II, 435.
 16) δ -Amido- α -Benzylvaleriansäure (α -Benzylhomopiperidinsäure). Sm. 195 bis 196° u. Zers. (2HCl, PtCl₄), (HCl, AuCl₃) (B. 23, 3695). — II, 1397.
 17) α -[2-Methylphenyl]amidoisovaleriansäure. Sm. 101° (B. 30, 2466).
 18) α -[4-Methylphenyl]amidoisovaleriansäure. Sm. 110° (B. 30, 2470).
 19) β -[2-Amido-4-Isopropylphenyl]propionsäure (B. 19, 2771, 2772). — II, 1398.
 20) β -[3-Amido-4-Isopropylphenyl]propionsäure. Sm. 103—105° (B. 19, 418). — II, 1398.
 21) 2-Aethylamido-1-Isopropylbenzol-4-Carbonsäure. Ag (B. 13, 1662; M. 1, 218). — II, 1388.
 22) 1-Diäthylamidomethylbenzol-2-Carbonsäure. Sm. 105° (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat, Ag + 3H₂O (B. 29, 1593; A. 300, 163).
 23) 1-Diäthylamidomethylbenzol-4-Carbonsäure. Sm. 150°. HCl + 2H₂O, (2HCl, PtCl₄), (HCl, AuCl₃), Pikrat (B. 29, 1594).
 24) Aethylester d. α -Phenylamidobuttersäure. Sm. 26°; Sd. 272°₇₅₄. HBr (B. 22, 1794; 23, 2010; 30, 2305, 2307). — II, 434.
 25) Aethylester d. α -Phenylamidoisobuttersäure. Sm. 30°; Sd. 270—271°. HBr (B. 24, 1044; 30, 2305). — II, 435.
 26) Aethylester d. α -Methylphenylamidopropionsäure. Sd. 260—265° (B. 30, 3175; 31, 3018).

- C₁₂H₁₇O₂N** 27) Aethylester d. α -[2-Methylphenyl]amidopropionsäure. Sd. 277—278° (B. 25, 2304). — II, 471.
 28) Aethylester d. α -[3-Methylphenyl]amidopropionsäure. Sd. 271 bis 276°₇₀₇ (B. 30, 2467).
 29) Aethylester d. α -[4-Methylphenyl]amidopropionsäure. Sm. 35°; Sd. 278—279°. HCl (B. 25, 2305; 30, 2469). — II, 507.
 30) Aethylester d. α -Benzylamidopropionsäure. Sd. 265—275°₇₃₃ (B. 30, 3171).
 31) Aethylester d. 2,4,6-Trimethylphenylamidoameisensäure. Sm. 61 bis 62° (B. 15, 1016). — II, 554.
 32) Aethylester d. 2-Amido-1-Isopropylbenzol-4-Carbonsäure. Fl. (A. 109, 21). — II, 1388.
 33) Isobutylester d. 2-Methylphenylamidoameisensäure. Sd. 275—280° u. Zers. (B. 5, 974). — II, 463.
 34) Amylester d. 2-Amidobenzol-1-Carbonsäure. Sd. 192—194°₄₁ (C. 1899 [1] 467).
 35) Amylester d. 3-Amidobenzol-1-Carbonsäure. Sd. 184—187°₃₅ (C. 1899 [1] 467).
 36) Amylester d. 4-Amidobenzol-1-Carbonsäure. Sm. 27—30°; Sd. 215°₃₅ (C. 1899 [1] 467).
 37) Amid d. δ -Oxy-norm. Valerian-4-Methylphenyläthersäure. Sm. 152° (B. 25, 3046). — II, 750.
 38) Amid d. Oxyessig-4-Isobutylphenyläthersäure. Sm. 134° (Am. 19, 72).
 39) Amid d. Oxyessig[2-Methyl-5-Isopropylphenyl]äthersäure. Sm. 67 bis 68° (G. 10, 345). — II, 767.
 40) Amid d. Oxyessig[3-Methyl-6-Isopropylphenyl]äthersäure. Sm. 96 bis 97° (G. 10, 342). — II, 771.
 41) Amid d. 5-Oxy-4-Isopropyl-1-Methylbenzoldimethyläther-2-Carbonsäure. Sm. 149° (A. 244, 68). — II, 1589.
 42) Phenylamid d. α -Oxyisobutteräthyläthersäure. Sm. 57—62° (B. 25, 2928). — II, 404.
 43) 2,5-Dimethylphenylamid d. Oxyessigäthyläthersäure. Sm. 50° (J. pr. [2] 40, 437). — II, 547.
 44) β -[2,4-Dimethylphenoxy]äthylamid d. Essigsäure. Sm. 70—71° (B. 29, 2402).
 45) Phenylamidoformiat d. β -Oxy- β -Methylbutan. Sm. 42° (Bl. [3] 19, 777).
- C₁₂H₁₇O₂N₃** C 61,3 — H 7,2 — O 13,6 — N 17,9 — M. G. 235.
 1) 2,4-Di[Acetylamido]-1-Dimethylamidobenzol + 1½ H₂O. Sm. 82° (151,5—152,5° wasserfrei) (B. 29, 1054). — IV, 1122.
 2) 2-Isonitrosoamylnitrosamido-1-Methylbenzol. Sm. 149—150° u. Zers. (A. 241, 302; J. 1888, 682). — II, 473.
 3) 4-Isonitrosoamylnitrosamido-1-Methylbenzol. Sm. 147—148° (A. 241, 300; J. 1888, 682). — II, 511.
 4) Isovalerylphenylamidoharnstoff. Sm. 209—210° (B. 29, 1950). — IV, 675.
- C₁₂H₁₇O₂Br** 1) 4-Methyläther- α -Aethyläther d. β -Brom- α -Oxy- α -[4-Oxyphenyl]-propan. Sd. 165—170°₁₄ (B. 29, 689).
 2) Dimethyläther d. Verb. C₁₀H₁₃O₂Br (aus Tribromthujon). Sm. 42—43° (A. 286, 112). — III, 512.
 3) Monäthyläther d. Verb. C₁₀H₁₃O₂Br (aus Tribromthujon). Sm. 144 bis 145° (A. 286, 113). — III, 512.
 4) Dipropyläther d. 2-Brom-1,3-Dioxybenzol. Sm. 70—71° (B. 13, 1679; M. 1, 261). — II, 920.
- C₁₂H₁₇O₃N** C 64,6 — H 7,6 — O 21,5 — N 6,3 — M. G. 223.
 1) Methyläther d. Verb. C₁₁H₁₅O₃N (aus Pelletin). Pikrat (Sm. 93°) (B. 29, 220). — III, 779.
 2) Aethyläther d. 2-Nitro-4-Oxy-1-[tert.]Butylbenzol. Sd. etwa 300° u. Zers. (B. 15, 1991).
 3) 3-Methyl-4-Aethyläther d. α -Oximido- α -[3,4-Dioxyphenyl]propan. Sm. 114° (B. 28, 2720). — III, 143.
 4) 2,4-Diäthyläther d. α -Oximido- α -2,4-[Dioxyphenyl]äthan. Sm. 122° (J. pr. [2] 53, 42). — III, 135.

- $C_{12}H_{17}O_3N$ 5) 2,4-Diäthyläther d. isom. α -Oximido- α -[2,4-Dioxyphenyl]äthan. Sm. 240° u. Zers. (*J. pr.* [2] 53, 42).
 6) Diäthyläther d. 4-Acetylamido-1,3-Dioxybenzol. Sm. 120,5° (*B.* 20, 1127). — II, 929.
 7) Cantharidinäthylimid. Sm. 105° (*G.* 21 [1] 462). — III, 623.
 8) 2-Aethoxylphenyläthylamidoessigsäure. Fl. HCl (*J. pr.* [2] 29, 292). — II, 713.
 9) Aethylester d. α -[2-Oxyphenyl]amidobuttersäure. Sm. 81° (*B.* 30, 2928).
 10) Aethylester d. α -[4-Oxyphenyl]amidobuttersäure. Sm. 59,5° (*B.* 30, 2929).
 11) Aethylester d. α - oder β -[4-Oxyphenyl]amidoisobuttersäure. Sm. 91—91,5° (*B.* 30, 2930).
 12) Aethylester d. 2-Aethoxylphenylamidoessigsäure. HCl (*J. pr.* [2] 29, 295). — II, 713.
 13) Aethylester d. 6-Amido-3-Oxy-1-Isopropylbenzol-4-Carbonsäure. Sm. 61° (*B.* 27, 1935). — II, 1582.
 14) norm. Propylester d. Phenylacetylamidoessigsäure. Sm. 31° (*J. pr.* [2] 38, 106). — II, 1313.
 15) Acetylderivat d. inn. Anhydrid d. Diacetylcaprinsäureamid. Fl. (*Soc.* 55, 341). — I, 1388.
- $C_{12}H_{17}O_3N_3$ C 57,4 — H 6,8 — O 19,1 — N 16,7 — M. G. 251.
 1) Semicarbazid d. β -[α -Phenylhydrazido]propionsäureäthylester. Sm. 163—164° (*B.* 29, 517). — IV, 732.
- $C_{12}H_{17}O_3Br_3$ 1) Diäthyläther d. ?-Tribrom-?-Trioxy-1,3-Dimethylbenzol? Sm. 62—64° (*B.* 29, 1132).
- $C_{12}H_{17}O_3P$ 1) Diacetonphenylphosphinsäure + H₂O. Sm. 86°. Ag (*B.* 19, 1010). — IV, 1656.
- $C_{12}H_{17}O_4N$ C 60,2 — H 7,1 — O 26,8 — N 5,8 — M. G. 239.
 1) 1,5-Diäthyläther d. 2-Acetylamido-1,3,5-Trioxybenzol. Sm. 122 bis 123,5° (*M.* 18, 372).
 2) Diäthyläther d. α -Oximido- β -Oxy- α -[3,4-Dioxyphenyl]äthan. Sm. 105—107° (*M.* 14, 41). — III, 132.
 3) 2,3,5-Triäthyläther d. 2-Oximido-3,5-Dioxy-1-Keto-1,2-Dihydrobenzol. Sm. 106° (92°) (*M.* 17, 470; 18, 368).
 4) 3,4,5-Triäthyläther d. 4-Oximido-3,5-Dioxy-1-Keto-1,4-Dihydrobenzol. Sm. 117—118° (*M.* 17, 475; 18, 372).
 5) Dimethylester d. 2,4,6-Trimethyl-2,3-Dihydropyridin-3,5-Dicarbonsäure. Sm. 156° (*B.* 16, 1946; *Ph. Ch.* 10, 421). — IV, 94.
 6) Aethylester d. Tropinonmonooxalsäure. Sm. 169,5° u. Zers. (2 HCl, PtCl₄ + 3 H₂O) (*B.* 30, 2710).
 7) Diäthylester d. δ -Cyan- α -Penten- δ -Dicarbonsäure. Sd. 207—210°₃₅ (*A. ch.* [6] 27, 260). — I, 1226.
 8) Diäthylester d. 2-Methylpyrrol-3-Carbonsäure-5-Methylcarbon-säure. Sm. 168° (*A.* 266, 85). — IV, 92.
 9) Diäthylester d. 2,4-Dimethylpyrrol-3,5-Dicarbonsäure. Sm. 134 bis 135°. K (*A.* 236, 17). — IV, 92.
 10) Diäthylester d. 2,5-Dimethylpyrrol-3,4-Dicarbonsäure. Sm. 99°. K, (2 HCl, PtCl₄) (*B.* 18, 302, 1559; 30, 1995). — IV, 91.
 11) Acetat d. Camphonitrosophenol. Sm. 115°; Sd. 150° u. Zers. (*Bl.* [3] 1, 468; *Soc.* 73, 999). — III, 494.
 12) Verbindung (aus Anilin u. Isodulcit). Sm. 118° (*Bl.* 48, 633). — II, 446.
- $C_{12}H_{17}O_4N_3$ C 53,9 — H 6,4 — O 24,0 — N 15,7 — M. G. 267.
 1) 2,4-Dinitro-1-Hexylamidobenzol. Sm. 38,25—39,25° (*R.* 14, 36).
 2) 2,4-Dinitro-6-Amido-5-Pseudobutyl-1,3-Dimethylbenzol. Sm. 186 bis 187° (*C.* 1898 [2] 1232).
 3) 2,4-Dinitro-1-Diisopropylamidobenzol. Sm. 40° (*R.* 8, 252). — II, 335.
- $C_{12}H_{17}O_5N$ C 56,5 — H 6,6 — O 31,4 — N 5,5 — M. G. 255.
 1) Triäthyläther d. 5-Nitro-1,2,3-Trioxybenzol. Sm. 74° (*M.* 2, 217; *B.* 25, 722). — II, 1015.
 2) Galaktoseanilid (*J. pr.* [2] 37, 304; *B.* 27, 1285). — II, 448.
 3) Glykoseanilid. Sm. 147° (*A.* 154, 30; *J. pr.* [2] 37, 292, 304; [2] 50, 95; *B.* 27, 1285). — II, 447.

- $C_{12}H_{17}O_8N$ 4) Lävuloseanilid (*J. pr.* [2] 37, 292). — II, 448.
 5) Oxim d. Ketonsäure $C_{12}H_{15}O_8$. Sm. 188° (*C.* 1896 [2] 1115).
 6) Diäthylester d. 1-Oxy-2,5-Dimethylpyrrol-3,4-Dicarbonsäure. Sm. 98—100° (*A.* 236, 297). — IV, 96.
 7) Phenylamid d. Isosaccharinsäure. Sm. 165° (*J. pr.* [2] 37, 318). — II, 421.
- $C_{12}H_{17}O_8Br$ 1) Diäthylester d. β -Brom- ϵ -Keto- β -Hexen- γ -Dicarbonsäure (*Soc.* 69, 1393).
- $C_{12}H_{17}O_6N$ C 53,1 — H 6,3 — O 35,4 — N 5,2 — M. G. 271.
 1) Phenylamid d. d-Galaktonsäure. Sm. 210° (*M.* 16, 342).
 2) Phenylamid d. Glykonsäure. Sm. 171° (*B.* 22, 2736). — II, 423.
- $C_{12}H_{17}O_{10}N_3$ C 39,6 — H 4,7 — O 44,1 — N 11,6 — M. G. 363.
 1) Verbindung (aus Asparaginsäure). *Ag.* (*J.* 1876, 777). — I, 1211.
- $C_{12}H_{17}O_{16}N_3$ C 31,4 — H 3,7 — O 55,8 — N 9,1 — M. G. 459.
 1) Trinitrat d. Cellulose (*B.* 13, 175; *J.* 1852, 660; 1855, 683). — I, 1075.
- $C_{12}H_{17}NS$ 1) Isoamyl- α -Imidobenzylsulfid. Fl. HCl (*B.* 11, 1825). — II, 1294.
 2) Isobutyläther d. α -Phenylimido- α -Merkaptoäthan. Fl. (*B.* 12, 1061). — II, 362.
- $C_{12}H_{17}NS_2$ 1) Isoamylester d. Phenylamidodithioameisensäure. Sm. 71° (*B.* 15, 1306). — II, 387.
- $C_{12}H_{17}N_2Cl$ 1) 1-[β -Chlor-4-Amidobenzyl]hexahydropyridin. Sm. 76—76,5°. 2 HCl (*A.* 259, 45). — IV, 640.
- $C_{12}H_{17}N_2S$ 1) Piperidid d. β -Phenylhydrazidthioameisensäure (Phenylpiperidylthiosemicarbazid). Sm. bei 120° (*B.* 30, 849). — IV, 681.
 2) Verbindung (aus Benzylsenföl). Sm. 175° u. Zers. (*Soc.* 53, 411). — II, 527.
 3) Verbindung (aus 2-Methylphenylsenföl). Sm. 158—159° u. Zers. + 2 AgNO₃ (*Soc.* 53, 418; 61, 519). — II, 473.
- $C_{12}H_{15}ON_2$ C 69,9 — H 8,7 — O 7,8 — N 13,6 — M. G. 206.
 1) α -Isoamylphenylharnstoff. Sm. 155° (*B.* 23, 2867; 24, 2158). — II, 377.
 2) α -Isobutylbenzylharnstoff. Sm. 78—79° (*B.* 24, 3818). — II, 526.
 3) α -Methyl- α -Isobutyl- β -Phenylharnstoff. Sm. 124—125° (*B.* 29, 2117).
 4) 4-Nitroso-1-norm. Dipropylamidobenzol. Sm. 42°. (2 HCl, PtCl₄) (*M.* 7, 99). — II, 335.
 5) ϵ -Oximido- α -Phenylamidohehexan. Sm. 68—69° (*A.* 289, 242).
 6) γ -Oximido- β -[2-Methylphenyl]amido- β -Methylbutan. Sm. 115°. HCl (*A.* 241, 302; *J.* 1888, 682). — II, 473.
 7) γ -Oximido- β -[4-Methylphenyl]amido- β -Methylbutan. Sm. 111—112° (*A.* 241, 300; *J.* 1888, 682). — II, 511.
 8) δ -Oximido- β -[2,4-Dimethylphenyl]amidobutan. Sm. 165° (*B.* 29, 1470).
 9) ϵ -Phenylhydrazon- α -Oxyhexan. Fl. (*A.* 289, 188). — IV, 769.
 10) β -Acetyl- α -Isobutyl- α -Phenylhydrazin. Sm. 113—114° (*A.* 252, 283). — IV, 665.
 11) Amid d. α -Phenylamidocaprinsäure. Sm. 106—107° (*B.* 25, 2046). — II, 436.
 12) Amid d. 1-Diäthylamidomethylbenzol-2-Carbonsäure. Sm. 117°. (2 HCl, PtCl₄), (HCl, AuCl₃) (*A.* 300, 162).
 13) Phenylhydrazid d. Caprinsäure. Sm. 116—117° (*B.* 20, 3190). — IV, 667.
 14) Phenylhydrazid d. Isocaprinsäure. Sm. 144—145° (*Am.* 20, 678).
- $C_{12}H_{15}OCl_2$ 1) Dichloronocerin (*J.* 1855, 717; *B.* 29, 2986). — III, 638.
- $C_{12}H_{15}O_2N_2$ C 64,9 — H 8,1 — O 14,4 — N 12,6 — M. G. 222.
 1) 4-Nitro-1-Isoamylamidomethylbenzol (Isoamyl-4-Nitrobenzylamin). Fl. HCl, (2 HCl, PtCl₄), Oxalat, Pikrat (*B.* 30, 66).
 2) 2-Nitro-1-Dipropylamidobenzol. Sm. 59° (*C.* 1898 [1] 886).
 3) β^2 -Methyläther d. γ -Oximido- β -[2-Oxyphenyl]amido- β -Methylbutan. Sm. 138—139°. HCl (*A.* 241, 302). — II, 713.
 4) 3,6-Di[Methylamido]-5-Isopropyl-2-Methyl-1,4-Benzochinon. Sm. 203° (*B.* 14, 94). — III, 368.
 5) Säure (aus d. α -Brom- α -[2-Methylpyridyl(5)]propionsäure). + 2 AuCl₃ (*B.* 28, 1770). — IV, 835.
- $C_{12}H_{15}O_2N_4$ C 57,6 — H 7,2 — O 12,8 — N 22,4 — M. G. 250.
 1) Amyltheobromin. Sm. oberh. 370° (*B.* 30, 2585).

- C₁₂H₁₅O₂N₂** 2) 4-Isopropylbenzylidendiarnstoff (Cumindiureid). Sm. 175—176° (*G.* 23 [1] 372) — III, 56.
 3) Acetonoximphenylhydrazid (*B.* 25, 1688). — IV, 768.
 4) Verbindung (aus Hexamethylenamin u. 1,3-Dioxybenzol). Zers. 190 bis 200° (*A.* 272, 281). — II, 916.
 5) Verbindung (aus Hexamethylenamin u. 1,4-Dioxybenzol) (*A.* 272, 282). — II, 932.
 6) Verbindung (aus d. Verb. C₁₂H₁₅O₂N₂). Sm. 150° (*Bl.* [3] 5, 776). — IV, 522.
- C₁₂H₁₅O₂Br** 1) Verbindung (aus d. Methyläther d. Oxymethylencampher). Sm. 78° (*B.* 27, 2404). — III, 115.
- C₁₂H₁₅O₂S** 1) Amyl-2-Methylphenylsulfon. Fl. (*J. pr.* [2] 54, 525).
 2) Amyl-4-Methylphenylsulfon. Fl. (*A.* 284, 304).
 3) Diäthyläther d. ββ-Dioxyäthylphenylsulfid. Sd. 273° (*B.* 24, 161). — II, 782.
- C₁₂H₁₅O₃N₂** C 60,5 — H 7,5 — O 20,2 — N 11,8 — M. G. 238.
 1) Verbindung (aus Cantharidin). Sm. 94—95°. HCl, (2HCl, PtCl₄) (*G.* 23 [1] 132). — III, 623.
 2) Verbindung (aus Oxykyanconiin u. Chlorameisensäureäthylester). Fl. (*J. pr.* [2] 30, 121). — IV, 822.
- C₁₂H₁₅O₃S** 1) 1-norm. Hexylbenzol-*p*-Sulfonsäure (Sulfonsäure d. β-Phenylhexan). Ba + 2H₂O (*B.* 26 [2] 692; *Bl.* [3] 9, 688).
 2) *p*-Isoamyl-1-Methylbenzol-*p*-Sulfonsäure. K, Ba (*A.* 141, 166). — II, 159.
 3) 5-Pseudobutyl-1,3-Dimethylbenzol-*p*-Sulfonsäure. Na (*B.* 27, 1606).
 4) 1,3-Dipropylbenzol-*p*-Sulfonsäure. Ba + 1½ H₂O, Pb + 1½ H₂O (*B.* 24, 770). — II, 159.
 5) 1,4-Dipropylbenzol-2-Sulfonsäure. Sm. 62°. Na + 4H₂O, K + 4H₂O, Mg + 7H₂O, Ca + 9H₂O, Ba + ½(1)H₂O, Zn + 8H₂O, Pb + H₂O (*B.* 11, 1864; *Am.* 5, 162; *G.* 21, 25). — II, 159.
 6) isom. *p*-1,4-Dipropylbenzol-*p*-Sulfonsäure (*G.* 21, 26). — II, 159.
 7) 1,4-Propylisopropylbenzol-*α*-Sulfonsäure. Sm. 74°. Na + 4H₂O, Mg + 7H₂O, Ca + 8H₂O, Ba + H₂O, Zn + 8H₂O, Pb + H₂O (*G.* 21, 17). — II, 160.
 8) 1,4-Propylisopropylbenzol-*β*-Sulfonsäure. Mg + 6H₂O (*G.* 21, 21). — II, 160.
 9) 1,2-Diisopropylbenzol-*p*-Sulfonsäure. Cu + 6½ H₂O (*B.* 23, 3142). — II, 160.
 10) 1,3-Diisopropylbenzol-*p*-Sulfonsäure. Mg + 4H₂O, Ba + 2H₂O, Cu + 4½ H₂O (*B.* 23, 3142). — II, 160.
 11) 2-Propyl-1,3,5-Trimethylbenzol-4-Sulfonsäure. Na + 2H₂O, Mg + 2H₂O, Ca + H₂O, Ba + 2H₂O, Cu (*B.* 28, 2461).
- C₁₂H₁₅O₄N₂** C 56,7 — H 7,1 — O 25,2 — N 11,0 — M. G. 254.
 1) Phenylhydrazon d. Isodulcit (Ph. d. Rhamnose). Sm. 159° (*B.* 20, 2574; *Bl.* 47, 760; *A.* 272, 181). — IV, 752.
 2) Diäthylester d. 2,5-Diimidohexahydrobenzol-1,4-Dicarbonsäure (D. d. Diimidosuccinylbernsteinsäure). Sm. 181° (*B.* 19, 429). — I, 824.
 3) Verbindung (aus Diacetbernsteinsäureäthylester). Sm. 68—69° (*J. pr.* [2] 50, 520). — IV, 1264.
- C₁₂H₁₅O₄S** 1) 2-Oxy-4-Isopropyl-1-Methylbenzoläthyläther-6-Sulfonsäure. Ba + 3½ H₂O (*G.* 21, 69). — II, 842.
 2) 3-Oxy-4-Isopropyl-1-Methylbenzoläthyläther-6-Sulfonsäure. K, Ba + 3H₂O (*Z.* 1869, 47; *B.* 19, 247). — II, 847.
 3) 3-Oxy-4-Isopropyl-1-Methylbenzoläthyläther-*p*-Sulfonsäure. K, Ba + 3H₂O (*Z.* 1869, 48). — II, 847.
- C₁₂H₁₅O₄S₂** 1) αα-Di[Aethylsulfon]-α-Phenyläthan. Sm. 100—101° (*A.* 253, 155). — III, 129.
- C₁₂H₁₅O₄S₃** 1) Phenyläther d. αα-Di[Aethylsulfon]-α-Merkaptoäthan. Sm. 113° (*B.* 25, 361). — II, 782.
- C₁₂H₁₅O₅N₂** C 53,3 — H 6,7 — O 29,6 — N 10,4 — M. G. 270.
 1) Phenylhydrazon d. Carubinose. Sm. 183° u. Zers. (*Bl.* [3] 17, 958). — IV, 792.
 2) Phenylhydrazon d. Galaktose. Sm. 158° (*B.* 20, 825; *A.* 272, 174). — IV, 791.

- C₁₂H₁₅O₅N₂**
- 3) α -Phenylhydrazon d. Glykose. Sm. 144—145° (B. 20, 824). — IV, 791.
 - 4) β -Phenylhydrazon d. Glykose. Sm. 115—116° (M. 10, 406; A. 272, 178). — IV, 791.
 - 5) Phenylhydrazon d. l-Gulose. Sm. 143° (B. 24, 533). — IV, 792.
 - 6) Phenylhydrazon d. i-Gulose. Sm. 157—159° (B. 25, 1030). — IV, 792.
 - 7) Phenylhydrazon d. d-Mannose. Sm. 195—200° u. Zers. (B. 21, 1805; 22, 610, 1156). — IV, 793.
 - 8) Phenylhydrazon d. l-Mannose. Sm. 195° u. Zers. (B. 23, 374). — IV, 793.
 - 9) Phenylhydrazon d. i-Mannose. Sm. bei 195° u. Zers. (B. 23, 381). — IV, 793.
 - 10) Phenylhydrazid d. Rhamnonsäure. Sm. 186—190° u. Zers. (B. 27, 390). — IV, 720.
 - 11) Phenylhydrazid d. Isorhamnonsäure. Sm. 152° (B. 29, 1965). — IV, 720.
 - 12) Phenylhydrazid d. Saccharinsäure. Sm. 164—165° (B. 22, 2733). — IV, 720.
 - 13) Phenylhydrazid d. Metasaccharinsäure. Sm. 100—105° u. Zers. (B. 26, 1653). — IV, 720.
- C₁₂H₁₅O₆N₂** C 50,3 — H 6,3 — O 33,6 — N 9,8 — M. G. 286.
- 1) Diäthylester d. Hexahydro-1,4-Diasin-1,4-Diketocarbonsäure + H₂O (Diäthoxalylpiperazin). Sm. 124° (115°) (B. 24, 3241; J. pr. [2] 53, 23). — I, 1364.
 - 2) Phenylhydrazid d. i-Galaktonsäure. Sm. 200—205° u. Zers. (B. 22, 2732; 25, 1254). — IV, 725.
 - 3) Phenylhydrazid d. d-Glykonsäure. Sm. bei 200° u. Zers. (B. 22, 2730). — IV, 725.
 - 4) Phenylhydrazid d. l-Glykonsäure. Sm. 195—197° u. Zers. (B. 23, 2615; 26, 733). — IV, 725.
 - 5) Phenylhydrazid d. i-Glykonsäure. Sm. 188—190° (B. 23, 2618). — IV, 725.
 - 6) Phenylhydrazid d. l-Gulonsäure. Sm. 147—149° (B. 24, 532). — IV, 725.
 - 7) Phenylhydrazid d. i-Gulonsäure. Sm. 153—155° u. Zers. (B. 25, 1029). — IV, 725.
 - 8) Phenylhydrazid d. l-Mannonsäure. Sm. 214—216° u. Zers. (B. 22, 2732). — IV, 725.
 - 9) Phenylhydrazid d. i-Mannonsäure. Sm. bei 230° (B. 23, 378). — IV, 725.
 - 10) Phenylhydrazid d. Talonsäure. Sm. 155° u. ger. Zers. (B. 24, 3625). — IV, 725.
- C₁₂H₁₅O₆N₆** C 42,1 — H 5,3 — O 28,1 — N 24,5 — M. G. 342.
- 1) Triäthylester d. Triazoessigsäure. Sm. 110°; Sd. bei 270° u. Zers. (J. pr. [2] 38, 540). — I, 1493.
- C₁₂H₁₅O₆Cl₂**
- 1) Dimethyläther d. 3,6-Dichlor-2,5-Dioxy-1,4-Benzochinondiäthylhemiacetal (Am. 17, 606). — III, 350.
- C₁₂H₁₅O₆Br₂**
- 1) Diäthylester d. $\alpha\beta$ -Dibrompropan- $\alpha\beta\gamma$ -Tricarbonsäure. Fl. (J. pr. [2] 52, 342).
- C₁₂H₁₅O₆S**
- 1) Acetessigsäureäthylestersulfid (Thioacetessigsäureäthylester). Sm. 75 bis 78°. Na₂ (B. 18, 2002; 22, 306; 23, 559; Soc. 59, 331; A. 253, 197). — I, 899.
- C₁₂H₁₅O₆S₂**
- 1) Diäthylester d. 1,3-Dimethylbenzol-2,4-Disulfonsäure (J. pr. [2] 46, 153). — II, 143.
- C₁₂H₁₅O₆S₃**
- 1) $\alpha\alpha$ -Di[Aethylsulfon]- α -Phenylsulfonäthan. Sm. 109° (B. 25, 364). — II, 782.
- C₁₂H₁₅O₆S₃**
- 1) Triäthylester d. Benzol-1,3,5-Trisulfonsäure. Sm. 147° (Am. 9, 337). — II, 117.
- C₁₂H₁₅O₁₄N₂** C 34,8 — H 4,3 — O 54,1 — N 6,7 — M. G. 414.
- 1) Dinitrat d. Arabin (J. 1860, 521). — I, 1101.
 - 2) Dinitrat d. Cellulose (J. 1852, 659; 1855, 685; B. 13, 175). — I, 1075.
 - 3) Dinitrat d. Stärke (J. 1862, 469; B. 8, 1020). — I, 1087.
- C₁₂H₁₅O₁₆S**
- 1) Hamathionsäure. Pb₂ (A. 60, 240). — I, 905.
 - 2) Verbindung (aus Glykuronsäure) (B. 15, 1968).

- $C_{12}H_{18}O_{12}N_4$** C 27,6 — H 3,4 — O 58,2 — N 10,7 — M. G. 522.
 1) Tetranitrat d. Milchzucker. Sm. 80—81° (*J. r.* **14**, 257). — **I**, 1064.
 2) Tetranitrat d. Rohrzucker (*J.* **1847/48**, 1146; **1849**, 469; **1855**, 657; *A.* **64**, 398; *Soc.* **4**, 147). — **I**, 1067.
- $C_{12}H_{18}NCl$** 1) Chlormethylat d. **1-Aethyl-1,2,3,4-Tetrahydrochinolin**. 2 + PtCl₄ (*B.* **17**, 1331). — **IV**, 192.
 2) Chlormethylat d. **1,2-Dimethyl-1,2,3,4-Tetrahydrochinolin**. 2 + PtCl₄, + AuCl₃ (*A.* **242**, 319). — **IV**, 204.
 3) Chloräthylat d. **2-Aethyl-1,3-Dihydroisindol**. 2 + PtCl₄, + AuCl₃ (*B.* **31**, 426, 592).
 4) Trimethyl-2-Aethenylbenzylammoniumchlorid. 2 + PtCl₄ (*G.* **23** [2] 413). — **II**, 586.
- $C_{12}H_{18}NBr$** 1) Bromäthylat d. **2-Aethyl-1,3-Dihydroisindol**. Fl. (*B.* **31**, 426).
 $C_{12}H_{18}NJ$ 1) Jodmethylat d. **1,2,3-Trimethyl-2,3-Dihydroindol**. Sm. 170—171° u. Zers. (*G.* **21**, 321). — **IV**, 206.
 2) Jodmethylat d. **1,3,3-Trimethyl-2,3-Dihydroindol**. subl. bei 204 bis 205° (*B.* **29**, 2470). — **IV**, 206.
 3) Jodmethylat d. **1-Aethyl-1,2,3,4-Tetrahydrochinolin**. Sm. 179° (*B.* **17**, 1331). — **IV**, 192.
 4) Jodmethylat d. **1,2-Dimethyl-1,2,3,4-Tetrahydrochinolin**. Sm. 205° (*A.* **242**, 318). — **IV**, 204.
 5) Trimethyl-2-Aethenylbenzylammoniumjodid. Sm. bei 200° u. Zers. (*G.* **23** [2] 413). — **II**, 586.
- $C_{12}H_{18}N_2Cl_2$** 1) Dichlormethylat d. Dihydronikotyrin. 2 + PtCl₄ (*B.* **31**, 2021).
 $C_{12}H_{18}N_2J_2$ 1) Dijodmethylat d. Dihydronikotyrin. Fl. (*B.* **31**, 2021).
 $C_{12}H_{18}N_2S$ 1) s-Isoamylphenylthioharnstoff. Sm. 101—102° (*Soc.* **63**, 324). — **II**, 392.
 2) s-[tert.]Amylphenylthioharnstoff. Sm. 136° (*B.* **24**, 2158). — **II**, 392.
 3) α-Methyl-α-Isobutyl-β-Phenylthioharnstoff. Sm. 92° (*B.* **29**, 2117).
 4) αα-Aethylisopropyl-β-Phenylthioharnstoff. Sm. 132° (*B.* **27**, 1010).
 5) αβ-Diäthyl-α-Benzylthioharnstoff. HCl (*B.* **23**, 2197). — **II**, 527.
 6) αα-Diäthyl-β-[2-Methylphenyl]thioharnstoff. Sm. 102° (*B.* **17**, 3038). — **II**, 465.
 7) Pentamethylphenylthioharnstoff. Sm. 224° (*B.* **18**, 1827). — **II**, 565.
- $C_{12}H_{19}ON$** C 74,6 — H 9,8 — O 8,3 — N 7,2 — M. G. 193.
 1) ζ-Phenylamido-β-Oxyhexan. Sm. 44—45°; Sd. 320—322°₇₂₀ (*A.* **289**, 248).
 2) Äthyläther d. p-Amido-4-Oxy-1-[tert.] Butylbenzol (*B.* **15**, 1991).
 3) Äthyläther d. 2-Diäthylamido-1-Oxybenzol. Sd. 227—228°_{754,3} (231 bis 233°). HBr (*J. pr.* [2] **21**, 364; *M.* **19**, 633). — **II**, 704.
 4) ε-Amidoamyläther d. 4-Oxy-1-Methylbenzol. HCl, (2HCl, PtCl₄) (*B.* **25**, 3047). — **II**, 748.
 5) Phenyläther d. α-Amido-ε-Oxy-β-Methylpentan. Fl. HCl, (2HCl, PtCl₄), Pikrat (*B.* **26**, 2572). — **II**, 654.
 6) Oxim d. Xyliton. Sd. 162—164°₁ (*A.* **299**, 229).
 7) 2-Oximidobi[hexahydrophenylen] (Bicyklo-hexen-hexanonoxim). Sm. 146—148° (*B.* **29**, 2966).
 8) 5-Oximido-2,3' [oder 3,2']-Dimethyl-1,1'-Bi[R-Pentamethylen]. Sm. 94° (*B.* **29**, 2965).
 9) 1-Acetyl-p-Triäthylpyrrol. Sm. 138° (*B.* **23**, 2567). — **IV**, 100.
 10) Methoxydhydrat d. **1-Aethyl-1,2,3,4-Tetrahydrochinolin**. Salze, siehe diese (*B.* **17**, 1331). — **IV**, 192.
 11) Methoxydhydrat d. **1,2-Dimethyl-1,2,3,4-Tetrahydrochinolin**. Sm. oberh. 100°. Salze, siehe diese. H₂Cr₂O₇ (*A.* **242**, 318). — **IV**, 204.
- $C_{12}H_{19}ON_3$** C 65,2 — H 8,6 — O 7,2 — N 19,0 — M. G. 221.
 1) 4-Acetylamido-1,3-Di[Dimethylamido]benzol. Sm. 85° (*B.* **30**, 3113). — **IV**, 1122.
- $C_{12}H_{19}OBr$** 1) Äthyläther d. Bromcarveol. Sd. 142—148°₁₃ (*A.* **264**, 16; **281**, 128, 130). — **III**, 504.
- $C_{12}H_{19}OP$** 1) Äthyläther d. Diäthyl-4-Oxyphenylphosphin. Sd. 275° (*A.* **293**, 259). — **IV**, 1655.
 2) Phenyläther d. Diäthyl-4-Oxyphenylphosphin. Sd. 275° (*A.* **293**, 259).
- $C_{12}H_{19}O_2N$** C 68,9 — H 9,1 — O 15,3 — N 6,7 — M. G. 209.
 1) Äthyläther d. Oximidocampher. Sm. 72—73°; Sd. 204—212°₁₈₀ (*G.* **23** [1] 300). — **III**, 492.

- $C_{11}H_{19}O_2N$ 2) Diäthyläther d. 3,5-Dioxy-2,4,6-Trimethylpyridin. Sd. 217—219°₇₂₈. (2HCl, PtCl₄) (B. 20, 1350). — IV, 137.
- 3) Methoxydhydrat d. 8-Oxy-1-Methyl-1,2,3,4-Tetrahydrochinolin-8-Methyläther. Salze, siehe diese (B. 19, 1043). — IV, 199.
- 4) Acetylamidocampher. Sm. 121—122° (A. 274, 93; B. 31, 3260). — III, 496.
- 5) Acetat d. d-Campheroxim. Fl. (Soc. 71, 1040).
- 6) α -Mononitril d. Camphersäuremonoäthylester. Sm. 24—27° (22—24°) (R. 14, 264; G. 26 [1] 414).
- 7) Äthylimid d. Camphersäure. Sm. 49—50° (43—44°); Sd. 275—276° (B. 14, 164; A. 214, 249). — I, 1392.
- 8) Äthylisoimid d. Camphersäure. Sm. 80—82° (R. 12, 17).
- 9) Methylderivat d. Cyancampher. Sm. 76—77° (B. 22 [2] 576). — III, 497.
- $C_{12}H_{19}O_2N_2$ C 60,7 — H 8,0 — O 13,5 — N 17,7 — M. G. 237.
- 1) Methylester d. 2,4-Di[Dimethylamido]phenylamidoameisensäure. Pikrat (Sm. 167°) (B. 30, 3114). — IV, 1123.
- 2) Äthylester d. 5-Methyl-2,4-Diäthyl-1,3-Diazin-6-Amidoameisensäure (Carboxyäthylkynäthin). Sd. 247°. Ag + H₂O (J. pr. [2] 30, 116). — IV, 1133.
- 3) Di[Äthylamid] d. 1-Äthylpyrrol-2-Dicarbonsäure. Sm. 229—230° (B. 10, 1864). — IV, 90.
- $C_{12}H_{19}O_2N_2$ C 54,3 — H 7,2 — O 12,1 — N 26,4 — M. G. 265.
- 1) Diäthylamidokaffeïn. Sm. 109° (B. 31, 1140).
- $C_{12}H_{19}O_2Cl$ 1) Verbindung (aus Borneol u. Chloral). Sm. 55—56° (J. pr. [2] 49, 6).
- 2) Verbindung (aus Isoborneol u. Chloral). Fl. (J. pr. [2] 49, 6).
- $C_{12}H_{19}O_2Br$ 1) Verbindung (aus d-Borneol u. Tribromessigsäurealdehyd). Sm. 98—99° (J. pr. [2] 49, 6). — III, 469.
- 2) Verbindung (aus Isoborneol u. Tribromessigsäurealdehyd). Sm. 71—72° (J. pr. [2] 49, 6). — III, 473.
- $C_{12}H_{19}O_2N$ C 64,0 — H 8,4 — O 21,3 — N 6,2 — M. G. 225.
- 1) Äthyläther d. Camphonitrosophenol. Sm. 54° (Bl. [3] 1, 469). — III, 493.
- 2) Triäthyläther d. 5-Amido-1,2,3-Trioxylbenzol. Sm. 104°. (2HCl, PtCl₄) (B. 25, 724). — II, 1016.
- 3) 1-[α -Oximidoamyl]-1,2,3,4-Tetrahydrobenzol-6-Carbonsäure (Oxim d. Sedanonsäure). Sm. 128° (B. 30, 500, 1423).
- 4) Äthylester d. 2-Keto-1-Isobutyl-5-Methyl-2,3-Dihydropyrrol-4-Carbonsäure. Sm. 65°; Sd. 175°₁₅ (A. 260, 150). — I, 1215.
- 5) norm. Butylmonamid d. 1,2,3,4-Tetrahydrobenzol-1,6-Dicarbonsäure. Sm. 171° (B. 30, 503).
- $C_{12}H_{19}O_3Cl_3$ 1) Chloralhydratecampher. Fl. (J. 1878, 645). — III, 487.
- $C_{12}H_{19}O_4N$ C 59,7 — H 7,9 — O 26,5 — N 5,8 — M. G. 241.
- 1) Diäthylester d. β -Cyanpentan- $\alpha\beta$ -Dicarbonsäure. Sd. 205,8°₄₅ (A. ch. [6] 27, 257). — I, 1225.
- 2) Diäthylester d. β -Cyanpentan- $\beta\gamma$ -Dicarbonsäure. Sd. 275—278° (J. r. 21, 384). — I, 1225.
- 3) Diäthylester d. γ -Cyanpentan- $\beta\gamma$ -Dicarbonsäure. Sd. 283—285° (J. r. 21, 384). — I, 1225.
- 4) Diäthylester d. γ -Cyan- β -Methylbutan- $\beta\gamma$ -Dicarbonsäure. Sd. 275 bis 285° (B. 24, 467; A. 285, 284; Soc. 67, 422). — I, 1225.
- 5) Diäthylester d. α -Cyan- $\beta\beta$ -Dimethylpropan- $\alpha\gamma$ -Dicarbonsäure. Sd. 190°₅₀ (Soc. 75, 52).
- $C_{12}H_{19}O_4N_3$ C 53,5 — H 7,1 — O 23,8 — N 15,6 — M. G. 269.
- 1) Äthylester d. 6-Oxy-4-Semicarbazon-2,2-Dimethyl-1,2,3,4-Tetrahydrobenzol-3-Carbonsäure. Sm. 212° (A. 294, 301).
- $C_{12}H_{19}O_5N$ C 56,0 — H 7,4 — O 31,1 — N 5,4 — M. G. 257.
- 1) Säure (aus Campheroxalsäure u. Hydroxylamin). Sm. 146,5° u. Zers. (Am. 19, 408).
- 2) Diäthylester d. γ -Acetylamido- β -Buten- $\alpha\beta$ -Dicarbonsäure (D. d. α -Acetylamidoäthylidenbernsteinsäure). Sd. 175—176°₁₁ (A. 260, 140). — I, 1215.
- $C_{12}H_{19}O_5N_5$ C 46,0 — H 6,0 — O 25,6 — N 22,4 — M. G. 313.
- 1) Amid d. Oxytetrinsäure. Sm. 177—177,5° (A. ch. [5] 20, 479).

- $C_{11}H_{19}O_6Cl$ 1) Triäthylester d. β -Chlorpropan- $\alpha\alpha\beta$ -Tricarbonsäure. *Sd.* 287—288°₇₁₀ (*B.* **23**, 1934). — *I*, **802**.
- $C_{11}H_{19}O_7N$ C **49,8** — H **6,6** — O **38,7** — N **4,8** — M. G. **289**.
- $C_{12}H_{19}O_{12}N$ 1) Triacetat d. β -Acetylamido- $\alpha\gamma$ -Dioxy- β -Oxymethylpropan. *Sm.* **114** bis 115° (*B.* **30**, 2066).
C **39,0** — H **5,1** — O **52,0** — N **3,8** — M. G. **369**.
- $C_{12}H_{19}O_{17}N_3$ 1) Nitrodextrin (*M.* **2**, 634). — *I*, 1994.
2) Nitrostärke (*A.* **7**, **249**; **29**, 38; **45**, 47). — *I*, **1086**.
C **30,2** — H **4,0** — O **57,0** — N **8,8** — M. G. **477**.
- $C_{12}H_{19}ON_2$ 1) Trinitrat d. Milchzucker. *Sm.* **36,8°** (*J. r.* **14**, 257; *B.* **31**, 84). — *I*, **1063**.
- $C_{11}H_{19}N_2Cl$ 1) Chlormethylat d. 6-Dimethylamido-1,2,3,4-Tetrahydrochinolin. *Sm.* 220°. + ClJ (*B.* **18**, 597). — *IV*, **853**.
- $C_{11}H_{19}ClSi$ 1) Siliciumtriäthylchlorphenyl. *Sd.* 260—265° (*A.* **173**, 161). — *IV*, 1701.
- $C_{11}H_{19}BrS$ 1) β -Brom-2-Oktylthiophen. *Sd.* 285—290° (*B.* **19**, 644). — *III*, **747**.
- $C_{11}H_{19}JS$ 1) β -Jod-2-Oktylthiophen. *Fl.* (*B.* **19**, 645). — *III*, **747**.
- $C_{12}H_{20}ON_2$ C **69,2** — H **9,6** — O **7,7** — N **13,5** — M. G. **208**.
1) 6-Oxy-4,5-Dimethyl-2-Hexyl-1,3-Diazin. *Sm.* 102°. *Ag* (*B.* **28**, 477). — *IV*, **832**.
2) 6-Oxy-4-Methyl-5-Aethyl-2-Amyl-1,3-Diazin. *Sm.* 97° (*Pinner*, Imidoäther **232**). — *IV*, **832**.
3) 6-Oxy-5-Aethyl-2,4-Dipropyl-1,3-Diazin. *Sm.* **97,5°**. *Ag* (*J. pr.* **[2]** **37**, 398). — *IV*, **1135**.
- $C_{11}H_{20}O_2N_2$ C **64,3** — H **8,9** — O **14,3** — N **12,5** — M. G. **224**.
1) Aethylendi [β -Amido- δ -Keto- β -Penten] (α -Aethylenamidoäthenylaceton). *Sm.* **111,5°**; *Sd.* 245° (*i. V.*). 2HCl, Cu (*Bl.* **[3]** **7**, 788; *B.* **22** **[2]** **573**). — *I*, **1017**, **1154**.
2) Dipiperidid d. Oxalsäure (Oxalylpiperidin). *Sm.* 88—89°; *Sd.* oberh. 360° (*B.* **15**, 426; *A.* **214**, 278; *R.* **15**, 66). — *IV*, **15**.
- $C_{12}H_{20}O_2Br_2$ 1) Acetat d. 4-Brom-1-Oxy-4- $[\alpha$ -Bromisopropyl]-1-Methylhexahydrobenzol. *Sm.* 103° (*B.* **27**, 444). — *III*, 481.
- $C_{12}H_{20}O_3Si$ 1) Triäthyläther d. Siliciumphenyltrioxyhydrat. *Sd.* 235° (*A.* **173**, 155). — *IV*, 1701.
- $C_{12}H_{20}O_4N_2$ C **56,2** — H **7,8** — O **25,0** — N **10,9** — M. G. **256**.
1) β -Dinitrododekahydrobiphenyl. *Sm.* 208—209° (*A.* **302**, 18).
2) Dimethylester d. Aethylendi [β -Amidoacetoinsäure]. *Sm.* 136—137° (*See.* **63**, 1311).
3) Verbindung (aus Cantharidin u. $\alpha\beta$ -Diamidoäthan). *Sm.* 195° u. Zers. (*G.* **23** **[1]** **130**). — *III*, **622**.
- $C_{12}H_{20}O_4N_6$ C **46,2** — H **6,4** — O **20,5** — N **26,9** — M. G. **312**.
1) Histidin. 2HCl + 2H₂O (*C.* **1896** **[2]** **103**).
- $C_{11}H_{20}O_4Br_2$ 1) Dimethylester d. $\alpha\beta$ -Dibromoktan- $\alpha\beta$ -Dicarbonsäure (D. d. Dibromsebacinsäure). *Sm.* 50° (*B.* **20**, 2885). — *I*, **687**.
2) Diäthylester d. $\alpha\gamma$ -Dibromhexan- $\alpha\gamma$ -Dicarbonsäure (D. d. Dibromkorksäure). *Sd.* 233—236°₉₀ (*B.* **28**, 665).
- $C_{11}H_{20}O_4S$ 1) Diäthyläther d. $\beta\beta$ -Dioxyäthylhydrazid d. Benzolsulfonsäure. *Sm.* 68° (*B.* **27**, 183).
- $C_{11}H_{20}O_4S_3$ 1) Triäthylester d. β -Oxypropan- $\alpha\beta\gamma$ -Trithiolarbonsäure (Tr. d. Tri-thiocitronensäure). *Fl.* (*J. pr.* **[2]** **31**, 470). — *I*, **900**.
- $C_{12}H_{20}O_5N_4$ C **48,0** — H **6,7** — O **26,7** — N **18,6** — M. G. **300**.
1) Diäthoxyhydroxykaffein. *Sm.* 195—205° u. Zers. (*B.* **14**, 641; *A.* **215**, 273; **221**, 337; *J.* **1882**, 366). — *III*, **961**.
- $C_{12}H_{20}O_6N_2$ C **50,0** — H **6,9** — O **33,3** — N **9,7** — M. G. **288**.
1) Dimethylester d. $\gamma\gamma$ -Dioximidooktan- $\alpha\beta$ -Dicarbonsäure. *Sm.* **108** bis 109° (*A.* **294**, 176).
2) Diäthylester d. Oxaldi- α -Amidopropionsäure. α -Modif. *Sm.* **152** bis 154°; β -Modif. *Sm.* 125—127° (*B.* **17**, 403, 1033; **18**, 490). — *I*, **1195**.
3) Diäthylester d. Succinyl- β -Ureidopropionsäure. *Sm.* 78° (*Am.* **10**, 308).
- $C_{12}H_{20}O_8S_2$ 1) Sulfonsäure (aus 5-Keto-1-Methyl-R-Hexamethylen). Na₂ + H₂O, Ba + 3H₂O, Ag₂ (*A.* **275**, 378).
- $C_{12}H_{20}O_{11}N_2$ C **28,3** — H **3,9** — O **34,7** — N **33,1** — M. G. **508**.
1) Alloxantinharstoff + 4H₂O (*J.* **1856**, 699; siehe auch *B.* **6**, 1011). — *I*, 1402.

- $C_{11}H_{20}O_{12}S$ 1) Stärkeschwefelsäure (A. 55, 13). — I, 1087.
- $C_{11}H_{20}NCl$ 1) Triäthylphenylammoniumchlorid. $2 + PtCl_4$ (A. 79, 11; B. 14, 621). — II, 334.
- 2) Trimethyl-2,4,5-Trimethylphenylammoniumchlorid. $2 + PtCl_4$ (B. 15, 2897). — II, 552.
- 3) Tetraälylammoniumchlorid. $2 + PtCl_4$ (A. ch. [6] 13, 488). — I, 1144.
- $C_{11}H_{20}NBr$ 1) Tetraälylammoniumbromid (Bl. 31, 390; 50, 89). — I, 1143.
- $C_{11}H_{20}NJ$ 1) Triäthylphenylammoniumjodid (A. 79, 11; B. 14, 621; M. 4, 502). — II, 334.
- 2) Methyläthylpropylphenylammoniumjodid. Fl. (B. 19, 2786). — II, 335.
- 3) Trimethyl-4-Propylphenylammoniumjodid. Sm. 168° (B. 17, 1327). — II, 548.
- 4) Trimethyl- γ -Phenylpropylammoniumjodid. Sm. $175,5^\circ$ (B. 27, 2312).
- 5) Trimethyl-2,4,5-Trimethylphenylammoniumjodid (B. 15, 2897). — II, 552.
- 6) Tetraälylammoniumjodid (A. 102, 306; C. 1895 [1] 204). — I, 1143.
- $C_{11}H_{20}NJ_3$ 1) Triäthylphenylammoniumtrijodid. Sm. 81° (M. 4, 502). — II, 334.
- $C_{11}H_{20}NJ_5$ 1) Triäthylphenylammoniumpentajodid. Sm. 68° (M. 4, 502). — II, 334.
- $C_{11}H_{20}NP$ 1) Diäthyl-4-Dimethylamidophenylphosphin. Sm. $12,5^\circ$; Sd. 298° (A. 260, 24). — IV, 1655.
- $C_{11}H_{20}N_2Cl_2$ 1) Dichlormethylat d. Nikotin. $+ 4HgCl_2 + PtCl_4 + 2AuCl_3$ (A. 90, 224). — IV, 856.
- $C_{11}H_{20}N_2J_2$ 1) Dijodmethylat d. Nikotin. Sm. 216° (A. 90, 223; B. 30, 2118; J. 1868, 757). — IV, 856.
- 2) Dijodmethylat d. Isonikotin (M. 3, 873). — IV, 860.
- $C_{11}H_{20}N_2S_2$ 1) Amylendithiodicyanid (A. 121, 112). — I, 118.
- $C_{11}H_{20}N_2S_4$ 1) Amylentetrathiodicyanid (A. 121, 113). — I, 118.
- $C_{11}H_{20}N_3Br$ 1) Brommethylat d. β -Phenylhydrazon- α -Dimethylamidopropan (B. 31, 2685).
- 2) β -Brom-6-Amido-5-Aethyl-2,4-Dipropyl-1,3-Diazin. Sm. 80° (J. pr. [2] 37, 399). — IV, 1135.
- $C_{11}H_{20}ClP$ 1) Triäthylphenylphosphoniumchlorid. $2 + PtCl_4$ (A. 181, 357). — IV, 1655.
- 2) Methyläthyl-4-Methylphenylphosphoniumchlorid. $2 + PtCl_4$ (B. 15, 2016). — IV, 1671.
- $C_{11}H_{20}ClAs$ 1) Triäthylphenylarsoniumchlorid. $2 + PtCl_4$ (A. 201, 214). — IV, 1687.
- $C_{11}H_{20}JP$ 1) Triäthylphenylphosphoniumjodid. Sm. 115° (A. 181, 356). — IV, 1655.
- 2) Methyläthyl-2-Methylphenylphosphoniumjodid. Sm. 98° (A. 293, 302). — IV, 1671.
- 3) Methyläthyl-4-Methylphenylphosphoniumjodid. Sm. 137° (B. 15, 2016). — IV, 1671.
- $C_{11}H_{20}JAs$ 1) Triäthylphenylarsoniumjodid. Sm. $112-113^\circ$ (A. 201, 213). — IV, 1687.
- $C_{11}H_{21}ON$ C 73,8 — H 10,8 — O 8,2 — N 7,2 — M. G. 195.
- 1) 5-Acetyl-amido-1,1,2,2,4-Pentamethyl-2,3-Dihydro-R-Penten. Sd. $89-91^\circ_{10-12}$. HJ, 1'krat (A. 296, 315).
- 2) 5-[α -Oximidoäthyl]-1,1,2,2,4-Pentamethyl-2,3-Dihydro-R-Penten $+ H_2O$ (α -Oxim). Sm. $156-157^\circ$. HCl $+ H_2O$ (A. 296, 310; B. 29, 388).
- 3) isom. 5-[α -Oximidoäthyl]-1,1,2,2,4-Pentamethyl-2,3-Dihydro-R-Penten $+ H_2O$ (β -Oxim). Sm. 126° . HCl (A. 296, 312).
- 4) 4-Keto-2,2,6,6-Tetramethyl-1-Allylhexahydropyridin (Allyltriacetamin). Fl. (2HCl, $PtCl_4$) (B. 28 [2] 160).
- 5) Dimethylisoamidocampher. Sd. $268-274^\circ$. HCl, (2HCl, $PtCl_4$), HJ (B. 30, 323).
- 6) Triäthylphenylammoniumhydrat. Salze siehe (A. 79, 11; B. 14, 621; J. pr. [2] 33, 365; M. 4, 502). — II, 334.
- 7) Tetraälylammoniumhydrat. Salze siehe (Bl. 31, 390; 50, 90; A. 102, 306; A. ch. [6] 13, 488; C. 1895 [1] 204; 1896 [1] 199).
- 8) Aethyläther d. d-Campheroxim. Sd. $208-210^\circ$ ($218-219^\circ_{70s}$) (B. 16, 2982; Ph. Ch. 16, 218; Soc. 71, 1036). — III, 500.
- 9) Oxywrightin. HCl, (2HCl, $PtCl_4 + 3H_2O$), $H_2SO_4 + 3\frac{1}{2}H_2O$, Oxalat (J. 1888, 2237). — III, 875.
- 10) Acetylbornylamin. Sm. 151° (B. 20, 107). — IV, 56.

- ON** 11) **d-Acetylbornylamin.** Sm. 145° (Soc. 73, 392).
 12) **Acetylneobornylamin.** Sm. 142° (Soc. 73, 395).
 13) **Acetyldihydrocarvylamin.** Sm. 132° (A. 275, 122). — IV, 57.
 14) **Acetylfencholenamin.** Sd. 180°₁₁ (A. 269, 373). — IV, 59.
 15) **l-Acetylfenchylamin.** Sm. 98° (A. 269, 361; 276, 319). — IV, 58.
- OP** 1) **Triäthylphenylphosphoniumhydrat.** 2 Chlorid + PtCl₄, Jodid (A. 181, 356). — IV, 1655.
- OAs** 1) **Triäthylphenylarsoniumoxydhydrat.** Chlorid, 2 Chlorid + PtCl₄, Jodid (A. 201, 213). — IV, 1687.
- O₂N** C 68,2 — H 9,9 — O 15,2 — N 6,6 — M. G. 211.
 1) **Acetylamidoborneol.** Sm. bei 170° (B. 31, 1904).
 2) **Acetylamidomenthon.** Sd. 142°₁₂ (B. 29, 927). — III, 480.
 3) **Aethylester d. Methylhydroecgonidin.** Sd. 156°₁₆. (2 HCl, PtCl₄) (B. 30, 717).
- I₂₁O₂N₃** C 60,2 — H 8,8 — O 13,4 — N 17,6 — M. G. 239.
 1) **Semioxamazon d. Menthon.** Sm. 177° (B. 30, 593).
- I₂₁O₂Cl** 1) **Acetochlorhydrin d. Menthoglykol.** Sd. 124–125°₁₀ (C. 1897 [2] 305).
- I₂₁O₂Br** 1) **Säure (aus Laurinsäure).** Ba (B. 25, 486).
- H₂₁O₂N** C 63,4 — H 9,2 — O 21,1 — N 6,2 — M. G. 227.
 1) **Campherdimethylaminsäure.** Sm. 186–187° (B. 26, 1524).
 2) **Methylester d. δ-Piperidyl-γ-Keto-β-Methylbutan-β-Carbonsäure.** Sd. 265–275° (B. 32, 139).
 3) **Methylester d. α-Campherdimethylaminsäure.** Sm. 135–136° (R. 15, 332).
 4) **Methylester d. β-Campherdimethylaminsäure.** Sm. 68° (R. 15, 335).
 5) **Aethylester d. β-Campheraminsäure.** Sm. 94° (R. 15, 334).
 6) **Propylester d. d-Egonin.** (HCl, AuCl₃) (B. 23, 985). — III, 565.
 7) **Acetat d. Pulegonoximhydrat.** Sm. 149° (A. 262, 11). — III, 511.
- H₁₂H₂₁O₃Cl** 1) **Aethylester d. β-Chlor-ζ-Keto-β-Methylheptan-γ-Methylcarbon-säure.** Sd. 150–160°₁₂₅ (A. 291, 344).
- H₁₂H₂₁O₃Cl₂** 1) **polym. α-Chlorisobuttersäurealdehyd.** Sm. 107° (Bl. [3] 7, 641).
- H₁₂H₂₁O₃Br** 1) **Aethylester d. β-Brom-β-Keto-δ-Methyloktan-γ-Carbonsäure?** Fl. (Soc. 53, 211). — I, 611.
 C 59,2 — H 8,6 — O 26,3 — N 5,8 — M. G. 243.
 1) **ε-Acetoximido-β-ζ-Dimethylheptan-α-Carbonsäure.** Sm. 91° (A. 289, 374).
 2) **Diäthylester d. β-Diäthylamidoäthen-αα-Dicarbonsäure.** Sd. 188°₁₅. Diäthylaminsalz (B. 30, 2025).
 3) **Diäthylester d. Hexahydrobenzol-1-Carbonsäure-2-Carbaminsäure.** Sm. 59–60° (A. 295, 201).
 4) **Diäthylester d. d-Tropinsäure.** Fl. (B. 24, 610). — III, 793.
 5) **Diäthylester d. Cincholoiponsäure.** HCl, (2 HCl, PtCl₄) (M. 16, 176; 17, 387). — III, 843.
 6) **Methyläthylester d. Methylcincholoiponsäure.** (2 HCl, PtCl₄), (HCl, AuCl₃) (M. 17, 391). — III, 843.
- C₁₁H₂₁O₄Cl** 1) **Diätnylester d. ζ-Chlorhexan-γγ-Dicarbonsäure.** Fl. (Soc. 65, 991).
 2) **Diäthylester d. β-Chlor-βγ-Dimethylbutan-αγ-Dicarbonsäure.** Sd. 139°₃₀ (Soc. 71, 1180).
 3) **Diisobutylester d. d-Chlorbernsteinsäure** (C. 1898 [2] 917).
- C₁₂H₂₁O₄Br** 1) **Diäthylester d. β-Brom-βγ-Dimethylbutan-αγ-Dicarbonsäure.** Sd. 170–175°₃₀ (C. 1896 [2] 728; Soc. 71, 1181).
 2) **Diisobutylester d. d-Brombernsteinsäure.** Sd. 168°₁₆ (B. 31, 1416; C. 1898 [2] 917).
- C₁₂H₂₁O₆N** C 52,3 — H 7,6 — O 34,9 — N 5,1 — M. G. 275.
 1) **Triäthylester d. Triglykolamidsäure.** Sd. 280–290° (A. 140, 264). — I, 1192.
- C₁₂H₂₁O₁₁N** C 40,6 — H 5,9 — O 49,6 — N 3,9 — M. G. 355.
 1) **Chondrosin** (B. 25 [2] 473). — IV, 1628.
- C₁₂H₂₁N₄Cl** 1) **β-Chlor-2-Isobutyl-1-Isoamylimidazol (Chloroxalisoamylin).** Sd. 265 bis 270° (2 HCl, PtCl₄) (B. 13, 516; A. 214, 316).
- C₁₂H₂₁N₄J** 1) **Jodmethylat d. 2,5-Di-Dimethylamido-1-Methylbenzol.** Sm. 160° (B. 12, 1802). — IV, 609.
- C₁₂H₂₁ON₂** C 65,6 — H 10,5 — O 7,6 — N 13,3 — M. G. 210.
 1) **α-Methyl-β-Bornylharnstoff.** Sm. 200° (B. 20, 108). — IV, 57.

- $C_{17}H_{22}ON_2$ 2) Terpinennitroldimethylamin. Sm. 160—161° (A. 241, 319). — III, 532.
 3) Terpinennitroläthylamin. Sm. 130—131°. HCl (A. 241, 317; J. 1888, 683). — III, 532.
 4) Piperidid d. Piperidoessigsäure. Sm. 51°; Sd. bei 250°. (2HCl, PtCl₄) (B. 27, 3255). — IV, 20.
- $C_{17}H_{22}O_2N_2$ C 63,7 — H 9,7 — O 14,2 — N 12,4 — M. G. 226.
 1) 4-Acetylamido-1-Acetyl-2,2,6-Trimethylhexahydropyridin. Sm. 88 bis 89°; Sd. 160—170° (B. 29, 527).
 2) Di[Methylamid] d. Camphersäure. Sm. 244—247° (R. 12, 16).
- $C_{17}H_{22}O_2S_2$ 1) Isoamyldioxysulfocarbonat (A. 64, 327; 84, 336). — I, 886.
 $C_{17}H_{22}O_3Cl_2$ 1) Isoamylester d. Dichloroxyessigisoamyläthersäure. Sd. 157°₁₄ (A. 254, 24). — I, 552.
- $C_{17}H_{22}O_4N_2$ C 55,8 — H 8,5 — O 24,8 — N 10,9 — M. G. 258.
 1) Diäthylester d. α -Azoisobuttersäure. Fl. (A. 290, 34).
- $C_{17}H_{22}O_5N_2$ C 44,7 — H 6,8 — O 39,7 — N 8,7 — M. G. 322.
 1) Albamin + H₂O. Zers. bei 200° (M. 19, 762).
- $C_{17}H_{21}NCl$ 1) Triäthylpropylammoniumchlorid. 2 + PtCl₄ (A. 121, 136).
 $C_{17}H_{21}NJ$ 1) Triäthylpropylammoniumjodid (A. 121, 136).
 2) Jodmethylat d. Methylcampherimin. Sd. 231—232° (Soc. 71, 196). — IV, 77.
- $C_{17}H_{21}N_2J_2$ 1) Di[Jodmethylat] d. 1,3-Di[Dimethylamido]benzol (J. 1863, 422). — IV, 570.
 2) Di[Jodmethylat] d. 1,4-Di[Dimethylamido]benzol (J. 1863, 422). — IV, 582.
- $C_{17}H_{21}N_2S$ 1) Verbindung (aus Dipiperidylmethan u. CS₂). Sm. 58° (J. pr. [2] 36, 128). — IV, 22.
- $C_{17}H_{21}N_2S_2$ 1) s-Diisoamylamid d. Dithiooxalsäure. Sm. 60° (A. 262, 362). — I, 1370.
 $C_{17}H_{21}ON$ C 73,1 — H 11,7 — O 8,1 — N 7,1 — M. G. 197.
 1) 2-Acetylamido-4-Isopropyl-1-Methylhexahydrobenzol. Sm. 124 bis 125° (A. 277, 139). — IV, 43.
 2) Acetyl-d-Tetrahydrocarvylamin. Sm. 158—159° (A. 287, 379). — IV, 41.
 3) d-Menthylamid d. Essigsäure. Sm. 168—169° (A. 276, 310). — IV, 43.
 4) l-Menthylamid d. Essigsäure. Sm. 145° (A. 276, 303). — IV, 42.
- $C_{17}H_{23}OCl$ 1) Chlorid d. Laurinsäure. Sm. —17°; Sd. 142,5°₁₅ (B. 17, 1378). — I, 460.
 2) Verbindung (aus d. Keton C₁₇H₃₃O) (A. 188, 141). — I, 1011.
 3) Verbindung (aus Terpendihydrochlorid) (J. 1878, 639).
- $C_{17}H_{23}OJ$ 1) Verbindung (aus dem Keton C₁₇H₃₃O) (A. 188, 141). — I, 1011.
 $C_{17}H_{23}O_2N$ C 67,6 — H 10,8 — O 15,0 — N 6,6 — M. G. 213.
 1) Oxim d. Keton C₁₇H₃₃O₂ (aus Citronellal). Sm. 114° (B. 29, 916).
 2) cis-1-Diäthylamidomethylhexahydrobenzol-2-Carbonsäure. Fl. HCl, (2HCl, PtCl₄), (HCl, AuCl₃) (B. 29, 1593; A. 300, 168).
 3) trans-1-Diäthylamidomethylhexahydrobenzol-2-Carbonsäure. Sm. 97—101°. (HCl, AuCl₃), Pikrat (B. 29, 1593; A. 300, 166).
 4) cis-1-Diäthylamidomethylhexahydrobenzol-4-Carbonsäure. Sd. 275 bis 280°. HCl (B. 29, 1594).
 5) trans-1-Diäthylamidomethylhexahydrobenzol-4-Carbonsäure. HCl, (HCl, AuCl₃), Pikrat (B. 29, 1594).
 6) Aethylester d. α -[1-Hexahydropyridyl]isovaleriansäure. Sd. 228°₇₈₂ (B. 31, 2843).
 7) Imid d. Pentan- α -Carbonsäure (Dicapronamid). Sm. 92,5° (B. 25 [2] 637). — I, 1247.
- $C_{17}H_{23}O_2Br$ 1) α -Bromundekan- α -Carbonsäure (α -Bromlaurinsäure). Sm. 30—31,5° (B. 24, 2224). — I, 488.
 2) Methylester d. p-Bromdekan-p-Carbonsäure. Sd. 173°₁₅ (B. 23, 2357). — I, 488.
 3) Aethylester d. δ -Brom- β^{γ} -Dimethylheptan- δ -Carbonsäure. Sd. 138 bis 140°₃₇ (Soc. 73, 65).
 4) Bromdekylester d. Essigsäure. Sd. 146—147°₁₅ (B. 25, 480). — I, 411.
- $C_{17}H_{23}O_3N$ C 62,9 — H 10,0 — O 21,0 — N 6,1 — M. G. 229.
 1) β -Oximido- γ -Aethylnonan- η -Carbonsäure (Oxim d. ϵ -Acetyl- $\alpha\epsilon$ -Diäthylcapronsäure). Sm. 102—103° (Soc. 57, 36). — I, 612.
 2) Aethylester d. ϵ -Oximido- β^{γ} -Dimethylheptan- α -Carbonsäure. Fl. (A. 289, 373).

- $C_{12}H_{23}O_3N_3$ 1) Aethylester d. γ -Semicarbazon- β -Methylheptan- δ -Carbonsäure. Sm. 185° (Soc. **73**, 59).
- $C_{12}H_{23}O_4N$ C 55,2 — H 8,8 — O 30,6 — N 5,4 — M. G. 261.
- $C_{12}H_{23}O_5N$ 1) Aethylester d. Diäthylaminoxaleessigsäure. Sm. 109° (A. **295**, 355).
C 52,0 — H 8,3 — O 34,6 — N 5,1 — M. G. 277.
- $C_{12}H_{23}O_{10}N$ 1) Verbindung (aus β -Carboxylamidopropen- α -Carbonsäurediäthylester). Fl. (A. **244**, 238). — I, 1207.
C 42,2 — H 6,7 — O 46,9 — N 4,1 — M. G. 341.
- $C_{12}H_{23}NS$ 1) Maltosamin. Sm. 165° u. Zers. (B. **28**, 3083).
2) Verbindung (aus Galaktose) (R. **15**, 83).
3) Verbindung (aus Mannose). Sm. 158° (R. **15**, 81).
- $C_{12}H_{24}ON_2$ 1) Isoundekylsenföhl. Sd. 163—164°₁₇ (G. **24** [2] 283).
C 67,9 — H 11,3 — O 7,5 — N 13,2 — M. G. 212.
- $C_{12}H_{24}O_2N_2$ 1) l-Aethylmenthylnitrosamin. Sm. 49—50° (52—53°); Sd. 155—156°₂₂ (J. r. **27**, 526; A. **300**, 280). — IV, 42.
2) Anhydroverbindung d. β -Amido- δ -Keto- β -Methylpentan (A. d. Diacetamin). Sm. 83°. (2HCl, PtCl₄) (A. **227**, 381). — I, 287.
C 63,1 — H 10,5 — O 14,0 — N 12,4 — M. G. 228.
- 1) s-norm. Amylcaproylharnstoff. Sm. 97° (B. **15**, 758). — I, 1304.
2) s-Isomylisocaproylharnstoff. Sm. 94° (B. **15**, 758). — I, 1304.
3) Trimethylamin + Methylscopolin. 2(2HCl, PtCl₄) (C. **1898** [1] 1196).
4) norm. Diamylamid d. Oxalsäure. Sm. 165° (B. **23**, 2868; **24**, 2159). — I, 1366.
5) Diisoamylamid d. Oxalsäure. Sm. 128—129° (B. **13**, 516; A. **214**, 316). — I, 1366.
- $C_{12}H_{24}O_3N_4$ C 56,2 — H 9,3 — O 12,5 — N 21,9 — M. G. 256.
- $C_{12}H_{24}O_3N_2$ 1) α -Azoisobutyrimidoäthyläther. 2HCl (A. **290**, 32).
C 59,0 — H 9,8 — O 19,7 — N 11,5 — M. G. 244.
- $C_{12}H_{24}O_3N_6$ 1) Anhydrid d. α -Amidocaprinsäure (Bl. **30**, 561). — I, 1202.
C 48,0 — H 8,0 — O 16,0 — N 28,0 — M. G. 300.
- $C_{12}H_{24}O_4N_2$ 1) Sturin, siehe $C_6H_{11}ON_2$.
C 55,4 — H 9,2 — O 24,6 — N 10,8 — M. G. 260.
- $C_{12}H_{24}O_4S$ 1) Diäthylester d. α -Hydrazidoisobuttersäure. Sd. 231—233° (A. **290**, 29).
2) Diäthylester d. Hexamethylen- α - γ -Diamidoameisensäure. Sm. 84° (B. **29**, 1167).
- $C_{12}H_{24}O_6S_3$ 1) Säure (aus Terpentinöl). Pb (J. **1880**, 448). — III, 518.
- $C_{12}H_{24}O_6S_3$ 1) Aethylester d. $\beta\beta$ -Diäthylsulfon- α -Aethylbuttersäure. Sm. 87—88° (A. **259**, 368). — I, 828.
- $C_{12}H_{24}O_6S_3$ 1) s-Trimethyltriäthyl-R-Trimethylentrisulfon. Sm. 269° (B. **27**, 1673).
C 40,4 — H 6,7 — O 44,9 — N 7,9 — M. G. 356.
- $C_{12}H_{24}O_{10}N_2$ 1) Fruktoseketazin (B. **29**, 2309).
2) Glykosealdazin. Sm. bei 100° (B. **29**, 2308).
- $C_{12}H_{25}ON$ C 72,3 — H 12,6 — O 8,0 — N 7,1 — M. G. 199.
- 1) Amid d. Laurinsäure. Sm. 102° (97°); Sd. 199—200°_{12,5} (B. **15**, 1729; **19**, 1441; **26**, 2840; J. pr. [2] 52, 60). — I, 1249.
- $C_{12}H_{25}O_3N$ C 67,0 — H 11,6 — O 14,9 — N 6,5 — M. G. 215.
- 1) α -Nitrododekan (Am. **21**, 237).
2) Diäthyläther d. ϵ -[Methyl- $\beta\beta$ -Dioxyäthyl]amido- α -Penten. Sd. 220° (HCl, AuCl₃) (B. **28**, 1249).
- $C_{12}H_{25}O_3Cl$ 1) Diisobutyläther d. β -Chlor- $\alpha\alpha$ -Dioxy- β -Methylpropan. Sd. 218° (Bl. [3] **11**, 688).
- $C_{12}H_{25}O_5N_{11}$ C 35,7 — H 6,2 — O 19,8 — N 38,2 — M. G. 403.
- 1) Base (aus Fleisch) (Bl. **48**, 20). — III, 882.
- $C_{12}H_{25}O_{11}N$ C 40,1 — H 7,0 — O 49,0 — N 3,9 — M. G. 359.
- 1) Milchzuckerammoniak (Laktoseammoniak) (B. **28**, 3083).
- $C_{12}H_{25}NS_2$ 1) Isobutyraldin (B. **5**, 700). — I, 948.
2) Diäthyläther d. 4,4-Dimerkapto-2,2,6-Trimethylhexahydropyridin. Fl. HCl + H₂O (B. **31**, 3148).
- $C_{12}H_{26}ON_2$ C 67,3 — H 12,1 — O 7,5 — N 13,1 — M. G. 214.
- 1) Isoundekylharnstoff. Sm. 127° (G. **24** [2] 287).
2) Laurinamidoxim. Sm. 92—92,5° (B. **26**, 2844).
- $C_{12}H_{26}ON_4$ C 59,5 — H 20,7 — O 6,6 — N 23,1 — M. G. 242.
- 1) α -Diisobutylamido- β -Semicarbazonpropan. Sm. 132° (B. **29**, 871).

- $C_{12}H_{26}O_7N_4$ C 55,8 — H 10,1 — O 12,4 — N 21,7 — M. G. 258.
 1) $\alpha\alpha'$ -Aethylidendi[$\beta\beta$ -Diäthylharnstoff]. Sm. 144 (R. 8, 237). — I, 1313.
 2) Di[β -Methyl- β -Butylhydrazid] d. Oxalsäure. Sm. 156° (R. 14, 320).
 $C_{12}H_{26}O_5S_2$ 1) Aethylendiisoamylsulfonoxya. Sm. 145–150° (B. 4, 717). — I, 353.
 $C_{12}H_{26}O_3N_2$ C 58,5 — H 10,6 — O 19,5 — N 11,4 — M. G. 246.
 1) Diäthyläther d. Di[β -Oxybutyl]nitrosamin. Sd. 259° (B. 28, 3117).
 $C_{12}H_{28}NCl$ 1) Chloräthylat d. Aethylconiin. $2 + PtCl_4$ (A. 89, 146). — IV, 33.
 $C_{12}H_{26}NJ$ 1) Jodäthylat d. Aethylconiin (A. 89, 146). — IV, 33.
 $C_{12}H_{26}N_2S$ 1) Isoundekylthioharnstoff. Sm. 95°. $4 + PtCl_2$ (G. 24 [2] 286).
 $C_{12}H_{27}ON$ C 71,6 — H 13,4 — O 8,0 — N 7,0 — M. G. 201.
 1) Diäthylconiin. Salze siehe (A. 89, 146). — IV, 33.
 $C_{12}H_{27}O_2N$ C 66,3 — H 12,4 — O 14,7 — N 6,5 — M. G. 217.
 1) Diäthyläther d. Di[β -Oxybutyl]amin. Sd. 230°₇₆₀. (HCl, AuCl₃), Pikrat (B. 28, 3117).
 2) Diäthyläther d. β -Dipropylamido- $\alpha\alpha$ -Dioxyäthan. Sd. 223°. Pikrat (B. 30, 1510).
 $C_{12}H_{27}O_3P$ 1) Phosphorigsäuretriisobutylester. Sd. 248–255° (A. 256, 283). — I, 338.
 $C_{12}H_{27}O_3B$ 1) Borsäuretriisobutylester. Sd. 212° (J. pr. [2] 18, 382; B. 26 [2] 573). — I, 344.
 2) Borsäureäthyl-diisoamylester. Sd. 210–215° (A. Spl. 5, 193). — I, 345.
 $C_{12}H_{27}O_4N$ C 57,8 — H 10,8 — O 25,7 — N 5,6 — M. G. 249.
 1) Tetraäthyläther d. Di[$\beta\beta$ -Dioxyäthyl]amin. Sd. 258–260°. (2HCl, PtCl₄) (B. 21, 1482). — I, 937.
 $C_{12}H_{27}BrSi$ 1) Siliciumbromtetrapropyl (A. 222, 372). — I, 1521.
 $C_{12}H_{27}JSn$ 1) Zinntriisobutyljodid. Sd. 284–286° (292–296°) (Bl. 34, 476; J. 1873, 521). — I, 1529.
 $C_{12}H_{27}S_3B$ 1) Verbindung (aus Borsäuretriisobutylester) (J. pr. [2] 18, 384, 385).
 $C_{12}H_{28}OSn$ 1) Zinntriisobutyl oxydhydrat. Sd. 311–314° (Bl. 34, 476). — I, 1529.
 $C_{12}H_{28}O_4Si$ 1) Kieselsäuredimethyldiisoamylester. Sd. 225–235° (A. ch. [4] 9, 46). — I, 347.
 2) Kieselsäuretetrapropylester. Sd. 225–227° (J. 1874, 497; G. 27 [2] 443; Ph. Ch. 25, 358). — I, 346.
 $C_{12}H_{28}O_6P_2$ 1) Unterphosphorsäuretetrapropylester. Fl. (A. 232, 14). — I, 339.
 $C_{12}H_{28}NJ$ 1) Tetrapropylammoniumjodid (A. ch. [6] 13, 483). — I, 1130.
 $C_{12}H_{28}N_2J_2$ 1) Diäthyltetraäthyl diamindijodid (J. 1859, 389). — I, 1154.
 $C_{12}H_{28}BrAs$ 1) Dimethyldiisoamylarsoniumbromid (A. 122, 212). — I, 1513.
 $C_{12}H_{28}JP$ 1) Tetraisopropylphosphoniumjodid (B. 6, 295). — I, 1503.
 $C_{12}H_{28}JAs$ 1) Tetraisopropylarsoniumjodid (J. 1873, 519). — I, 1513.
 2) Dimethyldiisoamylarsoniumjodid (A. 92, 364; 122, 212). — I, 1513.
 $C_{12}H_{30}ON_4$ C 58,5 — H 12,2 — O 6,5 — N 22,8 — M. G. 246.
 1) Hydrat d. polym. $\alpha\gamma$ -Diamidopropan. Fl. (B. 21, 2364). — I, 1155.
 $C_{12}H_{30}OSi_2$ 1) Silikoheptyloxyd. Sd. 231° (A. 147, 364; 164, 326). — I, 1519.
 $C_{12}H_{30}O_5B_2$ 1) Diborsäureäthylpentaäthylat. Sd. 112° (J. 1876, 468). — I, 1518.
 $C_{12}H_{30}O_7Si_2$ 1) Dikieselsäurehexaäthylester. Sd. 253–257° (A. 57, 341; 147, 362; (A. ch. [5] 7, 472). — I, 346.
 $C_{12}H_{30}Cl_2As_2$ 1) Hexäthyl diarsoniumdichlorid. $+ 2HgCl_2$, $+ PtCl_4$ (B. 31, 596).
 $C_{12}H_{30}J_2As_2$ 1) Hexäthyl diarsoniumdijodid. Sm. 162° u. Zers. $+ 2HgJ_2$ (B. 31, 596).
 $C_{12}H_{30}SSn_2$ 1) Zinntriäthylsulfid (J. 1860, 377). — I, 1528.

C_{12} -Gruppe mit vier Elementen.

- $C_{12}H_4O_4Cl_2Br_2$ 1) Dichloroxydichlordibromphenochinon? Sm. oberh. 200° u. Zers. (M. 4, 228). — II, 922.
 $C_{12}H_4O_3NBr_4$ 1) Tetrabromresorufin. $Na + 2H_2O$ (M. 5, 612; B. 17, 1863; 22, 3030). — II, 933.
 $C_{12}H_4O_4NBr_4$ 1) Tetrabromresazurin. $Na + 2H_2O$, $K + 2H_2O$ (B. 17, 1862; 22, 3025; M. 5, 613). — II, 932.
 $C_{12}H_4O_4N_3Br_4$ 1) Tetrabromdinitrocarbazon. Sm. 294° (C. 1894 [2] 490).
 $C_{12}H_4ON_2Br_6$ 1) 2,4,6,2',4',6'-Hexabromazoxybenzol. Sm. 215° (B. 31, 564). — IV, 1335.

- $C_{12}H_4O_2N_2Br_2$ 1) Verbindung (aus Tribromtetraketohexamethylenhydrat u. 1,2-Diamidobenzolhydrochlorid) (B. 25, 854). — IV, 564.
- $C_{12}H_4O_5Br_6S_2$ 1) Anhydrid d. 2,4,5-Tribrombenzol-1-Sulfonsäure (B. 19, 654). — II, 122.
2) Anhydrid d. 2,4,6-Tribrombenzol-1-Sulfonsäure + $2H_2O$ (A. 191, 213). — II, 123.
- $C_{12}H_4O_9N_7Cl$ 1) 4-Chlor-2,2',4',6',2-Nitrosotetranitroazobenzol. Sm. 160—161° u. Zers. (J. pr. [2] 43, 489). — IV, 1353.
- $C_{12}H_4O_{12}N_6S$ 1) Di[2,4,6-Trinitrophenyl]sulfid. Sm. 226°. — II, 803.
- $C_{12}H_5ON_3Br$ 1) Nitril d. 2 oder 3-Brom-1-Ketoinden-3 oder 2-Methyldicarbonsäure. Sm. 139° (B. 32, 261).
- $C_{12}H_5O_2NBr_2$ 1) Laktone d. 1-Dibrompyrrolenoxymethylbenzol-2-Carbonsäure (Dibrompyrrolenphthalid). Sm. 199° (B. 21, 2869). — IV, 83.
- $C_{12}H_5O_4Cl_6P$ 1) Di[2-Trichlorphenylester] d. Phosphorsäure. Sm. 230°. NH_4 , K, Ba, Cu, Ag (C. 1896 [1] 100).
- $C_{12}H_5O_6N_3Br_2$ 1) 4,4'-Dibromtrinitrobiphenyl. Sm. 177° (B. 15, 2838). — II, 225.
- $C_{12}H_5O_6N_5Br_2$ 1) 2,2'-Dibrom-2-Trinitroazobenzol. Sm. 135° (M. 8, 56). — IV, 1354.
2) 4,4'-Dibrom-2-Trinitroazobenzol. Sm. 174° (A. 165, 192). — IV, 1354.
- $C_{12}H_5O_7N_6Cl$ 1) 4-Chlor-2,2',4',6'-Nitrosotrinitroazobenzol. Sm. 180—181° u. Zers. (J. pr. [2] 43, 488). — IV, 1353.
2) 3-Chlor-4,2',4',6'-Nitrosotrinitroazobenzol. Zers. bei 194° (J. pr. [2] 44, 454). — IV, 1353.
- $C_{12}H_5O_8N_5Br_2$ 1) Dibromtetranitrodiphenylamin. Sm. 235—242° (B. 8, 930). — II, 341.
- $C_{12}H_5O_8N_6Cl$ 1) 4-Chlor-2,2',4',6'-Tetranitroazobenzol. Sm. 184—185° u. Zers. (J. pr. [2] 43, 488). — IV, 1353.
2) 5-Chlor-3,2',4',6'-Tetranitroazobenzol. Zers. bei 124—125° (J. pr. [2] 44, 455). — IV, 1353.
- $C_{12}H_5O_{10}N_5S$ 1) 2,4-Dinitrophenyläther d. 2,4,6-Trinitro-1-Merkaptobenzol. Sm. 217°. — II, 803.
- $C_{12}H_5NCl_4S$ 1) Tetrachlorthiodiphenylamin. Sm. 235° (B. 29, 1363).
- $C_{12}H_5NBr_6S$ 1) 2-Tetrabrom-2-Thiénylindoldibromid. Sm. 278° (A. 272, 207). — IV, 394.
- $C_{12}H_6ON_2Cl_4$ 1) 2,5,2',5'-Tetrachlorazoxybenzol. Sm. 141,5° (B. 7, 1600; 8, 1627). — IV, 1335.
2) 3,5,3',5'-Tetrachlorazoxybenzol. Sm. 171—172° (A. 197, 84). — IV, 1335.
- $C_{12}H_6O_7NCl_3$ 1) 3,5,6-Trichlor-2[2]-Phenylamido-1,4-Benzochinon (A. 228, 337). — II, 339.
- $C_{12}H_6O_8NCl_5$ 1) 2,2,3,3,5-Pentachlor-2-Phenylamido-1,4-Diketo-1,2,3,4-Tetrahydrobenzol. Sm. 144° (A. 267, 24). — II, 447.
- $C_{12}H_6O_8NBr$ 1) Imid d. 2-Bromnaphtalin-1,8-Dicarbonsäure. Sm. oberh. 265° (B. 7, 1095). — II, 1880.
- $C_{12}H_6O_8N_2Br_4$ 1) Tetrabrom-2,2'-Dioxyazobenzol (A. 196, 346). — IV, 1405.
2) 2-Tetrabrom-4,4'-Dioxyazobenzol (A. 196, 342). — IV, 1406.
- $C_{12}H_6O_8NCl$ 1) 5-Chlor-4-Oxy-3-Ketophenoxazin. Sm. 235° u. Zers. (B. 26, 2376). — III, 349.
- $C_{12}H_6O_9NCl_3$ 1) 3,5,6-Trichlor-4-Keto-1-Phenyl-1,4-Dihydropyridin-2-Carbonsäure. Sm. 245° u. Zers. Ba, Ag (A. 267, 26). — IV, 153.
- $C_{12}H_6O_9N_3Br$ 1) 4-Brom-2',4',6'-Trinitrosoazobenzol. Sm. 215° (B. 24, 1320). — IV, 1354.
- $C_{12}H_6O_4N_2Cl_2$ 1) Dichlordinitrobiphenyl. Sm. 140° (A. 207, 340). — II, 224.
- $C_{12}H_6O_4N_2Br_2$ 1) Dibromdinitrobiphenyl. Sm. 148° (A. 132, 206; 174, 218). — II, 225.
- $C_{12}H_6O_4N_4S_2$ 1) 2-Dinitrodiphenylendisulfid. Sm. 112° (Bl. [3] 15, 423).
- $C_{12}H_6O_4N_4Br$ 1) Bromdinitrocarbazol. Sm. 255° (G. 25 [2] 396). — IV, 392.
- $C_{12}H_6O_4N_5Br_3$ 1) Tribromdinitrodiphenylamin. Sm. 209—210° (B. 10, 1324). — II, 341.
- $C_{12}H_6O_4N_4S$ 1) Dioxytetrazodiphenylsulfon (B. 8, 1060). — II, 841.
- $C_{12}H_6O_4N_5Cl$ 1) 3-Chlor-2',4',6'-Dinitrosonitroazobenzol. Sm. 184° (J. pr. [2] 44, 454). — IV, 1352.
2) 4-Chlor-2',4',6'-Dinitrosonitroazobenzol. Sm. bei 200° (J. pr. [2] 43, 488).

- $C_{12}H_6O_4N_2Br$ 1) 4-Brom-2',4',6'-Dinitrosodinitroazobenzol. Sm. 241° (*J. pr.* [2] 44, 71). — IV, 1354.
- $C_{12}H_6O_4Cl_2Br_2$ 1) s-Di[*p*-Chlor-*p*-Brom-*m*-Dioxy]biphenyl. Sm. 265° u. Zers. (*M.* 4, 229). — II, 922.
- 2) 2,5-Dibrom-1,4-Benzochinon-2,5-Dichlorhydrochinon. Sm. 135 bis 143° (*Soc.* 63, 1326). — III, 345.
- 3) 2,5-Dichlor-1,4-Benzochinon-2,5-Dibromhydrochinon + H_2O . Sm. 130—135° (*Soc.* 63, 1326). — III, 345.
- $C_{12}H_6O_4Cl_4S$ 1) s-Tetrachlordioxydiphenylsulfon. Sm. 288—289° (*A.* 172, 38; *B.* 9, 1150). — II, 840.
- $C_{12}H_6O_4Br_4S$ 1) s-Tetrabromdioxydiphenylsulfon. Sm. 278—279° u. Zers. (*A.* 172, 41; *B.* 9, 1150). — II, 840.
- $C_{12}H_6O_4J_4S$ 1) s-Tetrajoddioxydiphenylsulfon. Sm. 260—270° u. Zers. (*A.* 172, 44; *B.* 9, 1150). — II, 840.
- $C_{12}H_6O_5N_2Cl$ 1) 2-Chlor-2',4',6'-Nitrosodinitroazobenzol. Sm. 244—245° (*B.* 24, 1662). — IV, 1353.
- 2) 3-Chlor-2',4',6'-Nitrosodinitroazobenzol. Sm. 204—205° (*J. pr.* [2] 44, 453). — IV, 1353.
- 3) 4-Chlor-2',4',6'-Nitrosodinitroazobenzol. Sm. 242—243° (*J. pr.* [2] 43, 486). — IV, 1353.
- $C_{12}H_6O_5N_2Br$ 1) 4'-Brom-2,4-Dinitroso-*p*-Nitroazoxybenzol. Sm. 219° (*J. pr.* [2] 44, 76). — IV, 1337.
- 2) 4-Brom-2',4',6'-Nitrosodinitroazobenzol. Sm. 269° (*B.* 24, 595; *J. pr.* [2] 44, 70). — IV, 1354.
- $C_{12}H_6O_5Br_4S_2$ 1) Anhydrid d. 2,5-Dibrombenzol-1-Sulfonsäure (*B.* 19, 653). — II, 122.
- $C_{12}H_6O_6N_4S_2$ 1) 4,4'-Bisdiazobiphenyl-2,2'-Disulfonsäure + $2H_2O$ (*A.* 202, 351; 261, 321). — IV, 1543.
- $C_{12}H_6O_6N_5Cl$ 1) 4-Chlor-*p*-Nitroso-*p*-Dinitroazoxybenzol. Sm. 223—224° (*J. pr.* [2] 43, 487). — IV, 1336.
- 2) 3-Chlor-2',4',6'-Trinitroazobenzol. Sm. 138—139° (*J. pr.* [2] 44, 453). — IV, 1353.
- 3) 4-Chlor-2',4',6'-Trinitroazobenzol. Sm. 138—139° (*J. pr.* [2] 43, 486). — IV, 1353.
- 4) 4-Chlor-2,2',4'-Trinitroazobenzol. Sm. 122—123° u. Zers. (*J. pr.* [2] 43, 491). — IV, 1353.
- 5) 5-Chlor-3,2',4'-Trinitroazobenzol. Zers. bei 165° (*J. pr.* [2] 44, 459). — IV, 1353.
- 6) 5-Chlor-2,2',2'-Trinitroazobenzol. Sm. 121° (*J. pr.* [2] 44, 69). — IV, 1353.
- $C_{12}H_6O_6N_2Br$ 1) 4-Brom-*p*-Nitrosodinitroazoxybenzol. Sm. 257° (*J. pr.* [2] 44, 77). — IV, 1337.
- 2) 4-Brom-2',4',6'-Trinitroazobenzol. Sm. 170,5° (*J. pr.* [2] 44, 71). — IV, 1354.
- $C_{12}H_6O_7N_2S$ 1) 1,4-Dioxy-2,3-Diketo-2,3-Dihydro-5,10-Naphtdiazin-*p*-Sulfonsäure (Dioxyphenazinchinonsulfonsäure) (*B.* 21, 1229). — IV, 1022.
- $C_{12}H_6O_8N_4S$ 1) Di[2,4-Dinitrophenyl]sulfid. Sm. 193° (*A.* 197, 77). — II, 803.
- 2) isom. Tetranitrodiphenylsulfid. Sm. 245° (*Am.* 8, 91). — II, 803.
- 3) isom. Tetranitrodiphenylsulfid (*B.* 8, 1184). — II, 803.
- $C_{12}H_6O_8N_4S_2$ 1) Di[2,4-Dinitrophenyl]disulfid. — II, 816.
- $C_{12}H_6O_9Cl_4S_2$ 1) Anhydrid d. *p*-Dichlor-1,3-Dioxybenzol-*p*-Sulfonsäure (*J. pr.* [2] 17, 333). — II, 936.
- $C_{12}H_6O_{10}N_4S$ 1) Di[2,4-Dinitrophenyl]sulfon. Sm. 240—241° (*A.* 197, 78). — II, 813.
- $C_{12}H_6O_{12}N_4S$ 1) s-Tetranitrodioxydiphenylsulfon. Sm. 253°. Na_2 , K_2 (*B.* 11, 1668). — II, 840.
- $C_{12}H_6O_{10}N_4S_2$ 1) s-*p*-Tetranitro-2,2'-Dioxybiphenyl-4,4'-Disulfonsäure. Na_2 , K_2 (*A.* 261, 336). — II, 982.
- $C_{12}H_7ONBr_4$ 1) *p*-Tetrabrom-2-Naphtylamid d. Essigsäure. Sm. 138° (*Soc.* 43, 8). — II, 616.
- $C_{12}H_7ONS$ 1) Indophenin (*B.* 12, 1310; 16, 1478; 18, 2637). — II, 1617.
- 2) Oxythiodiphenylimid (*A.* 230, 182). — II, 811.
- $C_{12}H_7ON_2Cl_3$ 1) Verbindung (aus Benzidin) (*B.* 14, 85). — IV, 961.
- $C_{12}H_7O_2NCl_2$ 1) 3,5-Dichlor-2-Phenylamido-1,4-Benzochinon. Sm. 154° (*A.* 228, 335). — III, 339.

- $C_{12}H_7O_2NCl$ 2) 3,6-Dichlor-2-Phenylamido-1,4-Benzochinon. Sm. 186° (A. 228, 332). — III, 339.
- $C_{12}H_7O_2NBr_2$ 1) 4,4'-Dibrom-2-Nitrobiphenyl. Sm. 127° (B. 15, 2837). — II, 225.
2) 3,5-Dibrom-1,4-Benzochinon-4-Oxyphenylimid. Na (B. 16, 2845). — III, 337.
- $C_{12}H_7O_2NS$ 1) Dioxythiodiphenylimid. BaO, AgO, H₂SO₄ (A. 230, 188). — II, 812.
- $C_{12}H_7O_2N_2Cl$ 1) 3-Chlor-6-Nitrocarbazol. Sm. 285—286° (G. 26 [1] 290). — IV, 392.
2) Chloroxyphenazon (B. 23, 2450; 28, 357). — IV, 1004.
- $C_{12}H_7O_2N_2Cl_3$ 1) 2-Trichlor-2,2'-Dioxyazobenzol. Sm. 235° (B. 17, 275). — IV, 1405.
- $C_{12}H_7O_2N_2Br_3$ 1) 3,5,6-Tribrom-2,4-Dioxyazobenzol. Sm. 186° (B. 10, 1578). — IV, 1442.
- $C_{12}H_7O_2N_2Cl_2$ 1) Dichlornitroazobenzol. Sm. 210° (B. 13, 1184). — IV, 1353.
- $C_{12}H_7O_2N_2Cl$ 1) 3-Chlor-2',4'-Dinitrosoazobenzol. Sm. 159° (J. pr. [2] 44, 459). — IV, 1350.
2) 4-Chlor-2',4'-Dinitrosoazobenzol. Sm. 126—127° u. Zers. (J. pr. [2] 43, 491). — IV, 1350.
- $C_{12}H_7O_2N_4Br$ 1) 4-Brom-2',4'-Dinitrosoazobenzol. Sm. 222° (J. pr. [2] 44, 73). — IV, 1353.
- $C_{12}H_7O_2N_2Cl_3$ 1) 1,4,4-Trichlor-2,3,3-Trioxy-1,2,3,4-Tetrahydro-5,10-Naphtdiazin. Sm. 117° (B. 25, 846). — IV, 564.
- $C_{12}H_7O_2N_2Cl_2$ 1) 4,4'-Dichlor-2-Nitrosooxybenzol. Sm. 134° (B. 5, 912; 13, 1185). — IV, 1337.
- $C_{12}H_7O_2N_2Cl$ 1) 3-Chlor-2,4'-Nitrosnitroazobenzol. Sm. 202° (J. pr. [2] 44, 458). — IV, 1352.
2) 4-Chlor-2',4'-Nitrosnitroazobenzol. Sm. 217—218° (J. pr. [2] 43, 490). — IV, 1352.
- $C_{12}H_7O_2N_4Br$ 1) 4'-Brom-2,4-Dinitrosooxybenzol. Sm. 202° (J. pr. [2] 44, 77). — IV, 1337.
2) 4-Brom-2',4'-Nitrosnitroazobenzol. Sm. 242° (J. pr. [2] 44, 72). — IV, 1354.
- $C_{12}H_7O_2Cl_3S$ 1) 2,4,6-Trichlorphenylester d. Benzolsulfonsäure. Sm. 66°. — II, 671.
- $C_{12}H_7O_2Br_3S$ 1) 2,4,6-Tribromphenylester d. Benzolsulfonsäure. Sm. 85°. — II, 674.
- $C_{12}H_7O_2J_3S$ 1) 2,4,6-Trijodphenylester d. Benzolsulfonsäure. Sm. 155°. — II, 672.
- $C_{12}H_7O_2NCl_2$ 1) 3,5-Dichlor-6-Oxy-4-Keto-1-Phenyl-1,4-Dihydropyridin-2-Carbonsäure + $\frac{1}{2}H_2O$. Sm. 206° u. Zers. Ag₂ (A. 267, 29). — IV, 159.
- $C_{12}H_7O_2NS$ 1) 2-Phenylpyridinketonsulfonsäure. K + H₂O, Ba + 2H₂O, Pb + 3H₂O, Ag (B. 22, 408). — IV, 388.
- $C_{12}H_7O_2N_3Br_2$ 1) Dibromdinitrodiphenylamin. Sm. 196° (B. 15, 1236). — II, 341.
- $C_{12}H_7O_2N_4Cl$ 1) 3-Chlor-2-Nitroso-2-Nitrosooxybenzol. Sm. 166—167° (J. pr. [2] 44, 460). — IV, 1336.
2) 3-Chlor-2',4'-Dinitroazobenzol. Sm. 122—123° (J. pr. [2] 44, 458). — IV, 1352.
3) 4-Chlor-2',4'-Dinitroazobenzol. Sm. 151—152° (J. pr. [2] 43, 490). — IV, 1352.
4) 3-Chlor-6,2'-Dinitroazobenzol. Sm. 75° (J. pr. [2] 44, 69). — IV, 1352.
- $C_{12}H_7O_2N_4Br$ 1) 4-Brom-2',4'-Dinitroazobenzol. Sm. 175° (J. pr. [2] 44, 73). — IV, 1354.
2) 4-Brom-2-Nitroazobenzol. Sm. 190° (M. 8, 52). — IV, 1354.
- $C_{12}H_7O_2N_5Br_3$ 1) 2,2'-Dibrom-4,4'-Dinitrodiazoamidobenzol. Sm. 202° (Soc. 53, 669). — IV, 1566.
- $C_{12}H_7O_2Cl_3P_3$ 1) Verbindung (aus 1,4-Benzochinon). Fl. (A. 218, 204). — III, 328.
- $C_{12}H_7O_2N_3S$ 1) α-Dinitrodiphenylaminsulfoxyd (A. 230, 116). — II, 808.
2) β-Dinitrodiphenylaminsulfoxyd (A. 230, 133). — II, 808.
- $C_{12}H_7O_2N_4Br$ 1) Bromtrinitrodiphenylamin. Sm. 157,5° (B. 9, 920). — II, 341.
- $C_{12}H_7O_2N_5S$ 1) Dinitrosnitroazobenzolsulfonsäure. Ba (J. pr. [2] 37, 350). — IV, 1368.
- $C_{12}H_7O_2ClS$ 1) 2 [oder 3]-Chlor-3 [oder 2]-Acetoxyl-1,4-Naphtochinon-7-Sulfonsäure. Na, Ba + BaCl₂, Pb, Ag + 2AgNO₃ (J. pr. [2] 37, 188). — III, 389.
- $C_{12}H_7O_2N_5S$ 1) 2-Trinitroazobenzol-4-Sulfonsäure. Ba, Ag (M. 3, 508; B. 15, 2579). — IV, 1368.
- $C_{12}H_7NClBr$ 1) 3-Chlor-6-Bromcarbazol. Sm. 197—198° (G. 25 [2] 361). — IV, 391.

- $C_{13}H_7NCl_2S$ 1) Dichlorthiodiphenylamin. Sm. 225—227° u. ger. Zers. (B. 29, 1365).
2) isom. Dichlorthiodiphenylamin. Sm. 222° (B. 29, 1366).
- $C_{13}H_7Cl_2BrJ_2$ 1) 4,4'-Dichlor-*p*-Joddiphenyljodoniumbromid. Sm. 190° (B. 28, 100).
- $C_{13}H_7ONCl_2$ 1) 1,3,4-Trichlor-2-Naphtylamid d. Essigsäure. Sm. 220° (J. pr. [2] 57, 111).
- $C_{13}H_7ONBr_3$ 1) 1,3,6-Tribrom-2-Naphtylamid d. Essigsäure. Sm. 250—251° (J. pr. [2] 43, 56). — II, 616.
- $C_{13}H_7ON_2Cl_2$ 1) 3,3'-Dichlorazoxybenzol. Sm. 97° (B. 8, 1624; 17, 464). — IV, 1335.
2) 4,4'-Dichlorazoxybenzol. Sm. 155° (B. 5, 911, 916; 8, 1626; 14, 2635; 15, 1005; 29, 2365; 30, 2278; 32, 217; Z. 1866, 269). — IV, 1335.
3) 3,3'-Dichlor-4-Oxyazobenzol. Sm. 114—115° (B. 17, 464). — IV, 1409.
- $C_{13}H_7ON_2Br_2$ 1) 3,3'-Dibromazoxybenzol. Sm. 111—111,5° (B. 9, 1405; 30, 2278). — IV, 1335.
2) 4,4'-Dibromazoxybenzol. Sm. 175° (172°) (B. 5, 919; 30, 2278, 2876; 32, 220; A. 165, 198). — IV, 1335.
3) 2,4-Dibrom-4¹[*p*]-Oxyazobenzol. Sm. 137° (B. 30, 78).
- $C_{13}H_7ON_2J_2$ 1) 3,3'-Dijodazoxybenzol. Sm. 118—119° (B. 9, 1410; Soc. 69, 10). — IV, 1335.
2) 4,4'-Dijodazoxybenzol. Sm. 199—199,5° (B. 9, 1408). — IV, 1335.
- $C_{13}H_7ON_2S$ 1) Thionolin (A. 230, 202; B. 22, 2067). — II, 811.
2) 1-Nitroso-2-[2-Thienyl]indol. Sm. 240—241° (A. 272, 203). — IV, 394.
- $C_{13}H_7ON_2Cl$ 1) 5-Chlor-2-Nitrosoazobenzol. Sm. 142,5° (J. pr. [2] 37, 356; [2] 44, 68). — IV, 1350.
- $C_{13}H_7ON_2Cl_2$ 1) 3,3'-Dichlordiazobenzolanhydrid (B. 29, 473).
2) 4,4'-Dichlordiazobenzolanhydrid (B. 29, 462). — IV, 1520.
- $C_{13}H_7ON_2Br_2$ 1) 3,3'-Dibromdiazobenzolanhydrid (B. 29, 472).
2) 4,4'-Dibromdiazobenzolanhydrid (B. 29, 469). — IV, 1521.
- $C_{13}H_7OCl_2J_2$ 1) 4,4'-Dichlor-*p*-Joddiphenyljodoniumhydrat. Salze, siehe diese u. HNO₃ (B. 28, 100).
- $C_{13}H_7OCl_2Se$ 1) Dichlordiphenylselenin. Sm. 159° (A. ch. [6] 20, 262). — II, 819.
- $C_{13}H_7OBr_2Se$ 1) Dibromdiphenylselenin. Sm. 120° (A. ch. [6] 20, 260). — II, 819.
- $C_{13}H_7O_2NCl$ 1) Methyl-4-Chlorimido-1-Keto-1,4-Dihydro-2-Naphtylketon. Sm. 137° (B. 28, 1949). — III, 175.
- $C_{13}H_7O_2NCl_2$ 1) 4-Methylphenylamid d. Trichloracetyldichlorakrylsäure. Sm. 192—193° (B. 25, 2231). — II, 501.
- $C_{13}H_7O_2NBr$ 1) 4-Brom-2'-Nitrobiphenyl. Sm. 65°; Sd. bei etwa 360° (A. 174, 220; 207, 351; J. 1882, 451). — II, 225.
2) 4-Brom-4'-Nitrobiphenyl. Sm. 173° (A. 174, 218). — II, 225.
- $C_{13}H_7O_2N_2Br_2$ 1) 2',3-Dibrom-4-Nitrosodiphenylhydroxylamin. Sm. 118—123° (B. 31, 1519).
- $C_{13}H_7O_2N_2S_2$ 1) Di[4-Thionylamidophenyl]sulfid. Sm. 110° (A. 270, 149). — II, 804.
- $C_{13}H_7O_2N_2Cl$ 1) 5-Chlor-2-Nitroazobenzol. Sm. 94° (J. pr. [2] 37, 355). — IV, 1352.
2) 4-Chlor-4'-Nitroazobenzol. Sm. 132,5° (B. 19, 2971). — IV, 1352.
- $C_{13}H_7O_2N_2Br$ 1) *p*-Brom-2-Nitroazobenzol. Sm. 132° (M. 8, 57). — IV, 1354.
2) *p*-Brom-3-Nitroazobenzol. Sm. 123° (M. 8, 54). — IV, 1354.
3) *p*-Brom-4-Nitroazobenzol. Sm. 107—108° (M. 8, 52). — IV, 1354.
4) 5-Brom-*p*-Nitro-2-Methyl- β -Naphtimidazol. Sm. 242°. HNO₃ (B. 18, 2162). — IV, 992.
- $C_{13}H_7O_2N_2J$ 1) 4-Jod-3'-Nitroazobenzol. Sm. 123—124°. — IV, 1354.
- $C_{13}H_7O_2N_2S_2$ 1) 2,4-Di[Thionylamido]azobenzol. Sm. 88° (A. 274, 253). — IV, 1360.
- $C_{13}H_7O_2Cl_2S$ 1) Di[2-Chlorphenyl]sulfon. Sm. 173—174°; Sd. oberh. 360° (A. ch. [6] 10, 414). — II, 813.
2) Di[3-Chlorphenyl]sulfon. Fl. (A. 149, 180). — II, 813.
3) Di[4-Chlorphenyl]sulfon. Sm. 147° (140—141°) (A. 145, 28; B. 11, 2064). — II, 813.
- $C_{13}H_7O_2Cl_2S_2$ 1) 4-Chlorphenylester d. 4-Chlorbenzol-1-Thiolsulfonsäure. Sm. 136—138° (A. 145, 323). — II, 818.
- $C_{13}H_7O_2Br_2S$ 1) Di[4-Bromphenyl]sulfon. Sm. 172° (B. 8, 594; 11, 2065; Z. 1871, 321). — II, 813.
2) *p*-Dibrom-*p*-Dioxydiphenylsulfid. Sm. 175—176° (G. 17, 91). — II, 913.
- $C_{13}H_7O_2J_2S$ 1) Di[4-Jodphenyl]sulfon. Sm. 197° (J. pr. [2] 58, 194).

- $C_{17}H_9O_3NCl$ 1) 4-Chlor-3-Acetylamido-1,2-Naphtochinon. Sm. 170° u. Zers. (B. 31, 2407).
 2) 6-Chlor-5-Phenylamido-2-Oxy-1,4-Benzochinon (B. 23, 901). — III, 347.
 3) Verbindung (aus Resazurin). HCl (A. 162, 288; B. 17, 1854). — II, 933.
- $C_{17}H_9O_3NBr$ 1) 3-Brom-2-Acetylamido-1,4-Naphtochinon. Sm. 136—137° (B. 20, 1514). — III, 378.
 2) 2-Brom-2-Acetylamido-1,4-Naphtochinon. Sm. 205° u. Zers. (B. 21, 1199). — III, 377.
- $C_{12}H_8O_3N_2S$ 1) 4-Nitrodiphenylaminsulfoxyd (B. 17, 2858). — II, 808.
 $C_{12}H_8O_3N_2Cl$ 1) 1-Chlor-2-Nitro-2-Phenylnitrosamidobenzol. Sm. 110,5° (B. 9, 772). — II, 341.
 2) 2-Chlor-2-Nitro-4'-Oxyazobenzol. Sm. 158° (B. 28, 801). — IV, 1410.
- $C_{17}H_9O_3N_4S$ 1) 4-Diazoazobenzol-4'-Sulfonsäure (B. 15, 2186). — IV, 1369.
 $C_{12}H_8O_3Br_2S$ 1) Dibromoxydiphenylsulfon. Sm. 154° (J. 1885, 1591). — II, 814.
 $C_{12}H_8O_3J_2S$ 1) 4-Jod-4'-Jodosodiphenylsulfon. Zers. bei 184° (J. pr. [2] 58, 195).
 $C_{17}H_9O_4N_4S$ 1) 2,2'-Dinitrodiphenylsulfid. Sm. 122—123° (B. 29, 2774).
 2) 4,4'-Dinitrodiphenylsulfid. Sm. 154° (B. 27, 3262).
 3) β-Phenylenpyridinketonoximsulfonsäure. Zers. bei 290° (B. 22, 411). — IV, 388.
- $C_{12}H_8O_4N_4S_2$ 1) 2,2'-Dinitrodiphenyldisulfid. Sm. 193° (B. 20, 1534). — II, 815.
 2) 3,3'-Dinitrodiphenyldisulfid. Sm. 83° (B. 20, 1534; 24, 337; J. pr. [2] 41, 198; A. 278, 254). — II, 816.
 3) 4,4'-Dinitrodiphenyldisulfid. Sm. 180,5° (168—170°) (J. pr. [2] 41, 199; B. 29, 282, 2366 Anm.). — II, 816.
- $C_{12}H_8O_4N_4As_2$ 1) α-2-Dinitroarsenobenzol (B. 27, 268). — IV, 1684.
 $C_{12}H_8O_4N_4Cl$ 1) 5-Chlor-2,4-Dinitro-1-Phenylamidobenzol. Sm. 120° (B. 30, 1668).
 $C_{12}H_8O_4N_4Br$ 1) 2-Brom-2-Dinitro-1-Phenylamidobenzol. Sm. 120° (B. 9, 920). — II, 341.
 2) 2,4-Dinitro-1-[4-Bromphenyl]amidobenzol. Sm. 152—153° (B. 11, 602). — II, 341.
- $C_{12}H_8O_4N_6S$ 1) Di[4-Nitro-1-Diazophenyl]-1,1'-Sulfid. Zers. bei 89° (B. 29, 276). — IV, 1525.
- $C_{12}H_8O_4N_6S_2$ 1) Di[4-Nitro-1-Diazophenyl]-1,1'-Disulfid. Sm. 120—123° u. Zers. (B. 29, 284). — IV, 1525.
- $C_{12}H_8O_4Cl_2S_2$ 1) Chlorid d. Biphenyl-2,2'-Disulfonsäure. Sm. 138° (A. 261, 329). — II, 226.
 2) Chlorid d. Biphenyl-4,4'-Disulfonsäure. Sm. 203° u. Zers. (B. 13, 390). — II, 226.
- $C_{12}H_8O_4Cl_2S_3$ 1) Chlorid d. Diphenylsulfid-2,2'-Disulfonsäure. Sm. 157° (B. 26, 994). — II, 839.
- $C_{12}H_8O_4Cl_2S_4$ 1) Chlorid d. Diphenyldisulfid-4,4'-Disulfonsäure. Sm. 142° (C. 1895 [2] 495).
- $C_{12}H_8O_4J_2S$ 1) 4-Jod-4'-Jododiphenylsulfon (J. pr. [2] 58, 196).
 $C_{12}H_8O_5N_2S$ 1) Dinitrodiphenylsulfoxyd. Sm. 116° (B. 20, 198). — II, 812.
 $C_{12}H_8O_5Cl_3Br$ 1) Dimethylester d. 5-Brom-4-Trichloracetylbenzol-1,3-Dicarbonsäure. Sm. 169° (A. 293, 149).
- $C_{12}H_8O_6N_2S$ 1) Dinitrodiphenylsulfon. Sm. 164° (A. 100, 211; B. 9, 79). — II, 813.
 2) Säure (aus Krokonsäure u. 2,3-Diamido-1-Methylbenzol-5-Sulfonsäure). K + H₂O (B. 23, 140). — IV, 600.
- $C_{12}H_8O_6N_2S_2$ 1) 4,4'-Dithionylamidobiphenyl. Sm. 82° (B. 24, 753; A. 274, 264). — IV, 264.
 2) 3-Nitrophenylester d. 3-Nitrobenzol-1-Thiolsulfonsäure (3-Nitrophenyldisulfoxyd). Sm. 123° (124°) (A. 278, 253; B. 24, 337). — II, 818.
- $C_{12}H_8O_6N_3Cl$ 1) 2-Chlor-1,3,5-Trinitrobenzol + Benzol (B. 11, 844). — II, 84.
 $C_{12}H_8O_6N_3Cl$ 1) 2'-Chlor-2,4,6-Trinitro-s-Diphenylhydrazin. Sm. 160°. + C₆H₆ (B. 24, 1661). — IV, 1498.
 2) 3'-Chlor-2,4,6-Trinitro-s-Diphenylhydrazin. Zers. bei 177—178° (J. pr. [2] 44, 452). — IV, 1498.
 3) 4'-Chlor-2,4,6-Trinitro-s-Diphenylhydrazin. α-Modif. Zers. bei 174—175°; β-Modif. Zers. bei 170—171° (J. pr. [2] 43, 463, 484). — IV, 1499.

- $C_{12}H_8O_6N_3Br$ 1) 4'-Brom-2,4,6-Trinitro-s-Diphenylhydrazin. Sm. 185—186° (*J. pr.* [2] 44, 69). — IV, 1499.
- $C_{12}H_8O_6Cl_2S_2$ 1) Dichlorid d. Diphenylsulfondisulfonsäure. Sm. 175—176° (*B.* 19, 3126). — II, 815.
- $C_{12}H_8O_6J_2S$ 1) Di[4-Jodophenyl]sulfon. Zers. bei 215—217° (*J. pr.* [2] 58, 196).
- $C_{12}H_8O_6N_4S$ 1) 2,4-Dinitroazobenzol-4'-Sulfonsäure. K + H_2O , Ba (*M.* 5, 157). — IV, 1368.
- 2) p-Dinitroazobenzol-4-Sulfonsäure. K, Ba (*M.* 3, 507; *B.* 15, 2578). — IV, 1368.
- $C_{12}H_8O_6N_2S$ 1) s-Dinitrodioxydiphenylsulfon. Na_2 , Ba, Ag_2 (*A.* 147, 59). — II, 840.
- $C_{12}H_8O_6N_4S$ 1) Nitrophenylamid d. Dinitrobenzolsulfonsäure? Sm. 210° (*B.* 12, 1167). — II, 425.
- $C_{12}H_8O_6N_4S$ 1) 4-[2,4,6-Trinitrophenyl]amidobenzol-1-Sulfonsäure. Na + $2\frac{1}{2}H_2O$ (*Soc.* 59, 717). — II, 569.
- 2) p-Dinitro-4,4'-Dioxyazobenzol-3-Sulfonsäure (*Am.* 2, 241). — IV, 1406.
- $C_{12}H_8NCIS$ 1) Chlorthiodiphenylamin (*B.* 29, 1366).
- $C_{12}H_8N_2Cl_2S$ 1) Phenyläther d. 2,4-Dichlor-1-Thiodiazobenzol. Sm. 55—56° (*B.* 28, 3244). — IV, 1520.
- $C_{12}H_8N_2Cl_2S_2$ 1) Verbindung (aus 4-Chlor-2-Nitro-1-Meraptobenzol). Sm. 147° (*A.* 197, 80). — II, 795.
- $C_{12}H_8ClBrS$ 1) 4-Chlor-p-Bromdiphenylsulfid. Sm. 110° (*B.* 27, 2547).
- $C_{12}H_8Cl_4BrJ$ 1) Di[4-Chlorphenyl]jodoniumbromid. Sm. 190° (*B.* 28, 101).
- $C_{12}H_8ONCl_2$ 1) 1-Naphtylamid d. Dichloressigsäure. Sm. 164° (*B.* 27 [2] 514).
- 2) 2,4-Dichlor-1-Naphtylamid d. Essigsäure. Sm. 214° (*B.* 20, 448). — II, 606.
- 3) 5,8-Dichlor-2-Naphtylamid d. Essigsäure. Sm. 209° (*J. pr.* [2] 43, 60). — II, 615.
- $C_{12}H_8ONCl_4$ 1) p-Tetrachlor-p-Phenylamido-2-Keto-1-Methyl-p-Dihydro-R-Penten. Sm. 195° (*A.* 296, 190).
- 2) p-Tetrachlor-2-Acetylamido-p-Dihydronaphtalin. Sm. 99—100° (*J. pr.* [2] 57, 10).
- 3) isom. p-Tetrachlor-2-Acetylamido-p-Dihydronaphtalin. Sm. 145° (*J. pr.* [2] 57, 10).
- 4) isom. p-Tetrachlor-2-Acetylamido-p-Dihydronaphtalin. Sm. 163° (*J. pr.* [2] 57, 11).
- $C_{12}H_8ONBr_2$ 1) 2,4-Dibrom-1-Naphtylamid d. Essigsäure. Sm. 225° (*B.* 11, 1906). — II, 606.
- 2) 3,5[oder 3,8]-Dibrom-1-Naphtylamid d. Essigsäure. Sm. 221° (*Soc.* 47, 514). — II, 606.
- 3) 1,4-Dibrom-2-Naphtylamid d. Essigsäure. Sm. 221—222° (*Soc.* 47, 511; 67, 907). — II, 616.
- 4) 1,6-Dibrom-2-Naphtylamid d. Essigsäure. Sm. 208° (212°) (*B.* 18, 2424; *J. pr.* [2] 43, 49). — II, 616.
- $C_{12}H_8ONS$ 1) Oxythiodiphenylamin (*A.* 230, 182). — II, 811.
- $C_{12}H_8ON_2Cl$ 1) 4-Chlor-1-Phenylnitrosamidobenzol. Sm. 88° (*A.* 243, 288). — II, 338.
- 2) 4-Chlor-1-[4-Nitrosophenyl]amidobenzol. Sm. 158—159° (*A.* 243, 288). — II, 340.
- 3) 5-Chlor-2-Oxyazobenzol. Sm. 110—111° (*B.* 32, 126).
- 4) 2-Chlor-4'-Oxyazobenzol + $\frac{1}{2}H_2O$ Sm. 85° (96° wasserfrei). Ba + $4H_2O$, HCl (*B.* 26, 2975; 28, 799). — IV, 1408.
- 5) 3-Chlor-4'-Oxyazobenzol + $\frac{1}{2}H_2O$. Sm. 135° (wasserfrei). Ba + $4H_2O$, HCl (*B.* 26, 2977; 28, 801). — IV, 1408.
- 6) 4-Chlor-4'-Oxyazobenzol. Sm. 154° (151—152°). HCl (*B.* 20, 906; 26, 2978; 30, 1626). — IV, 1409.
- $C_{12}H_8ON_2Br$ 1) 2-Brom-4'-Oxyazobenzol + $\frac{1}{2}H_2O$. Sm. 85° (97° wasserfrei). HCl (*B.* 31, 2114). — IV, 1409.
- 2) 3-Brom-4'-Oxyazobenzol + $\frac{1}{2}H_2O$. Sm. 135° (wasserfrei). Ba + $4H_2O$ (*B.* 28, 802; 31, 2123). — IV, 1409.
- 3) 4-Brom-4'-Oxyazobenzol. Sm. 157°. HCl (*B.* 31, 2116). — IV, 1410.
- $C_{12}H_8ON_2J$ 1) Jodoxydihydro-1,8-Naphtochinoxalin (*B.* 30, 778).
- $C_{12}H_8ON_4S$ 1) 4-Thionylamidoazobenzol. Sm. 113° (*A.* 274, 251). — IV, 1357.

- $C_{12}H_9ON_3S$ 2) 5-Amido-2-Thiocarbonyl-3-[1-Naphtyl]-2,3-Dihydro-1,3,4-Ox-diazol. Sm. 218° (B. 24, 4189). — IV, 926.
3) 5-Amido-2-Keto-3-[1-Naphtyl]-2,3-Dihydro-1,3,4-Thiodiazol. Sm. 250° (B. 24, 4190). — IV, 926.
- $C_{12}H_9OClSe$ 1) Chlordiphenylselenin. Sm. 94°; Sd. 230°₁₀₀ (A. ch. [6] 20, 250). — II, 819.
2) Chloroxydiphenylselenid. Sm. 145° (A. ch. [6] 20, 242). — II, 819.
- $C_{12}H_9OCl_2J$ 1) Di[4-Chlorphenyl]jodoniumhydrat. Salze, siehe diese u. Nitrat, Pyrochromat (B. 28, 100).
- $C_{12}H_9O_2NCl_2$ 1) Methyläther d. 3,5-Dichlor-2-Oxy-4-Keto-1-Phenyl-1,4-Dihydro-pyridin. Sm. 136° (A. 267, 35). — IV, 120.
- $C_{12}H_9O_2NBr_2$ 1) p-Dibrom-4-[4-Oxyphenyl]amido-1-Oxybenzol. Sm. 170° u. Zers. (B. 16, 2848). — II, 717.
- $C_{12}H_9O_2NS$ 1) 4-Nitrodiphenylsulfid. Sm. 55° (B. 29, 2364).
2) Dioxythiodiphenylamin (A. 230, 192). — II, 812.
- $C_{12}H_9O_2N_2Cl$ 1) uns-Chlornitrodiphenylamin. Sm. 108,5° (B. 9, 772). — II, 341.
- $C_{12}H_9O_2N_2Br$ 1) 5-Brom-2-Nitrodiphenylamin. Sm. 116° (A. 303, 324).
2) 4'-Brom-4-Nitrosodiphenylhydroxylamin. Sm. 154° (B. 31, 1521).
- $C_{12}H_9O_2N_2J$ 1) 5-Jod-2-Nitrodiphenylamin. Sm. 111° (A. 303, 339).
- $C_{12}H_9O_2N_2S$ 1) Phenyläther d. anti-4-Nitro-1-Thiodiazobenzol. Zers. bei 96—97° (B. 28, 3245). — IV, 1526.
- $C_{12}H_9O_2N_4Cl$ 1) 4-Chlor-4'-Nitrodiazoamidobenzol. Sm. 181° u. Zers. (Soc. 53, 673). — IV, 1565.
- $C_{12}H_9O_2N_4Br$ 1) 3-Brom-3'-Nitrodiazoamidobenzol. Sm. 106° (B. 21, 2576). — IV, 1565.
2) 4-Brom-3'-Nitrodiazoamidobenzol. Sm. 155° (B. 21, 2575). — IV, 1565.
3) 4-Brom-4'-Nitrodiazoamidobenzol. Sm. 184° (B. 21, 2574). — IV, 1565.
- $C_{12}H_9O_2ClS$ 1) Chlordiphenylsulfon. Sm. 91,5°; Sd. 388,6—389,4°_{718,5} (B. 11, 2067; 19, 2418). — II, 813.
2) Chlorid d. Biphenylsulfonsäure. Sm. 115° (B. 13, 386). — II, 225.
- $C_{12}H_9O_2ClS_2$ 1) Chlorid d. 1-Merkaptobenzolphenyläther-p-Sulfonsäure. Sm. 66 bis 68° (B. 26, 996). — II, 832.
- $C_{12}H_9O_2NS$ 1) α-Naphtindol-2-Sulfonsäure. Na, Ag (B. 21, 116). — II, 623.
2) β-Naphtindol-2-Sulfonsäure. K, Na (B. 21, 113). — II, 623.
- $C_{12}H_9O_2N_2Br$ 1) 4-Brom-2-Nitro-1-Naphtylamid d. Essigsäure. Sm. 229° (232°) (A. 183, 260; B. 7, 539; Soc. 47, 499). — II, 607.
- $C_{12}H_9O_2N_2J$ 1) 4-Jod-2-Nitro-1-Naphtylamid d. Essigsäure. Sm. 242° (Soc. 47, 523; 67, 912). — II, 607.
- $C_{12}H_9O_2N_4Cl$ 1) Amid d. 5-Chlor-6-Oxy-3-Phenylhydrazon-2-Keto-2,3-Dihydro-pyridin-4-Carbonsäure (B. 27, 580). — IV, 726.
- $C_{12}H_9O_3ClS$ 1) 4-Chlorphenylester d. Benzolsulfonsäure. Fl. (C. 1895 [1] 835).
- $C_{12}H_9O_4NS$ 1) Nitrodiphenylsulfon. Sm. 90—92° (A. 100, 209). — II, 813.
2) 4-Nitrosophenylester d. Benzolsulfonsäure. Sm. 132° (B. 29, 1484).
- $C_{12}H_9O_4N_3S$ 1) 1-Phenylsulfondiazo-3-Nitrobenzol. Sm. 136° (B. 28, 863; 30, 315). — IV, 1526.
- $C_{12}H_9O_4N_4Cl$ 1) 3'-Chlor-2,4-Dinitro-s-Diphenylhydrazin. Sm. 151—152° (J. pr. [2] 44, 455). — IV, 1498.
2) 4'-Chlor-2,4-Dinitro-s-Diphenylhydrazin. Sm. 148—149° u. Zers. (J. pr. [2] 43, 490). — IV, 1498.
- $C_{12}H_9O_4N_4Br$ 1) 4'-Brom-2,4-Dinitro-s-Diphenylhydrazin. Sm. 147—148° (J. pr. [2] 44, 72). — IV, 1499.
- $C_{12}H_9O_4ClS_2$ 1) Chlorid d. Diphenylsulfon-3-Sulfonsäure. Sm. 98—99° (B. 19, 2420). — II, 814.
- $C_{12}H_9O_4Cl_2P$ 1) Di[4-Chlorphenylester] d. Phosphorsäure. Sm. 126—127° (130°). Na (B. 30, 2375; H. 25, 447).
- $C_{12}H_9O_5NS$ 1) 4-Nitrobiphenyl-4'-Sulfonsäure. Na, Ba + 4H₂O, Cu + 4H₂O (B. 13, 1408; A. 209, 349). — II, 226.
2) 4-Nitrophenylester d. Benzolsulfonsäure. Sm. 82° (G. 11, 70). — II, 683.
- $C_{12}H_9O_5N_4S$ 1) 2-Nitroazobenzol-p-Sulfonsäure. Na, K, Ag (M. 8, 60). — IV, 1368.
2) 3-Nitroazobenzol-4'-Sulfonsäure + xH₂O. K, Ba + 6H₂O, Pb (M. 3, 504). — IV, 1368.

- $C_{12}H_9O_3N_4S$ 3) 4-Nitroazobenzol-4'-Sulfonsäure + $3H_2O$. Na + $2H_2O$, K, Ba (M. 4, 276). — IV, 1368.
- $C_{12}H_9O_6NCl_2$ 1) Acetylderivat d. 1-[$\alpha\beta$ -Dichlor- β -Nitroäthyl]benzol-4-Ketocarbon-säure. Sm. 154° (A. 268, 279). — II, 1660.
- $C_{12}H_9O_6NS$ 1) 2-Nitro-1-Oxybenzolphenyläther-4-Sulfonsäure. Sm. $89-90^\circ$. K, Ba (B. 30, 740).
2) 4-Nitro-1-Oxybenzolphenyläther-2-Sulfonsäure. Sm. 220° . Ba (B. 30, 741).
3) 2-Acetylamido-1,4-Naphtochinon-7-Sulfonsäure. Na + $3H_2O$, Ba, Anilinsalz + $3H_2O$ (B. 32, 236).
4) Carbazoldisulfonsäure. K₂ (B. 23, 2144). — IV, 393.
- $C_{12}H_9O_6N_3P$ 1) Di[*p*-Nitrophenyl]phosphinsäure. Sm. 268° . NH_4 , K + $2H_2O$, Ba + $6H_2O$, Pb, Ag (B. 21, 1513). — IV, 1657.
- $C_{12}H_9O_6N_2S$ 1) 3-Nitro-4-Oxyazobenzol-3'-Sulfonsäure + xH_2O . Sm. 116° (235° u. Zers. wasserfrei) (B. 26, 1875). — IV, 1412.
2) 3-Nitro-4-Oxyazobenzol-4'-Sulfonsäure. Zers. bei 90° (B. 11, 2195; 16, 1332). — IV, 1412.
- $C_{12}H_9O_5NS_2$ 1) *p*-Nitrobiphenyl-4,4'-Disulfonsäure, siehe Chlorid (B. 13, 1411). — II, 226.
- $C_{12}H_9O_5N_2P$ 1) Di[4-Nitrophenyl]phosphorsäure. Sm. $133,5^\circ$ (A. 224, 161). — II, 683.
- $C_{12}H_9N_2ClS$ 1) Phenyläther d. anti-4-Chlor-1-Thiodiazobenzol. Sm. $60-62^\circ$ ($73,5^\circ$) (B. 28, 3241; 29, 468). — IV, 1520.
- $C_{12}H_9N_2BrS$ 1) Phenyläther d. 4-Brom-1-Thiodiazobenzol. Sm. 44° (B. 28, 3244). — IV, 1522.
- $C_{12}H_9N_2ClBr$ 1) 4-Chlor-4'-Bromdiazamidobenzol. Sm. $138-139^\circ$ (B. 30, 1409). — IV, 1563.
- $C_{12}H_{10}ONCl$ 1) 8-Chlor-10-Keto-3,4-Dihydrojulol (γ_1 -Chlor- α_1 -Ketojulolin). Sm. 135° (B. 25, 1198). — IV, 195.
2) 1-Naphtylamid d. Chloressigsäure. Sm. 161° (B. 20, 20). — II, 605.
3) *p*-Chlor-1-Naphtylamid d. Essigsäure. Sm. 184° (B. 11, 1201). — II, 606.
4) 1-Chlor-2-Naphtylamid d. Essigsäure. Sm. 147° (B. 20, 1989). — II, 615.
- $C_{12}H_{10}ONCl_3$ 1) 2-[$\gamma\gamma\gamma$ -Trichlor- β -Oxypropyl]chinolin. Sm. $144-145^\circ$ (148°) (B. 18, 3402, 3465; 19, 131, 904). — IV, 334.
2) 4-[$\gamma\gamma\gamma$ -Trichlor- β -Oxypropyl]chinolin. Sm. 175° (B. 19, 134). — IV, 334.
3) Verbindung + H_2O (aus Chloral u. 6-Methylchinolin). Sm. 79° (A. 273, 365). — IV, 318.
- $C_{12}H_{10}ONCl_5$ 1) 1,1,2,3,4-Pentachlor-2-Acetylamido-1,2,3,4-Tetrahydronaphtalin. Sm. $140-145^\circ$ u. Zers. (J. pr. [2] 43, 59; [2] 57, 4). — II, 615.
- $C_{12}H_{10}ONBr$ 1) 3-Brom-1-Naphtylamid d. Essigsäure. Sm. 187° (Soc. 47, 509). — II, 606.
2) 4-Brom-1-Naphtylamid d. Essigsäure. Sm. 193° . + NaOH (B. 4, 850; 11, 1906; 18, 2159; Soc. 73, 161). — II, 606.
3) 8-Brom-1-Naphtylamid d. Essigsäure. Sm. $138-139^\circ$ (Soc. 63, 1057). — II, 594.
4) 1-Brom-2-Naphtylamid d. Essigsäure. Sm. 140° ($134-135^\circ$). + NaOH (B. 14, 59; 20, 3154; Soc. 73, 162). — II, 615.
- $C_{12}H_{10}ONJ$ 1) 4-Jod-1-Naphtylamid d. Essigsäure. Sm. 196° (Soc. 47, 523). — II, 606.
- $C_{12}H_{10}ONP$ 1) Phenyläther d. Phosphazobenzol. Sm. $189-190^\circ$ (B. 27, 495). — II, 659.
- $C_{12}H_{10}ON_2S$ 1) 4-Thionylamido-1-Phenylamidobenzol. Sm. 142° (B. 31, 2182).
- $C_{12}H_{10}ON_3Br$ 1) 4-[4-Bromphenyl]oxydiazamidobenzol. Sm. 130° (B. 32, 220).
- $C_{12}H_{10}O_3NCl$ 1) 3-Chlor-2-Aethylamido-1,4-Naphtochinon. Sm. 110° (B. 15, 485). — III, 377.
2) 3-Chlor-2-Dimethylamido-1,4-Naphtochinon. Sm. 85° (B. 15, 487). — III, 377.
- $C_{12}H_{10}O_2NBr$ 1) β -Brom- β -[2-Chinolyl]propionsäure. HBr (A. 246, 167). — IV, 355.
- $C_{12}H_{10}O_2N_2S$ 1) 4-Nitro-4'-Amidodiphenylsulfid. Sm. 143° . HCl (B. 29, 2362).
2) 4,4'-Diamidobiphenylensulfon. Sm. oberh. 350° . $2HCl$, H_2SO_4 + $1\frac{1}{2}H_2O$ (B. 22, 2467). — IV, 969.

- C₁₂H₁₀O₂N₂S** 3) Allvlphenyloxallylthioharnstoff. Sm. 161° (Z. 1869, 261). — II, 411.
 4) α -2-Thiënoyl]- β -Phenylharnstoff. Sm. 206° (A. 236, 210). — III, 764.
 5) α -[3-Thiënoyl]- β -Phenylharnstoff. Sm. 206° (B. 19, 3285). — III, 755.
 6) 2-Phenylnitrosamidoacetylthiophen. Sm. 81° (B. 19, 2893). — III, 764.
 7) Phenylamidoformiat d. anti-2-Oximidomethylthiophen. Sm. 144° (B. 25, 2591). — III, 762.
 8) Phenylamidoformiat d. syn-2-Oximidomethylthiophen. Sm. 69 bis 70° (B. 25, 2589). — III, 761.
 9) α -Phenylhydrazon-2-Thiënylessigsäure. Sm. 164—165° u. Zers. (B. 19, 2119). — III, 758.
 10) β -Rhodanpropylimid d. Benzol-1,2-Dicarbonsäure. Sm. 89—93° (B. 24, 2628). — II, 1803.
 11) γ -Rhodanpropylimid d. Benzol-1,2-Dicarbonsäure. Sm. 96—98° (B. 23, 89). — II, 1803.
 12) Benzolsulfinsäures Diazobenzol. Sm. 75—76° u. Zers. (B. 10, 1532; 28, 862). — IV, 1519.
- C₁₂H₁₀O₂N₂S₂** 1) 2-Acetylamidobenzylidenrhodaninsäure. Sm. 280—285° u. Zers. (M. 8, 362). — III, 12.
- C₁₂H₁₀O₂N₂Se** 1) γ -Selencyanpropylimid d. Benzol-1,2-Dicarbonsäure. Sm. 192° (B. 24, 2134). — II, 1804.
- C₁₂H₁₀O₂N₂Cl** 1) 5-Chlor-2-Nitro-3'-Amidodiphenylamin. Sm. 150—151° (B. 11, 1158). — IV, 572.
 2) 5-Chlor-2-Nitro- α -Diphenylhydrazin. Sm. 135—140° (J. pr. [2] 37, 355; [2] 44, 67). — IV, 1498.
- C₁₂H₁₀O₂N₂Br** 1) α -Brom- α -Nitro- α -[2-Naphtyl]azoäthan. Sm. 168° u. Zers. (G. 23 [1] 260). — IV, 1391.
- C₁₂H₁₀O₂N₂S₃** 1) Di[4-Thionylhydrazidophenyl]sulfid. Sm. 187° (A. 270, 154). — IV, 816.
- C₁₂H₁₀O₂ClP** 1) Chlorid d. Diphenylphosphorigensäure. Sd. 295°₃₁ (A. 218, 91; 239, 310). — II, 659.
- C₁₂H₁₀O₂Cl₃P** 1) Trichlorid d. Diphenylphosphorsäure (A. 253, 111). — II, 660.
- C₁₂H₁₀O₂NCl** 1) Aethylester d. 2-Chlor-1-Oximidoinden-3-Carbonsäure. Sm. 188° (A. 283, 352). — II, 1687.
- C₁₂H₁₀O₂NBr** 1) Aethyläther d. 6-Brom-1-Nitro-2-Oxynaphtalin. Sm. 141° (C. 1897 [1] 239).
- C₁₂H₁₀O₂NJ** 1) Aethyläther d. 4-Jod-2-Nitro-1-Oxybenzol. Sm. 104—105° (Soc. 67, 913).
- C₁₂H₁₀O₂N₂S** 1) Azobenzol-4-Sulfonsäure + 3H₂O. Sm. 127°. K + 2H₂O, Ba, Ag (A. 131, 89; 154, 208; Z. 1870, 643; Am. 2, 221; B. 14, 1932; 15, 2186; M. 2, 219; 3, 237). — IV, 1364.
- C₁₂H₁₀O₂N₂S₂** 1) 1-Thiodiazobenzolphenyläther-4-Sulfonsäure. Na (B. 28, 3247). — IV, 1536.
- C₁₂H₁₀O₂N₂S** 1) 5-Phenylazo-6-Amido-1,2,3-Benztriazol-5'-Sulfonsäure (B. 26, 2958). — IV, 1259.
- C₁₂H₁₀O₂ClP** 1) Chlorid d. Diphenylphosphorsäure. Sd. 275°₁₁₆ (B. 8, 1522; A. 224, 158; 253, 120). — II, 660.
- C₁₂H₁₀O₂Cl₂S** 1) Aethylester d. 1,2-Dichlornaphtalin-6-Sulfonsäure. Sm. 128°. — II, 207.
 2) Aethylester d. 1,2-Dichlornaphtalin-7-Sulfonsäure. Sm. 123° (B. 25, 2488). — II, 208.
 3) Aethylester d. 1,2-Dichlornaphtalin-8-Sulfonsäure. Sm. 132°. — II, 208.
 4) Aethylester d. 1,6-Dichlornaphtalin-4-Sulfonsäure. Sm. 154° (B. 24, 3477). — II, 209.
 5) Aethylester d. 1,8-Dichlornaphtalin-4-Sulfonsäure. Sm. 106°. — II, 209.
- C₁₂H₁₀O₂Br₂S** 1) Aethylester d. 1,4-Dibromnaphtalin-6-Sulfonsäure. Sm. 156 bis 157° (B. 25 [2] 549; 26, 2828). — II, 211.
- C₁₂H₁₀O₄NCl** 1) 4,5-Lakton d. 2-Chlor-4,6,7-Trioxy-3,4-Dihydrochinolin-6,7-Dimethyläther-5-Carbonsäure. Sm. 218° (B. 19, 2298). — II, 2045.
- C₁₂H₁₀O₄N₂S** 1) Azoxybenzol-2-Sulfonsäure. K (B. 18, 1421). — IV, 1339.
 2) Azoxybenzol-3-Sulfonsäure. Sm. 60—70°. K + xH₂O (B. 18, 1420). — IV, 1339.

- $C_{12}H_{10}O_4N_2S$ 3) Azoxybenzol-4-Sulfonsäure. Sm. unterh. 100° . $K + 2H_2O$ (B. 18, 1420). — IV, 1339.
 4) 3-Oxyazobenzol-4-Sulfonsäure. K (B. 11, 2194). — IV, 1412.
 5) 4-Oxyazobenzol-3'-Sulfonsäure. K (B. 11, 2193). — IV, 1411.
 6) 4-Oxyazobenzol-4'-Sulfonsäure. $Na + 2H_2O$, K, $Mg + 6H_2O$, Ba $+ 2(5)H_2O$, Cu $+ 6H_2O$ (J. r. 5, 217; B. 11, 2192; 15, 2186; 24, 1698; A. 215, 232; 263, 239). — IV, 1411.
 7) isom. Oxyazobenzolsulfonsäure. $K + H_2O$, Ba, Ag (A. 215, 230). — IV, 1411.
 8) Amid d. 4-Nitrobiphenyl-4'-Sulfonsäure. Sm. 228° (B. 13, 1410). — II, 226.
 9) Phenylamid d. 3-Nitrobenzol-1-Sulfonsäure. Sm. 122° (A. 278, 246).
 10) 2-Nitrophenylamid d. Benzolsulfonsäure. Sm. 104° (B. 16, 594; A. 221, 16). — II, 425.
 11) 3-Nitrophenylamid d. Benzolsulfonsäure. Sm. $131-132^\circ$ (B. 16, 595). — II, 425.
 12) 4-Nitrophenylamid d. Benzolsulfonsäure. Sm. 139° (B. 16, 595). — II, 425.
- $C_{12}H_{10}O_4N_2S_2$ 1) Azobenzol-3,3'-Disulfonsäure. $Na_2 + xH_2O$, Ca $+ 1\frac{1}{2}H_2O$, Pb (A. 229, 363). — IV, 1363.
 2) Azobenzol-4,4'-Disulfonsäure. $Na_2 + 4H_2O$, Ba (A. 229, 369). — IV, 1364.
 3) Verbindung (aus Azobenzol-3,3'-Disulfonsäure). $2HBr$ (A. 229, 366). — IV, 1364.
- $C_{12}H_{10}O_4N_2S_3$ 1) Azobenzol-3-Sulfonsäure-3'-Thiolsulfonsäure. Sm. unter 100° . $Na_2 + xH_2O$, K, Ba, Pb (A. 229, 360). — IV, 1364.
- $C_{12}H_{10}O_4N_4S_2$ 1) Di[5-Nitro-2-Amidophenyl]disulfid. Sm. $236-237^\circ$ (A. 277, 243). — II, 817.
 2) Azobenzol-3,3'-Dithiolsulfonsäure. Sm. $91-93^\circ$. $Na_2 + xH_2O$, Ba $+ 5H_2O$ (A. 229, 358). — IV, 1365.
 3) Azobenzol-4,4'-Dithiolsulfonsäure. Sm. unter 100° . $Na_2 + xH_2O$, Ba (A. 229, 368). — IV, 1366.
- $C_{12}H_{10}O_4ClBr$ 1) Dimethylester d. Benzol-1-Carbonsäure-2-[β -Chlor- β -Bromäthenyl- α -Carbonsäure]. Sm. 95° (A. 283, 358). — II, 1865.
- $C_{12}H_{10}O_4Cl_2Te$ 1) Di[m-Dioxyphenyl]telluridichlorid. Sm. $188-189^\circ$ (B. 30, 2832).
- $C_{12}H_{10}O_5N_2S$ 1) 2-Nitro-1-Phenylamidobenzol-4-Sulfonsäure. $NH_4 + \frac{1}{2}H_2O$, Na $+ H_2O$, Ba $+ H_2O$, Anilinsalz (B. 24, 3791). — II, 576.
 2) 4-Nitro-1-Phenylamidobenzol-2-Sulfonsäure. Ba $+ 5H_2O$, Anilinsalz (B. 24, 3798). — II, 576.
 3) 2,4-Dioxyazobenzol-3'-Sulfonsäure. K (B. 11, 2196). — IV, 1443.
 4) 2,4-Dioxyazobenzol-4'-Sulfonsäure. K, Ba $+ 4\frac{1}{2}H_2O$ (B. 11, 2195, 2196; 16, 1332; Soc. 51, 182). — IV, 1443.
 5) 3,4-Dioxyazobenzol-4'-Sulfonsäure. Na (B. 26, 1075). — IV, 1441.
 6) 4,4'-Dioxyazobenzol-2-Sulfonsäure. Ba (B. 15, 3039; 17, 272). — IV, 1406.
- $C_{12}H_{10}O_5N_2S_2$ 1) 4,4'-Diamidobiphenylensulfon-2-Sulfonsäure $+ 2H_2O$. Ca $+ 8\frac{1}{2}H_2O$, Ba $+ 3\frac{1}{2}H_2O$ (B. 22, 2469). — IV, 269.
- $C_{12}H_{10}O_5N_2Cl$ 1) Verbindung (aus Amidobenzol u. 4-Chlor-2,6-Dinitro-1-Oxybenzol). Sm. 137° (B. 13, 35). — II, 694.
- $C_{12}H_{10}O_5N_4S$ 1) 3-Nitro-4-Amidoazobenzol-3'-Sulfonsäure (B. 26, 1876). — IV, 1370.
 2) 3-Nitro-4-Amidoazobenzol-4'-Sulfonsäure (B. 26, 1876). — IV, 1370.
- $C_{12}H_{10}O_5Cl_2S_2$ 1) Chlorid d. 2-Oxynaphtalinäthyläther-1,6-Disulfonsäure. Sm. 10° . $+ 1\frac{1}{2}C_6H_6$ (Sm. 51°) (C. 1895 [1] 1064).
 2) Chlorid d. 2-Oxynaphtalinäthyläther-3,6-Disulfonsäure. Sm. 121° (C. 1895 [1] 1065).
 3) Chlorid d. 2-Oxynaphtalinäthyläther-6,8-Disulfonsäure. Sm. 158° (C. 1895 [1] 1064).
- $C_{12}H_{10}O_6NBr$ 1) Acetylderivat d. Verb. $C_{10}H_8O_5NBr$ (aus 6-Bromopiansäureamid). Sm. 159° (B. 31, 928).
- $C_{12}H_{10}O_6N_2S$ 1) 5-Nitro-1-Acetylamidonaphtalin-4-Sulfonsäure. NH_4 (B. 22, 451). — II, 630.
 2) 2,4,6-Trioxazobenzol-4'-Sulfonsäure. Na, Ba. — IV, 1451.
- $C_{12}H_{10}O_6N_2S_2$ 1) Azobenzol-2,4-Disulfonsäure. Ag₂ (B. 15, 2577; M. 3, 245). — IV, 1364.

- $C_{12}H_{10}O_6N_2S_2$ 2) Azobenzol-3,3'-Disulfonsäure + 3(5)H₂O. $(NH_4)_2 + 2H_2O$, $Na_2 + 3\frac{1}{2}H_2O$, $K_2 + 2\frac{1}{2}(4)H_2O$, $Ca + 4H_2O$, $Ba + H_2O$ (B. 11, 762; 14, 1358; 15, 2577; A. 202, 331; 229, 356; M. 3, 243). — IV, 1364.
- 3) Azobenzol-3,4'-Disulfonsäure. Fl. $K_2 + 2\frac{1}{2}H_2O$, Ba , Pb , $Ag_2 + H_2O$ (B. 14, 1356; 15, 1155; A. 215, 216). — IV, 1365.
- 4) Azobenzol-4,4'-Disulfonsäure + 2(3)H₂O. Sm. 169° (wasserfrei). Na_2 , $K_2 + 2\frac{1}{2}H_2O$, Ca , Ba , $Pb + H_2O$, $Cu + 6H_2O$, Ag_2 (B. 14, 1356, 1928; 15, 1155, 2577; M. 2, 221; 3, 242; J. pr. [2] 20, 264). — IV, 1365.
- $C_{12}H_{10}O_6N_2Se_2$ 1) Verbindung (aus Selenanthren). Sm. 221° (B. 29, 444).
- $C_{12}H_{10}O_6N_4S$ 1) 2-Nitrophenylhydrazid d. 2-Nitrobenzol-1-Sulfonsäure. Sm. 150° u. Zers. (B. 20, 1241). — IV, 733.
- 2) 3-Nitrophenylhydrazid d. 3-Nitrobenzol-1-Sulfonsäure. Sm. 160 bis 162° u. Zers. (B. 20, 1240). — IV, 734.
- 3) 4-Nitrophenylhydrazid d. 4-Nitrobenzol-1-Sulfonsäure. Sm. 160° (B. 20, 1240). — IV, 734.
- $C_{12}H_{10}O_7N_2S$ 1) Aethylester d. 1,8-Dinitronaphtalin-3-Sulfonsäure. Sm. 153—154°. — II, 215.
- $C_{12}H_{10}O_7N_2S_2$ 1) Azoxybenzol-3,3'-Disulfonsäure. Sm. 125°. $(NH_4)_2 + 2H_2O$, $K_2 + 4H_2O$, $Ca + 3\frac{1}{2}H_2O$, $Ba + H_2O$, $Pb + H_2O$ (A. 202, 340). — IV, 1339.
- 2) 4-Oxyazobenzoldisulfonsäure. $K_2 + 2H_2O$, $Ba + H_2O$, Ag_2 (A. 215, 232; B. 15, 1297). — IV, 1412.
- $C_{12}H_{10}O_7N_4S$ 1) 5,5'-Dinitro-4,4'-Diamidobiphenyl-3-Sulfonsäure. $K + H_2O$ (B. 23, 3461). — IV, 968.
- $C_{12}H_{10}O_8N_2S_3$ 1) 4,4'-Diamidobiphenylensulfon-2-Disulfonsäure + 1\frac{1}{2}H₂O. $Ca + 7H_2O$ (B. 22, 2471). — IV, 970.
- $C_{12}H_{10}O_{10}N_2S_3$ 1) 4-Oxyazobenzoltrisulfonsäure. $K_2 + 3H_2O$, $Ba_2 + 7H_2O$, $Pb_2 + 1\frac{1}{2}H_2O$ (A. 215, 234; B. 15, 1297). — IV, 1412.
- $C_{12}H_{10}O_{12}N_2S_4$ 1) Azobenzol-2,4,2',4'-Tetrasulfonsäure. $K_4 + 3H_2O$, $Ba_2 + 4H_2O$, $Pb_2 + xH_2O$ (A. 203, 70). — IV, 1366.
- 2) Azobenzol-3,5,3',5'-Tetrasulfonsäure. $K_4 + 3H_2O$, $Ba_2 + 5H_2O$ (A. 203, 66). — IV, 1366.
- $C_{12}H_{10}O_{13}N_2S_4$ 1) 4-Oxyazobenzoltetrasulfonsäure. $K_5 + 7\frac{1}{2}H_2O$, $Ba_2 + 7H_2O$ (A. 215, 241; B. 15, 1299). — IV, 1412.
- $C_{12}H_{10}N_2ClP$ 1) Phenylhydrazon-4-Chlorphenylphosphin. Sm. 161° u. Zers. (A. 293, 236). — IV, 1649.
- $C_{12}H_{10}N_2BrP$ 1) Phenylhydrazon-4-Bromphenylphosphin. Sm. 160° (A. 293, 247). — IV, 1649.
- $C_{12}H_{10}ClBrSn$ 1) Zinndiphenylechloridbromid. Sm. 39° (A. 194, 160). — IV, 1714.
- $C_{12}H_{10}ClBr_2AsI$ 1) Diphenylarsenchloriddibromid (A. 201, 226). — IV, 1687.
- $C_{12}H_{10}ClJSn$ 1) Zinndiphenylechloridjodid. Sm. 69° (A. 194, 162). — IV, 1714.
- $C_{12}H_{11}ONCl_2$ 1) 4,5-Dichlor-2-Keto-3,3-Dimethyl-1-Phenyl-2,3-Dihydropyrrol (α -Dimethyl- $\beta\gamma$ -Dichlor- γ -Anilidoisocrotonsäurelaktam). Sm. 99° (A. 295, 72).
- $C_{12}H_{11}ONCl$ 1) 4,4,5,5-Tetrachlor-2-Keto-3,3-Dimethyl-1-Phenyltetrahydropyrrol (uns-Dimethyldichlorsuccinanilchlorid). Sm. 86,5—87°; Sd. 191 bis 192° (A. 295, 69).
- $C_{12}H_{11}ONS$ 1) 2-Phenylamidoacetylthiophen. Sm. 80° (B. 19, 2892). — III, 764.
- 2) 2-[α -Oximido-2-Methylbenzyl]thiophen. Fl. (B. 19, 3280).
- 3) 5-[α -Oximidobenzyl]-2-Methylthiophen (B. 19, 3280). — III, 767.
- 4) Methylester d. 1-Naphtylamidothiolsäure. Sm. 122° (B. 21, 970). — II, 608.
- $C_{12}H_{11}ON_2Cl$ 1) 5-Chlor-8-Acetylamido-6-Methylchinolin. Sm. 136—137° (B. 23, 3672). — IV, 933.
- $C_{12}H_{11}ON_2Br$ 1) α -Fural- β -[2-Brom-4-Methylphenyl]hydrazin. Sm. 87° (Soc. 73, 178). — IV, 810.
- $C_{12}H_{11}ON_2P$ 1) Phenylimid-Phenylamid d. Phosphorsäure. Sm. 357° (B. 29, 717).
- $C_{12}H_{11}OClSn$ 1) Zinndiphenyloxychlorid. Sm. 187° (A. 194, 154; 282, 328). — IV, 1714.
- $C_{12}H_{11}O_2NCl_2$ 1) Phenylimid d. $\gamma\gamma$ -Dichlor- β -Methylpropan- $\beta\gamma$ -Dicarbonsäure (uns-Dimethyldichlorsuccinanil). Sm. 114°; Sd. 179—180,2°_{max} (A. 295, 69).
- $C_{12}H_{11}O_2NS$ 1) Amidodiphenylsulfon. Sm. 90°. ($2HCl$, $PtCl_4$) (A. 100, 210). — II, 813.
- 2) Amid d. Biphenylsulfonsäure. Sm. 227—230° (B. 13, 386). — II, 225.

- $C_{12}H_{11}O_3NS$ 3) Phenylamid d. Benzolsulfonsäure. Sm. 112° (102°; 105°) (A. [91](#), [107](#); [100](#), [217](#); [214](#), [221](#); B. [4](#), [326](#); J. pr. [2] [47](#), [368](#); [2] [51](#), [265](#)). — II, [424](#).
- $C_{12}H_{11}O_3NS_2$ 1) Amid d. 1-Merkaptobenzolphenyläther-2-Sulfonsäure. Sm. 129 bis 130° (B. [26](#), [996](#)). — II, [839](#).
- $C_{12}H_{11}O_3N_2Cl$ 1) 2-Nitrochlorbenzylat d. Pyridin. Sm. 76°. 2 + PtCl₄ (A. [259](#), [57](#)). — IV, [110](#).
- 2) 3-Nitrochlorbenzylat d. Pyridin. Sm. 70–100°. (2 + PtCl₄) (A. [259](#), [59](#)). — IV, [110](#).
- 3) 4-Nitrochlorbenzylat d. Pyridin. Sm. 103°. (2 + PtCl₄) (A. [259](#), [52](#)). — IV, [110](#).
- $C_{12}H_{11}O_3N_2Br$ 1) Äthyläther d. 3-Keto-6-[2-Brom-4-Oxyphenyl]-2,3-Dihydro-1,2-Diazin. Sm. 240–243° (B. [32](#), [406](#)).
- $C_{12}H_{11}O_3N_3S$ 1) Amid d. Azobenzol-4-Sulfonsäure (Z. 1870, [643](#)). — IV, [1364](#).
- 2) Diazobenzolamid d. Benzolsulfonsäure. Sm. 102° u. Zers. (B. [27](#), [599](#)). — IV, [1519](#).
- $C_{12}H_{11}O_3N_3S_2$ 1) 1,2-Diacetyl-3,5-Dithiocarbonyl-4-Phenyltetrahydro-1,2,4-Triazol. Sm. 168–176° (B. [28](#), [956](#)).
- $C_{12}H_{11}O_3NCl_2$ 1) Dimethyläther d. 3,4-Dichlor-2,2-Dioxy-5-Keto-1-Phenyl-2,5-Dihydropyrrol (Dichlormaleinanildimethyläther). Sm. 110° (A. [283](#), [161](#)). — II, [417](#).
- $C_{12}H_{11}O_3NBr_2$ 1) Brommethylat d. Bromtarkonin + H₂O (A. [245](#), [325](#)). — III, [919](#).
- $C_{12}H_{11}O_3NBr_4$ 1) Brommethylat d. Bromtarkoninbromid. Sm. 165° u. Zers. (A. [245](#), [324](#)). — III, [919](#).
- $C_{12}H_{11}O_3NJ_2$ 1) Jodmethylat d. Jodtarkonin (A. [245](#), [316](#)). — III, [919](#).
- $C_{12}H_{11}O_3NJ_4$ 1) Jodmethylat d. Jodtarkoninjodid. Sm. 171° (A. [245](#), [317](#)). — III, [919](#).
- $C_{12}H_{11}O_3NS$ 1) 4-Amidobiphenyl-2-Sulfonsäure. Sm. oberh. 300° u. Zers. Na + 2H₂O, Ba + 4H₂O (See. [49](#), [380](#)). — II, [634](#).
- 2) 1-Phenylamidobenzol-2-Sulfonsäure. K, Ba, Pb (B. [6](#), [1513](#)). — II, [576](#).
- 3) Phenyl oxyamid d. Benzolsulfonsäure (Benzsulfo-β-phenylhydroxylamin). Sm. 121° (B. [29](#), [1564](#)).
- $C_{12}H_{11}O_3N_2Br_3$ 1) Äthylester d. α-[2,4,6-Tribromphenyl]azo-β-Ketopropan-α-Carbonsäure. α-Modif. Sm. 121–123°; β-Modif. Sm. 95–109° (B. [30](#), [1968](#)). — IV, [706](#).
- $C_{12}H_{11}O_3N_3S$ 1) 4-Amidoazobenzol-4'-Sulfonsäure + 1½ H₂O. NH₄, Ca + 2H₂O, Ba + 6H₂O (B. [15](#), [2185](#); M. [4](#), [279](#), [656](#)). — IV, [1369](#).
- 2) isom. 4-Amidoazobenzol-4'-Sulfonsäure? K + H₂O, Ca + 4H₂O, Sr + 2H₂O, Ba + 6H₂O, Pb (M. [4](#), [653](#)). — IV, [1369](#).
- 3) isom. 2-Amidoazobenzol-4-Sulfonsäure. K (B. [15](#), [2578](#); M. [4](#), [656](#)). — IV, [1369](#).
- 4) Amid d. 2-Oxyazobenzolsulfonsäure. Sm. 212° (B. [15](#), [1296](#); A. [215](#), [231](#)). — IV, [1412](#).
- $C_{12}H_{11}O_3ClS$ 1) Äthylester d. 1-Chlornaphtalin-2-Sulfonsäure. Sm. 104° (B. [24](#), [3475](#)). — II, [204](#).
- 2) Äthylester d. 1-Chlornaphtalin-3-Sulfonsäure. Sm. 76–79° (B. [21](#), [3274](#)). — II, [204](#).
- 3) Äthylester d. 1-Chlornaphtalin-4-Sulfonsäure. Sm. 104° (B. [20](#), [74](#)). — II, [205](#).
- 4) Äthylester d. 1-Chlornaphtalin-5-Sulfonsäure. Sm. 46° (B. [20](#), [72](#)). — II, [205](#).
- 5) Äthylester d. 1-Chlornaphtalin-6-Sulfonsäure. Sm. 111° (B. [20](#), [74](#)). — II, [205](#).
- 6) Äthylester d. 1-Chlornaphtalin-7-Sulfonsäure. Sm. 90° (B. [25](#), [2480](#)). — II, [205](#).
- 7) Äthylester d. 1-Chlornaphtalin-8-Sulfonsäure. Sm. 67,5° (B. [23](#), [962](#)). — II, [205](#).
- 8) Äthylester d. 2-Chlornaphtalin-5-Sulfonsäure. Sm. 114,5° (B. [25](#), [2482](#)). — II, [206](#).
- 9) Äthylester d. 2-Chlornaphtalin-6-Sulfonsäure. Sm. 78–79° (B. [45](#), [184](#)). — II, [206](#).
- 10) Äthylester d. 2-Chlornaphtalin-7-Sulfonsäure. Sm. 65° (B. [25](#), [2484](#)). — II, [206](#).

- C₁₂H₁₁O₃ClS 11) Chlorid d. 2-Oxynaphtalinäthyläther-1-Sulfonsäure. Sm. 115 bis 116° (C. 1895 [1] 1064).
 12) Chlorid d. 2-Oxynaphtalinäthyläther-6-Sulfonsäure. Sm. 107,5° (C. 1895 [1] 1064).
 13) Chlorid d. 2-Oxynaphtalinäthyläther-8-Sulfonsäure. Sm. 93° (C. 1895 [1] 1064).
- C₁₂H₁₁O₃BrS 1) Aethylester d. 1-Bromnaphtalin-5-Sulfonsäure. Sm. 51° (B. 20, 3407). — II, 210.
- C₁₂H₁₁O₃JS 1) Aethylester a. 1-Jodnaphtalin-5-Sulfonsäure. Sm. 75° (B. 22, 2822). — II, 211.
- C₁₂H₁₁O₃FS 1) Aethylester d. 1-Fluornaphtalin-4-Sulfonsäure. Sm. 93°. — II, 204.
 2) Aethylester d. 1-Fluornaphtalin-5-Sulfonsäure. Sm. 79° (B. 22, 1845). — II, 204.
- C₁₂H₁₁O₃SP 1) Diphenylester d. Thiophosphorsäure. Fl. (B. 31, 1104).
- C₁₂H₁₁O₄NS 1) 1-Acetylamidonaphtalin-2-Sulfonsäure + H₂O (B. 24, 3474). — II, 625.
- C₁₂H₁₁O₄NS, 1) Amid d. Diphenylsulfon-3-Sulfonsäure. Sm. 154° (B. 19, 2420). — II, 814.
- C₁₂H₁₁O₄N₂Br 1) Dimethyläther d. 5-Brom-7,8-Dioxy-1-Keto-2-Acetyl-1,2-Dihydro-2,3-Benzdiazin. Sm. 173° (B. 31, 925).
- C₁₂H₁₁O₄N₃S 1) Amid d. 2-Nitro-1-Phenylamidobenzol-4-Sulfonsäure. Sm. 162° (B. 24, 3794). — II, 576.
 2) Amid d. 4-Nitro-1-Phenylamidobenzol-2-Sulfonsäure. Sm. 173° (B. 24, 3799). — II, 577.
 3) Phenylhydrazid d. 3-Nitrobenzol-1-Sulfonsäure. Sm. 154° (A. 278, 248). — IV, 733.
- C₁₂H₁₁O₄BrS 1) 1-Brom-2-Oxynaphtalinäthyläther-6-Sulfonsäure. K (C. 1895 [1] 1064).
- C₁₂H₁₁O₅NS 1) Aethylester d. 1-Nitronaphtalin-3-Sulfonsäure. Sm. 114,5° (B. 19, 2180). — II, 212.
 2) Aethylester d. 1-Nitronaphtalin-4-Sulfonsäure. Sm. 93° (B. 23, 960). — II, 212.
 3) Aethylester d. 1-Nitronaphtalin-5-Sulfonsäure. Sm. 101° (B. 24, 510; A. 275, 248). — II, 212.
 4) Aethylester d. 1-Nitronaphtalin-6-Sulfonsäure. Sm. 114° (B. 21, 3263; 26, 446). — II, 212.
 5) Aethylester d. 1-Nitronaphtalin-7-Sulfonsäure. Sm. 106—107° (B. 29, 415; B. 21, 3260). — II, 212.
 6) Aethylester d. 1-Nitronaphtalin-8-Sulfonsäure. Sm. 118° (A. 275, 244). — II, 214.
- C₁₂H₁₁O₅NS, 1) Dibenzsulfhydroxamsäure (Oxyimid d. Benzolsulfonsäure). Sm. 110° (B. 11, 616; 27, 598, 600; 29, 1562). — II, 109.
 2) Verbindung (aus Phenylsulfonessigsäure). Sm. 98—99° (J. pr. [2] 41, 391). — II, 786.
- C₁₂H₁₁O₆NCl₂ 1) Methylester d. 1-[ββ-Dichlor-β-Nitro-α-Methoxyläthyl]benzol-2-Ketocarbonsäure. Sm. 90° (A. 278, 192). — II, 1783.
- C₁₂H₁₁O₆NS 1) 1-Nitro-2-Oxynaphtalinäthyläther-6-Sulfonsäure (J. pr. [2] 49, 133).
 2) p-Nitro-2-Oxynaphtalinäthyläther-6-Sulfonsäure. K (C. 1895 [1] 1064).
 3) p-Nitro-2-Oxynaphtalinäthyläther-8-Sulfonsäure (C. 1895 [1] 1064).
- C₁₂H₁₁O₆NS, 1) 4-Amidobiphenyl-2,2'-Disulfonsäure. Ba + 4H₂O (A. 261, 320). — II, 634.
 2) 1-Phenylamidobenzol-2,4-Disulfonsäure. Ba + 3H₂O (B. 24, 3807). — II, 576.
 3) Diphenylamin-s-p-Disulfonsäure. Ba + 2H₂O (B. 5, 283; 6, 1513). — II, 576.
- C₁₂H₁₁O₆N₂Br 1) Methylendimethyläther d. 3-[6-Brom-2,3,4,5-Tetraoxyphenyl]-4-Oximido-4,5-Dihydroisoxazol. Sm. 127—128° (G. 22 [2] 507). — II, 1035.
 2) Oximanhidrid d. Methylendimethyläther d. 6-Brom-2,3,4,5-Tetraoxy-1-[αβ-Dioximidopropyl]benzol. Sm. 131° (G. 22 [2] 508). — II, 1035.
- C₁₂H₁₁O₆N₃S, 1) Phenyldiazoamidobenzol-4,4'-Disulfonsäure. Ba (B. 29, 293). — IV, 1567.

- $C_{11}H_{11}O_6N_2S_2$ 2) 4-Amidoazobenzol-3,4'-Disulfonsäure. Ba + $7\frac{1}{2}H_2O$ (B. 15, 2187). — IV, 1370.
- $C_{11}H_{11}O_7NCl_4$ 1) Acetylimid d. $\alpha\alpha\delta\delta$ -Tetrachlor- $\beta\gamma$ -Diacetoxybutan- $\beta\gamma$ -Dicarbonsäure. Sm. 176—177° u. Zers. (A. 254, 104). — I, 1405.
- $C_{11}H_{11}O_7NS_2$ 1) 4'-Amido-4-Oxybiphenyl-2,2'-Disulfonsäure. Ba + $7(8)H_2O$ (A. 261, 315). — II, 896.
- $C_{11}H_{11}O_7N_2Br$ 1) Aethylester d. β -Keto- α -[Brom-2,4-Dinitrophenyl]propan- α -Carbonsäure (Ae. d. Bromdinitrophenylacetessigsäure). Sm. 96°. Na (Am. 12, 167). — II, 1659.
- $C_{11}H_{11}N_2ClS$ 1) p-Chlor-2-[α -Phenylhydrazonäthyl]thiophen. Sm. 108° u. Zers. (B. 19, 694). — III, 762.
- $C_{11}H_{11}N_2BrS$ 1) 5-Brom-2-[α -Phenylhydrazonäthyl]thiophen. Sm. 122° u. Zers. (B. 19, 689). — III, 763.
- $C_{11}H_{11}N_2JS$ 1) 5-Jod-2-[α -Phenylhydrazonäthyl]thiophen. Sm. 134° u. Zers. (B. 19, 692). — III, 763.
- $C_{12}H_{11}N_2SP$ 1) Phenylamid-Phenylimid d. Thiophosphorsäure (Sulfophosphazobenzolanilid). Sm. 202° (B. 28, 1241).
- $C_{12}H_{12}ONCl$ 1) 2-Chlor-5 oder 7-Oxy-4-Methyl-3-Aethylchinolin. Sm. 227° (B. 31, 2151).
- 2) 2-Chlor-4-Oxy-8-Methyl-3-Aethylchinolin. Sm. 225—225,5° (B. 21, 301). — IV, 335.
- 3) Chinolylacetonylechlorid. 2 + $PtCl_4$ + $AuCl_3$ (C. 1899 [1] 117).
- 4) Isochinolylacetonylechlorid. 2 + $PtCl_4$ + $AuCl_3$ (A. 303, 118).
- $C_{12}H_{12}ONBr$ 1) Aethyläther d. 6-Brom-1-Amido-2-Oxynaphtalin. Sm. 84° (C. 1897 [1] 239).
- 2) 4-[p-Brom-p-Oxypropyl]chinolin. Sm. 126—127° (B. 31, 2373).
- $C_{12}H_{12}ONJ$ 1) 4-p-Jod-p-Oxypropyl]chinolin. Sm. 117—119° (B. 31, 2374).
- $C_{12}H_{12}ON_2S$ 1) 4-Keto-2-Phenylimido-3-Allyltetrahydrothiazol? Fl. (Soc. 71, 632).
- $C_{12}H_{12}O_2NCl$ 1) Chlormethylat d. 2-Methylchinolin-3-Carbonsäure. Sm. 230° u. Zers. (A. 282, 127). — IV, 352.
- 2) Phenylimid d. γ -Chlor- β -Methylpropan- $\beta\gamma$ -Dicarbonsäure (uns-Dimethylchloresuccinanil). Sm. 163° (A. 295, 75).
- $C_{12}H_{12}O_2NCl_3$ 1) γ,γ,γ -Trichlor- γ -Oximido- ϵ -Oxy- α -Phenyl- α -Hexen (Benzylidenacetonoximechloral). Sm. 113—114° (G. 28 [2] 86).
- $C_{12}H_{12}O_2NBr$ 1) Isobutyläther d. p-Brom-2-Oxy-3-Ketopseudoindol (m-Bromisatinisobutyläther) (B. 15, 2097). — II, 1606.
- 2) Bromäthylat d. Chinolin-4-Carbonsäure. Sm. 237° (A. 270, 358 Anm.). — IV, 347.
- $C_{12}H_{12}O_2NJ$ 1) Jodäthylat d. Chinolin-4-Carbonsäure + H_2O . Sm. gegen 200° u. Zers. (207—208° wasserfrei u. Zers.) (A. 270, 352; M. 15, 434). — IV, 346.
- $C_{12}H_{12}O_2NP$ 1) Phenylmonamid d. Phenylphosphinsäure. Sm. 125° (A. 293, 217). — IV, 1651.
- $C_{12}H_{12}O_2N_2Br$ 1) Diäthyläther d. p-Dibrom-3-Oximido-2-Oxypseudoindol (D. d. Dibromisatoxin). Sm. 115—116° (B. 16, 1709). — II, 1612.
- $C_{12}H_{12}O_2N_2S$ 1) p-Diamidodiphenylsulfon. Sm. 168°. 2HCl, (2HCl, $PtCl_4$) (B. 9, 80; 14, 2184; A. 100, 212). — II, 814.
- 2) Diphenyldiamid d. Schwefelsäure (B. 24, 362). — II, 356.
- 3) 2-Amidophenylamid d. Benzolsulfonsäure. Sm. 168°. HCl (A. 221, 17; B. 16, 596). — IV, 561.
- 4) Phenylhydrazid d. Benzolsulfonsäure. Sm. 148—150° u. Zers. Na (A. 190, 132; B. 8, 1007; 10, 1531; 18, 894; 20, 1239). — IV, 733.
- $C_{12}H_{12}O_2N_2S_2$ 1) 3-Amidophenylester d. 3-Amidobenzol-1-Thiolsulfonsäure (3-Amidophenyldisulfoxid). 2HCl, 2HBr (A. 278, 255). — II, 818.
- $C_{12}H_{12}O_3NCl$ 1) Monomethyläther d. 4-Chlor-5,5-Dioxy-2-Keto-3-Methyl-1-Phenyl-2,5-Dihydropyrrol (Chloreitrakonanilmonomethyläther). Sm. 114° (A. 295, 62).
- 2) Chlormethylat d. Tarkonin. 2 + $PtCl_4$ + $AuCl_3$ (A. 245, 321). — III, 918.
- 3) Chlormethylat d. Chininsäure. Sm. 215° (A. 276, 268). — IV, 362.
- $C_{12}H_{12}O_3NBr$ 1) Bromcotarnin + H_2O . Sm. bei 100°. (2HCl, $PtCl_4$), HBr + H_2O (Soc. 32, 531). — III, 917.
- 2) Aethylbromtarkoninsäure + $2H_2O$. Sm. 223—225° u. Zers. Ba, Cu, (2HCl, $PtCl_4$) (A. 212, 182). — III, 920.

- $C_{12}H_{11}O_3NBr$ 3) 3-Brom-4-Aethoxylphenylimid d. Bernsteinsäure. Sm. 150—151° (B. [30](#), [1171](#)).
- $C_{12}H_{11}O_3NBr$ 1) Tribromdihydrocotarnin. Sm. 190—200° u. Zers. (B. [14](#), [311](#); Soc. [32](#), [533](#)). — III, [917](#).
- $C_{12}H_{11}O_3NJ$ 1) Jodmethylat d. Tarkonin. + BiJ_3 (A. [245](#), [320](#); J. pr. [2] [2](#), [446](#)). — III, [918](#).
- 2) Jodmethylat d. Chininsäure. Sm. 205° u. Zers. (A. [276](#), [267](#)). — IV, [362](#).
- $C_{12}H_{11}O_3NP$ 1) Amid d. Diphenylphosphorsäure. Sm. 148° (Am. [15](#), [201](#)). — II, [660](#).
- 2) Diphenylmonamid d. Phosphorsäure (B. [28](#), [614](#)).
- $C_{12}H_{12}O_3N_2S$ 1) α -Acetyl- β -[2-Naphtylsulfon]hydrazin. Sm. 208—209° u. Zers. (J. pr. [2] [58](#), [184](#)).
- 2) 2-Imido-4-Keto-3-Phenyltetrahydrothiazol-5-[Aethyl- α -Carbon-säure] (Phenylthiohydantoïn- α -Propionsäure). Sm. 214° (M. [18](#), [73](#)).
- 3) 2-Amidodiphenylamin-4-Sulfonsäure. Ba + $2H_2O$ (B. [24](#), [3791](#)). — IV, [568](#).
- 4) 4-Amidodiphenylamin-2-Sulfonsäure (4-Amido-1-Phenylamidobenzol-2-Sulfonsäure). Ba + H_2O (B. [24](#), [3800](#)). — IV, [595](#).
- 5) 4-Amidodiphenylamin- β -Sulfonsäure (B. [31](#), [1514](#)).
- 6) 4,4'-Diamidobiphenyl-3-Sulfonsäure. Ba + $5H_2O$, HCl (B. [18](#), [1481](#); [22](#), [2462](#)). — IV, [968](#).
- 7) isom. 4,4'-Diamidobiphenyl- β -Sulfonsäure + $2\frac{1}{2}H_2O$. K + $4H_2O$, Ba + $4H_2O$, Pb + $3H_2O$ (B. [11](#), [1048](#)). — IV, [968](#).
- 8) α -Diphenylhydrazin-4-Sulfonsäure. Ba (A. [154](#), [213](#); B. [23](#), [3255](#)). — IV, [1500](#).
- 9) Amid d. 1-Acetylamidonaphtalin-3-Sulfonsäure. Sm. 220—221° (B. [21](#), [3273](#)). — II, [625](#).
- 10) Amid d. 1-Acetylamidonaphtalin-4-Sulfonsäure. Sm. 241° (B. [23](#), [961](#)). — II, [626](#).
- 11) Amid d. 1-Acetylamidonaphtalin-5-Sulfonsäure. Sm. 231—232° (B. [23](#), [1120](#)). — II, [626](#).
- 12) Amid d. 1-Acetylamidonaphtalin-6-Sulfonsäure. Sm. 238—239° (B. [24](#), [331](#)). — II, [627](#).
- 13) Amid d. 1-Acetylamidonaphtalin-7-Sulfonsäure. Sm. 213° (B. [21](#), [3266](#)). — II, [627](#).
- 14) Phenylamid d. 4-Amido-1-Oxybenzol-2-Sulfonsäure. Sm. 98° (A. [205](#), [62](#)). — II, [838](#).
- 15) Phenylamid d. 2-Amido-1-Oxybenzol-4-Sulfonsäure. Sm. 205° (A. [205](#), [58](#), [61](#)). — II, [838](#).
- $C_{12}H_{12}O_3N_4S$ 1) 2,4-Diamidoazobenzol-4'-Sulfonsäure. Ba (B. [10](#), [660](#); [15](#), [2196](#)). — IV, [1370](#).
- 2) 2,4-Diamidoazobenzol- β -Sulfonsäure. Na, Ba (B. [14](#), [2655](#)). — IV, [1370](#).
- 3) Verbindung + H_2O (aus Naphtalin-1-Sulfonsäurechlorid) (Bl. [34](#), [209](#)). — II, [202](#).
- $C_{12}H_{12}O_4NCl_3$ 1) Aethylester d. $\beta\beta\beta$ -Trichlor- α -Phenylamidoformoxylpropionsäure (Trichlormilchsäureäthylesterphenylurethan). Sm. 57.5° (Bl. [3] [19](#), [774](#)).
- 2) Verbindung (aus Albumin) (A. [90](#), [171](#); [101](#), [171](#)). — IV, [1584](#).
- $C_{12}H_{12}O_4NBr$ 1) Bromtarkoninmethyloxydhydrat. Salze siehe (A. [212](#), [171](#)). — III, [919](#).
- 2) Aethylester d. Phenoxylnucobromsäureoxim. Sm. 122—124° (Am. [19](#), [634](#)).
- 3) 3-Acetat-4,5-Dimethyläther d. 7-Brom-3,4,5-Trioxypseudoiso-indol. Sm. 177—178° (B. [31](#), [934](#)).
- $C_{12}H_{12}O_4N_2S$ 1) α -Diamidodioxydiphenylsulfon. $2HCl + H_2O$, $2HJ + 2H_2O$, $11_2SO_4 + 2H_2O$ (B. [7](#), [436](#); [8](#), [1063](#)). — II, [841](#).
- 2) 4,4'-Diamido-3-Oxybiphenyl-6-Sulfonsäure. HCl (B. [20](#), [3173](#)). — II, [894](#).
- 3) 4-Acetylamido-1-Amidonaphtalin-6-Sulfonsäure. K, Ba + $7H_2O$, Zn + $3\frac{1}{2}H_2O$ (J. pr. [2] [48](#), [286](#)). — IV, [923](#).
- $C_{12}H_{12}O_4N_2S_2$ 1) Diphenylsulfonhydrazin. Sm. 245° u. Zers. (228°) (B. [27](#), [601](#); J. pr. [2] [58](#), [174](#)).
- 2) Amid d. Biphenyl-2,2'-Disulfonsäure + $2H_2O$. Sm. bei 300° (A. [261](#), [330](#)). — II, [226](#).

- $C_{12}H_{12}O_4N_2S_2$ 3) Amid d. Biphenyl-4,4'-Disulfonsäure. Sm. oberh. 300° (B. 13, 390). — II, 226.
- $C_{12}H_{12}O_4N_2S_4$ 1) s-Diphenylhydrazin-3,3'-Dithiolsulfonsäure. Ba + $2H_2O$ (A. 229, 354). — IV, 1500.
- 2) Amid d. Diphenyldisulfid-4,4'-Disulfonsäure. Sm. 253° (C. 1895 [2] 495).
- $C_{12}H_{12}O_4N_4Br_2$ 1) Dibromid d. Urocaninsäure (H. 24, 404).
- $C_{12}H_{12}O_4N_4S$ 1) Amidoformylamid d. 1-Amidoformylamidonaphtalin-3-Sulfonsäure. Sm. 273° (B. 21, 3273). — II, 625.
- 2) Amidoformylamid d. 1-Amidoformylamidonaphtalin-7-Sulfonsäure. Sm. 225° (B. 21, 3266). — II, 627.
- $C_{12}H_{12}O_4N_4S_2$ 1) Amid d. Azobenzol-3,3'-Disulfonsäure. Sm. 295° (258° ; 254'') (A. 202, 336, 337; B. 14, 1358). — IV, 1365.
- 2) Amid d. Azobenzol-3,4'-Disulfonsäure. Sm. 250° (A. 215, 216). — IV, 1365.
- 3) Amid d. Azobenzol-4,4'-Disulfonsäure. Sm. noch nicht bei 300° (B. 14, 1357, 1930). — IV, 1366.
- 4) isom. Amid d. Azobenzol-4,4'-Disulfonsäure? Sm. 176° (A. 202, 337). — IV, 1366.
- $C_{12}H_{12}O_4ClBr$ 1) Diäthylester d. 2-Chlor-5-Brombenzol-1,4-Dicarbonsäure. Sm. $115-116^\circ$ (G. 23 [2] 71). — II, 1837.
- $C_{12}H_{12}O_5NCl$ 1) 2-Chlor-4,6,7-Trioxo-3,4-Dihydrochinolin-6,7-Dimethyläther-5-Carbonsäure. Ba (B. 19, 2298). — II, 2045.
- $C_{12}H_{12}O_5N_2S$ 1) Amid d. p-Nitro-2-Oxynaphtalinäthyläther-6-Sulfonsäure. Sm. 218° (C. 1895 [1] 1064).
- 2) Amid d. p-Nitro-2-Oxynaphtalinäthyläther-8-Sulfonsäure. Sm. $173,4^\circ$ (C. 1895 [1] 1064).
- $C_{12}H_{12}O_5N_2S_2$ 1) Amid d. Azoxybenzol-3,3'-Disulfonsäure. Sm. 273° (A. 202, 343). — IV, 1339.
- $C_{12}H_{12}O_5NCl$ 1) 1,3-Dimethyläther d. 2-Chlor-2-Nitro-4-Keto-1,3,3-Trioxo-1,2,3,4-Tetrahydronaphtalin. Sm. $117-123^\circ$ (A. 278, 200). — III, 391.
- 2) Methylester d. 1-[β -Chlor- β -Nitro- α -Methoxyläthyl]benzol-2-Ketocarbonsäure. Sm. 100° (A. 278, 203). — II, 1782.
- $C_{12}H_{12}O_5N_2S$ 1) 3-Aethylester d. 5-Keto-1-Phenyl-4,5-Dihydropyrazol-3-Carbonsäure-1'-Sulfonsäure. Na, Ba, Ag (A. 294, 231). — IV, 536.
- $C_{12}H_{12}O_5N_2S_2$ 1) 4,4'-Diamidobiphenyl-2,2'-Disulfonsäure + $3H_2O$. Zers. oberh. 175° . Na₂ + $3\frac{1}{2}H_2O$, K₂ + $1\frac{1}{2}H_2O$, Ca + $4H_2O$, Ba + $4H_2O$, Pb + $4H_2O$ (A. 202, 337, 344; 207, 314; 261, 311; B. 21, 3421). — IV, 268.
- 2) 4,4'-Diamidobiphenyl-p-Disulfonsäure. Ba + $5H_2O$ (B. 14, 300; 22, 2464). — IV, 969.
- 3) s-Diphenylhydrazin-3,3'-Disulfonsäure. K₂ + $6H_2O$, Ba + $2H_2O$ (B. 23, 1055). — IV, 1500.
- $C_{12}H_{12}O_5N_2S_3$ 1) Diamid d. Diphenylsulfondisulfonsäure. Sm. 242° (B. 19, 3127). — II, 815.
- $C_{12}H_{12}O_5N_2S_4$ 1) 4,4'-Diamidobiphenyl-p-Trisulfonsäure + $2H_2O$. Ba₂ + $12H_2O$ (B. 22, 2465). — IV, 969.
- $C_{12}H_{12}O_{12}N_2S_4$ 1) 4,4'-Diamidobiphenyl-p-Tetrasulfonsäure + $6H_2O$. Ba₂ + $8H_2O$ (B. 22, 2466). — IV, 969.
- 2) s-Diphenylhydrazin-2,4,2',4'-Tetrasulfonsäure. K, Ba₂ + $7\frac{1}{2}H_2O$ (A. 203, 72). — IV, 1500.
- 3) s-Diphenylhydrazin-3,3',p,p-Tetrasulfonsäure. K₄, Ba₂ + $14H_2O$ (B. 14, 1543). — IV, 1500.
- 4) s-Diphenylhydrazin-3,5,3',5'-Tetrasulfonsäure. K₂ + $2\frac{1}{2}H_2O$, K₄ + $2H_2O$, Ba₂ + $7\frac{1}{2}H_2O$, Pb₂ + $4H_2O$ (A. 203, 68). — IV, 1500.
- $C_{12}H_{11}N_2ClP$ 1) Chlorid d. Diphenyldiamidophosphorigen Säure (Am. 6, 93). — II, 356.
- $C_{12}H_{12}N_2ClAs$ 1) Arsendianilidochlorid. Sm. $127-128^\circ$ (A. 261, 286). — II, 357.
- $C_{12}H_{12}N_2Cl_2Si$ 1) Siliciumdianilidodichlorid (See. 51, 40). — II, 357.
- $C_{12}H_{12}N_2BrAs$ 1) Arsendianilidobromid. Zers. bei $170-180^\circ$ (A. 261, 292). — II, 357.
- $C_{12}H_{13}ONBr_2$ 1) p-Dibrom-2-Keto-3,3-Diäthyl-2,3-Dihydroindol. Sm. 171° (G. 28 [2] 414).
- $C_{12}H_{13}ONS$ 1) Aethylester d. 1-Naphtylamidothioameisensäure. Sm. $96-97^\circ$. Ag (B. 14, 62).

- $C_{12}H_{13}ON_2Br$ 1) [2-Dibrom-2-Keto-1,3-Dimethyl-3-Aethyl-2,3-Dihydroindol.](#) Sm. 121—122° (*G.* [28](#) [2] [385](#)).
- $C_{12}H_{13}ON_2J$ 1) Jodmethylat d. [6-Keto-4-Methyl-2-Phenyl-1,6-Dihydro-1,3-Diazin?](#) Zers. bei 230° (*Am.* [20](#), 488). — IV, [957](#).
2) Jodmethylat d. [2-Acetylamidochinolin.](#) Sm. 213° (*A.* [282](#), [381](#)). — IV, [909](#).
3) Jodmethylat d. [4-Acetylamidochinolin.](#) Sm. 291° u. Zers. (*J. pr.* [2] [56](#), [191](#)). — IV, [909](#).
- $C_{12}H_{13}ON_2P$ 1) Diphenyldiamid d. Phosphorigensäure. Sm. 87° (*Am.* [6](#), [93](#)). — II, [356](#).
- $C_{12}H_{13}O_2NS$ 1) [2,4-Diketo-3-\[2,4-Dimethylphenyl\]tetrahydro-1,3-Thiazin.](#) Sm. 134,5°. — II, [544](#).
2) Aethylester d. Cinnamoylamidothioameisensäure. Sm. 134—135° (*Soc.* [67](#), [1049](#)).
3) Dimethylamid d. Naphtalin-2-Sulfonsäure. Sm. 96° (*R.* [16](#), [183](#)).
4) Aethylamid d. Naphtalin-1-Sulfonsäure (*Bl.* [27](#), [360](#)). — II, [201](#).
5) Aethylamid d. Naphtalin-2-Sulfonsäure. Sm. 82,5° (*Bl.* [27](#), [360](#)). — II, [202](#).
- $C_{12}H_{13}O_3N_2P$ 1) Di[[2-Amidophenyl](#)]phosphinsäure. Sm. 276° u. Zers. HCl (*B.* [21](#), [1514](#)). — IV, [1657](#).
2) Di[[Phenylamid](#)] d. Phosphorsäure (Dianilin-n-Phosphinsäure). Sm. 213° (196—197°). Cu (*A.* [229](#), [339](#); *B.* [27](#), [2574](#)). — II, [356](#).
- $C_{12}H_{13}O_3NBr$ 1) Dibromhydrocotarnin (*Soc.* [32](#), [543](#)). — III, [908](#).
2) [4-Methylphenylmonamid](#) d. Citradibrombrenzweinsäure. Sm. 152° (*A.* [292](#), [236](#)).
- $C_{12}H_{13}O_3NS$ 1) [1-Dimethylamidonaphtalin-2-Sulfonsäure.](#) Ba (*B.* [21](#), [3128](#)). — II, [629](#).
2) [2,6,8-Trimethylchinolin-2-Sulfonsäure.](#) Sm. noch nicht bei 260°. Ba + 3H₂O (*B.* [20](#), [36](#)). — IV, [337](#).
3) Amid d. [2-Oxynaphtalinäthyläther-1-Sulfonsäure.](#) Sm. 158° (*C.* 1895 [1] [1064](#)).
4) Amid d. [2-Oxynaphtalinäthyläther-6-Sulfonsäure.](#) Sm. 183° (*C.* 1895 [1] [1064](#)).
5) Amid d. [2-Oxynaphtalinäthyläther-8-Sulfonsäure.](#) Sm. 165° (*C.* 1895 [1] [1064](#)).
- $C_{12}H_{13}O_3N_2Cl$ 1) Aethylester d. [α-\[2-Chlorphenyl\]azo-β-Ketopropan-α-Carbonsäure.](#) α-Modif. Sm. 62—63°; β-Modif. Sm. 80—83° (*B.* [30](#), 1966). — IV, [706](#).
2) Aethylester d. [α-\[3-Chlorphenyl\]azo-β-Ketopropan-α-Carbonsäure.](#) Sm. 70—80° (*B.* [30](#), 1968). — IV, [706](#).
3) Aethylester d. [α-\[4-Chlorphenyl\]azo-β-Ketopropan-α-Carbonsäure.](#) Sm. 83° (*B.* [30](#), 1967). — IV, [706](#).
- $C_{12}H_{13}O_3N_2Br$ 1) Aethylester d. [α-\[2-Bromphenyl\]azo-β-Ketopropan-α-Carbonsäure.](#) Sm. 65—70° (*B.* [30](#), 1968). — IV, [706](#).
- $C_{12}H_{13}O_3N_2J$ 1) Jodmethylat d. [5-Nitro-8-Oxychinolin-8-Aethyläther](#) + 2H₂O. Sm. 150° (*J. pr.* [2] [45](#), [536](#)). — IV, [283](#).
- $C_{12}H_{13}O_3N_2S$ 1) [2-Amido-8-Diphenylhydrazin-4-Sulfonsäure.](#) Ba + 4H₂O (*B.* [16](#), 1488). — IV, [1501](#).
- $C_{12}H_{13}O_4NBr$ 1) [αβ-Dibrom-β-\[2-Nitro-4-Isopropylphenyl\]propionsäure.](#) Sm. 171° u. Zers. (*B.* [19](#), [260](#)). — II, [1398](#).
2) [αβ-Dibrom-β-\[3-Nitro-4-Isopropylphenyl\]propionsäure.](#) Sm. 183 bis 184° (*B.* [19](#), [418](#)). — II, [1398](#).
- $C_{12}H_{13}O_4N_2Cl_3$ 1) [βββ-Trichlor-α-Oxyäthylamid](#) d. Oxyessig-4-Acetylamidophenyläthersäure. Sm. 196—197° (*C.* 1898 [1] [1253](#)).
- $C_{12}H_{13}O_4N_3Br_3$ 1) Diäthylester d. [2,4,6-Tribrom-1,3-Phenylendiamidoameisensäure.](#) Sm. 212° (*Am.* [18](#), [474](#)). — IV, [575](#).
- $C_{12}H_{13}O_4N_3S_2$ 1) Amid d. [Phenyldiazoamidobenzol-4,4'-Disulfonsäure.](#) Sm. 183° u. Zers. (*A.* [221](#), [206](#)). — IV, [1567](#).
- $C_{12}H_{13}O_5NCl_4$ 1) Verbindung (aus [3,3,5,5,6-Pentachlor-4-Keto-1-Phenylhexahydropyridin.](#)) Sm. 114° u. Zers. (*A.* [267](#), [38](#)). — IV, [120](#).
- $C_{12}H_{13}O_5N_2Br$ 1) [Methylendimethyläther](#) d. [6-Brom-2,3,4,5-Tetraoxy-1-\[αβ-Dioximidopropyl\]benzol.](#) Sm. 220° u. Zers. (*G.* [22](#) [2] [508](#)). — II, [1035](#).
2) isom. [Methylendimethyläther](#) d. [6-Brom-2,3,4,5-Tetraoxy-1-\[αβ-Dioximidopropyl\]benzol.](#) Sm. 94—95° (*G.* [22](#) [2] [508](#)). — II, [1036](#).

- $C_{11}H_{13}O_6N_2Br$ 3) Acetylderivat d. Verb. $C_{10}H_{11}O_6N_2Br$ (aus 6-Bromopiansäureamid). Sm. 242° (B. 31, 927).
- $C_{11}H_{13}O_6N_2S_2$ 1) 4-Amido-4'-Hydrazidobiphenyl-2,2'-Disulfonsäure. Ba + 4H₂O (A. 261, 319). — IV, 1169.
- $C_{11}H_{13}O_7N_2S_3$ 1) Amid d. 4-Oxyazobenzoltrisulfonsäure. Sm. 260° (B. 15, 1297; A. 215, 235). — IV, 1412.
- $C_{12}H_{13}N_2ClSi$ 1) Verbindung (aus Anilin u. Siliciumchloroform) (C. 1896 [1] 803).
- $C_{12}H_{14}ONCl$ 1) Chlormethylat d. 6-Oxychinolin-6-Aethyläther + H₂O. Zers. oberh. 200° (J. pr. [2] 56, 443).
- 2) Chlormethylat d. 8-Oxychinolin-8-Aethyläther + 2H₂O. Sm. 107° (J. pr. [2] 54, 14). — IV, 274.
- $C_{11}H_{14}ONBr$ 1) 1-[2-Brombenzoyl]hexahydropyridin. Fl. (B. 21, 2251). — IV, 15.
- 2) 1-[4-Brombenzoyl]hexahydropyridin. Sm. 95° (B. 21, 2249). — IV, 15.
- 3) β -Brompropylamid d. β -Phenylakrylsäure. Sm. 79–80° (B. 24, 3226). — II, 1407.
- 4) γ -Brompropylamid d. β -Phenylakrylsäure. Sm. 74° (B. 24, 3226). — II, 1407.
- 5) p -Brom-1,2,3,4-Tetrahydro-5-Naphtylamid d. Essigsäure. Sm. 181° (B. 21, 1895). — II, 587.
- $C_{11}H_{14}ONJ$ 1) Jodmethylat d. 4-Oxy-2-Methylchinolin-4-Methyläther. Sm. 201° (B. 22, 76; 30, 925). — IV, 311.
- 2) Jodmethylat d. 6-Oxychinolin-6-Aethyläther + H₂O. Zers. bei 195–197° (J. pr. [2] 56, 442).
- 3) Jodmethylat d. 8-Oxychinolin-8-Aethyläther. Sm. 200° (J. pr. [2] 54, 14). — IV, 274.
- 4) Jodmethylat d. 7-Oxyisochinolin-7-Aethyläther. Sm. 193–194° (A. 286, 15). — IV, 303.
- 5) Jodäthylat d. 7-Oxyisochinolin-7-Methyläther. Sm. 178–179° (A. 286, 14). — IV, 303.
- $C_{12}H_{14}ON_2Br_2$ 1) Dibrommethylcytisin. HCl, (2HCl, PtCl₄), HBr (C. 1897 [2] 555).
- $C_{11}H_{14}ON_2Br_2$ 1) 2,4,6,2',4',6'-Hexabromazoxybenzol. Sm. 215° u. Zers. (B. 31, 564).
- $C_{12}H_{14}ON_2S$ 1) 2-Thiocarbonyl-5-Keto-4-Methyl-1-[2,4-Dimethylphenyl]tetrahydroimidazol. Sm. 165° (B. 24, 3282). — II, 544.
- 2) 2-Thiocarbonyl-5-Keto-4,4-Dimethyl-1-[2-Methylphenyl]tetrahydroimidazol. Sm. 175° (B. 24, 3284). — II, 472.
- 3) 2-Thiocarbonyl-5-Keto-4,4-Dimethyl-1-[4-Methylphenyl]tetrahydroimidazol. Sm. 85° (B. 24, 3284). — II, 500.
- 4) 2-Methyläther d. 2-Merkapto-1-Keto-4,4-Dimethyl-1-Phenyl-4,5-Dihydroimidazol. Sd. 222–225°. HCl, (2HCl, PtCl₄), Pikrat (B. 24, 3295). — II, 404.
- 5) Dimethyläther d. 2-Merkapto-5-Oxy-4-Methyl-1-Phenylimidazol. Sm. 90°. HCl, (2HCl, PtCl₄), Pikrat (B. 24, 3290). — II, 404.
- 6) 2-Aethylimido-4-Keto-5-Methyl-3-Phenyltetrahydrothiazol (Methyläthylphenylthiohydantoïn). Sm. 101° (B. 31, 137).
- 7) 2-[2-Methylphenyl]imido-4-Keto-5-Aethyltetrahydrothiazol. Sm. 95–96,5°. HCl (Soc. 71, 636).
- 8) Amid d. 5-Keto-2-Methyl-1-Phenyltetrahydropyrrol-2-Thiocarbonsäure. Sm. 193° u. Zers. (B. 22, 2368). — II, 419.
- $C_{11}H_{14}O_2NCl$ 1) Chlormethylat d. 4,6-Dioxy-2-Methylchinolin-6-Methyläther. Sm. 251°. (2 + PtCl₄ + 4H₂O) (B. 21, 1653). — IV, 312.
- $C_{11}H_{14}O_2NCl_3$ 1) Acetat d. $\beta\beta\beta$ -Trichlor- α -Oxy- α -(p -Dimethylamidophenyl)äthan. Sm. 84–85° (B. 18, 1518). — II, 1064.
- $C_{12}H_{14}O_2NBr$ 1) Brommethylhydrohydrastinin. Sm. 187° (B. 24, 2739). — IV, 203.
- 2) Acetat d. α -Oximido- α -(p -Brom-3,4-Dimethylphenyl)äthan. Sm. 109–110° (Soc. 63, 81). — III, 151.
- $C_{12}H_{14}O_2NJ$ 1) Jodmethylat d. 4,6-Dioxy-2-Methylchinolin-6-Methyläther (B. 21, 1652). — IV, 312.
- 2) Jodmethylat d. p -Dioxychinolindimethyläther. Sm. 210–212° (B. 20, 1826). — IV, 288.
- $C_{17}H_{14}O_3NBr$ 1) Bromhydrocotarnin. Sm. 76–78°. (2HCl, PtCl₄), HBr (Soc. 32, 531). — III, 908.
- 2) Aethyläther d. 2-Brom-4-Diacetylamido-1-Oxybenzol. Sm. 90° (B. 30, 480).

- $C_{11}H_{14}O_3NBr$ 3) δ -[2-Brombenzoyl]amidovaleriansäure. Sm. 110—111°. Ag (B. 21, 2251). — II, 1221.
- 4) δ -[4-Brombenzoyl]amidovaleriansäure. Sm. 180—181°. Ba (B. 21, 2250). — II, 1223.
- 5) Acetat d. 3-Brom-4[oder 1]-Oximido-1[oder 4]-Keto-5-Isopropyl-2-Methyl-1,4-Dihydrobenzol. Sm. 83° (B. 22, 3266). — III, 367.
- $C_{12}H_{14}O_3NJ$ 1) Acetat d. 3-Jod-1-Oximido-4-Keto-5-Isopropyl-2-Methyl-1,4-Dihydrobenzol. Sm. 69—70° (J. pr. [2] 39, 396). — III, 367.
- $C_{12}H_{14}O_3N_2S$ 1) 5 oder 7-Amido-4-Methyl-3-Aethylchinolin-2-Sulfonsäure. Sm. oberh. 300° (B. 31, 2149).
- $C_{12}H_{14}O_3N_4S$ 1) 2,4,2',4'-Tetraamidobiphenyl-5-Sulfonsäure. 2HCl (B. 23, 3462). — IV, 1275.
- $C_{12}H_{14}O_4NBr$ 1) β -Brom- β -[2-Nitro-4-Isopropylphenyl]propionsäure. Sm. 127° u. Zers. (B. 17, 2020). — II, 1398.
- 2) 3-Brom-4-Aethoxylphenylmonamid d. Bernsteinsäure. Sm. 149 bis 150°. Na. Ag (B. 30, 1174).
- $C_{12}H_{14}O_4N_2Br_2$ 1) 2-Dibrom-2-Dinitro-1,4-[norm.]Dipropylbenzol. Sm. 145° (G. 21, 24). — II, 107.
- 2) 2-Dibrom-2-Dinitro-4-Isopropyl-1-Propylbenzol. Sm. 124—125° (G. 21, 16). — II, 107.
- $C_{12}H_{14}O_4N_4S_2$ 1) Amid d. 4,4'-Diamidobiphenyl-2,2'-Disulfonsäure. Sm. 278°. 2HCl + 2H₂O, H₂SO₄ + 2H₂O (A. 268, 137). — IV, 969.
- 2) Amid d. s-Diphenylhydrazin-3,3'-Disulfonsäure. Sm. 248°. Na₂ + 2½ H₂O, K₂ + 1½ H₂O (A. 268, 132). — IV, 1500.
- $C_{12}H_{14}O_5N_2S_2$ 1) Amid d. 2-Oxynaphthalinäthyläther-1,6-Disulfonsäure. Sm. 253 bis 254° (C. 1895 [1] 1064).
- $C_{12}H_{14}O_6N_4S_2$ 1) 4,4'-Di[β -Sulfohydrazido]biphenyl. K₂ + 2H₂O (B. 9, 891). — IV, 1277.
- 2) 4,4'-Dihydrazidobiphenyl-2,2'-Disulfonsäure + xH₂O. Ba + 3H₂O (B. 21, 3420; A. 261, 323). — IV, 1277.
- $C_{12}H_{14}O_6N_6S_4$ 1) Amid d. Azobenzol-2,4,2',4'-Tetrasulfonsäure. Sm. 222° (A. 203, 71). — IV, 1366.
- $C_{12}H_{14}NClBr_2$ 1) Bromid d. Chinolinchlorpropylat. Sm. 84—85° (B. 19, 2507). — IV, 251.
- $C_{12}H_{14}NClJ_2$ 1) Jodid d. Chinolinchlorpropylat. Sm. 61—62° (B. 19, 2504). — IV, 251.
- $C_{12}H_{14}NCl_2Br$ 1) Chlorid d. Chinolinbrompropylat. Sm. bei 60° (B. 19, 2505). — IV, 251.
- $C_{12}H_{14}NCl_2J$ 1) Chlorid d. Chinolinjodpropylat. Sm. 87° (B. 19, 2506). — IV, 251.
- $C_{12}H_{14}NCl_4J$ 1) Tetrachlorid d. Chinolinjodpropylat. Sm. 144—145° (B. 19, 2507). — IV, 251.
- $C_{12}H_{14}NBrJ_2$ 1) Jodid d. Chinolinbrompropylat. Sm. 60° (B. 19, 2505). — IV, 251.
- $C_{12}H_{14}NBrJ_4$ 1) Tetrajodid d. Chinolinbrompropylat. Sm. 49° (B. 19, 2505). — IV, 251.
- $C_{12}H_{14}NBr_2J$ 1) Bromid d. Chinolinjodpropylat. Sm. 77° (B. 19, 2506). — IV, 252.
- $C_{12}H_{14}NBr_4J$ 1) Tetrabromid d. Chinolinjodpropylat (B. 19, 2506). — IV, 252.
- $C_{12}H_{15}ONBr_2$ 1) 1-[3,5-Dibrom-2-Oxybenzyl]hexahydropyridin. Sm. 99—100° (A. 302, 149).
- $C_{12}H_{15}ON_2Cl$ 1) Methyläther d. 5-Oxy-3-Methyl-1-Phenylpyrazol-2-Chlormethylat. 2 + PtCl₄ (A. 293, 19). — IV, 511.
- $C_{12}H_{15}ON_2J$ 1) Methyläther d. 5-Oxy-3-Methyl-1-Phenylpyrazol-2-Jodmethylat. Sm. bei 130° u. Zers. (A. 293, 17). — IV, 511.
- $C_{12}H_{15}ON_4P$ 1) Di[Phenylhydrazid] d. Phosphorigen Säure. Sm. 92° (A. 270, 126). — IV, 662.
- $C_{12}H_{15}O_2NS$ 1) Aethylester d. Aethylbenzoylamidothiolameisensäure. Fl. (J. pr. [2] 10, 247). — II, 1181.
- $C_{12}H_{15}O_2N_2Br$ 1) Aethylester d. α -[2-Brom-4-Methylphenyl]hydrazonpropionsäure. Sm. 84—85° (Soc. 73, 179). — IV, 807.
- 2) 1-Aethylamid-2-[β -Bromäthyl]amid d. Benzol-1,2-Dicarbonsäure. Sm. 127° (B. 29, 2528).
- $C_{12}H_{15}O_3NS$ 1) 2,4-Dimethylphenylcarbamin- β -Merkaptopropionsäure. Sm. 149,5°. — II, 544.
- $C_{12}H_{15}O_3N_2Br$ 1) 6-Brom-2-Nitro-4-Isobutylphenylamid d. Essigsäure. Sm. 144° (B. 21, 2953). — II, 557.

- $C_{11}H_{15}O_4N_2Cl$ 1) *p*-Chlor-*p*-Dinitro-5-Pseudobutyl-1,3-Dimethylbenzol. Sm. 82° (C. 1897 [1] 783).
- $C_{12}H_{15}O_4N_2Br$ 1) *p*-Brom-*p*-Dinitro-5-Pseudobutyl-1,3-Dimethylbenzol. Sm. 73° (C. 1897 [1] 783).
- $C_{12}H_{15}O_4N_2J$ 1) *p*-Jod-*p*-Dinitro-5-Pseudobutyl-1,3-Dimethylbenzol. Sm. 105° (C. 1897 [1] 783).
- $C_{11}H_{15}O_6NS$ 1) 1,2-Diäthylester d. Benzol-1,2-Dicarbonsäure-3-Sulfonsäureamid. Sm. 101,5—102° (Am. 13, 198). — II, 1824.
- $C_{11}H_{15}O_7N_2S$ 1) Alloxandimethylanilindisulfit + 4H₂O (A. 248, 148). — II, 328.
- $C_{12}H_{15}N_2JS$ 1) Methyläther d. 2-Merkapto-1-[4-Methylphenyl]imidazol-3-Jodmethylat. Sm. 162° (B. 26, 2364). — IV, 503.
- $C_{12}H_{15}ONCl_3$ 1) β,β -Trichlor- α -Oxy- α -[*p*-Diäthylamidophenyl]äthan. Fl. HCl (B. 19, 368). — II, 1064.
- $C_{12}H_{16}ONBr$ 1) 1-[5-Brom-2-Oxybenzyl]hexahydropyridin. Sm. 63—64° (A. 302, 145).
- 2) Methylphenylamid d. α -Bromisovaleriansäure. Sd. 160—163°₁₁ (B. 31, 3240).
- 3) 2-Methylphenylamid d. α -Bromisovaleriansäure. Sm. 125° (B. 31, 3237).
- 4) 3-Methylphenylamid d. α -Bromisovaleriansäure. Sm. 135° (B. 31, 3237).
- 5) 4-Methylphenylamid d. α -Bromisovaleriansäure. Sm. 124° (B. 31, 3237).
- 6) Benzylamid d. α -Bromisovaleriansäure. Sm. 98° (B. 31, 3236).
- 7) Aethylphenylamid d. α -Brombuttersäure. Fl. (B. 30, 3180).
- 8) Aethylphenylamid d. α -Bromisobuttersäure. Sm. 80—80,5° (B. 30, 3180).
- 9) 2,4-Dimethylphenylamid d. α -Brombuttersäure. Sm. 145° (B. 31, 3237).
- 10) 2,4-Dimethylphenylamid d. α -Bromisobuttersäure. Sm. 103° (B. 31, 3237).
- 11) *p*-Brom-4-Isobutylphenylamid d. Essigsäure. Sm. 153° (B. 21, 2941). — II, 557.
- $C_{12}H_{16}ON_2S$ 1) *s*-Valerylphenylthioharnstoff. Sm. 98—99° (Soc. 67, 1041).
- 2) *s*-Isobutyryl-2-Methylphenylthioharnstoff. Sm. 136—137° (Soc. 69, 863).
- 3) *s*-Isobutyryl-4-Methylphenylthioharnstoff. Sm. 134—135° (Soc. 69, 864).
- 4) α -Benzoylimido- α -Diäthylamido- α -Merkaptomethan (Benzoylpseudodiäthylthioharnstoff). Sm. 100—101° (Soc. 69, 1603).
- 5) Phenylamid d. 2,4-Dimethyltetrahydrooxazol-3-Thiocarbonsäure (Dimethyloxazolidylphenylthioharnstoff). Sm. 145° (B. 30, 2257).
- $C_{12}H_{16}ON_4S$ 1) Nithialin. Zers. bei 200° (A. 96, 115). — IV, 578.
- $C_{12}H_{16}O_2NCl$ 1) Chlormethylat-6,7-Methylenäther d. 6,7-Dioxy-2-Methyl-1,2,3,4-Tetrahydroisochinolin. 2 + PtCl₄ (B. 24, 2736). — IV, 202.
- $C_{12}H_{16}O_2NJ$ 1) Jodmethylat-6,7-Methylenäther d. 6,7-Dioxy-2-Methyl-1,2,3,4-Tetrahydroisochinolin. Sm. 227—228° (B. 24, 2735). — IV, 202.
- 2) Jodmethylat d. Homohydrocinchoninsäure + H₂O (M. 5, 649). — IV, 215.
- $C_{12}H_{16}O_4N_3S$ 1) Äthylester d. α -[2,4-Dimethylphenyl]thioharnstoff- β -Carbon-säure. Sm. 152,5—153° (Soc. 69, 329).
- $C_{12}H_{16}O_7N_2S_2$ 1) Diäthylester d. 1,3-Phenylendi[amidothioameisensäure]. Sm. 116° (B. 20, 230). — IV, 576.
- 2) Diäthylester d. 1,4-Phenylendi[amidothioameisensäure]. Sm. 197° (B. 20, 230). — IV, 592.
- $C_{12}H_{16}O_2N_6S_4$ 1) Verbindung (aus Acetylphenyldithiourazol). Sm. 195—208° (B. 28, 957).
- $C_{12}H_{16}O_3NBr$ 1) Äthyläther d. 6-Brom-2-Nitro-3-Oxy-4-Isopropyl-1-Methylbenzol. Sm. 67—69° (B. 19, 64). — II, 773.
- 2) Brompropylat d. Chininsäure. Sm. 192° (A. 276, 276). — IV, 362.
- $C_{12}H_{16}O_3N_2S$ 1) 2,5-Dimethylbenzimidazol + Acetonsulfit (B. 21, 1909). — IV, 880.
- $C_{12}H_{16}O_4NCl$ 1) Verbindung (aus d. 3,5-Dioxy-1-Methylbenzoxazoldiäthyläther). Sm. 82 bis 85°; Sd. 201—202°_{17,5} (M. 18, 377).
- $C_{12}H_{16}O_4NBr$ 1) Acetat d. α -Brom- α -Oximidocampher (Soc. 69, 320). — III, 495.

- $C_{13}H_{16}O_5N_4P_2$ 1) Verbindung (aus Phenylhydrazin u. P_2O_5). Sm. 242–248° u. Zers. (A. 272, 213). — IV, 662.
- $C_{11}H_{16}O_9NCl_3$ 1) Säure (aus Albumin) (A. 101, 193). — IV, 1585.
- $C_{11}H_{17}ONS$ 1) Aethyläther d. 2,4,6-Trimethylphenylimidomerkaptooxymethan. Sm. 88° (B. 15, 1015). — II, 555.
 2) Diäthyläther d. 2-Methylphenylimidomerkaptooxymethan. Fl. (A. 207, 163). — II, 464.
 3) Diäthyläther d. 3-Methylphenylimidomerkaptooxymethan. Fl. (A. 207, 163). — II, 479.
 4) Diäthyläther d. 4-Methylphenylimidomerkaptooxymethan. Sd. oberh. 250° (B. 13, 1577; A. 207, 163). — II, 496.
 5) Isoamylester d. Phenylamidothiolameisensäure. Sm. 67° (J. pr. [2] 32, 249).
- $C_{11}H_{17}ON_3J$ 1) Jodmethylat d. 5-Keto-2,3-Dimethyl-1-Phenyltetrahydropyrazol. Zers. bei 310° (B. 26, 106). — IV, 489.
 2) Jodmethylat d. Cytisin + $2H_2O$. Sm. 270° (B. 24, 677). — III, 879.
- $C_{12}H_{17}O_5NS$ 1) γ -Phenylsulfonamido- β -Ketohehexan. Sm. 97,8° (B. 28, 2043).
- $C_{12}H_{17}O_3N_2Cl$ 1) Aethyläther d. 5-Chlor-3,6-Di[Dimethylamido]-2-Oxy-1,4-Benzochinon. Sm. 90–91° (J. pr. [2] 43, 264). — III, 348.
- $C_{12}H_{17}O_3ClS$ 1) Aethylester d. p -Chlor-4-Isopropyl-1-Propylbenzolsulfonsäure. Sm. 42–43° (G. 19, 503). — II, 153.
- $C_{12}H_{17}O_4NS$ 1) Verbindung (aus Leucin u. Benzolsulfonsäurechlorid). Sm. 86° (B. 23, 3197). — II, 115.
- $C_{12}H_{17}O_7N_4P$ 1) Phosphorigsaures 2-Nitrophenylhydrazin. Sm. 160° (B. 27, 2551).
- $C_{12}H_{17}N_2SP$ 1) 2-Methylphenylimid d. Piperidylthiophosphinsäure (Thiophosphazo- o -Toluolpiperidid). Sm. 236° (B. 28, 1244). — IV, 12.
 2) 4-Methylphenylimid d. Piperidylphosphinsäure (Thiophosphazo- p -Toluolpiperidid). Sm. 257° (B. 28, 1246). — IV, 12.
- $C_{12}H_{18}ONCl$ 1) Chlormethylat d. 8-Oxy-1-Methyl-1,2,3,4-Tetrahydrochinolin-8-Methyläther. 2 + $PtCl_4$ (B. 19, 1044). — IV, 199.
- $C_{12}H_{18}ONBr$ 1) Aethyläther d. 2-Brom-5-Amido-3-Oxy-4-Isopropyl-1-Methylbenzol. Fl. HCl (G. 19, 335). — II, 774.
- $C_{12}H_{18}ONJ$ 1) Jodmethylat d. 2-Oxy-1,3,3-Trimethyl-2,3-Dihydroindol. Sm. 165° u. Zers. (G. 27 [1] 476). — IV, 225.
 2) Jodmethylat d. 6-Oxy-1-Methyl-1,2,3,4-Tetrahydrochinolin-6-Methyläther + H_2O . Sm. 223–224°. ($2HCl$, $PtCl_4$) (M. 6, 779). — IV, 198.
 3) Jodmethylat d. 8-Oxy-1-Methyl-1,2,3,4-Tetrahydrochinolin-8-Methyläther. Sm. 175° (B. 19, 1043). — IV, 199.
- $C_{12}H_{18}O_2NCl$ 1) Aethylester d. Dimethylphenylechlorammoniumessigsäure. (2 + $PtCl_4$) (B. 12, 2206). — II, 429.
 2) Benzolat d. Trimethyl- β -Oxyäthylammoniumchlorid. 2 + $PtCl_4$, + $AuCl_3$ (B. 27 [2] 738). — II, 1176.
- $C_{12}H_{18}O_2NBr$ 1) α -Brom- α -Acetylamidocampher. Sm. 167–168° (Soc. 69, 317). — III, 496.
- $C_{12}H_{18}O_2NJ$ 1) Jodmethylat d. 2,4,6-Trimethylpyridin-3-Carbonsäureäthylester. Sm. 128° (A. 225, 133). — IV, 150.
- $C_{12}H_{18}O_2N_4S_2$ 1) Diacetylderivat d. Dipropylpseudohydrazodicarbonthioamid. Sm. 242° (B. 29, 862).
- $C_{12}H_{18}O_7N_2S$ 1) Dextrosehydrazid d. Benzolsulfonsäure. Sm. 154–155° (B. 28, 161).
- $C_{12}H_{19}O_4NS$ 1) Amid d. p -Aethyl-tert.-Butylbenzol- p -Sulfonsäure. Sm. 98° (B. 27, 1613).
 2) Amid d. 5-Pseudobutyl-1,3-Dimethylbenzol- p -Sulfonsäure. Sm. 141–142° (B. 27, 1606).
 3) Amid d. 1,3-Dipropylbenzol- p -Sulfonsäure. Sm. 195° (B. 24, 770). — II, 159.
 4) Amid d. 1,4-Dipropylbenzol-2-Sulfonsäure. Sm. 106–107° (103°) (G. 21, 26; Am. 5, 162). — II, 159.
 5) Amid d. 1,2-Diisopropylbenzol- p -Sulfonsäure. Sm. 102° (B. 23, 3144). — II, 160.
 6) Amid d. 1,3-Diisopropylbenzol- p -Sulfonsäure. Sm. 145° (B. 23, 3143). — II, 160.
 7) Amid d. 1-Propyl-4-Isopropylbenzol- a -Sulfonsäure. Sm. 93–94° (G. 21, 17). — II, 160.

- $C_{12}H_{19}O_2NS$ 8) Amid d. 1-Propyl-4-Isopropylbenzol- β -Sulfonsäure. Sm. 100—101° (G. 21, 21). — II, 160.
9) Amid d. 2-Propyl-1,3,5-Trimethylbenzol-4-Sulfonsäure. Sm. 96 bis 99° (B. 28, 2461).
10) Dipropylamid d. Benzolsulfonsäure. Sm. 51° (C. 1898 [2] 888).
- $C_{12}H_{19}O_2N_2Cl$ 1) Chlormethylat d. Pilocarpin. 2 + $PtCl_4$ (A. 204, 76). — III, 925.
 $C_{12}H_{19}O_2N_2J$ 1) Jodmethylat d. Pilocarpin (A. 204, 76). — III, 925.
 $C_{12}H_{19}O_2NS$ 1) Benzaldehydisoamylthionaminsäure. Sm. 113°. Anilinsalz (A. 274, 196). — III, 6.
- $C_{12}H_{19}BrJP$ 1) Triäthyl-4-Bromphenylphosphoniumjodid. Sm. 165° (A. 293, 247). — IV, 1655.
- $C_{12}H_{20}ONP$ 1) Diäthyl-4-Dimethylamidophenylphosphinoxid + H_2O . Sm. 65° (A. 260, 25). — IV, 1656.
- $C_{12}H_{20}OCIP$ 1) Methyläther d. Methyldiäthyl-4-Oxyphenylphosphoniumchlorid. 2 + $PtCl_4$ (A. 293, 256). — IV, 1655.
- $C_{12}H_{20}OJP$ 1) 4-Methyläther d. Methyldiäthyl-4-Oxyphenylphosphoniumjodid. Sm. 91° (A. 293, 256). — IV, 1655.
- $C_{12}H_{20}O_2NCl$ 1) Chlormethylat d. Anhydroecgoninäthylester. + $AuCl_3$ (B. 27, 2453). — III, 871.
- $C_{12}H_{20}O_2NJ$ 1) Jodmethylat d. Anhydroecgoninäthylester. Sm. 177° (B. 27, 2450). — III, 871.
- $C_{12}H_{20}O_2NCl$ 1) Nitrosochlorid d. $\Delta^4(8)$ -Terpenolacetat. Sm. 82° (B. 27, 445; 28, 652, 2292). — III, 481.
2) Chlormethylat d. Mescalin. 2 + $PtCl_4$ (B. 31, 1195).
- $C_{12}H_{20}O_2NBr$ 1) Nitrosobromid d. $\Delta^4(8)$ -Terpenolacetat. Sm. 81—82° (B. 28, 2292). — III, 481.
- $C_{12}H_{20}O_2NJ$ 1) Jodmethylat d. Mescalin. Sm. 174° (B. 31, 1195).
- $C_{12}H_{20}O_4N_2S_2$ 1) Amid d. *p*-Aethyl-tert.-Butylbenzol-*p*-Disulfonsäure. Sm. 228 bis 229° (B. 27, 1613).
2) Diäthylamid d. 1,3-Dimethylbenzol-2,4-Disulfonsäure. Sm. 135° (B. 23, 3116). — II, 143.
- $C_{12}H_{20}O_5NCl$ 1) Diäthylester d. β -Chlor- γ -Oximido- β -Methylpentan- $\epsilon\epsilon$ -Dicarbonsäure. Sm. 85—87° (C. 1898 [2] 660).
- $C_{12}H_{20}NSP$ 1) Diäthyl-4-Dimethylamidophenylphosphinsulfid. Sm. 148° (A. 260, 25). — IV, 1656.
- $C_{12}H_{21}NJP$ 1) Dimethyläthyl-*p*-Dimethylamidophenylphosphoniumjodid. Sm. 199° (A. 260, 24). — IV, 1654.
- $C_{12}H_{22}O_3NCl$ 1) Chlormethylat d. Hydroecgonidinäthylester. + $AuCl_3$ (B. 30, 716).
2) Aethylalkoholat d. Limonennitrosylechlorid. Sm. 114—115° (A. 245, 265). — III, 525.
- $C_{12}H_{22}O_2NJ$ 1) Jodmethylat d. Hydroecgonidinäthylester. Sm. 156° (B. 30, 715).
- $C_{12}H_{22}O_3NJ$ 1) Jodmethylat d. *N*-Methyl-Nor-d-Ecgoninäthylester. Sm. 190° (B. 26, 1489). — III, 863.
- $C_{12}H_{22}O_4NCl$ 1) Chlormethylat d. 1-Methyltropinsäuredimethylester. + $AuCl_3$ (B. 28, 3286). — III, 794.
- $C_{12}H_{22}O_4NJ$ 1) Jodmethylat d. *i*-Methyltropinsäuredimethylester + $\frac{1}{2}H_2O$. Sm. 131—132° (B. 28, 3286). — III, 794.
2) Jodmethylat d. *d*-Methyltropinsäuredimethylester. Sm. 121—122° (B. 28, 3286). — III, 794.
- $C_{12}H_{24}O_6N_2S$ 1) Dimethylester d. δ -Sulfondi[amidovaleriansäure]. Sm. 81—82° (B. 27, 2015).
- $C_{12}H_{25}O_2BrS$ 1) Diisoamylthetinbromid (J. 1878, 684). — I, 877.
- $C_{12}H_{25}O_4NS_2$ 1) 4,4-Diäthylsulfon-2,2,6-Trimethylhexahydropyridin. Sm. 135° (B. 31, 3149).
- $C_{12}H_{26}ONCl$ 1) Chloräthylat d. 2-Methyl-3-[α -Oxyäthyl]-1-Aethylhexahydropyridin. + $5HgCl_2$ + H_2O , 2 + $PtCl_4$ (A. 304, 68).
- $C_{12}H_{26}ONJ$ 1) Jodmethylat d. α -Diisobutylamido- β -Ketopropan. Sm. 288° (B. 29, 871).
2) Jodäthylat d. Aethylconhydrin (J. 1863, 436). — IV, 35.
- $C_{12}H_{26}O_2NJ$ 1) Jodmethylat d. 1-[$\beta\beta$ -Dioxyäthyl]hexahydropyridindiäthyläther (J. d. Piperidoacetal). Sm. 121° (B. 27, 2017; 28, 1247). — IV, 22.
- $C_{12}H_{26}O_3N_2S$ 1) Laurinamidoximschweflige Säure (B. 26, 2845).
- $C_{12}H_{27}O_4N_3Cl_2$ 1) Epichlorhydrinimid (A. 168, 30; A. Spl. 1, 224; B. 8, 244). — I, 308.



